ISBN : 978-979-3870-50-2

ICETA 7

7th International Conference on Educational Technology of Adi Buana

FUTURE EDUCATION: EDUCATION EMPOWERMENT BEYOND BOUNDARIES

CONFERENCE PROCEEDINGS

Graduate Program
University of PGRI Adi Buana Surabaya
SURABAYA, 13 MARCH 2016

EDITORS

7th International Conference on Educational Technology of Adi Buana

"Future Education: Education Empowerment beyond Boundaries"

ISBN: 978-979-3870-50-2

Editors:

Prof. Dr. Abdul Jalil Othman	(University of Malaya, Malaysia)
Prof. Dr. I Nyoman Sudana Degeng, M.Pd.	(State University of Malang)
Prof. Dr. Iskandar Wiryokusumo, M.Sc.	(University oF PGRI Adi Buana Surabaya)
Prof. Dr. Achmadi Susilo, M.S.	(University of Wijaya Kusuma Surabaya)
Prof. Dr. Mustaji, M.Pd.	(State University of Surabaya)
Assoc. Prof. Dr. Kiyomi Banda	(Sanno University of Tokyo, Japan)

Published by:

UNIVERSITY PRESS
UNIPA SURABAYA

GRADUATE PROGRAM
University of PGRI Adi Buana Surabaya, Indonesia
Jl. Dukuh Menanggal XII/4 Surabaya 60234, INDONESIA
Telp./Fax: +62 31 8273999
Website:http://www.pps-unipasby.ac.id

FOREWORD FROM EDITOR

The 7th International Conference on Educational Technology of Adi Buana (ICETA-7), the international conference which has been held annually by the Graduate Program of University of PGRI Adi Buana Surabaya. This year's theme is *Future Education: Education Empowerment beyond Boundaries*. For the main theme for this year's conference are broken down into sub-themes which are listed from a) human performance technology, b) future education for teacher's professionalism, c) best practices across fields, c) developing educational orientation in local alues and multicultural society, d) distance learning and blended learning, e) teacher leadership for instructional innovation, f) ethical issues in education, g) barriers to learning, h) character education, i) early childhood education, j) elementary Education, k) education of social science, l) environmental education, m) curriculum development, n) delivery systems for lifelong Career guidance, assessment, measurement, and evaluation for career development. As the main theme, future education has been continuously brought since the first conference held until the recent conference. Education is acknowledged as key domain in a process of human beings and societies explore their maximum potentials.

There is a great focus for this year's conference. The great focus is its proceedings as the center of publication for its presenters. First, the quality of the proceedings as a means of publication in this year's edition is improved. It is aimed at maximizing the value of the publication as the outcome of the conference. As an international proceedings, it is regulated that the language of communication in the proceedings using one of the five languages which are recognized by the United Nation (UN). Hence in ICETA-7 all papers are written in English. It is intended that the proceedings can be as a global publication.

Second, the committee has applied the system for abstract selection of which the criteria is the consistency with the conference's theme. Reviewers have the right to select the papers based on the abstract that have been submitted to the committee. The suggestions to revise the abstract are sent to the presenters whom abstracts have been selected in line with the conference's themes. Revision should be made to fulfill the guideline for the appropriate abstracts.

Third, the coverage of the sub-themes for this year's conference is broadened to certain areas. Bear in mind that the main and solely theme of future education is not limited to certain topics. To cope that some additional sub-themes are offered to the conference's audience to write their research findings into expected academic paper. This year's papers which are selected to be presented in the conference are far more than the previous conferences in numbers. There are more than 80 papers will be presented in parallel sessions. The presenters and participants are from various educational institutions. Increasing the number of papers presented in the conference is indicating an increase in the need for publication of research findings. Therefore, as an annually held international conference, ICETA-7 is entrusted to be academic forum to share thoughts, reflections, experiences related to academic works for teachers, lecturers, researchers, educators who continuously write, present, and publish their academic works.

Finally, we would like deliver great appreciation to the organizers, presenters, writers, and all parties who have been contributing directly and indirectly to the publication of the proceedings.

Surabaya, March 2016

The Editors

TABLE OF CONTENT

TABLE OF CONTENT

TABLE OF CONTENT

TABLE OF CONTENT

GUEST INVITED PAPERS

Future Education: Empowerment via Project-Based Learning

Professor Dr. Ramlee Mustapha, Ph. D
Faculty of Technical and Vocational Education
Universiti Pendidikan Sultan Idris, Malaysia

Abstract

The demand for knowledge and skilled workers is growing due to the economi creality in 2020. High productivity and innovation are created by highly knowledgable and innovative workforce – as evident in advanced countries such as the United States of America, Finland, Germany, South Korea and Japan. Generating human capital for high income economy requires education system to transform itself ready for an innovation-led economy by advancing its graduates to higher levels of education and training. Thus, Project-Based Learning is an empowered option for education system to excel. It is believed that students using Project-Based Learning are actively involved in authentic inquiry, knowledge construction, autonomous learning, scaffolding, and proposing creative solutions. In addition, upgrading schools into a transformation institutionis another option to boost the techo-creativity reservoir among regular schools. A combination of intellectual and technical prowess will produce world-class knowledge society will bring nations into a greater height. Nevertheless, the present challenges facing schools such as lack of innovative leadership, heavily centralized system, lack of qualified tachers, poor facilities, traditional pedagogies, heavy teaching workload, weak industrial linkages, inadequate funding and poor incentives (as compared to universities) may slow down the transformation pace. Empowered transformation will not materialize without quality graduates. Creativity and innovation of a student can be assessed based on his or her design, product, and solution.

Keywords: Future education, empowerment, Project-Based Learning, innovation, creativity

Introduction

Project-Based Learning stimulates students to be involved in authentic work. Project-Based Learning uses driving question to find main problem to solve. While in the Problem-Based Learning, teachers use realistic structured problem to enhance students' interests. The role of teacher in the Project-Based is to facilitate learning process and model reasoning. Thus, in the Project-Based Learning, teachers introduce relevant content during inquiry process. Project-Based also provides sufficient time for students to conduct self-reflection and self-interpretation. In Problem-Based Learning, the focus is on a specific problem to be addressed. However, a key characteristic of Project-Based Learning is that the project does not focus on learning about something, but focuses on doing something. It is action oriented. The implementation of Project-Based Learning specifically in engineering is not new. Since the 16thcentury, Project-Based Learning has been implemented in the architectural field and has shown considerable success (Knoll, 1997). In general, Project-Based Learning is considered as a non-traditional pedagogical model that emphasizes student-centered learning by embarking on complex, real-world projects through which the learners develop higher-order competencies. Based on socio-constructivist theory (Vygotsky, 1978), Project-Based Learning stresses on knowledge construction derived from previous knowledge, experience, and interaction with the social environment. In addition, advocates assert that Project-Based Learning prepares students for the independent, critical thinking and effective teamwork skills as required in the real workplace (David, 2008). In the nutshell, Project-Based Learning was introduced because of the ineffectiveness of the traditional lecture method.

The traditional teaching method, however, is still preferred by the majority of teachers in the exam-oriented system. According to Diaz and Cartnal (1999), substantial number of teachers thought that traditional teaching method was more suitable than the student-centered method when the focus is on the examination and the class size is large. In addition, Trumbull and Slack (1991)

assert that many teachers fail to adopt constructivism in their classrooms because they have experienced "success" with the teacher-centered approach. Nevertheless, the major weakness of the traditional teaching method was the failure (of the students) to make connection between new information and what they had already known and between what they learnt and the real life situation.

In the traditional paradigm, teachers act as a source of knowledge. Thus, it is different fromProject-Based Learning, where teachers act as a facilitator of learning. Project-Based Learning is an approach that transforms teaching from "teachers telling" to "students doing" (El Kamoun et al., 2011). Students become active problem-solvers and meaning-makers. Further, the students collaborate or cooperate forming groups, organize their learning activities, conduct research, synthesize information, organize time and reflect their learning. In Project-BasedLearning, a teacher is not "sage on the stage"; but rather a "guide on the side" and assumes the role of cognitive and meta-cognitive coach (by asking, monitoring, probing, managing, group relating, keep moving) rather than knowledge-holder and disseminator (Schneider, 2005).

An effective teacher should be able to apply varied teaching techniques to ensure his or her class is appealing and meaningful. Project-Based Learning approach has its root in the constructivist theory (Blank, 1997). Thus, Project-Based Learning is a student-centered learning approach which is more interactive, fun and innovative than the lecture mode. Solving meaningful real-life problems is the basic principle of the Project-Based Learning. According to David (2008), Project-Based Learning aims to engage learners in realistic, thought-provoking problems. Project-Based Learning has almost the "same" concept as that of Problem-Based Learning because both were the offshoot of constructivism. However, there are slight differences between the two methods. In Problem-Based Learning, it uses "problem" as a stimulus to students, but Project-Based Learning uses "project" as a stimulus (Major & Palmer, 2001). In other words, Project-Based Learning envisions the end product while Problem-Based Learning focuses on the process. Thus, Project-Based Learning is more encompassing than Problem-Based Learning (Moursund, 2002).

The philosophy of active learning, student-centered and group dynamics is embedded in Project-Based Learning.Project-Based Learning involves mind and hands. In Project-Based Learning, students are given a real problem or actual situation in which they are asked to find the solutions by gathering various inputs from books, journals, handbooks, manuals, brochures, Internet and so on. Teachers only act as guides or catalysts to the students. In addition, a number of researchers believe that technology enhances Project-Based Learning (Moursund, 2002). Technology plays a dynamic role in making the knowledge construction process explicit, thereby helping learners to become aware of that process (Jonassen et al., 1999). Krajcik et al. (1994) argue that technology makes the environment more authentic to students, because among others the computer provides access to data and information and expands interaction and collaboration with others via networks.

Technology-based learning environments are designed to support advanced knowledge acquisition. And that can be done by providing environments and thinking tools that engage constructivist conception of learning (Kommers, Jonassen, & Mayes, 1992). Thinking tools are technology systems or applications that extend the intellectual functionality of the learner by engaging the learner to tasks that facilitate knowledge construction. Even a simple Internet tools can add critical and valuable dimensions to enhance Project-Based Learning. Another advantage of the Internet is that the access of information of other projects is open to wider audiences. More specifically, students have the opportunity to examine, review and browse other similarprojects– thus, giving them myriad of ideas to embark on their own project. The "students-mentor" dialogues can be planned and organized to facilitate learnings and trouble-shootings. A net worked project typically involves students in distant locations cooperating to research, exchange information, and learn from one another, although the distant partners may include experts. Students may conduct research, perform experiments in their own community, and report their findings. They may pose questions to experts or exchange information with their peers. However, Project-Based Learning is relatively challenging to plan and implement due to its complexity. The other disadvantages of Project-Based Learning are the high cost and time-consuming. Subjectivity

in the assessment of Project-Based Learning is another delicate issue. Thus, the real effectiveness of the method is questionable. However, few studies have been conducted to evaluate the effectiveness of this learning system. Thus, this article focuses on a futuristic learning tool – empowered project-based learning.

Epistemology of Project-Based Learning

Historically, Project-Based Learning could be associated with "Learning by Doing" philosophy. The ancient proponents of learning by doing such as Confucius and Aristotle have had such a great impact on experiential learning theory. Later scholars such as John Dewey and David Kolb have refined the experiential learning theory that was grounded in experience and driven by student interest. For them, basically, experiential learning is the process of making meaning from direct experience, i.e., learning from experience (Itin, 1999). Dewey challenged the traditional view of the student as a passive recipient of knowledge and the teacher as the transmitter of a static body of facts (Boss, 2011). He argued instead for active experience that prepare students for the real world (Dewey, 1938). As Dewey pointed out, "Education is not preparation for life; education is life itself."

From a different perspective, according to Knoll (1997), Project-Based Learning grew out of the architecture field that began in Italy during the late 16th century. To be elevated to a profession, architecture had to develop a theoretical foundation in order to establish the art of building as a unique discipline. Since this need was also shared by sculptors and painters, the architects forged an allicance with sculptors and painters to establish an art academy – the Accademia di San Luca in Romein 1577 (Hager & Munshower). It has contributed to recognize architecture as an independent profession that challenged architects to become creative artists. The development of the artistic creativity was one of the goals of the Project-Based Learning. However, this approach was not unique to architecture. By the end of the 18th century, the engineering profession had establish universities, technical colleges and polytechnics began to adopt Project-Based Learning in their engineering curricula.

According to Boss (2011), a number of trends have contributed to the adoption of Project-Based Learning as a 21st-century strategy for education. First, cognitive scientists have advanced our understanding of how people learn, how people develop expertise, and how people begin to think at a higher level. Fields ranging from neuroscience to social psychology have contributed to human understanding of what conditions create the conducive environment for learning. Second, culture, context, and the social nature of learning all have a role in shaping the learner's experience. These critical domains have to be taken in account when introducing Project-Based Learning for diverse learners. Third, Project-Based Learning applies across disciplines, it consistently emphasizes active, student-directed learning. Fourth, the evolving definition of literacy. Basic literacy is no longer adequate. Today's students must be able to navigate and evaluate a vast repertoire of knowledge and information. This requires higher-order thinking, fluency in technology along with creative talents. To respond to the complex demands of the 21st century, a growing number of teachers, learning institutions and even countries have adopted Project-Based Learning.

In education, Project-Based Learning has evolved as a method of instruction that addresses core content through rigorous, relevant, hands-on learning. Projects tend to be more open-ended than problem-based learning, giving students more choices when it comes to demonstrating what they know (Donnelly & Fitzmaurice, 2005). Unlike projects that are tacked on at the end real learning, the projects in Project-Based Learning are the centerpiece of the lesson. Students are expected to solve the problem as professionals do–to communicate, collaborate, conduct research, analyze, create solution, and publish their own work for authentic audiences (Boss, 2011). Project-Based Learning method is appealling to educators due to its rejection ofrote learning and memorization to providing more challenging, high-order thinking, and complex interdisciplinary cooperative learning (Railsback, 2002). This method is becoming even more meaningful in today's society as educators are having diverse learners in their classrooms; students with different learning styles

and abilities. Furthermore, Project-Based Learning builds on students' individual strengths and allows them to be creative and innovative in solving the problem.

The underlying theory of Project-Based Learning is constructivism. Constructivism views learning as the result of mental construction; that is, individuals learn by constructing new ideas or concepts based on their current and previous knowledge (Karlin & Vianni, 2001). Thus, projects provide learners with a real-world context or "authentic" task for learning, creating a strong "need to discover." By design, projects are open-ended. This means students need to consider and evaluate multiple options and solutions and, perhaps the creative ones. All these activities engage higher-order thinking skills. However, Project-Based Learning is full of challenges. Many teachers are not formally trained to handle Project-Based Learning. Especially for teachers who have never experienced Project-Based Learning before, projects require planning, management, and supervisory strategies that they may be unfamiliar. They would have problem in implementing Project-Based Learning if they do not renew information from textbook, journals or internet (Supratomo & Baso,2007). Most teachers use traditional teaching method. The traditional teaching method is still preferred by the majority of teachers in the exam-oriented system (Mustapha et al., 2014). Project-Based Learning puts teachers in the role of facilitator rather than classroom expert. And not all teachers are effective facilitators. In addition, available resources in the learning institutions might be limited for Project-Based Learning that the students may have to make extra efforts to obtain additional resources from outside of their institutions. Teamwork could also pose a challenge to some students. The project could also take a sizable amount of time and may require advance scientific knowledge in order to complete the project (Blumenfeld et al., 1991; Scott, 1994). Hence, some students may take longer time to reach the sophistication and mastery level than others.

One of the goals of Project-Based Learning is to enhance the creativity and innovativeness of the students. However, literature has shown that, in general, Asian students are less creative and innovative than their Western counterpart (Hannas, 2003; Kim, 2005; Lau et al., 2004; Ng, 1999). Education systems grow from cultural expectations and ideologies. Eastern and Western educational systems are as vastly different as the cultures they spring from and are reflective of the strengths and weaknesses of those culture (Kim, 2005). Promoting creatitivity in the classroom is a creative effort that involves the introduction of novel ideas into an established domain as such threaten the conventional way of doing things especially in Asia (Ng, 1999).

Uncertainty of global economic scenario has altered the demand and supply of human resources. It has become a critical issue. As the demand for highly skilled workers increases, it created a corresponding shortage in the supply of such workers. The industry is facing problem getting skilled workers due mainly to training mismatch. There are weak links between schools and industry (Mustapha, 2002; 2004; Zanifa, 2007). The education and training system is not producing adequate K-workers required by the industry (NEAC, 2010). The skills mismatch and skills shortage have prompted the government to study the suitability of the curriculum and training system that need to be reformed in order to fulfill industry needs (Fong, 2007). According to Leyden (2008), the problem of mismatch between the skills offered and requirements of the labor market has even increased unemployment rate. Many higher education institution graduates have difficulty in finding the kind of jobs they were trained to do and employers also face challenges in searching the "right" workers for the jobs in demand. It has become the main challenge of TVET in Asia. One of the root causes of the mismatch may be attributed to the traditional education and training which do not satisfy the needs of industry.

Traditional teaching and learning paradigm is still widespread in higher learning institutions (Tengku Sarina Aini, 2012). Noraini (2009) also stated that teacher-oriented learning has several weaknesses, including; teachers rely heavily on text books, teachers only provide the learning and teaching process in the class, and students are not allowed to deviate from the curriculum. Thus, students are easily get bored and teachers are less creative in attracting students to learn, teachers just ask students to copy back whatever the teachers have said. It is irrelevant whether students understand the topic that had being taught or not.

An effective learning will create more active students both in and outside the classroom. But frequently it does not happen when students are too dependent on the teacher. Hence, students

sometimes feel bored when learning is centered on the teacher (teacher-centered learning). Teachers spend a considerable focus on the topic of teaching that prepares students for examinations, teachers are more focused on teacher-centered learning rather than student-centered learning (Noraini, 2009). Moreover, in traditional teacher-centered classroom, Effandi and Zanaton(2006) noted that students tend to keep quiet because they are not encouraged to ask questions even if they do not understand what the teacher says. Hence, most students learn the knowledge indirectly or only following their peers. Middlebrooks and Slupski (2002) stated that students easily become bored and less motivated to learn because they do not understand the purpose, meaning, and learning applications. They also stated that the education system in the traditional or teacher-oriented paradigm is still concerned with quantity rather than quality. Students may have difficulty to understand the learning concept because they had being taught one way teaching with abstract object.

Further, employers lament on graduates competencies, especially those employees who lack of innovation and high-order thinking skills(Lowden et al., 2011). Innovation is weak in most Asian countries (Lohani, 2013) due to lack of "new" knowledge and capacity to innovate. Most of the new knowledge usually derived from creative discoveries and scientific breakthroughs originated from Western countries. Asian education system relies heavily on memorization of the facts. It doesn't let the students' ideas flow. Thus, it dampen their creativity. Rote memorization as a learning method is outdated and should be replaced with an innovative approach that nurtures students' creativity.

The traditional teaching method notably relies on one-way teaching with less interaction. It cultivates students to be obedient; to regurgitate back whatever the teacher says and to think "inside" of the box rather than "outside" of the box. To prepare talented graduates to compete in the global market, what the those nations need is education reform that strongly emphasize creativity and allow the students to think critically and not simply memorize. The lack of innovation among Asians is seen as a major setback for the region. This problem has hampered the growth of the export sector due to dependence on low-value added outputs. In addition, several studies have shown that Asian university students are lacking of innovative skills (Quah et al., 2009).

In order to fulfill the need of the workforce for industries, the real working environment requires a workforce with the right skills. Mustapha (2002; 2004) stated that employers in the manufacturing industry in Malaysia believed that the technical graduates possess adequate technical skills but the employers feel less satisfied with regard to the employability skills of the graduates in terms of communication, interpersonal, critical thinking, problem-solving and entrepreneurial skills. The National Employers Skills Survey (2003) reported that many employers in England complaint about the lacking of these skills in the employees: communication, customer-handling, teamwork, and problem-solving.

The mismatch between the supply and demand for a skilled workforce need to be addressed in a more comprehensive manner through a more structured academia-industry collaboration, especially in the critical areas such a curriculum development and industrial training. Productivity and Investment Climate Survey (PICS) 2002/2003 (cited in Yogeesvaran, 2005) also found that the shortage of skills workers as the main problem faced by a majority of the firms surveyed. The issue of skills mismatch is seen as the weakness of education and training institutions in providing human resources that satisfy the requirements of the industry (Yogeesvaran, 2005). Demand for training by potential trainees is taken as a proxy for market demand and adjusting supply upward to meet demand (Asian Development Bank, 2004). Thus, mismatch is detrimental to external efficiency and could potentially reduce graduates' career choices (Cao, 2010).

Even though Project-Based Learning is sound in theory in terms of its rigorousity and innovative outlook, the implementation of this student-centered approach was dubious and problematic if not handle properly. Furthermore, very few studies had been conducted to evaluate the effectiveness of Project-Based Learning in the polytechnic system. Hence, it is critical to put forward the significant benefits of Project-Based Learning.

Brief History of Project-Based Learning

Project-Based Learning has a long history. “Project” previously known as a method of institutionalized instruction. It is not began at industrial and progressive education movement of the 19th century in America, but it grew out of the architectural and engineering education in Italy on the 16th century. The long and distinguished history of the project method can be divided into five phases:

1) 1590 – 1765 : The beginnings of project work at architectural schools and engineering in Europe.
2) 1765 – 1880 : The project as a regular teaching method and later transferred and adapted in America.
3) 1880 – 1915 : the works on projects started in manual training and in general public schools in America.
4) 1915 – 1965 : Redefinition of the project method and its transplantation from America back to Europe.
5) 1965 – Present: Rediscovery of the teaching method and the third wave of its international dissemination.
(Knoll, 1997)

Based on constructivist concepts such as inquiry-based learning, problem-solving, and design in vocational and industrial education as well as in other fields of American education, the “project” is considered to be one of the best and most appropriate methods of teaching (Knoll, 1997). In the 16th century, in order to meet the demands of art, Italian architects had to develop and establish the "art of building" as a scholastic subject. Further, the trainings were conducted with a competition system in the architecture academy. Teachers gave the challenging assignments to the students such as designing churches, monuments or palaces. The project method at the Accademia San luca in Rome, does not imply that the project emerged as a central teaching device. Because the competitions were viewed as an integral part of training. However, in the Academie Royale d'Architecture in Paris in 1671, the architects did not adopt the teaching model from Italia. They altered the competition by limiting the students' participation. Students had to complete several projects to be awarded medals. These awards were needed to the master class and architecture academic title (Knoll, 1997).

In the end of the 18th century, the engineering subject began implemented into technical colleges and universities. Stillman Robinson, a professor of mechanical engineering at the Illinois Industrial University at Urbana, taught that the students must be a craftsman. Robinson asked his students to draft their "projects" on the drawing board, then constructing them in the workshop. Further, in the 1876, John D. Runkle and Calvin M. Woodward, suggested training system from college to secondary school (Knoll, 1997). Woodward assumed the projects as "synthetic exercises". The instruction was set to improve elementary principles to practical applications. A reform movement arose, that the training should based on the interest and the experience of the students. This reform was led by John Dewey and adopted by Charles R. Richards, professor of manual training at Teachers College of Columbia University in New York. Children should develop an understanding of task, and then they would identify and recognize the problems. Richards' concept was implemented at Horace Mann School of the Teachers' College. Example, students were given an Indian project. They read Indian poem, discussed and visited the museum. Then they built tents, costumes, carved bows, and arrows as Indian living. The pupils acquired the knowledge and skills to conduct the project. Thus, the "instruction" did not precede the project (as Woodward' concept), but was integrated into “constructive” project (as Richards’ concept).

William H. Kilpatrick, a philosopher of education and colleague of Richards and Dewey at Teachers college of Columbia University, published an essay "the Project Method" in the 1918. Kilpatrick (1918) did not define a project to specific subject or areas of learning such as manual training or constructive occupation. In his view, project had four phases: purposing, planning, executing, and judging. In the early 1920, Kilpatrick's definition of the project attracted attention.

For example, a girl has made a dress. If she did with her hearty fashion to make a dress, if she planned it, if she made by herself, then it could say that a typical project (Kilpatrick, 1918). However, Dewey criticized Kilpatrick's definition of project as a "purposeful" activity. Dewey emphasized the role of the teacher in guiding the students. All teaching method were based on scientific thought and educator's experience (Knoll, 1997). The criticism of Dewey and other educators has influenced the popularity of the project method. In the early 1930, the terms of "project" was less used. Kilpatrick admitted that his definition of the "purposeful activity" was ambiguous. The project conception neglected the traditions and changed the project definition become arbitrarily from responsible, constructive work to be a purposeful activity. Thus, the project has survived and still implemented in science, agriculture, technology education, arts, and school project at American high school in 17th and 18th centuries. On the 20th century, Europe and America have become an important region of innovative and progressive educational. In the early 1920s, project method was introduced to Russian educators. The project method version of Dewey and Kilpatrick was repeatedly discussed in Canada, Argentina, Britain, Germany, India and Australia. However, the project method was no longer on the topic of educational theory debate after World War II. In the late 1960, the situation changed which projects emerged as an alternative traditional lecture and seminar. Thus, Dewey with his concept "education for democracy" and Kilpatrick's concept" purposeful activity", concluded that all actions could interpret as projects as long as it fulfilled the criteria of self determination and self-needs (Knoll, 1997).

The industrial revolution began in England in the late of 1700s. It led to a mass movement of people from a farm to a city. The problem arose which the children of the families that attracted working in the factories. Developing a public school that had characteristic as factories was a solution in that time. This didactic factory model education had spread out to the world. In this form, the teacher is often being a “sage on the stage” and functioning in a “stand and deliver” mode (Moursund, 2002).

Theories Underpinning Project-Based Learning

Constructivist theory is not a new theory in pedagogy. Constructivism is a learning theory that assumes students construct a new knowledge and develop their base knowledge. Project-Based Learning is rooted in constructivism and cooperative/ collaborative learning (Grant, 2002). In constructivism, the scholars such as Dewey, Rousseau, and current constructivists, believe this educational theory is based on the students’ activity by solving a problem in project, they learn by doing and construct their own knowledge. Givesomething to do to the pupils, not something to learn. Basically, by doing is such a natural way to develop the way of thinking. In addition, there are teacher role effects beyond developing and presenting problem. Like Rousseau and Dewey, Jerome Bruner saw learning as emphasized discovery learning, focusing on the process of discovery (Duffy & Cunningham, 1996).

Project-Based Learning mainly evolves from the work of three influential psychologists: Jean Piaget, Lev Vygotsky, and Jerome Bruner (Wikiversity, 2011). Piaget was known as the first constructivist scholar who asserted the knowledge is constructed in the mind through assimilation and accommodation process. However, Vygotsky criticized the Piaget’s theory. Vygotsky stated that constructivism needs to pay attention social environment. The Socio-constructivism emphasizes the impact of collaboration and negotiation on thinking (the importance of knowledge) and learning that stresses construction based on previous knowledge and interaction with the social environment (Schneider, 2005).

Furthermore, Vygotsky has his own concept of constructivism. Vygotsky placed more emphasis on culture affecting, social factors, and the role of language to cognitive development. This contradicts with Piaget’s view of universal stages and content of development (McLeod, 2007). Piaget emphasizes in intellectual or cognitive development. While, the social world of a learner includes the people that directly affect a person, including teachers, friends, students, administrators, and participants in all forms of activities (Edutech, 2012). A few teachers teach in a

pure didactic manner or in a pure constructivist manner. Almost all teachers use both approaches (constructivism and social constructivism), switching from one to another as seems appropriate although it has quite different philosophies of instruction and theories of learning (Moursund, 2009). Constructivism approach has led to some learning models such as Project-Based Learning, Problem-Based Learning, Work-Based learning, or others models which oriented to the student. Blank (1997) asserted that Project-Based Learning approach has its root in the constructivist theory. Since the 16th century, Project-Based Learning has been implemented in the architectural field and has shown considerable success (Knoll, 1997). Based on socio-constructivist theory (Vygotsky, 1978), Project-Based Learning focuses on knowledge construction from previous knowledge and experience in social interaction. The "project" belongs to the same category as the "experiment" of the natural scientist, the "case study" of the jurist, and the "sand-table exercise" of the staff officer. The project method is not about of empirical, hermeneutical, or strategic studies, but of "construction", i.e. designing a house, building or producing machine (Knoll, 1997).

The Concept of Project-Based Learning

As mentioned earlier, Project-Based Learning is not a new approach in education, especially in technical and vocational fields. The core idea of Project-Based Learning is that real-world problems capture students' interest and provoke serious thinking and apply new knowledge and also engage students in a problem-solving context (David, 2008; Ana & Abdullah, 2010). Basically, in Project-Based Learning, students are emphasized a real project. Based on Schneider (2005) and Grant (2002), Project-Based Learning is a teaching and learning model, curriculum development and offers instructional approach method that emphasize student-centered instruction by assigning project. In terms of socio-constructivism view, Project-Based Learning drivesthe students on social interaction and group collaboration. Project-Based Learning is an individual or group activity that goes on over a period of time, resulting in a product, presentation, or performance (Moursund, 2009).

Furthermore, Project-Based learning is an instructional model that involves students in investigation of compelling problems that culminate in authentic products (Intel Teach Program, 2007). Thus, in appearance, Project-Based Learning tends to be the best approach for higher education learning. As stated by Dym et al. (2005), Project-Based Learning is the choice method for many courses which the task are fit with this method. According to Buck Institute for Education (2011) and Lipson et al. (2007), Project-Based Learning is a systematic teaching method that engages students in learning, real world problem and life-enhancing skills, through a structured extended, student-influenced inquiry process, authentic, challenging. Project-Based Learning is a comprehensive perspective that focused on teaching by engaging students in investigation. It is also an essential model which a project is real-world task, requiring collaborative investigation, and producingan artifacts or product (Blumenfeld et al., 1991).

In the traditional approach, teachers usually act as a source of knowledge. Teachers usually assume the students as information recipient. In addition, traditional method are suitable for theoretical subject but not for practical studies. This Project-Based Learning is an approach that transforms teaching from "teachers telling to students doing" (El Kamoun et al., 2011). As special need children, they have lack of ability in learning. Thus, this Project-Based Learning is not only an effective learning strategy for normal children but also helpful for special need children, which they can learn social life integrates between school and environment (Guven & Duman, 2007). Finally, Project-Based Learning goals are including: develop students' knowledge, effective problem solving skills, self-directed learning (SDL), effective collaboration, and intrinsic motivation (Hmelo-Silver, 2004). In the nutshell, Project-Based Learning was introduced because of the ineffectiveness of traditional learning. It posed the students real-world learning, engaged students in investigation task, inquiry process and compelled a product.

Project-Based Learning Perceived by Students

Project-Based Learning involved students as learner and leader in a project work with their group and teachers. As the main participants in a project, students have their own perspective of Project-Based Learning. According to Moursund (2009), Project-Based Learning focuses on learners centered, motivates intrinsically, encourages collaborative learning, allows students to make incremental and improves their products. Then, Moursund continued asserted students' view of project are engages students in doing things rather than in learning, requires students to produce a product, presentation, or performance, needs a challenging with a focus on higher-order skills.Zimmerman (2012) summarizes the advantages of Project-Based Learning from the student's perspectives: (1) project is relevant to student's life and personally meaningful, (2) project is an exploration into an authentic problem, (3) in project, students are having a voice in investigate the problem, (4) project is a learning strategy that encourage student to evaluate progress, (5) project fulfills the curriculum objectives, (6) project begins with driving question, (7) project encourages students to revise their research and reflect on progress. Good practice in Project-Based Learning requires the students to develop and demonstrate essential and knowledge (Engel-Hills et al., 2007). By doing a project, students get advantages that they will ready work in team, able to plan, organize, negotiate and execute the project in work.

According to Andreas and Rogers (2000), students perceive that by engaging in a project, they will have some advantages such as, free choice in deciding what they will work on, plan their own project, participate in defining criteria to assess their project, solve problems, and able to present their project. However, students may have difficulty in Project Based Learning, such as, difficulty to define a research project, to find resources, to manage complexity time, to collaborate with others, to revise the product and to follow-up the project (Schneider, 2005). Teachers as the key role in Project-Based Learning should evaluate the students' difficulty in project implementation.

Project-Based Learning Perceived by Supervisors

Project-Based Learning's supervisors are responsible for putting varieties of resources, information, learning contexts, orchestrating time, and task (Mergendoller & Thomas, 2000). Moursund (2009) listed by considered from a teacher's point of view, Project-Based Learning is using authentic content and purpose with a major emphasis on higher-order thinking and problem solving; using authentic assessment; project is teacher facilitated (but the teacher is much more of a "guide on the side" than a "sage on the stage"); have explicit educational goals; rooted in constructivism (a social learning theory); and project is designed to facilitate transfer of learning and the teacher will be a learner. Fully realized Project-Based Learning has never been widespread in mainstream public schooling, teachers tend to find this approach difficult to implement with low performing students, monitor project progress and may lack of supporting technology (David, 2008; Schneider, 2005). Thus, it is important to motivate teachers to create and implement Project-Based Learning, because they play a critical role (Blumenfeld et al., 1991). Based on Project-Based Learning experts, it can conclude that Project-Based Learning is a method that engages student in real-world problem; students directly act as an actor and a decision maker in a project. Almost all Project-Based Learning experts believe that Project-Based Learning is good in process of driving question, planning, gathering information, communicating, collaborating with teams, drawing and evaluating.

The Characteristics of Project-Based Learning

A key characteristic of Project-Based Learning, it does not focus on learning about something, but focuses on doing something. The core idea of Project-Based Learning is that real-world problems capture students' interest and provoke serious thinking as the students acquire and apply new knowledge in a problem solving context (David, 2008). The Buck Institute for Education (BIE) believes that the meaningful aspects of Project-Based Learning are: intended to teach significant content; required critical thinking, problem solving, collaboration, and communication; required inquiry as part of the process of learning and creating something new; organized an open-ended

driving question; needed of essential content and skills; allowed some student voice and decision making, students learn to work independently and responsibility; and students present their work to other people, beyond their classmates and teacher.

As educators at the Buck Institute for Education, Larmer and Mergendoller (2010) have identified seven essential elements of meaningful projects: a need to know, a driving question, students voice and choice, 21st century skills, inquiry and innovation, feedback and revision, and a publicity presented product. There are two essential components in a project: require a question or problem (that serves to organize and drives activities), result an artifacts (products) that addresses the driving question (Blumenfeld et al., 1991). Through Project-Based Learning, the students could develop their skills such as, problem solving skills, critical thinking skills, communication skills, time management skill, anticipate potential skills, and team work skills (Jusoff et al., 2010). Students have the possibility of developing many competences, soft skills and hard skills. According to Santana, Dias, Molinaro, and Abdalla (2010), the main competences required in Project-Based Learning are: teamwork (carrying out collaborative activities, problem solving and decision making); relationships (respect and attention to the opinion of other peer, share ideas and complex problems in an accesible way); communication (inside or outside group, oral communication, written and report presentation); conflict management (the group is responsible for resolving eventual internal conflict); and project management (elaboration of project, schedule, managerial, activities, and decision making). Experiential method of learning focuses on variables which scholar have presumed to be influenced including cognitive skills, behavioral change, skill development, and attitude change (Jamaluddin & Sahibuddin, 2012).

The Steps of Project-Based Learning

There are common features across the various Project-Based Learning implementation, include: (a) an introduction to "set the stage", (b) a task, guiding question or driving question, (c) a process or investigation, (d) a resource, such as textbook, (e) scaffolding, (f) collaboration, and (g) opportunities for reflection (Grant, 2002). Thus, The George Lucas Educational Foundation (2005) concluded the several Project-Based Learning steps are: start with the essential question, design a plan for the project, create a schedule, monitor the student and the project progress, assess the outcome, and evaluate the experience. Mergendoller and Thomas (2000) found a set of concerns (themes) and strategies (principles) that reflect the context-setting to sustain student-directed Project-Based Learning as shown at Table 1 The main themes are time management, getting started, establishing a culture, managing student group, working with others, getting the most out of technology and assesing students. From Table 1, in time management, project is scheduled without or between any courses. Thus, in getting started a project, students are taught to think about the project and give them a responsibility rubric. In terms of managing student group, Mergondoller and Thomas (2000) manage a strategy by using "jigsaw" techniques, group process techniques and planning sheet. Furthermore, in a project, the students should communicate and coordinate with their partners and parents. Thus, the strategies to obtain new resources for project are by using internet and available technology.

Table 1: ***Principles of Project-Based Learning***

Theme	Sub-theme	Principles
Time Management	Scheduling Projects	1. Avoid bottlenecks within courses 2. Avoid bottlenecks between courses 3. Use block scheduling to increase flexibility
Getting Started	Orienting Students	1. Get students thinking about the project well 2. Give students a rubric that communicates what they are responsible for 3. Reach agreement with students on grading criteria

Establishing Student Self-Management	Shifting Responsibility from the Teacher to Students	1. Involve students in project design 2. Avoid making decisions for students
Managing Student Group	Keeping Track of Group's Progress	1. Establish discuss progress frequently 2. Use planning sheets, group folders and other concrete devices to record evidence of progress 3. Use the "jigsaw" techniques 4. Use group process technique to promote full participation
Working with Others Outside the Classroom	Coordinating with Other Teachers	1. Coordinating with a partner requires daily contact 2. Find ways to have faculty planning meetings
	Communicating with Parents	1. Communicate to parents early 2. Be honest and forthright with parents
Getting the Most Out of Technological Resources	Using Internet and Technology	1. Take advantage of opportunities to teach critical thinking skills for internet use 2. Make certain that technology is crucial to reach the goals 3. Try out the technology before using 4. Contract or partner with an expert
Assessing Students and Evaluating Project	Grading Students	1. Emphasize individual over group perfomance 2. Look for opportunities to intervene with mid-course instruction 3. Use models to demonstrate reflection strategies 4. Prompt students to give you information about how the project might be improved

Source: Mergendoller and Thomas (2000).

The effectiveness of Project-Based Learning can be evaluated from its benefits such as, it could respond to the students' need, it could increase students' motivation, it could prepare the students for the workplace, and to improve students' academic performance (Wikiversity, 2011). Therefore, the benefits attributed to Project-Based Learning include the following: it could increase students' motivation (that the students often report the projects are more fun), increase students' problem solving skills, improve students' library research skills (Project-Based Learning can provide an authentic and motivating context in which to gain increased information), increase students' collaboration skill, and increase students' resource management skills. In addition, well-implemented Project-Based Learning gives students instruction and practice in organizing projects, allocating time and other resources, such as equipment, and completing tasks on schedule (Moursund, 2009).

Summary

In education, students are expected to have the 21st century skill, that are critical thinking skills, problem-solving skills, collaboration skill and communication skills. Following to the previous explanation of Project-Based Learning, it could be concluded that Project-Based Learning has many benefits for students, teachers, and institutions. Project-Based Learning could enhance students' motivation, self-learning, and self-management. However, it may also have several weaknesses: poor project-management implementation, faulty time-line, weak project-monitoring,

inadequacy of teachers' skill and training. Hence, Project-Based Learning involves mind and hands to learn, create, and solve real problem.

References

Andreas, Y. M., & Rogers, A. (2000). *An introduction to networked project-based learning*. Accessed on April 1, 2013, retrieved from Global SchoolNet website: http://www.gsn.org/web/pbl/whatis.htm

Ana, & Abdullah, A. G. (2010). Assessment of project-based learning using fuzzy grading system: Alternative asessment for learning model for pre-service teacher education in TVET. *Proceedings of the 1st UPI International Conference on Technical and Vocational Education and Training* (p.182-189). Bandung, Indonesia: Universitas Pendidikan Indonesia.

Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning.*Educational Psychologist*, *26*(3&4), 369-398.

Boss, S. (2011). *Project-Based Learning: A short history*. Accessed on April 4, 2013. Retrieved from Edutopia website: http://www.edutopia.org/project-based-learning-history

Blank, W. (1997). *Authentic instruction. Promising practices for connecting high school to the real world*. Tampa, FL: University of South Florida.

Boss, S. (2011).*Project-based learning: A short history.* Accessed 7 May 2013. Retrieved from: (http://www.edutopia.org/project-based-learning-history).

Blumenfeld, P.C., Soloway, E., Marx, R.W., Krajcik, J.S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, *26*(3&4), 369-398.

Cao, Y. (2010). Skill development and policy implications in East Asia and Australia. *Comparative and International Higher Education*, *2*,54-56.

Chambers, J.M., Carbonaro, M., & Rex, M. (2007). Scaffolding knowledge construction through robotic technology: A middle school case study. *Electronic Journal for the Integration of Technology in eEducation, 6*, 55-70.

Cooperstein, S.E. & Kocevar-Weidinger, E. (2004).Beyond active learning: A constructivist approach to learning. *Reference Services Review*,32(2), 141-148.

Duffy, T. M., & Cunningham, D. J. (1996). *7. Constructivism: Implications for the design and delivery of instruction*. Bloomington: Indiana University.

Dym, C. L., Agogino, A. M., Eris, O., Frey, D. D., & Leifer, L. J. (2005). Engineering design thinking, teaching and learning. *Journal of Engineering Education*, 103-120.

David, J.L. (2008). What's research says about Project-Based Learning. *Educational Leadership*, 65(5), 80-82.

Dewey, J. (1938).*Experience and education*. Carbondale: Southern Illinois University Press.

Diaz, D.P. & Cartnal, R.B. (1999). Students' learning styles in two classess – Online distance

learning and equivalent on-campus. *College Teaching*, *47*(4), 130-135.

Donnelly, R., & Fitzmaurice, M. (2005). Collaborative project-based learning and problem-based learning in higher education: A consideration of learner-focused strategies. *Emerging Issues in the Practice of University Lecturing and Teaching*,87-98. Dublin: AISHE/HEA.

Engel-Hills, P., Garraway, J., Jacobs, C., Volbrecht, T., & Winberg, C. (2007). *South African Technology Network (SATIN).* Accessed on December 18, 2011. Retrieved from: Position Paper On Work-Integrated Learning (WIL)

El Kamoun, N., Bousmah, M., Aqqal, A. (2011). Virtual environment online for the project-based learning Session. *Cyber Journals*, (January Edition), 22-33.

Fong, C.O. (2007). Enhancing organisational effectiveness through superior human capital management. *The National Human Resources Summit*. Crowne Plaza Mutiara Kuala Lumpur.

Gorman, M. (2013). *10 ways to ensure significant content is part of Project-Based Learning. PBL Essential Element Series*. Accessed on April 2, 2013. Retrieved from:http://21centuryedtech.wordpress.com/2013/02/25/10-ways-to-ensure-significant-content-is-part-of-Project-Based-Learning-PBL-Essential-Element-Series.html

Grant, M. M. (2002). Getting a trip on project-based learning: Theory, cases and recommendations. *Meridian A Middle School Computer Technologies Journal*, *5* (Issue 1, Winter 2002).

Guven, Y.,& Duman, H. G. (2007). Project-Based Learning for children with mild mental disabilities.*International Journal of Special Education*,*22* (1), 77-82.

Hager, H. & Munshower, S.S. (1984). *Projects and monuments in the period of the roman baroque.* University Park: Pennsylvania State University.

Hannas, W.C. (2003). *The writing on the wall: How Asian orthography curbs creativity.* Philadelphia: University of Pennsylvania Press.

Hmelo-Silver, C. E. (2004). Problem-Based Learning: What and how do students learn? *Educational Psychology Review, 16* (3), 235-266.

Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *The Journal of Experiential Education, 22*(2), 91-98.

Jamaluddin, N. A., & Sahibuddin, S. (2012). Challenges of a Project-Based Learning towards requirement engineering. *International Journal of Computer Applications,50* (3), 1-5.

Jusoff, K., Md. Baharuddin, Abdul Rahman, Azhar, Khairul Mat Daud, & Abd Ghani, N.A. (2010). Motivating students using Project-Based Learning (PjBL) via e-SOLMS Technology. *World Applied Sciences Journal , 8* (9), 1086-1092.

Jonassen, D.H., Peck, K.L., & Wilson, B.G. (1999). *Learning with technology: A constructivist perspective.* Upper Saddle River, NJ: Prentice Hall.

Karlin, M., & Vianni N. (2001). *Project-Based Learning*. Medford, OR: Jackson Educational Service District.

Kim, K.H. (2005). Learning from each other: Creativity in East Asian and American education. *Creativity Research Journal, 17*(4), 337-347.

Kilpatrick, William Heard. (1918). *The Project Method: The use of the purposeful act in the education process.*Teachers College. Columbia University.

Knoll, M. (1997). The project method: Its vocational education origin and international development. *Journal of Industrial Teacher Education, 34*(3), 59-80.

Kommers, P., Jonassen, D.H., & Mayes, T. (1992). *Cognitive tools for learning.* Heidelberg, FRG: Springer-Verleg.

Krajcik, J.S., Blumenfeld, P.C., Marx, R.W., & Soloway, E. (1994). A collaborative model for helping teachers learn project-based instruction. *Elementary School Journal, 94*, 483-497.

Lau, S., Hui, A.N.N., & Ng, G.Y.C. (2004). *Creativity when east meets west*. Singapore: World Scientific Publishing Company.

Larmer, J., & Mergendoller, J. R. (2010). *Seven Essential for Project Based Learning*. Accessed on April 2, 2013. Retrieved from Educational Leadership: http://www.ascd.org/publication/educational_leadership/sept10/vol68/num01/Seven_Essential_for_Project-Based_Learning.html

Lipson, A., Epstein, A. W., Bras, R., & Hodges, K. (2007). Students' perception of terrascope, a project-based freshman learning community. *Journal of Science, Education and Technology , 16* (4), 1-52.

Leyden, G (2008). Unemployment in Brussels: Between skill mismatch and job competition: about the need to combine selective and comprehensive employment policies in the Brussels-Capital Region. *The e-journal for academic research on Brussels. Issue 14*.

Lohani, B.N. (2013). Building knowledge economies in Asean requires education, innovation. *Jakarta Globe (April 30th).*

Lowden, K., Hall, S., Elliot, D., & Lewin, J. (2011). *Employers' perceptions of the employability skills for new graduates.* London: Edge foundation.

Major, C.H., & Palmer, B. (2001). Assessing the effectiveness of problem-based learning in higher education: Lessons from the literature. *Academic Exchange Quarterly, 5*(1).

McLeod, S. (2007). *Lev Vygotsky*. Accessed on April 4, 2013. Retrieved from Simply Psychology website: http://www.simplypsychology.org/vygotsky.html

Mergendoller, J. R., & Thomas, J. W. (2000). *Managing Project Based Learning: Principles from the field*. Accessed on 2012. Retrieved from The Buck Institute of Education website: http://www.bie.org/images/uploads/general/f6d0b4a5d9e37c0e0317acb7942d27b0.pdf

Moursund, D. (2002). *Project-based learning: Using information technology.* Eugene, Oregon: ISTE.

Moursund, D. (2009). *Project-Based Learning using information technology*. Oregon, USA: Vinod Vasishtha for Books Private Limited arrangement with International Society for Technology in Education.

National Employers Skills Survey. (2003). *Key findings*. Coventry, UK: Institute for Employment Research, University of Warwick.

NEAC. (2010). *New economic model for Malaysia: Part 1 Strategic policy direction*. Kuala Lumpur: National Economic Advisory Council (NEAC).

Ng, A.K. (1999). Why Asians are less creative than Westerners? *Singapore: Prentice-Hall.*

Quah Chun Hoo, Aizzat Nasurdin, Guok Eng Chai & Joshua Ignatius (2009). Employers' preference for foreign trained graduates – Myth or reality? *European Journal of Scientific Research, 34* (3), 372-383.

Railsback, J. (2002). *Project-Based Instruction*: *Creating excitment for learning*. Chicago: Northwest Regional Educational Laboratory.

Mustapha, R. (1999). *The role of vocational and technical education in the industrialization of Malaysia as perceived by educators and employers*. PhD Thesis. Purdue University.

Mustapha, R. & Greenan, J. (2002). The role of vocational education in economic development in Malaysia: Educators' dan employers' perspectives. *Journal of Industrial Teachers, 39*(2), 58-78.

Mustapha, R.& AbuAbdullah.(*2004*). Malaysia transition toward a knowledge-based economy. The Journalof Technology Studies, 30 (3), 51 – 61.

Mustapha, R., AbdulRahim, Z.L.,& Azman, M.N.A. (2014). Problem-Based Learning in electrical and electronic engineering course: An action research in a Malaysian technical school. *journal of engineering science and technology, 9(*6), 278-289.

Santana, A., Dias, T., Molinaro, L., & Abdalla Jr, H. (2010). Experience implementing project based learning in engineering with focus on soft skills acquisition. *IEEE Multidisciplinary Engineering Education Magazine, 5*(4), 27-34.

Schneider, D. K. (2005). *Project-based learning.* Accessed on 2012. Edutech website.

Supratomo, & Baso S. Y. (2007). *Panduan penerapan metode pembelajaran berbasis proyek: Learning in action. Universitas Hasanuddin*. Makassar, Indonesia: Lembaga Kajian dan Pengembangan Pendidikan (LKPP).

Schneider, D.K. (2005). Retrieved from http://edutechwiki.unige.ch/en/Project-based_learning. Accessed 7 May 2013.

Scott, C. (1994). Project-Based Science: Reflections of a middle school teacher. *Elementary School Journal, 57*(1), 1-22.

Tengku Sarina Aini, T.K. (2012). *Teaching and learning experiences in Malaysian higher education: A case study of a teacher education programme*. PhD Thesis. Auckland University of Technology, New Zealand.

Trumbull, D. & Slack, M.J. (1991*)*. Learning to ask, listen, and analyze: Using structured interviewing assignments to develop reflection in pre-service science teachers. *International Journal of Science Education, 13*(2), 129-142.

GUEST INVITED PAPERS

Vygotsky, L. (1978). *Mind in society. The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wikiversity. (2011). *Learning theories in practice/Project-Based Learning*. Accessed on 2013. Retrieved from Wikiversity: http://en.wikiversity.org/wiki/Learning_theories_in_practice/Project-Based_Language_Learning

Yogeesvaran, K. (2005). Addressing skills gap: Malaysian case study. Session 3: Skills for competitiveness in East Asia. *Putrajaya: Economic Planning Unit (EPU).*

Zanifa, M.Z. (2007).Malaysian government policies on human resources developmet: Toward meeting the needs of the knowledge-based economy. Re-engineering dual training. *The Malaysian Experience. GTZ & GMI Malaysia*.

Zimmerman, D. (2012). *8 essential characteristics of Project-Based Learning*. Accessed on April 1, 2013. Retrieved from Behrman House Blog: http://www.behrmanhouse.com/blog/8-essential-characteristics-of-project-based-learning.html

Web 3.0 and Learning Environment: Construction, Collaboration, Convenience and Empowerment

Dr. Vikas Kumar
Professor, School of Business Studies,
Sharda University, Greater Noida – 201306, U.P., India
Email: prof.vikaskumar@gmail.com

ABSTRACT

With the advent of ICT, learning community started using internet for e-learning as a supplement for educational resources. This significant increase of e-learning among learners can be has proved to be too much supportive for the students and teachers. The optimized use of e-learning resources can be increased by teamwork or group discussion among learners. The collaborative activities among learners community can improve teamwork and nurture learning goals. Web 1.0 helped in the creation of the learning content, which eventually became user generated content with web 2.0 and this further led to social networking and mass collaboration between creator and user, leading a over-all change in the learning process. Web 3.0 offers intelligent applications using natural language processing, machine-based learning and reasoning proving a high level of empowerment for the learner. The present work is posits that the way previous generations of e-Learning (1.0 and 2.0) have emerged with the prevalent technologies in their kin Web versions (1.0 and 2.0, respectively), and it has been argued that a new generation of Learning will collaborative, convenient and will lead to learner empowerment. Furthermore, the theories of learning have been reviewed to create an integration between the existing learning practices and the technological developments.

1. INTRODUCTION

In past decade, the emergence of ICT in education has changed the way of traditional classroom learning. The technology supports the collaborative learning in virtual mode outside the classroom boundaries. The virtual interaction of learning community engages them in active learning in collaborative mode. The social interaction is an essential element in learning (Dillenbourg, 1999). The collaborative learning is achieved by forming learning group setting learning objectives by communication, cooperation and collaborative knowledge (Huang et al., 2013). Each member of collaborative learning team can share their information found during learning with other members by using forums, discussions or chat. The computer supported collaborative activities offers functionality desired by the set of potential actors (teacher, student, pedagogy expert) that can participate in collaborative learning situations (Hernandez et al., 2005). The online collaborative application can be applied to a large number of learning situations and functional requirement. Cloud computing assisted collaborative learning support teaching and facilitates learning between teachers and students (Jian, 2011).

Collaborative learning refers to all related cooperation activities that maximizes personal and other achievements under certain incentive mechanism for common learning goals, where students participate the activities by group forums (Ronghuai, 2003). Collaborative learning processes realise central features of a "learning community", i.e. they promote the development of both individual and socially shared knowledge; support and instruct the learning group on how to reflect their individual and collective experiences, identify their learning needs, and continually evaluate their knowledge and experience development (promotion of meta-cognitive processes); initiate the sharing and negotiation of knowledge by developing of a positive learning culture; take care that the group members are structurally interrelated and remain open-minded to external knowledge resources; and strive to support the development of a group-oriented identity (Helic, 2006). The major characteristics of collaborative learning are (Huang et al., 2012)

- Collaborative learning is carried out in small groups
- It stresses the importance of learning process
- It stresses the common progress of team members
- It stresses on learning outcomes

Collaborative learning generally indicated improved learning effectiveness (Pfahl et al., 2004). The collaborative learning processes in an e-Learning environment contained the following five components: learning content, learning procedure, communication and collaboration facilities, technological infrastructure, and run-time execution procedure. The collaborative learning environment can be well supported by cloud computing paradigm. Cloud computing technology provides technological infrastructure to collaborative learning. Cloud computing – a new computing model – proposes a complete online platform composed of a large number of services used while needed (Shibi et al., 2013).Cloud computing provides restoration, virtualization, sharing and offering additional services without the need to install or update them. The cloud computing improves user efficiency and makes significant economies while managing the resources according to what is available. Cloud computing model has been accepted by small, medium and large enterprises. The Cloud computing is about combining the hardware and software applications on a distance server as a service (Armbrust et al., 2010; Shibi et al., 2013). Cloud computing can increase the work efficiency of an organization by providing access to computer resources pooled and shared while controlling the costs of the proposed services. These services could be deployed in short time and offer the opportunity of using the latest hardware and software updates in an almost transparent

way and without any additional charge. The files stored in centralized way on cloud computing are always accessible anytime, anywhere and by anyone, which replaces the storage equipment that can be lost or damaged physically or logically. The Cloud computing eliminates the archiving and backup cost while following the news media storage and their read / write devices by optimizing the time and efforts to maximize profitability of an organization. Students can learn number of computer production skills in collaborative environment. Cloud –based collaborative learning is an extension of computer –supported collaborative learning (Huang, 2012). Shibi et al. (2013) proposed architecture of online collaborative learning process consists of transporting the contents of a course generated within a class managed by a private cloud computing toward its learning community managed by a public cloud computing . He discussed the benefits of cloud computing in collaborative learning by harnessing the potential of collective intelligence. According to Shuangouan (2010), cloud –based collaborative learning has certain characteristics that facilitate the online learners. According to him, cloud services can provide rich learning resources through powerful search engines ; cloud services provides hardware on demand and collaboration can be done independent of time and place; student's can learn with active participation where they themselves are the designers and performers of collaborative learning; cloud provides real time saving and fair learning evaluation of records ; cloud –based collaboration services increase sense of teamwork in students while developing thinking ability ,emotions and personality.

2. THEORETICAL EVALUATION OF LEARNING PEDAGOGY

Learning pedagogy provides the foundation for convenient and collaborative learning environment. Social constructivist and connectivism theory provides the strong basis to form the convenient and collaborative online learning environment.

Social Constructivist Theory

The human being learns easily and conveniently in social environment. The social constructivist theory is based on development of a human being during social interaction. The social constructivist theory is based on learner centered model. The students learn more in social environment during working in collaboration with their friends and teachers. This statement is supported by the theory of 'Zone of proximal development' (ZPD) given by Russian psychologist

Vyotsky (Chaiklin, 2003). The ZPD theory states about the support needed by children from their parents and teachers during learning. During learning process, the teachers gain valuable insights of students learning and their understanding. This will assist them to analyze and measure the learning capability of students and can find out the various methods to improve learning. The interaction and participation in social environment makes students engage in their working. The students participate, contribute and share their ideas while constructing their own knowledge during social collaboration (Maddux et al., 1997; Wertsch & Tulviste, 1992). The collaboration and interaction among students during learning process leads to better knowledge exchange and effective learner participation, which further enhances the learning outcome (Lehtinen et al., 1999). The teachers are responsible for assisting students during knowledge construction. The teachers can design learning activities that makes them engaged and can be easily grasped. The learning is more effective by rethinking and refining process during working in collaboration (Crawford, 1996; Doolittle & Hicks, 2003). The learners can resolve the social problem in collaborative environment by utilizing their experience of learning (Lewin, 1946). The problems are solved effectively by incorporating feed back in social learning environment. The information from the feedback procedure provides the basis of goal directed action to the learners. The students will put their coordinated efforts with active participation for solving the problems in collaborative environment (Salmons, 2008).

Connectivism Theory

Siemens proposed the theory of connectivism for the changing environment in digital era. Siemens recognizes the impact of technology on society where people communicate and learn with each other. Connectivism provides a premise and framework that are very useful for understanding collaborative environment in online learning process (Siemens, 2005). According to him, learning in the digital age relies on the connected learning that occurs through interaction with various sources of knowledge and participation in social networks. According to Baraka (2012), learning is a process that occurs based upon a variety of continuously shifting elements in connectivism theory. In the connected network, the information changes frequently, so only useful information can be gathered and filtered at individual level. The latest information can be used for taking future decisions. Connectivism pedagogy provides the ability to connect the learners with each other using social networking tools. Siemens believed that in connectivism we need to rely on network of people to store, access and retrieve knowledge and motivate its use (Siemens, 2005). Hence, connectivism theory provides the basis of connecting individuals with each other by using technology.

Students needs flexibility to work and learn at their own pace and convenience (Ragupathi, 2013). The student needs to learn independent of time and place. The learning environment by using technology should be accessed beyond the institutional premises (Attwell, 2009).The technical infrastructure must provides convenience in learning. The cloud computing technology provides the solution for convenient and collaborative learning environment that can be accessed from any place and at any time. The cloud computing based learning environment will facilitate the construction of knowledge, solving problems with negotiation will lead to higher order thinking skills in student. The students can freely interact with their peers with discussion, collaboration, negotiation and feedback in collaborative and convenient learning environment (Darling-Hammond et al., 2003). The students gain rich knowledge through shared goals in collaborative environment. By discussing the various theories, it is concluded that the collaborative environment is a learner-centered model. The learner centered model will facilitate the construction of knowledge by social interaction and participation of learners.

3. LEARNING BASED UPON COLLBORATION AND CONVENIENCE

The collaborative online learning model can be considered to be flexible and purposeful. Learning should be designed with purpose, building flexible gather places, creating meaningful member profiles and design for a range of roles (Kim, 2000). According to Kim (2000), learning develops a strong leadership into an individual, hence learning must incorporates strong leadership programs with appropriate etiquette and cyclic events. Such type of designing principles in learning will support and empower members of learning. Learning empowers from intellectual power that comes from integration, connections between specific ideas and people, interdisciplinary learning, learning communities, and connecting academic work with other areas of life (Fink, 2003). According to Munoz-Organero et al. (2010), teaching and learning technology must revolve round communication, collaboration, convenience, interaction, independent learning, feedback and flexibility. The collaborative learning is based in the coherent group dynamics. Initially network of members in group will serve the basis of learning with interaction.

Connectivism theory supports the network of learners supported by digital tools that facilitate their interaction in online learning environment. The digital systems will create a bond between the joined learners. The participants in the network give their inputs or contribution in the learning environment such as they do in face to face discussion. The learner shares their learning resources with other learners within the same group. Every member in the learning group contributes in the learning process. The meaningful contribution and communications among learners will result in

an effective knowledge sharing. Each individual is gained by understanding with the activity within the context in learning environment. The cognitive development of every individual within the learning context is the outcome in learning environment.

During the learning process the individual struggles for cognitive conflict with other learners in the environment. The learner negotiates with their peers to resolve the social problems with active dialogue. The social negotiation with the individuals working in groups leads to better knowledge exchange. The interaction of individuals in group will enrich and expand their own understanding on particular matter. Every individual in a group is a greatest source of alternative views to challenge current views and serve the source of new learning. The sharing of information and experiences among learning community members will boost the knowledge acquisition while learning from each other. The interaction between the learners will make them actively engage to complete the particular task followed by deep learning. The interactive learning provides the space for leadership and motivation to learners to accomplish the task.

The motivational activities can be designed and encouraged by facilitators or teachers in the learning process. The facilitators provides authentic learning environment to the learner community. The facilitators should find ways to engage the learner in learning process. The learner can focus on their own experience with guided opportunities to explore and discover to construct by facilitators. The active participation and interaction of the facilitators is needed to encourage the learners. The learner needs observation and judgement by facilitators for appropriate feedback. The continuous monitoring of the learner's activities and feedback provided to the learner by the facilitators will move the learner in the right direction. The guidance provided by the facilitator during learning will support for achieving goals. The facilitators can involve learners for assessing their peers for their progress. The facilitators play the key role for student progress and development. They should explore new ways of learning that will assist in student empowerment.

The collaborative environment should incorporate convenience in learning too. The learners and facilitators would be encouraged and engaged in convenient learning environment. The convenience in learning will facilitate the learning at any place and at any time without any limitations. This will support the learning to be done independent of resources, place and time constraints. The collaborative online learning environment

provides a space that should includes all the given features to support collaboration and convenience during learning:

The social driven model of collaborative and convenient online learning environment will be effective by computer supported technical tools (Lehtinen et al., 1999). The technical tools will support interaction among members effectively and in engaged way (Vygotsky, 1978). These tools will strengthen and reinforce the group communication and activities.

Digital tools will create a bond for learning and developing between the learners community. This online environment will be the most appropriate learning environment for students to interact and construct their own knowledge with their teacher support..

4. CONSTRUCTION and EMPOWERMENT

If we consider the developments in the world wide web, then we can be certain that web 1.0 connects real people to the world wide web (www), the web 2.0 connects real people who use the www and, the web 3.0 will connect the virtual representatives of the real people who use the www. So, where web 1.0 is about providing information, web 2.0 is about overload of information; web 3.0 on the other hand empowers the user for control of information (Rego, 2011). The technologies and concepts related to the neologism of Web 3.0, though still in the infancy stage are advancing quite rapidly. The Web 2.0 has given rise to silos of data being generated by social networking and otherwise, there will be a need to enable utilization of this data. An astounding statistics by the Forrester Research (2006) shows that 97% of the users never look beyond the top three search results when they are searching on the internet. So, all the data that has been selected is never really used. Thus there is a strong need that the users are empowered to locate the best information on web and in the information should be constructed in a way that it can help the users with its quality features. The main features of the Web 3.0 technologies which differentiate it from its earlier generation, Web 2.0 are as follows:

- Intelligent/semantic Web: The term semantic web refers Web of linked data enabling people to create data and build vocabularies. Simply put, semantic web is all about describing things in a form that is understood by computers, so that locating the information gets easy.

- Openness and interoperability: Refers to openness in terms of application programming interfaces, data formats, protocol etc. Interoperability is accepted across the devices and platforms.
- Global repository of data: the ability of information being access across programs and across the web.
- 3D Virtualization: Extensive use of 3D modeling and 3D spaces using services like second life and personalized avatars connected to your devices.
- Control of information: If Web 2.0 is about control of information, then Web 3.0 is about bringing order back to it.
- Socio-Semantic Web which will enable the users to share knowledge.
- Distributed and Cloud Computing: The delivery of computing as a service rather a product

A summary of the education paradigms have been provided in the Table 1 as it relates to the development of web1.0 to web 3.0 and we term it as education 1.0 to education 3.0. (https://educationfutures.com/blog/2008/02/moving-beyond-education-20/):

Table 1: Education Paradigms

	Education 1.0	**Education 2.0**	**Education 3.0**
Meaning is…	Dictated	Socially constructed	Socially constructed and contextually reinvented
Technology is…	Confiscated at the classroom door (digital refugees)	Cautiously adopted (digital immigrants)	Everywhere (digital universe)
Teaching is done …	Teacher to student	Teacher to student and student to student (progressivism)	Teacher to student, student to student, student to teacher, people-technology-people (co-constructivism)
Schools are located…	In a building (brick)	In a building or online (brick and click)	Everywhere (thoroughly infused into society: cafes, bowling alleys, bars, workplaces, etc.)

Table 1: Education Paradigms			
	Education 1.0	**Education 2.0**	**Education 3.0**
Parents view schools as…	Daycare	Daycare	A place for them to learn, too
Teachers are…	Licensed professionals	Licensed professionals	Everybody, everywhere
Hardware and software in schools…	Are purchased at great cost and ignored	Are open source and available at lower cost	Are available at low cost and are used purposively
Industry views graduates as…	Assembly line workers	As ill-prepared assembly line workers in a knowledge economy	As co-workers or entrepreneurs

5. CASE STUDY : Google Educational App Suite

Google Educational App Suite (https://www.google.com/edu/) provides virtualized collaborative learning environment while integrating cloud services with Google Classroom, Google Gmail, Google Documents, Google Calender, Google Drives, Google Sites to support teachers and learners for personalized environment with ease to operate and manage functionalities. Google provides education apps with full security at free of charge. Google educational suite provides collaborative environment by allow working on various tools together in collaboration by students and faculties. Easy collaboration can be achieved by creating, sharing and editing files in real – time. Collaborative schedule can be made by using Google Calender, collaborative arrangement by projects, collaborative management by student –teacher, online collaboration with word processing, online collaborative spreadsheet, online collaborative power point presentation sheet, online cloud storage data and other Google cloud services such as blogs, forums, e-mails, search, Google Earth, Google Maps, messenger and so on (Huang et al.,2012). Google educational suite provides active teaching and learning strategy by supporting storage on clouds by sharing Google drive without any damage and loss of data. Learners can work on the same page at the same time and page is automatically stored in the cloud. Students can make group science project in cloud by using Google apps. Google Picasa tool allows uploading pictures in clouds and sharing it.

Teachers can create workspaces in Google educational suite by assigning assignment to students in the classroom app mode (https://www.google.com/edu). Teachers can store, share, view, edit and monitor the assignment status by using the cloud services. The students can upload and edit the assignment in cloud storage by using classroom mode. A Google classroom service enhances

communication among students and teachers by announcement and discussions. Google Educational App suite is affordable and secure. The teachers can use Google sites to create their own learning websites in intranet mode without any investment. This leads to more inter collaboration of teachers and students for their personalization of learning. The teacher can use various modular components by integrating word, presentations, worksheet, calendar, links to different online resources, spreadsheet, maps and youtube resources (Huang et al., 2012). The teachers can prepare collaborative lesson planning, worksheet preparation, research study and materials and exhibit collection of learning resources. The storage, management and maintenance of the site is done using the cloud computing services.

6. CONCLUSION

Educational institutes should harness the potential of web technologies to facilitate active learning while inculcating higher order thinking skills in students. Technologies like Cloud Computing, Big Data, Semantic Web can prove to be vital in integration of web resources in the learning environments. The main focus of the integration should be to facilitate the collaboration among students, teachers and perrs to achieve learning goals with personalized environment and certainly at anywhere, anytime basis. Such an environment converts the passivism into activism, formal into informal, expensive into inexpensive and hence accelerates delivery of services by simplifying operations, saving time, and cutting cost. The web 3.0 enables faster learning process as all learning tools with adds-on compatibility features will be at one place. Although the technology is going ahead at a faster pace and people are also embracing it, still the mass acceptance of the web3.0 technologies are yet to be seen for a larger impact.

7. REFERENCES

Armbrust M., Fox A., Griffith R., Joseph A., Katz R., Konwinski A., Lee G., Patterson D., Rabkin A., Stoica I.,Zaharia M.(2010).A View of Cloud Computing. *Proc* of the ACM. Vol. 53. No. 4. pp 50-58.

Dillenbourg, P. (1999). *Collaborative learning: Cognitive and computational approaches*, Oxford, UK: Elsevier Science.

Doelitzscher, F., Sulistio, A., Reich, C., Kuijs, H., & Wolf, D. (2011), Private cloud for collaboration and e-Learning services: from IaaS to SaaS, *Computing*, Vol. 91, No. 1, pp. 23-42.

Forrester Research, (2006).Search engine usage report, available at http://www.forrester.com/home. Retrieved from

http://www.seowritingjobs.com/organic-search-engine-results-why-they-mean-more-work-for-seo-copywriters/ on March 21, 2012.

Hernandez-Leo, D., Asensio-Perez, J. I. & Dimitriadis, Y. (2005), Computational Representation of Collaborative Learning Flow Patterns using IMS Learning Design, *Educational Technology & Society*, Vol. 8, No. 4, pp. 75-89.

Helic, D.(2006), Technology-supported management of collaborative learning processes. *International Journal of Learning and Change*, Vol .1, No. 3, pp. 285-298.

GUEST INVITED PAPERS

Huang L.,Liu F.,Liu C.2012.Design and Research on Collaborative Learning Program Based on Cloud Services. Proceeding of ICCIA 2012

Design and research on collaborative learning program based on cloud service.pdf

Huang L.,Liu F. (2013).Construction of collaborative learning environment supported by cloud-computing .Conference Proceedings ICCSEE 2013.Atlantis Press .France

Jian Li.(2011).On Computer-supported Collaborative Learning Under the Support of Cloud Computing, *Journal of JIXI University*, Vol. 11. pp. 5.

Moravec John (2008), " Soving beyond Education 2.0", Retrieved from https://educationfutures.com/blog/2008/02/moving-beyond-education-20/

Pfahl D., Trapp S., Helic D. (2004) A Methodology-Driven Software Infrastructure for Work-Based Learning, Michael Kelleher, Andrew Haldane, Eelco Kruizinga (Editors), *Researching Technology for Tomorrow's Learning: Insights from the European Community*, Chapter 3, pp.85-95, CIBIT Consultants|Educators.

Ronghuai H.(2003).Computer Supported Collaborative Learning Theory and Method. Beijing: People's Education Press.

Shibi B., Kadiri K.,Aknin N.(2013) , Towards collaborative learning process based on hybrid cloud computing and Web 2.0 tools, *International Journal of Engineering and Technology*, Vol 5., No. 3, pp.12-18

Shuangquan,H. 2010.On Design Strategy of the Collaborative Learning Activities under Cloud Computing Assisted Instruction. Educational Technology and Equipment in China. . No.36., pp.142–144

Designing the Reliable and Valid Assessment's Instrument for English Speaking Skill

Abd. Ghofur
STKIP PGRI Lamongan
ghofurkita@yahoo.com

I Nyoman S. Degeng
Universitas Negeri Malang

Utami Widiati
Universitas Negeri Malang

Punaji Setyosari
Universitas Negeri Malang

Abstract

The present paper addresses the design of the instrument for assessment of English speaking skills at the high school level. The assessment covered the aspects of content, grammar, vocabulary, fluency, pronunciation, intonation, diction, organizing, interactive communication, and discourse management. To produce a quality assessment instrument, the validity and reliability of the instrument were assessed. It involved experts of English to examine the structure and substance of the assessment. In addition, the authors also tested the instrument as a statistical test. These instruments were used to assess two techniques to speak English, a technique to speak English as a monologue and interpersonal. Based on the validity of the experts of English language and statistical analysis, the overall aspects of assessment were feasible to be used to test the ability to speak English.

Keywords: assessment instrument, English speaking skills

INTRODUCTION

There are four skills that must be owned by a person when learning English, the skills of reading, writing, listening and speaking. In the visible person was in charge of language skills will be visible from his speaking skills. As stated Bahera (2012), that the skills of speaking a measure of success in learning the language of the existing skills in the language. Speaking skills gained from interaction with others. How pronunciation, how to spell it, and so on. So to learn a language is advisable to look for a model that can be used to mimic a means of learning the language. In addition, the presence of the model can steer and correct any errors in its use.

But unfortunately, most of learners consider that speaking skills is very difficult in learning the language. So that, teachers often have difficulties when teaching the English speaking skills. It is as presented by Latha and Ramesh (2012), learning to speak a foreign language is a very difficult thing for students, because it requires the ability to use language properly in social interaction. There are several factors that lead to learning a foreign language speaking skills are less successful. They are (1) lack of motivation, (2) lack of subject matter, (3) lack of the right vocabulary, (4) Lack of confidence, (5) The skill of listening is not true, (6) lack of non-verbal communication, (7) is dominated by only a few students.

National Education Standards Agency (2006: 145) explains that the speaking skills is the student's ability to express a variety of meanings in monologue form of stories (narrative), jokes / adventure (spoof / recount) and how to express their criticism and rebuke polite in raw form (hortatory exposition) accurately, fluently, and acceptable in the context of everyday life and to use science. In addition, according to Nunan (2003: 48) "Speaking is a productive aural/ oral skills and it consists of producing systematic verbal utterances to Convey meaning." Talking is the

ability to produce speech orally and systematically to assert a particular purpose. This suggests that the speaking skills is systematic, coherent, and patterned. This discussion itself aims to convey something to others.

Speaking skills involves three areas of knowledge, namely, mechanical, functional, and social norms and culture. Mechanics refers to pronunciation, grammar, and vocabulary. The function refers to the transaction and interaction, while social norms and cultural reference to understand how to take into account who spoke to whom, under what circumstances, on what, and for what reason, such as turn-taking, long pauses between speakers, and the relative roles of the participants, (Burkart, 2004).

Although the ability to speak English is considered important, but there is no benchmark to evaluate. This prompted the authors to design an evaluation instrument ratings as the ability to speak English.

THE DESIGN OF THE TESTS AND ASSESSMENT'S INSTRUMENT

According Salkind (2006) tests assist researchers in determining the outcome of an experimental treatment based on the position of a variable. There are six topics of materials used in the test's ability to speak English. Material taken from the topic of odd semester of tenth grade high school level curriculum, 2013. The six topics are: (1) Talking about self, (2) complimenting and showing care, (3) Expression Intention, (4) congratulating Others, (5) describing People, and (6) Visiting Ecotourism Destination.

Assessment instruments the ability to speak English is designed to develop an assessment rubric speaking skill sourced from Balitbang Kemendikbud, Curriculum 2013, the British Council, IELTS (International English Language Testing System) Australia and ESOL (English for Speakers of Other Languages) Examinations University of Cambridge. This assessment instrument designed to assess two techniques to speak English, which is a monologue and interpersonal. Both monologue and interpersonally has 10 aspects of assessment by the score of each aspect of the assessment is a maximum of 5 and a minimum of 1. The determination of the final value of an accumulation of every aspect of good judgment on monologues and interpersonally. The final value of the ability to speak English a minimum of 20 and maximum of 100.

Table 1 Assessment's instrument English Speaking interpersonal skill

Assesment's Aspects	Description	Score
CONTENT ASPECT		
Content	The substance of the talks delivered precisely and logically	5
	The substance of the conversation sometimes less precise and logical but does not affect the activity of communication	4
	The substance of the conversation is less precise and logical and occasionally disrupted communication activities	3
	The substance of the conversation often less precise and logical and affect communication activities	2
	The substance of the talks was not appropriate and logical and affect communication activities	1
LANGUAGE ASPECTS		
Grammar	Using proper grammar	5
	Using grammar sometimes less precise, but does not affect the meaning	4
	Using the lack of proper grammar and affect meaning	3

	Grammatically difficult / incomprehensible	2
	Only produce words / silent	1
Vocabulary	Using the right words and the kind of new to be expressed corresponding response	5
	Using the right type of word, there was a mistake but does not interfere with meaning	4
	Using this type of word is enough, there was a mistake and disturbing meaning	3
	Using this type of inadequate words, a lot of mistakes and a disturbing meaning	2
	Using this type of words that are repeated, too many mistakes so elusive	1
Fluency	Very smooth with naturally followed by a pause	5
	Smooth but occasionally looked doubtful	4
	Quite smoothly but disjointed and seemed doubtful, translation before responding with words	3
	Substandard, often hesitant, always translate word for word and then repeated the question before responding	2
	Smooth and not finish the speech in full	1
Pronunciation	Phonetic sounds clear and almost no mistakes	5
	There was an error pronunciation but not intrusive meaning	4
	There are some pronunciation mistakes and disturbing meaning	3
	Many pronunciation errors so it is difficult to understand	2
	Too many errors pronunciation so difficult to understand	1
Intonation	Intonation is very clear and meaningful	5
	Intonation is clear despite the accent first language	4
	Intonation is less obvious and affect meaning	3
	Intonation is not clear and eliminate a number of meanings	2
	Intonation was not able to reveal the meaning	1
Diction	Very varied and precise in choosing words	5
	Varied and precise in choosing words	4
	Quite varied and precise in choosing words	3
	Less varied and precise in choosing words	2
	Not varied and precise in choosing words	1
ORGANIZING ASPECT		
Organizing	The talks were delivered very coherent, systematic and meaningful	5
	Discussion presented a coherent, systematic and meaningful, although sometimes had to repeat	4
	The talks were delivered less coherent, systematic but does not affect the flow of communication.	3
	Discussion presented no coherent and systematic so that influence the effectiveness of communication flow.	2
	The talks were delivered without grooves and meaningless	1

COMMUNICATIVE ASPECTS		
Interactive Communication	Confident and fluent in taking turn to speak and able to self-correct if it makes a mistake	5
	Confident though sometimes asked for repetition and expressed doubts	4
	More than an initiative responds	3
	It's hard to talk despite being lured	2
	Not being able to respond to the initiative	1
Discourse Management	Perform and respond with appropriate speech acts (logical) in the spoken language	5
	Perform and respond to speech acts despite the occasional misunderstanding	4
	Often misunderstands and responds to speech acts	3
	Not being able to understand and respond to simple acts of speech acts	2
	Only produce words that do not form text	1

Table 2 Assessment's instrument English Speaking monolog skill

Assesment's Aspects	Description	Score
CONTENT ASPECT		
Content	The substance of the talks delivered precisely and logically	5
	The substance of the conversation sometimes less precise and logical but does not affect the process of producing oral speech	4
	The substance of the conversation is less precise and logical, and sometimes the process of producing oral speech disrupted	3
	The substance of the conversation often less precise and logical and influence the process of producing oral speech	2
	The substance of the talks was not appropriate and logical and influence the process of producing oral speech	1
LANGUAGE ASPECTS		
Grammar	Using proper grammar	5
	Using grammar sometimes less precise, but does not affect the meaning	4
	Using the lack of proper grammar and affect meaning	3
	Grammatically difficult / incomprehensible	2
	Only produce words / silent	1
Vocabulary	Using the right kind of words	5
	Using the right type of word, there was a mistake but does not interfere with meaning	4
	Using this type of word is enough, there was a mistake and disturbing meaning	3
	Using this type of inadequate words, a lot of mistakes and a disturbing meaning	2

	Using this type of words that are repeated, too many mistakes so elusive	1
Fluency	Very smooth with naturally followed by a pause	5
	Smooth but occasionally looked doubtful	4
	Quite smoothly but disjointed and seemed doubtful, translation before responding with words	3
	Substandard, often hesitant, always translate word by word	2
	Smooth and not finish the speech in full	1
Pronunciation	Phonetic sounds clear and almost no mistakes	5
	There was an error pronunciation but not intrusive meaning	4
	There are some pronunciation mistakes and disturbing meaning	3
	Many pronunciation errors so it is difficult to understand	2
	Too many errors pronunciation so difficult to understand	1
Intonation	Intonation is very clear and meaningful	5
	Intonation is clear despite the accent first language	4
	Intonation is less obvious and affect meaning	3
	Intonation is not clear and eliminate a number of meanings	2
	Intonation was not able to reveal the meaning	1
Diction	Very varied and precise in choosing words	5
	Varied and precise in choosing words	4
	Quite varied and precise in choosing words	3
	Less varied and precise in choosing words	2
	Not varied and precise in choosing words	1

ORGANIZING ASPECT		
Organizing	The talks were delivered very coherent, systematic and meaningful	5
	Discussion presented a coherent, systematic and meaningful, although sometimes had to repeat	4
	The talks were delivered less coherent, systematic but does not affect the process of producing oral speech	3
	Discussion presented no coherent and systematic thereby affecting the effectiveness of the process of producing oral speech	2
	The talks were delivered without grooves and meaningless	1
COMMUNICATIVE ASPECTS		
Interactive Communication	Confident and fluent in speech and is able to correct yourself if making a mistake	5
	Confident though sometimes asked for repetition and expressed doubts	4
	More than an initiative responds	3
	It's hard to talk despite being lured	2
	Not being able to respond to the initiative	1
Discourse	Reforming the structure of the idea according to which	5

Management	the maximum text in the selected genre	
	Organizing ideas in accordance with the structure of minimal text in the selected genre	4
	The idea laid out with a structure that is less obvious and affect the clarity of meaning	3
	The notion and structure misunderstood condition	2
	The idea and the arrangement does not make sense	1

TESTING INSTRUMENTS

Before the instrument used to collect research data, it must first be sought level of validity and reliability. An instrument is said to be valid if the instruments used to measure the corresponding object to be measured and the instrument is said to be reliable if the results are relatively similar although each measurement used to measure repeatedly. For it is necessary to test the validity of contents, validity and reliability level test.

a. Content validity Speaking Skill Test

Instruments spoken English that is used to collect the data of this study was the test instrument's ability to speak English either interpersonal or monologue. A test in the form of questions and the introductory description speak English in accordance with the learning topics. Validation of the contents of the research instruments related to the degree of measurement that reflects the expected dominance of learning content. Therefore validity content of instruments is estimated based on expert judgment. The validation procedure is based on the contents of the instrument (1) grating test, and (2) the consideration or decision of the content experts as the basis for the estimates used to declare such instruments are feasible or not in terms of content. To determine the level of validation of the content. Instruments validated by experts consisting of two lecturers English Education Department from State University of Malang and two English teachers from SMA N 1 Lamongan. In general, the four experts to provide an assessment as follows: (1) the test has included achievement of learning objectives, and (2) the test covers all aspects of the assessment to measure the ability to speak English.

After the test instrument in accordance with the purpose of learning and is able to measure all aspects of English speaking skills assessment based on consideration of four expert content, the test instrument's ability to speak English is deemed to have qualified as valid measurement tools.

b. Reliability and Validity of Speaking Test Instruments Item

The term reliability is used to indicate the extent to which it can provide a measurement of the relative results did not differ when the measurements were taken back to the same subject. Ary (1990: 298) says that the reliability of a measuring instrument is the degree of regularity of such tools in measuring what is measured. In order to produce good data measurement, the instrument must be valid and reliable research.

To test the reliability of the test item's ability to speak English is empirically done through tests on a group of students at the higher grade of the study subjects. Classes are selected to test the ability of the test item to speak English is XI MIA 1 by the number of students 35 people. The reason the researchers chose a higher grade is in the material they have learned it in class X. In addition, in the characteristic they have in common with research subjects, because the trial was also conducted at SMA N 1 Lamongan.

Test reliability and validity tests were performed with SPSS 16 for windows. The reliability and validity of the test carried out on 10 aspects of assessment ability to speak English, namely: content, grammar, vocabulary, fluency, pronunciation, intonation, diction, organization, interactive communications, and discourse management.

The results of the analysis of test reliability and validity of the test's ability to speak English can be known in table 3 below.

Table 3 Output Test Reliability test items speech

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.789	.778	10

According to Azwar (1997: 83) that the procedure is performed to measure the level of reliability of the test in the form of a scale to do with the approach retest or coefficient alpha (Alpha Croanbach). Tests that do not qualify in terms of reliability will be removed or revised. Tests were eligible if they had a high level of reliability (0.60 to 1.00). According Arikunto (2005: 71) that the interpretation of the magnitude of the coefficient of reliability as follows: between 0,800 up to 1,00 = very high, between 0,600 up to 0,800 = high, between 0,400 up to 0,600 = ample, between a low of 0.200 up to 0.400, between 0.00 up to 0.200 = very low.

Based on the test instrument reliability test items English speaking ability of students in mind that the value of Cronbach's Alpha of 0.789. Referring to his opinion Azwar (1997) and Arikunto (2005) that are categorized as high value and qualified reliability of the instrument.

The next step is to test the validity of the test items the ability to speak English. Validity test results of the test items the ability to speak English can be known in table 4 below.

Table 4 Output test the validity of the test's speaking skill

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Content	30.4857	12.492	.562	.512	.757
Grammar	30.9429	14.408	.344	.420	.784
Vocabulary	30.8286	14.558	.360	.508	.782
Fluency	30.6000	13.071	.503	.637	.766
Pronunciation	30.8857	13.869	.507	.506	.768
Intonation	30.9714	15.970	.011	.393	.810
Diction	30.9429	13.820	.438	.581	.774
Organizing	32.2286	11.711	.692	.685	.737
Interactive_Communication	31.9143	12.845	.410	.608	.782
Discourse_Management	32.1143	11.810	.711	.687	.735

Validity assessment items of speech can be known from the value of Corrected Item-Total Correlation. Relating to the validity of the test, Anastasi (1982) suggested that the item is valid if the value Corrected Item-Total Correlation above 0.30. The results of the validation item speaks English skill assessment show that 10 assessment items, it is known that the ratings for the

item intonation has a sufficiently low value, it is 0,011. This is because the intonation ratings for current students tend to follow the same test speaking skills. This affects the validity of the relevant statistical test instrument intonation item that has a low value.

Although it has a low level of validity, but based on some studies some experts that the intonation is a circuit in the language. According to 't Hart, Collier, and Cohen (1990) Intonation is "... the assemble of pitch variations in speech the caused by the varying periodicity in the vibrations of the vocal cords.". The restrictions imply that, first, the intonation is manifested in the form of tones. Therefore, the most important element in the system is a tone language intonation, tonal variations more details. Second, the tone is physiologically produced by vibration of vocal cords located in the larynx organ vocal organs. Vibration of the vocal cords is precisely what causes a shift in the air particles, which then produces the sound.

Intonation is a universal language phenomenon. All languages have a system of intonation except Amahuaca, a language which, according to Bolinger (1975) does not have a system of intonation (Lehiste, 1970: 100). Although intonation is a universal phenomenon, every language has specific characteristics which are not necessarily owned by other languages. It can be said that no two languages that actually have specific characteristics exactly the same intonation. In addition, according Lehiste (1970: 96), that basically can't change the tone of lexical meaning.

However, in oral communication intonation still has an important function. First, intonation can give syntactic signal. Second, the intonation can give signal semantically (Ball and Muller, 2005: 108). Alwi et al. (2003: 55) states that in all languages, tones give syntactic information. Third, at the level of pragmatic based on empirical experience in everyday conversation, listeners often give special attention to the speaker's intonation. Pike (1945: 20) states that the meaning of intonation often receive more attention than lexical meaning. People are more interested in attention to the attitude of the speaker (attitude); whether a speaker is saying something with a smile or with a sneer. From the preceding, it can be said that one of the functions of intonation is as markers of modesty and emotive. Additionally, Pike (1945: 20) explains also that the configuration differences in speech tone may imply changes in the relationship of the speaker and the sentence or sentences to the environment. For example, the hesitant attitude of a person can be shown by the intonation.

Fourth, in terms of the sociolinguistic glasses, intonation can illustrate the existence of social classes in society. Therefore, it is probably also the identity of the origin of the identified areas of intonation. Ball and Muller explained, "All languages will have a set number of different possible nuclear pattern; and These are Also Likely to Differ from dialect to dialect "(Ball and Muller, 2005: 108). Fifth, from the standpoint of oral discourse, intonation is an element that can't be ignored because the intonation is one of the main pillars in the oral discourse. In the practice of everyday language with elements of other languages such as lexical, syntax, and pressure; intonation were also build cohesion of discourse in oral communication (Halim, 1984: 1). Inaccuracy use of intonation patterns in the context of a specific communication or interpretation can lead to failure of the delivery of the message and meaning (pragmatic failure). Therefore, knowledge, mastery and sensitivity to intonation is imperative a language speakers. Sixth, to do with learning the language, knowledge of intonation can help someone who is learning a language in order to speak to approach the characteristics of the speech of native speakers being studied.

Based on various studies described above indicate that every language around the world have different intonation, but it is considered very important intonation used in speaking activities. Therefore, although intonation has a low-level validation, but researchers still use it as an assessment item, because intonation is an integral part of the communication process.

CONCLUSION

There are 10 aspects of assessment that can be used in evaluating students' ability to speak English, especially the senior high school, for speaking a interpersonal and monologue techniques. Based on the results of expert validation English showed that 10 aspects of assessment is feasible and can be used to test the ability to speak English. While the statistical analysis known

that the data is reliable and valid, although there was one aspect, namely intonation obtain validation value is quite low. However, citing a variety of expert opinion that the intonation is an important part of the communication system, so that researchers continue to use intonation as aspects of assessment.

REFERENCES

't Hart, Johan, Rene Collier, dan Antonie Cohen. 1990. *A Perceptual Study of Intonation*. Cambridge: Cambridge University Press.

Alwi, H., S. Darjowjidojo, H. Lapoliwa, & A.M. Moeliono (2003). *Tata bahasa baku bahasa Indonesia*. Jakarta: Balai Pustaka.

Anastasi, A. 1982. *Psychological Testing*. New York: Macmillan Publishing.

Arikunto, S. 2005. Dasar-dasar Evaluasi Pendidikan. Jakarta: PT. Bumi Aksara

Ary, D., Jacobs, L.C, and Razavieh, A. 1990. *Pengantar Penelitian dalam Pendidikan* (Terj. Arief Furchan). Suarabaya: Usaha Nasional

Azwar, S. 1997. *Reliabilitas dan Validitas*. Yogyakarta: Pustaka Pelajar

Bahera, Arun. 2012. How do we learn another language?. *The Dawn Journal*. Volume 1 (2): Halaman 175-181.

Ball, M.J. & N. Muller (2005). *Phonetics for communication disorder*. USA: Lawrence Erlbaum Associates.

Bolinger, Dwight, L. 1975. *Aspect of Language*. New York: Harcourt Brace Javanivich, Inc.

Burkart, G. S. 2004. *Spoken language: What it is and how to teach it.* Washington, DC: The National Capital Language Resource Center.

Halim, A. 1984. *Intonasi dalam hubungannya dengan sintaksis bahasa Indonesia*. Jakarta: Djambatan.

Latha, Madhavi. Ramesh, Pettela. 2012. Teaching English as A Second Language: Factors Affecting Learning Speaking Skills. *International Journal of Engineering Research & Technology (IJERT)*. Volume 1 (7): Halaman 1-6.

Lehiste, Ilse. 1970. *Suprasegmentals*. Cambridge: The MIT Press.

Nunan, David. 2003. *Practical English Language Teaching*. Boston: McGraw Hill.

Pike, K.L. 1945. *The intonation of American English*. Ann Arbor: University of Michigan Press.

Salkind, N. J. 2006. *Exploring Reseach*. Upper Saddle River: Pearson Prentice Hall.

PRESENTER'S PAPERS

Author's Biodata

Abd. Ghofur, Born in Lamongan on January 26, 1987. Passed undergraduate education at the UNISDA Lamongan in 2009, then in 2012 graduated Master of Instructional Technology at the University of Adi Buana Surabaya. In 2013-now proceed Instructional Technology doctoral program at the State University of Malang. He is a lecturer at STKIP PGRI Lamongan and active in various scientific forums.

I Nyoman S. Degeng is a lecturer of Instructional Technology, State University of Malang. He is the first promoter of Abd. Ghofur in Dissertation writing titled The Effect of Communicative Language Teaching Method and the Audio-Lingual Method Based On Learning Styles For Speaking English Skill.

Utami Widiati is a lecturer of English Education Department, State University of Malang. He is the second promoter of Abd. Ghofur in Dissertation writing titled The Effect of Communicative Language Teaching Method and the Audio-Lingual Method Based On Learning Styles For Speaking English Skill.

Punaji Setyosari is a lecturer of Instructional Technology, State University of Malang. He is the third promoter of Abd. Ghofur in Dissertation writing titled The Effect of Communicative Language Teaching Method and the Audio-Lingual Method Based On Learning Styles For Speaking English Skill.

PRESENTER'S PAPERS

Quipper School Application as A New Innovation Teaching and Learning Process in Class

Adirasa Hadi Prasetyo
STKIP PGRI Sumenep
Perum Permata Resmi Kav. 12 RT/RW 03/05 Desa Kolor Kab. Sumenep Indonesia
Adirasa2013dafa@gmail.com

Abstract

In this 21st century, teachers are required to be more creative and innovative as an educator. In older times teacher taught with a classical model where all students sat facing to the chalkboard to listen to teachers' explanation. But in this advanced era learning could be done in a more sophisticated way by the application of quipper school. The application fits into this present age's rapid advancement in which almost all people have been familiar with ICT facilities in their lives. The application has two portals: the student and teacher portals. The student portal can easily be accessed in terms of the subject matter, working assignments, messages delivered to teachers, peers' assessment results; whereas the teacher portal provide access to prepare lessons, manage class, monitor students' progress, send messages to students and make online classes. Additionally, it can administer online assignments to students. Furthermore students can do directly this assignment while studyin the subject matter. All is provided for free by the quipper school application. In this instance, students and teachers can use notebooks, smartphones, and gadgets indoors and outdoors on with access to the internet connection.

Keywords: quipper school application, innovation, online instruction

INTRODUCTION

The successful learning determined by many things , starting from mastery content by a teacher, election strategy learning being suitable and also the use of learning interactive media. In the like now, media learning can be visual facilities , auditorial and visio auditorial in the implementation of the learning activities.

It is a very different types of media learning used in the '90 decade. At that time the media learning only fixated on slates and textbooks students .The use of two types of media is very suitable on eranya where needs a means medium learning not so much needed. It means with using media slates and textbooks, learning can run fluently

But, now this two the media (slates and textbooks students) have no more relevant used continuously on various education condition in our country. Take the example, on the subjects of science to discuss the matter gravity. If back in the '90 decade, the material was only using media slates and textbooks students in class.While today matter gravity it could be delivered through the audio visual offline or online instructional.

In the now learning have been replaced with use some help tools like information technology and communication that now developing in such a speedy with the advent of the and has been used by the to various aspect of human life .The positive side of the science and technology can save money and time and ease anyone the user to make use of this progress is without limitation the place and time

DISCUSSION

In the Basyiruddin (2002: 11) education association (NEA) define learning media as objects that can be manipulated, seen, heard, read or talked with instrument which used well in learning activities, can affect the effectiveness of instructional program

.According to Oemar hamalik (1989: 12) the learning media is a tool , method ,and techniques used in order the more playing an effective communication and interaction between teachers and their students in the process of education and teaching in school. This learning media can be split into 3 (three) the part, including: visual media, auditorial media and audio visual media.

Visual media in learning that it can use might include a newspaper, book, magazines and others. Aditorial media that could be used in their experiences in the form of radio broadcasts, a tape playback and others. While audio media and visual learning that can digunaan in their experiences might include a compact disc, a short film, ohp, power point and others.

Under discussion this time will be discussed a medium learning that has already been integrated with the internet network. Instructional media was defined as quipper school .Quipper school learning included to media based on e-learning. E-learning term used as a term for all technology used to support an efforts teaching technology electronic via the internet. Hence, the term e-learning more precise intended as efforts to make a transformation learning process that is in schools / university into digital form supported by the internet technology (Purbo & Hartanto, 2002).

The system learning electronic or e-learning (England: electronic learning abbreviated e-learning) can be defined as a form of information technology applied in education of websites accessible anywhere. E-learning is a innovations in educational world facilitate the education for this purpose of learning without having to face to face.

E-Learning Components

Components form e-learning (Romisatriawahono, 2008) is:

a. E-learning infrastructure

E-learning infrastructure is equipment used in e-learning who can be personal computer (pc), the computer owned personally (febrian, 2004)), a computer network (namely, a collection of of a number of device of computer, switch, router or device other tissue connected with uses the media communication certain (wagito, 2005), the internet is an abbreviation of interconnection networking who are defined as computers connected around the world (febrian, 2004)) and supplies multimedia (tools media that combine two elements or more media consisting of text, graphic, a picture, photo, audio, video and animation in an integrated (febrian, 2004).

Belong equipment teleconference (meetings a distance between some people who physical be to a different location geographically If we provide services synchronous learning is learning happening at the same time when teachers was teaching and students are studying through teleconference

b. E-learning system aplication

The system and the application of e-learning which are often called with learning management system (lms), that is a system software that virtualization the teaching and learning process conventional for the administration, documentation, reports a course of training, classrooms and events online, e-learning program, and content training (Ellis, 2009), for exampl, all features relating to the management the teaching and learning process like how management class, the manufacture of material or content, discussion forum, the assessment system report, as well as online examination systems who all accessed with the internet

c. E-learning content

E-learning is contents and teaching materials that were on e-learning a system (learning management system). Content and teaching materials this could for example in the form of multimedia-based content (shaped multimedia content as multimedia interactive learning which allows us uses a mouse, a keyboard to operate) or text-based content (content shaped the text as in textbooks is in wikipedia.org , ilmukomputer.com , etc). Ordinary stored in learning management system (lms) so that can be run by school tuition whenever and wherever.

PRESENTER'S PAPERS

Important aspect in e-learning

1. E-learning created solution formal learning and informal

   One of error think about e-learningadalahe-learning only creates system learn in formal , as in the form of course .But in fact adalahsaat this 80 % learning obtained informally .Alot of people in daily exertion and face a problem need solution as soon as possible .In this case , e-learning must have characteristic follows:

   a. just in time – made available to users when they need it to finish the job
   b. on-demand – happen in anytime
   c. bite-sized – available in small size that can used quickly

2. E-learning provides access to various sources of learning whether it is content or man

   Other errors in thinking about e-learning that e-learning only make content course. Actually e-learning is a social activities. E- learning provide a strong learning experience through online community e-learning users. Because human beings are social, so there a lot of our chance to communicate, collaborated and share the science of other e-learning users

3. E-learning support a group of people or group to learn together

   E-learning not the activity of individual course, but also supports a group of people or group to learn together, either to communicate, collaborated, knowledge sharing and establish an online community that can be done directly (synchronous) or indirectly (asynchronous).

4. E-learning bring learning to students not students to learning

   The form of learning traditional that students have to go out to find learning their own. Regarding the e-learning called also pull model of learning (knight , 2005: 11)

Quipper School

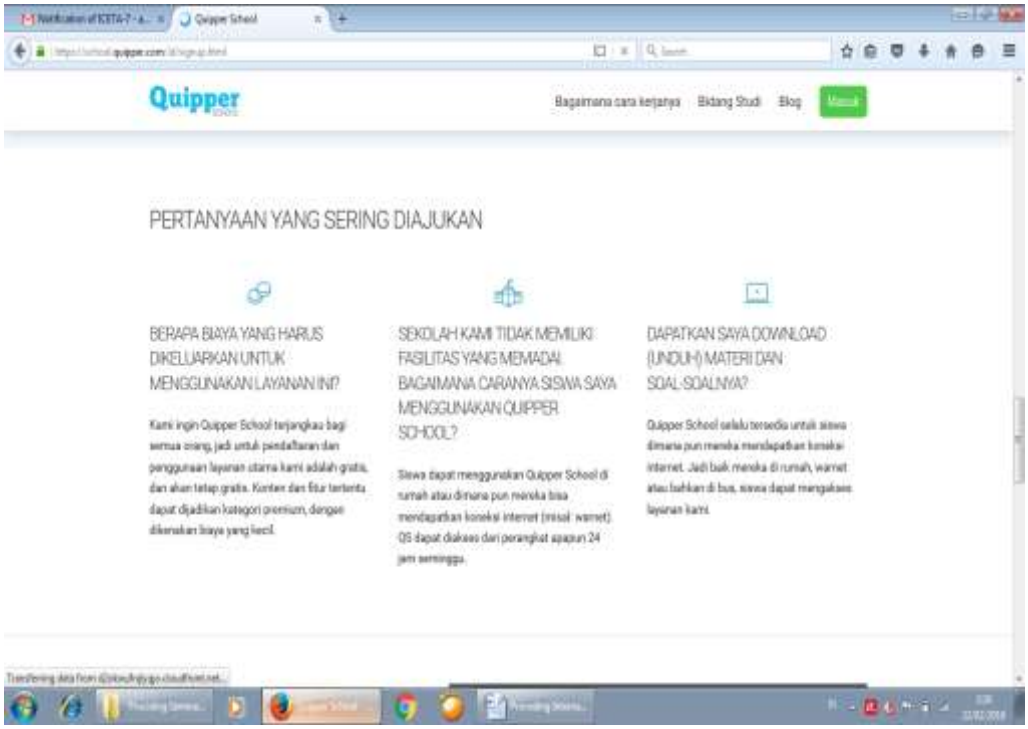
Quipper school be a pleasant learning online for students and teachers who aimed at producing learning process and teaching fun and accessible all the time. Quipper school offer services for teachers and students .

Quipper school enable the teachers in managing their task, divide students into groups, makes an assignment and in seconds system can know the advantages and disadvantages of students about the process teaching . Available at any time, better used as a task and as homework.

Quipper school learn enables the student finish specialized tasks of their teachers and access full of heed they, also able to separate all power and feebleness of their when receiving coin in recognition of progress they. Teachers and students also can communicate smoothly between the device via a private message and a public announcement. Quipper school learn also available in the android application and ios.

Quipper school load matter and about which includes: indonesian language, the english language, mathematics, physics, chemical, biology, geography, economic and accounting. In quipper school application this contained a lot of learning material that can be accessed free of charge by students and teachers good material that wear KTSP curriculum or that which already use the 2013 curriculum.

PRESENTER'S PAPERS



PRESENTER'S PAPERS

The Phases create and use Quipper School

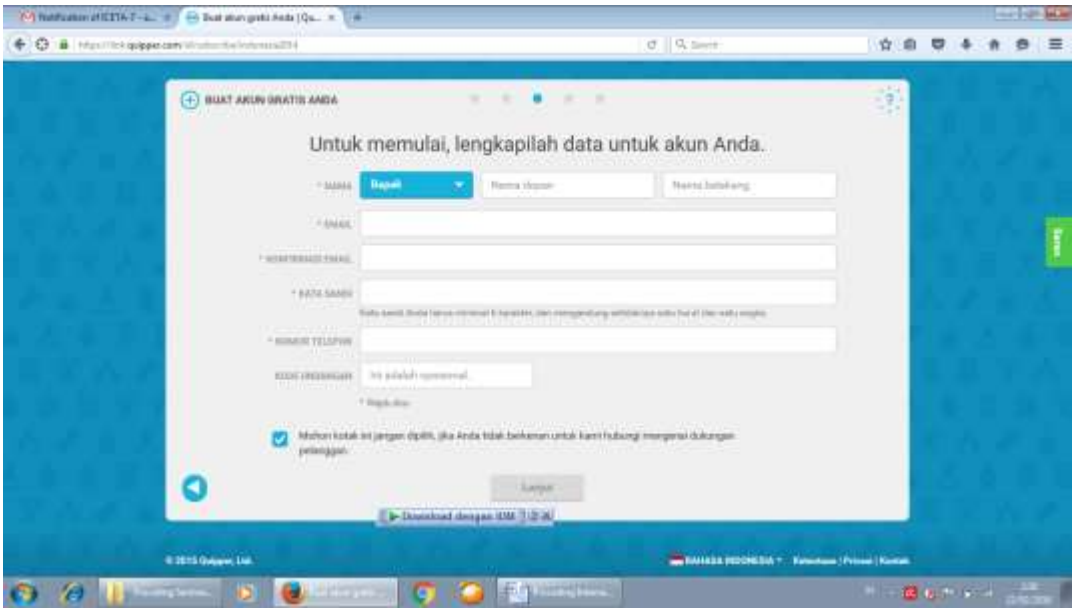
1. Entry address: www.school.quipper.com than choose teacher portal or student portal

2. Click Daftar

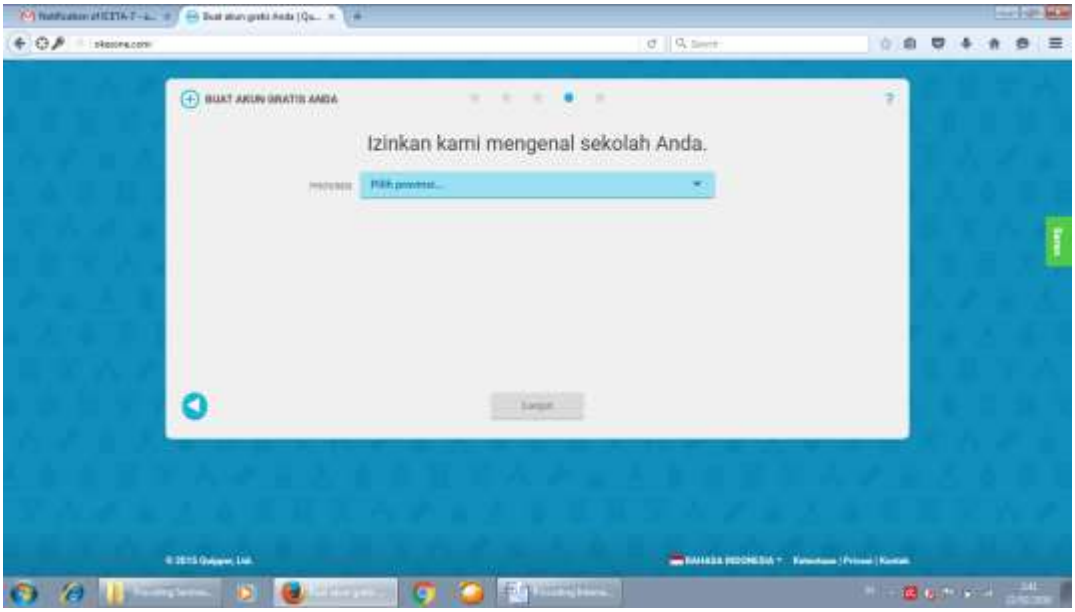
3. Clik Mulai

4. Clik Lewati langkah ini

5. Fill completed biodata, than click lanjut

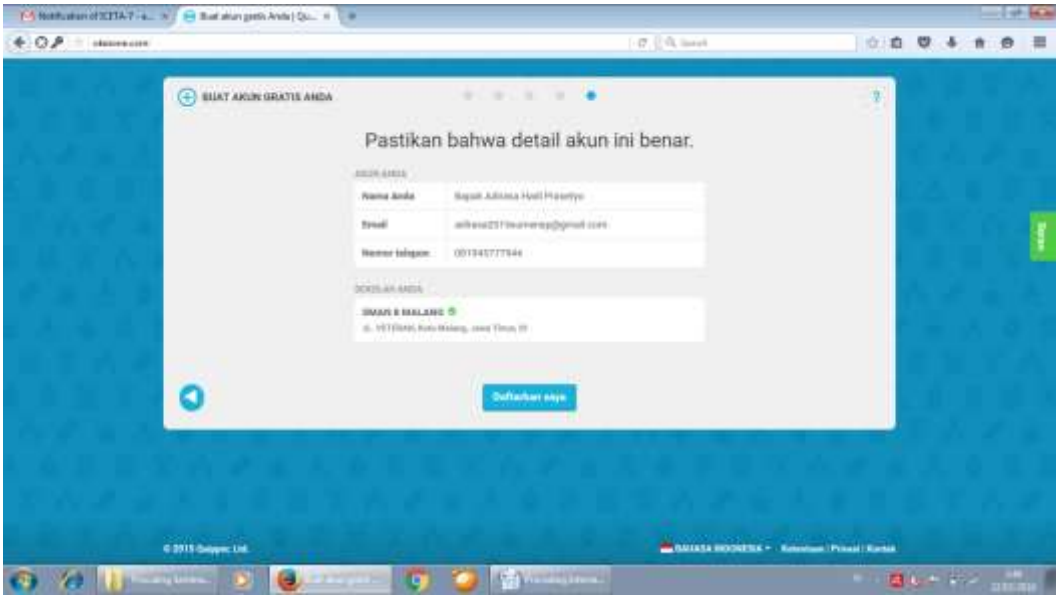


6. Select province in accordance your area teaching

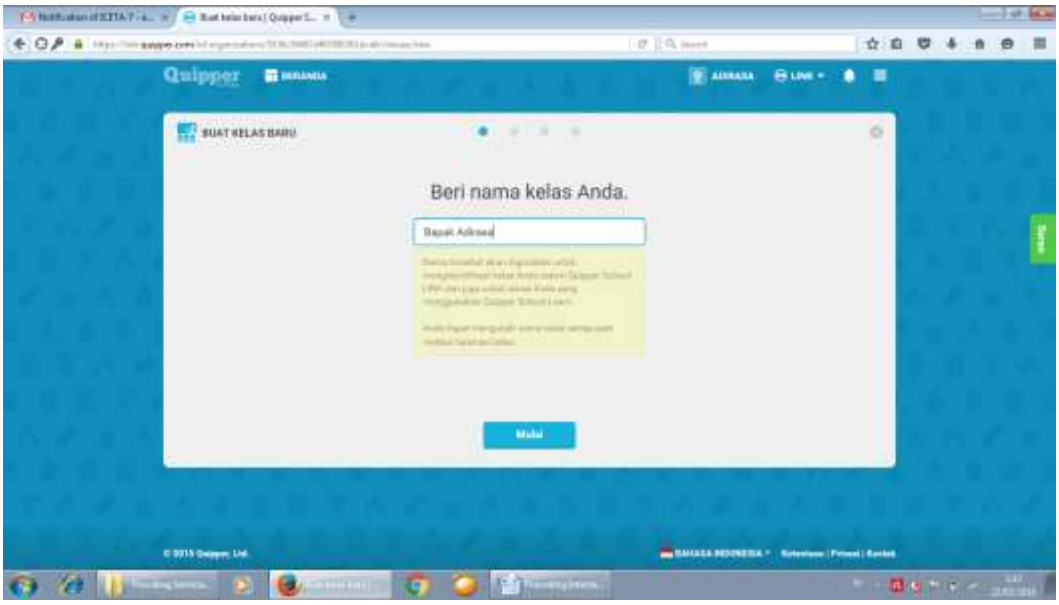


7. Fill the name of the city and the name the schools where you teach , and click lanjut

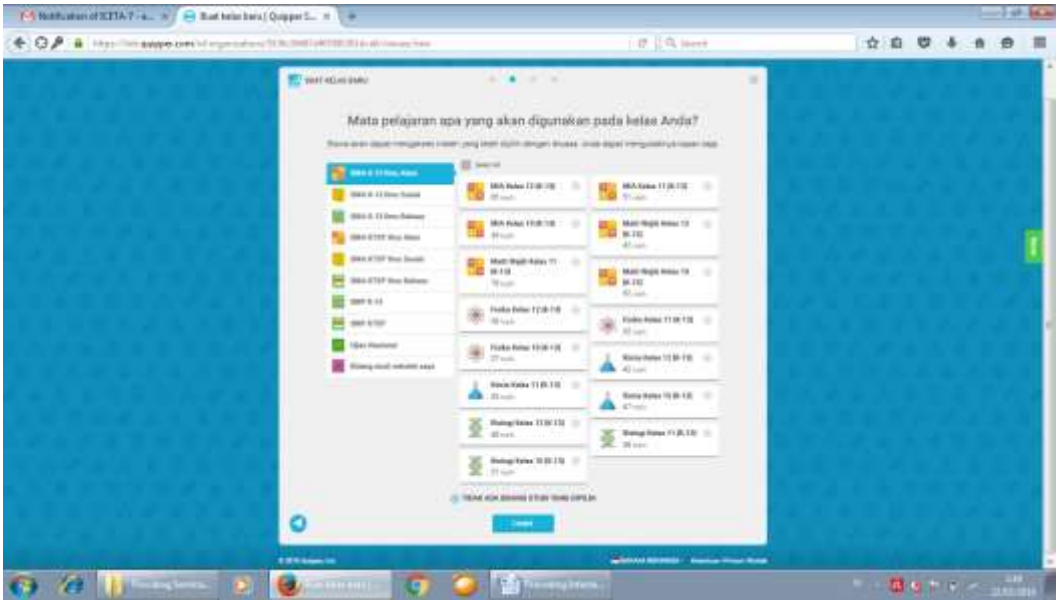
8. Fill email dan your handphone number anda, than click daftarkan saya



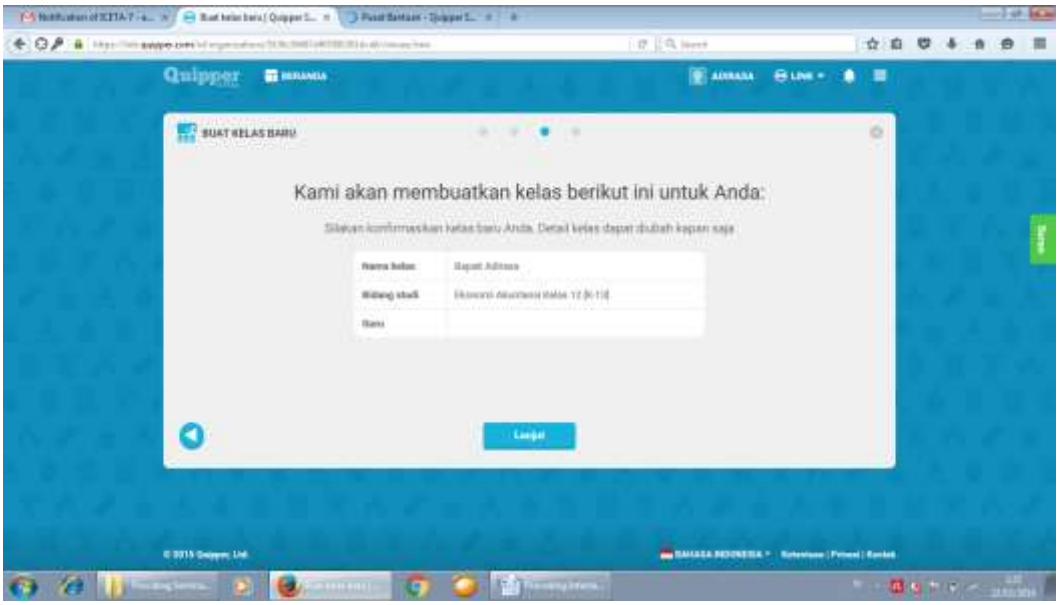
9. Give name your class, than click mulai



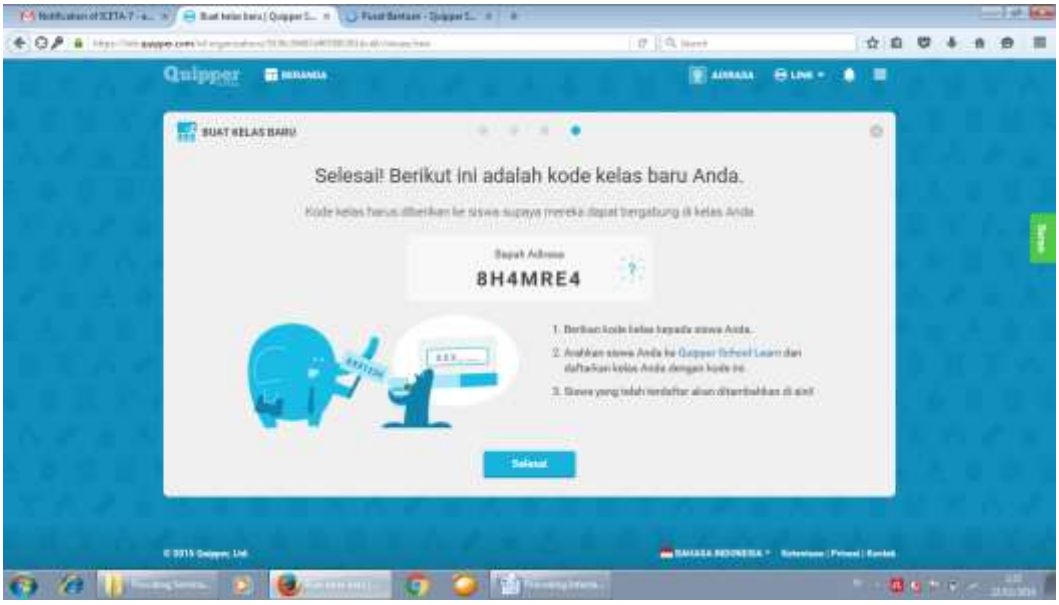
10. Select subjects that you will teach for students, and click lanjut



11. Clik lanjut



12. Save your class code and give this code to your students to join in your class you, and click done (selesai)

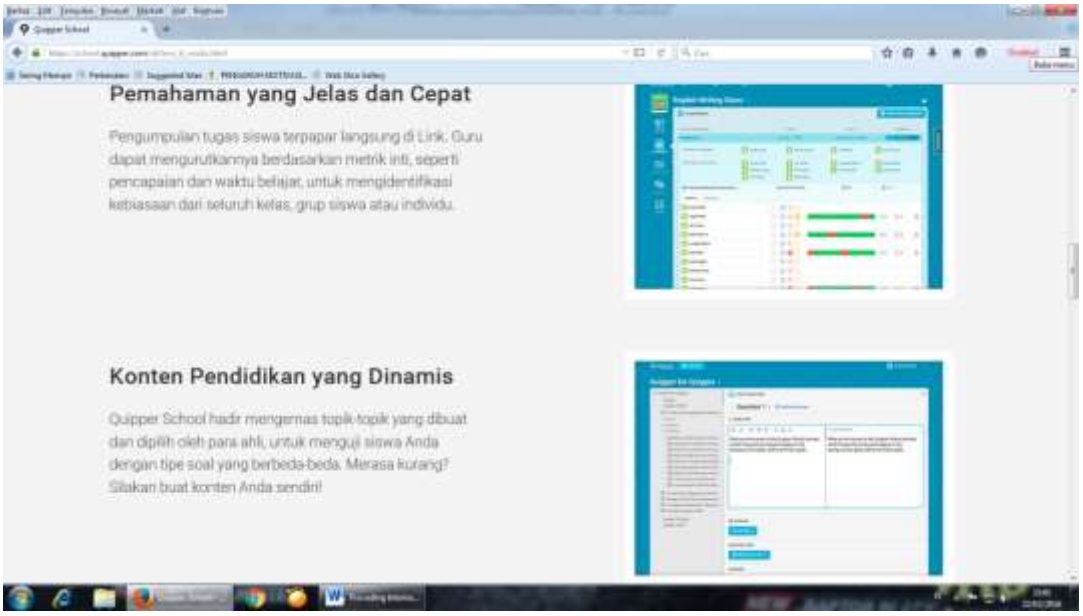


13. This displya of your homepage

ADDITIONAL

14. Online task

15. Understanding matter and content matter is complete and dynamic



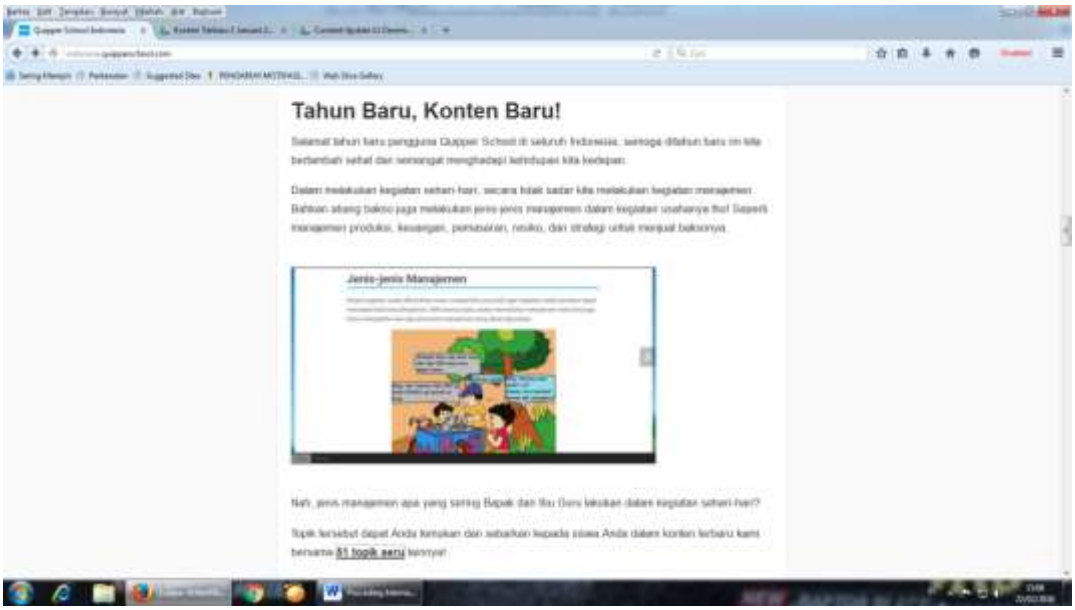
16. Learning without limitation for student

17. Teacher can give task in phases for student

18. Content Updated

19. Material example in quipper school

20. Interesting instructional topic



21. Other example instructional topic in quipper school

CONCLUSION

A conclusion that can come from proceeding this is quipper school could be an alternative for a teacher who wants to provide learning virtual for students. In addition, quipper school also offers bergam ease and facilities, as thousands of material that can be accessed for free and also can carry out online in class each.

ACKNOWLEDGEMENTS

I would like to Allah swt who is giving way to success. Thank you my second given to the whole family home much support to the completion of the this proceeding. And the latter, i want to thank the committee ICETA who have been patient with me during the manufacture of this proceeding.

REFERENCES

Febrian, J. 2004. *Kamus komputer dan teknologi informasi*. Jakarta: Penerbit Informatika
Hamalik Oemar. 1989. *Media Pendidikan.* (Bandung: Citra Aditya)
Hartanto, *et. All.* 2002. *Buku pintar internet teknologi e-learning berbasis PHP dan MySQL*. Jakarta: Penerbit PT Elex Media Komputindo Kelompok Gramedia.
Nasution, 2008, *Teknologi Pendidikan* (Jakarta: PT. Bumi Aksara)
Onno W Purbo. 2002. Teknologi e-learning Berbasis PHP dan MySQL
Udin Saefudin Sa'ud. 2008. *Inovasi Pendidikan*. Bandung: Alfabeta
Usman Basyiruddin. 2002. *Media Pembelajaran.* (Jakarta:Ciputat Pers)

Author's Biodata

Adirasa Hadi Prasetyo is a lecturer of Islamic Education, STKIP PGRI Sumenep. He is a doctoral candidate Instructional Technology at State University of Malang. He received his Master Degree in Islamic State University Maulana Malik Ibrahim of Malang.

PRESENTER'S PAPERS

Private Course Teaching as Informal Pre-Service Training in Reducing Problem of Readiness in Actual Teaching for ELT Students in Indonesian Context

Adi Surya Irawan
State University of Malang
Jl. Semarang 5, Malang, Indonesia
kim.bokyung14@gmail.com

Nur Laily Lupita Sari
State University of Malang
Jl. Semarang 5, Malang, Indonesia
nurlailylupitasari@gmail.com

Abstract

In this paper, the authors try to expose the concept of teacher professional development in the scope of pre-service training for future teachers through private course teaching.The fact shows that many college students, especially those who major in ELT (English Language Teaching), often take responsibility to teach from elementary to high school students in their extramural times.Usually, these teaching activities are conducted as supplementary supports for elementary to high school students who demand for extra-hours for learning, however, these private course teaching activities affect the college students' performance as well as their readiness in facing actual teaching in the 'real world'. This has created some of major problems in Indonesian educational context. In this study, the authors conducted interviews from several teachers who have experiences in private course teaching. By analyzing the findings qualitatively, the authors found out that teachers with private course teaching experiences are bestowed with readiness in actual teaching.

Keywords: private course teaching, informal pre-service training, readiness of teaching, actual teaching

1. INTRODUCTION

Nowadays, educational aspects in Indonesia have been developed. It is not surprising anymore that teaching methods are more various, technology used in education are more sophisticated, as well as facilities in schools are well-improved. These improvements are one way with the teacher's requirement to equip themselves with adequate skill to face the demand of education(Okamoto & Sjoholm, 2003; Prihatin, 2012). However, we still find several problems regarding teachers' competence in dealing with the class. For instance, we may still remember several news which involvingteachers having fight with their students. This may sound childish, but that what happened. Another problem that came up, it was found an inappropriate content of learning material in students' book. However, these problem mentioned experienced majorly by new teachers. New teachers are defined those teacher who have less experience teaching practice under a year.

A good teacher definition by this decade may have changed with last decade. These days, teachersare not just demanded to capable to teach students in class, yet they have taken into account of several aspects. They have to consider teaching materials, methods implemented, media used, assessment conducted, and so on. Furthermore, teachers need to be equipped with adequate knowledge on how to deal or face their students related with classroom management. All of these aspects on teaching are obtained when the teachers are in undergraduate or college degree majoring in teaching.

There are so many problems which caused some obstacles regarding teaching activities of new teachers. The authors think through that new teachers which considered have less experience

in teaching may have lack of readiness in teaching practice. The problem of readiness of new teachers are mainly happening in the three aspects; designing lesson plans, preparing the materials and facing the students(Oliver & Reschly, 2007), is happening because of several factors, and one of the major factors is the insufficient time or limited opportunity for the teachers to do those practices during their college study period or pre-service period. It is mainly because the curriculum for university students is designed in uneven state between theoretical and practical considerations. For example in undergraduate study, especially in ELT major, students will only have, at least 20 percent for practice their teaching, while the rest 80 percent they spend it only by receiving theories or knowledge from the lecturers. This is quite unfortunate fact that the curriculum should balance the practical and theoretical considerations in order to shape a qualified expert in both knowledge and practice(Ball & Forzani, 2009). Perhaps, during their period of study, students not really face difficulties or even complexity in teaching practice, however, when they are really practicing their capability in real context of teaching or they become actual teacher in formal school context, they must have several difficulties which hinder their work, and one of those difficulties is their lack of readiness in facing several aspects mentioned above.

However, there is no single disease without cure, so is this problem. Unbalancing scales between practice and theories during the teachers' study in college or their pre-service period can be moved evenly through several endeavours, one of them is private course teaching. In common, private course teaching is often held by college students, including ELT students who desire for extra fund or even further experience in teaching. These college students are either teaching some students at their houses or join an independent private course institution. Even though that some other people not really think that private course teaching is really having important benefits than just economical motive, however, private course teaching is having further benefits, and one of those benefits, which is becoming the major focus of this research is giving wider opportunity or extra-time for the students to deal with three previous aspects; lesson plans, teaching materials and face the students or maintain teacher-students relationship. Through this research paper, the authors tried to find out the beneficial touch from private course teaching toward the problem of readiness from new teachers as if this private course teaching is taken by college students during their study. Furthermore, private course teaching is not considered as formal education since and this is a merely extramural support for some students who desire extra-time for their improvement in learning, hence this private course teaching can be considered as informal pre-service teacher training when it is taken by the students who majoring in education or teaching, especially in ELT during their pre-service period.

2. METHOD

This paper is focused on the research question "to what extent does private course teaching decrease the problem of readiness in actual teaching for ELT students in Indonesian context?" To answer that question, the authors conducted several interviews through Skype with four ELT teachers; 2 male teachers from Bandung, 1 female teacher from Jakarta and 1 female teacher from Surabaya, and all of these teachers are mostly having 6 months of teaching. The authors consider these teachers as the perfect sample for this study because of their experiences in private course teaching. Several questions were asked to the respondent teachers in order to gain the data to answer research question and basically, the authors inserted several questions which were about: 1) the teachers'readiness in designing lesson plans, 2) the teachers' readiness in preparing teaching materials, and 3) the teachers' readiness in facing the students in the classroom. All of those topics were considered very representing the current problems of most new teachers in Indonesia, especially ELT teachers and of course in answering the research question.

All of the data gained from the interviews were in the form of qualitative data. Bogdan and Biklen (2003) defined qualitative data analysis as "working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others. By using qualitative data analysis proposed by Miles and Huberman (1994), the authors were working with data through several

steps of analysis; 1) Conceptualization, Coding, and Categorizing, 2) Examining relationship, 3) Authenticating Conclusions and 4) Reflexivity to gain the answer of the core question of this research paper.

3. FINDINGS AND DICUSSION

Based on the interviews' results, all of the respondents gave positive feedbacks toward the interviewer questions about the effect of private course teaching to the readiness of the teachers: 1) in designing lesson plan, 2) preparing teaching materials and 3) facing the students. All of those aspects are some of the major elements in teachers' readiness problem in teaching.

3.1 The Problem of Designing Lesson Plans

Lesson plans are essential for teaching and learning process in the classroom. As what they are usually defined as teacher' detailed description of the course of instruction or learning trajectory for a lesson (Ahrenfelt & Watkin, 2006; McCrea, 2015). It is true that the use of lesson plans is really beneficial for the teachers, especially in order to help the teachers in entire paths of the teaching and learning processes. However, lesson plans are also becoming one of the major problems of the teachers, especially to the new teachers. According to the result of the interview, all of the respondents showed positive feedback toward their readiness in designing lesson plans for their teaching because of their experiences in private course teaching.

Extract 1 – designing lesson plans

Respondent 1 (R1)	: "I able to design lesson plan because I was accustomed to make it for my private course teaching"
Respondent 2 (R2)	: "I was often creating informal lesson plans, which only emphasized the steps for my teaching process. Thus, as a formal teacher, I find it as easy thing to deal with."
Respondent 3 (R3)	:" Because of my previous private course institution demanded myself to compose lesson plans, hence, I do not feel shock or difficult in composing them now, especially when I am teaching at school
Respondent 4 (R4)	: "Although I was only teaching students in private course, I still made several simple lesson plans for helping me through the process of teaching easily. Fortunately, because of that habit, I do not find any complexity in making lessons plans for the formal school in which I am teaching right now.

From the extract 1 above, it can be concluded that all of the respondents feel that their habit in designing or creating or composing lesson plans are really helpful for their actual teaching experiences in the formal school context. Some of the respondents said that although they are accustomed to create a simple form of lesson plan, which only covers the steps in teaching process, they still find it really beneficial for them, especially in the term of their readiness. According to the Tashevska (2007), designing lesson plans is one of the major problem for most new teachers because of they are not accustomed to compose them. In Indonesian context, 4 years spent for taking education in ELT major, college students will only have several times in straight involvement to compose lesson plans, which are strongly beneficial for them. Insufficient chances in making or creating lesson plans for ELT students is truly unfortunate condition for them, furthermore, they are in their pre-service period. When ELT students, for example, are only involved in no more than 3 times in making lesson plans, it can be precisely predicted that they will find several difficulties in making some more when they are becoming the actual teachers in actual or formal school context. However, private course teaching donates a wider chance for these ELT students who favour extra time for lesson plans designing or making.

According to extract 1, even though that the basic of all respondents, in the matter of their private course experiences (some of them are in private course institutions and some of them are teaching at students' houses), they still need to compose or make lesson plans in order to help

them through the process of their teaching. Some of the respondents confessed that they were making informal or simple lesson plans which only covers the ways how they teach, and some of them were demanded to make formal lesson plans for their private course institutions. Hence, when they are truly involved in actual teaching in the formal school context, they find it as an easy deal. The interview data show that private course teaching gave them training for their readiness in composing or making lesson plans for actual teaching context.

3.2 The Problem of Preparing Teaching Materials

Teaching materials are the resources a teacher uses to deliver instruction. Each teacher requires a range of aids to draw upon in order to facilitate, assist and support students' learning. These materials play a massive role in teaching and learning process especially in making knowledge accessible to a learner and can encourage a students to engage with the knowledge in different ways (Chanda, Phiri, & Nkosha, 2000; Mazgon & Stefane, 2012; Saglam, 2011). However, in Indonesian educational context, the problem of preparing teaching materials is one of the major concern especially for ELT new teachers. Some of the new ELT teachers tend to prepare 'any kind' of materials for their students, however, in preparing teaching materials, the teachers must select and evaluate them carefully and appropriately. Even though in Indonesian new curriculum context, which the availability of the textbooks as teaching materials are served by government, however, textbooks are not the sole source of teaching materials (Chanda et al., 2000). According to the Cunningsworth (1984), it is essential for the teacher to carefully select and evaluate the appropriate materials for his or her students. It is also supported by McDonough and Shaw (1993), who said in the preparing teaching materials, the teacher must also concert to the several qualifications which reflect students' state and condition, for example their learning styles. The problem of preparing 'any kind' of teaching materials for the students is one of the results of their readiness in facing actual teaching in formal school contexts. This readiness problem in preparing also selecting teaching materials entails the insufficient times or experiences for the new ELT teachers when they were studying in their college. In their four years of pre-service period as students in ELT major, the amount of time or chance for them to be involved with the teaching materials selection, evaluation, or even development is minimum. Moreover, to deal with teaching materials, they must at least put their intensive endeavours in studying about teaching materials.
According to the interview result, most of the respondents who are having teaching private course experiences gave positive feedbacks toward their capability in preparing teaching materials.

Extract 2 – preparing teaching materials

Respondent 1 : "Because of I was accustomed to prepare the materials for teaching in private course, now, I do not find it difficult"

Respondent 2 : "I was having difficulties in preparing the materials, however, I find it easier for now because of I was often searching for the materials on the internet"

Respondent 3 : "I was teaching in one of the formal private course institutions and because of that, other teachers including myself were demanded to prepare the teaching materials for whole semester. Thus, I have no difficulties in preparing suitable materials for my students at school"

Respondent 4 : "Well, I think it is because of my habit in finding appropriate teaching materials for my private course's students, so I do not find any difficulties in making lesson plans or preparing teaching materials at school"

Extract 2 shows that all of the respondents find no difficulties in preparing appropriate teaching materials for their students at formal school context because of their habit or custom in preparing them within their experiences in teaching private course. Furthermore, their habit in preparing appropriate lesson plans for their private course teaching is donating extra time for them to study more about lesson plans, since the time to deal with it at college is insufficient.

3.3 The Problem of Facing the Students

In classroom context, interaction between teacher and students are essential toward the successfulness of teaching and learning. Every day, teachers make countless real;-time decisions and facilitate dozens of interaction between themselves and their students. The most important key of the classroom interaction is that the quality of the interactions determines the quality of the classroom in various ways, such as atmosphere, togetherness, and goals achievement(Ilias & Nor, 2012; Liberante, 2012). However, maintaining good interaction between teachers and students is not an easy matter to deal with. Thus, according to Hawkins, Barbour, and Graham (2010), at least, teacher must have several basics within themselves, one of them is the matter of readiness to face 'real students'.

In Indonesian context, the interaction between teachers and students are often peaked in inharmonious point. Several mass media often expose some cases from entire Indonesia about clashes between teacher and students, it is whether the teachers cannot engage well with the students or the teachers are not ready to face real or actual teaching context, especially for the new ELT teachers. However, their lack of readiness is somehow cannot be blamed because in the curriculum of their college study, the opportunity to do teaching practice is insufficient. For eight semester duration of their study, ELT college students will only face their teaching practice experience in last two semester or in 6th or 7th semester. Furthermore, mostly for their study, they only get injection of knowledge or theories. Hence, when these students are graduated from their college and be teachers in actual school, they will feel strange or not ready to face the students. From the interview result, all of the respondents shared their positive feedback about their private teaching experience toward their readiness of facing students in the real context of teaching.

Extract 3 – facing the students

Respondent 1 : *"*I felt some confusions to deal with students when it was the first time of teaching, however because of my experiences to deal with my previous students in private course teaching, I was able to adapt myself quickly"

Respondent 2 : *"*Because of my previous experiences in private course teaching which dealt with different students, thus, for now, I do not find it difficult to adapt myself in teaching at school

Respondent 3 : *"*Facing the students is one of my actual fears, there are some seniors who I knew have some bad experiences with their students, however, I feel just lucky because of my experiences in private course teaching"

Respondent 4 : *"*When I was teaching in private course, I dealt with many students with many differences, hence, right now, I feel some easiness in dealing with them at school"

From extract 3, a red string of relationship can be pulling out and it exposes that all of the respondents have better experiences in their teaching, especially in dealing students, because of their previous experiences in private course teaching. Again, like previous findings from the interview; toward the problem of designing the lesson plans and problem of preparing the appropriate materials for student, private course teaching experience give the wider opportunities for the college students, especially for ELT students in their pre-service period in the focus of dealing with the students, whether for their differences in characters, attitudes, behaviours or their needs in the teaching and learning in the classroom context. All of the respondents expressed their experiences in private course teaching as a beneficial basic for them when they are facing the real context of teaching or actual teaching at school. The problem of insufficient times or limited times during the study in the college for certain or crucial topics like what the authors come out with; designing lesson plan, preparing the materials, and facing the students, and all of those aspects drive the students into such lack of readiness in facing the real teaching context, can be minimized

by the experience in private course teaching. Even though that private course teaching is an informal type of teaching, since it is only given in students' extramural times, but according to the findings that the authors got from the respondents through interview, they expose the fact that the benefits from private course cannot be put aside.

4. CONCLUSION AND SUGGESTION

This paper has reported the results of the research about the private course teaching experiences for ELT students toward their problem of readiness in three different aspects; problem of readiness in designing lesson plans, preparing teaching materials and facing the students. Drawing on the findings, the respondents commonly have positive feedback toward their experiences in private course teaching which donate to their readiness in those three aspects. The problems of insufficient times and limited opportunity for the ELT students in college study, or ELT teachers in their pre-service period, to deal with lesson plans, teaching materials and even face the students have drawn these teachers into several problem of readiness in actual teaching context or formal school context. To those problems, based on the findings in this paper, teaching private course experiences as informal pre-service activity support much as the extended or extra time for these ELT students to deal with crucial aspects such as lesson plans, teaching materials and their readiness to face the students. Based on this research paper' findings, the authors would likely to suggest the government under the ministry of research and high education to balance scales between theories and practices in the curriculum for university students. The facts show that in Indonesian context, the weight of the practices within the curriculum is uneven with the weight of theoretical transmission from the teachers or lecturers to the students. Hence, when the college students are really facing the real context of teaching, for example in the formal school contexts, they will face several problems and all of those problem are mainly because of their lack of readiness as the result of lack of practices. From the point of view of the ELT students, the authors is very recommending many ELT students or even other college students from any major of study to take the opportunity in teaching in the private course within their pre-service period, whether in an independent private course institution or even at house context, because of the experiences that they will get from private course teaching will donate not only to their readiness to face actual teaching at school, but also polish their perfection as a qualified teacher

REFERENCES

Ahrenfelt, J., & Watkin, N. (2006). *100 Ideas for Essential Teaching Skills (Continuum One Hundred)*. New York: Continuum.

Ball, D. L., & Forzani, F. (2009). The Work of Teaching and the Challenge for Teacher Education. *Journal of Teacher Education - SAGE, 60*(5). doi: 10.1177/0022487109348479

Bogdan, R. C., &Biklen, S. K. (2003). *Qualitative Research for Education: An introduction to Theories and Methods* (4th ed.). New York: Pearson Education group.

Chanda, D. H., Phiri, S. N. A., &Nkosha, D. C. (2000). *Teaching and Learning Materials Analysis and Development in Basic Education*. Lusaka: UNESCO Basic Education Division - Paris.

Cunningsworth, A. (1984). *Evaluating and Selecting EFL Teaching Materials*. London: Heinemann.

Hawkins, A., Barbour, M. K., & Graham, C. R. (2010). Teacher-Student Interaction and Academic Performance at Utah's Electronic High School. *Annual Conference on Distance Teaching & Learning, 26*(1).

Ilias, K., &Nor, M. M. (2012). Influence of Teacher-Student Interaction in the Classroom Behavior on Academic and Students Motivation in Teacher's Training Institute in Malaysia. *Academic Research International, 2*(1).

Liberante, L. (2012). The Importance of Teacher-Students Relationship, as Explored Through the Lens of the NSW Quality Teaching Model. *Journal of Student Engagement: Education matters, 2*(1).

PRESENTER'S PAPERS

Mazgon, J., &Stefane, D. (2012). Importance of the Various Characteristics of Educational Materials: Different Opinions, Different Perspective. *TOJET: The Turkish Online Journal of Educational Technology, 11*(3).

McCrea, P. (2015). *Lean Lesson Planning: A Practical Approach To Doing Less and Achieving More In the Classroom*. Brighton: Teacherly.co.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*: SAGE Publications Inc.

Okamoto, Y., & Sjoholm, F. (2003). *Technology Development in Indonesia*. Germany: Elgar.

Oliver, R. M., &Reschly, D. J. (2007). *Effective Classroom Management: Teacher Preparation and Professional Development*. Washington DC: National Comprehensive Center for Teacher Quality.

Prihatin, P. N. (2012). *The Computer Integration into the EFL Instruction in Indonesia: An Analysis of Two University Instructors in Integrating Computer Technology into EFL Instruction to Encourage Students' Language Learning Engagement.* Doctorate Degree, Loyola University Chicago, Chicago.

Saglam, H. (2011). An Investigation on Teaching Materials Used in Social Studies Lesson. *TOJET : The Turkish Online Journal of Educational Technology, 10*(1).

Tashevska, S. (2007). Some Lesson Planning Problems for New Teachers of English. *Cambridge ESOL, 20*(1).

Author's Biodata

Adi Surya Irawan is a fresh graduate student from State University of Surabaya, majoring in English Education program. Now, he is pursuing his master degree of English Language Teaching program in State University of Malang. kim.bokyung14@gmail.com

NurLaily Lupita Sari was graduated from State University of Malang, majoring in English Language Teaching program. Now, she is pursuing her master degree in the same university and the same major, English Language Teaching. nurlailylupitasari@gmail.com

PRESENTER'S PAPERS

Classroom Action Research by Students of Instructional Technology for Their Undergraduate Thesis

Agus Wedi
State University of Malang
Jl. Semarang 5, Malang, Indonesia
aguswedi123@gmail.com

Abstract

Classroom action research in recent years is quite a lot of coloring of scientific paper in college. The study also carried out by undergraduate students completing their studies in educational technology. Most of the students taking the classroom action research has not yet become a teacher or teaching in the classroom. On the other hand, educational technology undergraduate did not put up as a candidate for the teacher. Methodologically, action research includes a cyclical process of posing questions, collecting the data, reflecting on findings, and reporting results, as well as sequences of the research can only be done by a researcher who is also a teacher who is teaching in the classroom activities. Therefore, we have confirmation that action research refers to the formalized, self-reflective research of practitioners. That is, the practice dimension is also very strong. According Manfra & Bullock (2014: p.161), action research transforms the traditional "outside-in" relationship between practitioners and the educational community. It can provide a powerful means for bridging the divide between theory and practice and encouraging practitioners to engage in innovative practices. We detail some theoretical-practical items and roles that need to be met by educational technology student using the classroom action research method in the completion of his thesis.

Keywords: Classroom action research, Participatory action research, Educational technology thesis (undergraduate)

Low quality of education continues to be an important topic by many thinkers and scientists education. Likewise, the problem of less optimal implementation process and outcomes of education in schools continues to be a fundamental issue that is not inexhaustible. If we wish to understand the workings of the school and want to change or enhance its role, it is very important to understand is what happens in the classroom (Hammersly, 1986). This is reasonable, since most real form of educational activities in schools can be observed in the classroom.

Here is the importance of the central role of teachers in education are indisputable. And here too the importance of teachers who are reflective (reflective teacher), the teacher constantly working on the analysis and improvement of its performance in addressing the problems faced. Teachers can be examined while still in charge of teaching as usual. On the other hand, various research results in the world of formal education may be a lot of spending and, time, and effort is often only through journals and on the shelves of the library. It took a long time to the perceived value of the practice of their use for solving the problems of education and learning. Often also a gap between theory and practice in learning. A great many theories are not landing be applicable in its implementation due to the obstacle very spefisik that can only be solved exclusively in a classroom situation.

Therefore, one of the best ways to advance the performance of people in education is to involve them in research involving themselves or other objects that exist in their lives. With the participation of actors in the implementation of the program (participatory) will be able to solve the real problems accurately and quickly, so that the benefits can be obtained as well as possible. This is where the urgency of action research in order to improve the quality of education.

PRESENTER'S PAPERS

THE BASIC CONCEPT OF CLASSROOM ACTION RESEARCH

In general it can be said that action research is a systematic study of classroom practice to take specific actions in the form of the investigative process control and reflective self-contained cycle repeated (cyclic) includes planning, implementation, observation, and reflection, which aims to repair or improve the quality of the learning process and student learning outcomes. The recycling process (cycle) activities in research action is visualized in the following figure.

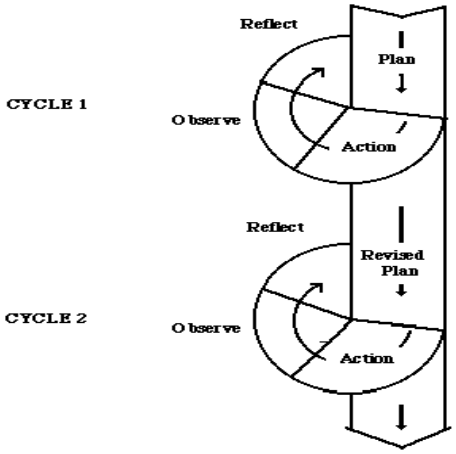


Figure 1: The cycle of action research
(Kemmis & McTaggart (Eds.), 1990; 2014)

From the above it is clear recycling activities in action research began with planning actions (planing), implementation of the action (action), observe and evaluate the process and outcome measures (observation and evaluation) and reflection (reflection), and so on until repairs or an expected improvement achieved.

The Differences Between Classroom Action Research and Formal Research

In more detail, Prayitno (2008) (http://baskoro1.blogspot.co.id/CAR.html, exposes the following explanation. Classroom action research emerged from the antithesis of formal research (empirical) as formal studies considered only theoretical academic. Formal research methods tend to be rigid (rigid) that does not correspond to the natural setting of the object, and the findings of such research in the form of revision, development, abortion, and the invention of new theories. Formal research is thus deemed 'less' many benefits at the level of practical improvements. Classroom action research aims to generate information and knowledge are valid and have immediate application, for teachers themselves or their students through critical reflection (critical reflection). More clearly the relationship between action research, formal research (empirical) and personal reflection can be seen in following Figure 1.

- *Personal Reflection*: reassessing the success or failure of various purposes and to determine whether or not a follow-up in order to achieve the ultimate goal.
- *Empirical Research:* a formal method of study based on observed and measured phenomena that derives knowledge from actual experience.
- *Classroom Action Research/CAR:* a method of finding ou what works best in class in order to improve student learning. CAR is more systematic and data based than personal reflection, but is more informal and personal than formal research.

From the picture above is known venn diagram classroom action research position between personal reflection with empirical research. Classroom Action Research (CAR) is a positive blend between the two. Such a position of CAR course brings a logical consequence differences and similarities with the principle of formal research (empirical). The following are the differences between them in the form of a matrix presented in table 1.

Tabel 1: The commparations between formal research and action research

TOPIC	FORMAL RESEARCH	ACTION RESEARCH
Training needed by research	Extensive	On own or with consultation
Goal of research	Knowledge that is generalizable	Knowledge to apply to the local situation
Methods of identifying the problem to be studied	Review of previous research	Problems or goals currently faced
Procedure for literature review	Extensive, using primary sources	More cursory, using secondary sources
Sampling approach	Random on representative sampling	Students or clients with whom they work
Research design	Rigorous control, long time frame	Looser procedures, change durig study, quick time frame, control throught tringgulation
Measurement procedure	Evaluate and pre test measures	Convinient measures and standardize test
Data analysis	Statistical test; qualitative techniques	Focus on practical, not statistical significance
Application of results	Emphasis on theoretical significance	Emphasis on practical significance; present raw data

Prayitno (2008) (http://baskoro1.blogspot.co.id/CAR-html,

The Classroom Action Research Principles

Hopkins (1993) there are six (6) the basic principle underlying action research. The first principle, that the main task of the teacher is to hold good teaching and good quality. Therefore, teachers have the commitment in pursuing quality improvement continuous learning. In applying an action to improve the quality of learning there is the possibility of actions that have no / less successful, he should still try to find other alternatives. Lecturers and teachers should use their

professional judgment and responsibility in seeking a way out of the problems faced in learning. The first principle has implications for the nature of action research as an ongoing effort by siklustis until the upgrade, repair, or 'cure' systems, processes, products, and so on.

The second principle that examines an integral part of learning, which does not require specificity in time and method of data collection. The stages of action research in line with the implementation of learning, namely: preparation (planning), implementation of learning (action), observation of learning activities (observation), the evaluation of processes and learning outcomes (evaluation), and a reflection of the learning process and results (reflection). The second principle is menginsyaratkan that learning process and results are recorded and reported in a systematic and controlled according to scientific principles.

The third principle that activities of research, which is an integral part of learning, must be held with the groove and rests on scientific principles. Mindset used starting from pendiagnosisan problem and the factors causing the problem, the selection of appropriate actions to the problem and its causes, formulate hypotheses appropriate measures, baseline setting action, the establishment of data collection procedures and data analysis. Objectivity, reliability, and validity of the process, data, and results were maintained during the study. The third principle requires that in conducting action research in order to continue using scientific principles.

The fourth principle that the issues addressed are the issues that real and troubling learning professional responsibility and commitment to the quality of learning acquisition. This principle emphasizes that the diagnosis of the problem rests on real events that took place in the context of real learning. When pendiagnosisan problem, based on academic studies or literature review alone, then the study deemed to have been in violation of the principle of all otentikan. So the problem must be diagnosed from the scene of the real learning, not something imagined would happen academically.

The fifth principle that consistency and caring attitude in improving and increasing the quality of learning is needed. This is important for improving the quality of learning can not be done casually, but it requires planning and implementation earnest. Therefore, the motivation to improve the quality must grow from within (intrinsic motivation), not something that is instrumental. Last, the sixth principle is the problem of action research coverage should not be limited to the issue of learning in the classroom, but can be extended at the level outside the classroom, for example: the level of the system or institution. A broader perspective will contribute more significantly to improving the quality of education.

The Classroom Action Research Characteristics

The study has a specific class actions or characteristics that distinguish it from formal research. The specificity of action research study, according Prayitno (2008), which sets it apart from the characteristics of the formal investigation, namely that research is a class act:

An inquiry on pratice from within

The first characteristic of a classroom action research that was initiated by the activities of the practical problems faced by teachers in carrying out their daily tasks as a manager of the learning program in the classroom or as the ranks of the teaching staff at the school. In other words, action research is practice-driven and action-driven, in the sense that a class action research aimed at improving praxis directly 'here', 'now' so often action research term interchangeable with the term practical research.

From the foregoing it expressly clear that action research focused on specific problems and contextually, it is a consequence of classroom action research is shrugging off kerepresentativan sample as in formal research because the purpose of classroom action research is not to find, develop or revise a theory that can be generalized broadly, action research is intended to repair (improvement) in the learning of practical problems 'here' and 'now'. Classroom action research is also different from formal research methodologies, classroom action research

methodology was not as stiff as a formal study, meaning not too much attention to the control treatment. However, as the study of abiding the rules of data collection is still being done by emphasizing objectivity. Disclosure kebenenaran done carefully and objectively so as to enable the implementation of a re-review by peers.

In other words, sebagaiman case with formal research, action research is intended not to raise self-justification (self justification), but to reveal the truth, although its range is more limited (can not be generalized to the population). Therefore, it can be said that action research bepijak on two runways that involvment, direct involvement of teachers in the conduct of research and improvement, teacher commitment to make improvements, including improvements in ways of thinking and their own performance, because they were a classroom action research can be self-reflective inquiry for teachers, in real situations in the classroom.

Collaborative

Efforts to improve the learning process and results can not be done by teachers, but should collaborate with peers. Classroom action research was a joint effort of various parties to achieve the desired improvement. Nuances of this collaboration should Shown in the whole process from identification masaah together, planning, implementation of action research, observation and evaluation, and reflection, up to the final report of the study.

Reflective, Practice, Made Public

Classroom action research has a special feature, namely the continuous reflective attitude for improvement (improvement) practical. In contrast to the formal research that prefer the experimental approach, action research more emphasis on the process of reflection on the process and results of research on an ongoing basis to get an explanation and justification of progress, improvement, deterioration, lack of effectiveness, and sebagaianya of the implementation of an action can be used to improve the process of action in subsequent cycles.

Every day Pratical Problems

Classroom action research focuses on the real problems faced by teachers in the classroom everyday, not departing from the problems of a theoretical nature (theoritical problems). Therefore, the determination of the problems in the classroom action research must be started from the real problems in the classroom, which was later diagnosed the root cause of the problem before it can decide the most appropriate steps action.

Theory in to action

Classroom action research for the purpose of adopting the theory into real action to change a difficult situation into practical issues that can be solved.

EDUCATIONAL TECHNOLOGY AND PARADIGM OF FACILITATING LEARNING

Educational Technology is a field of science that has a great mission in facilitating learning and improving performance using a systematic and systemic approach (according AECT, 2008). Similarly, Spector, Merrill, Elen, and Bishop (2014) stressed the importance of facilitating Paradigm Paradigm Learning and Performance Improvement as the basic paradigm of educational technology. Learning activities facilitated by scientific Educational Technology has undergone a paradigm shift. The current definition of learning can not be connoted definition of learning 40 years ago when the definition of learning by AECT first developed. There is a high awareness of the difference between mere retention of information for the purpose of testing with the acquisition of knowledge, skills, and attitudes that are used unutuk daily life. Learning is not separate from the environment. Learning has studied the effectiveness and efficiency is receiving support from the learning environment. Improved learning can not ignore the arrangement of learning. One important element of the design study is to identify the tasks of learning through assessment methods to measure learning outcomes. Learning tasks can be categorized according to various

taxonomies. The simplest type of learning that were encountered is the retention of information. In schools and colleges, learning can be assessed through the test paper and pencil. Computer-based learning can combine multiple choice, matching, and test answers were shorter than the paper-and-pencil tests.

Facilitation of learning leads to the success of the learning objectives. Picture in particular is of interest in terms of cognitive learning can be exemplified not only includes understanding yet of how the learning environment can facilitate up to retention. So if the assessment activities that require paraphrase or problem solving can take advantage of the dimension of understanding. Development can be directed also to other forms of assessment are more challenging for designers, especially for technology and scientists Educational Technology not only make alone but need to evaluate. The purpose of learning is not as simple as the presentation, but rather on knowledge and applied skills in active use. To assess the level of learning requires real or simulated problem situations, something obviously challenging to facilitate learning.

EDUCATIONAL TECHNOLOGY AND PARADIGM OF PERFORMANCE IMPROVEMENT

According to Spector, et.al (2014), the increase in performance has a goal effectiveness and efficiency. A view to improving the performance can not be produced by simply comparing a professional person with people who are not professionals in the work environment. First, in the context of this definition, performance refers to the ability of learners to use and apply the newly acquired abilities. Historically, technology education has always had a special commitment to the result, for example, is programmed learning (models, strategies, methods to the curriculum) is the first process that is labeled "educational technology." Another example is programmed instructional materials judged by the extent to which users can do something. Although it looks aims to develop teaching materials, but the real purpose of improving conditions being trained or educated, and they are judged according to how well learners to work under these conditions. Thus, the teaching materials to improve the performance of learners strengthen not only the knowledge of the past but a skill that can be used. Second, in addition to helping learners have a better performance, tools and ideas Educational Technology can help teachers and designers to become better learners and they can help organizations achieve better learning. That is, Educational Technology claim to have the power to increase productivity at the individual and organizational level.

Increasing performance in this definition is not intended to imply that the Educational Technology includes any form of performance. As coverage of science related fields ie Human Performance Technology. The general picture of science Human Performance Technology is there much and what kind of interventions that can be used in the workplace to improve performance, such as tools, incentives, organizational changes, cognitive support, and job redesign. However Improved performance in Educational Technology is improved performance through learning.

EDUCATIONAL TECHNOLOGY AND PERFORMANCE IMPROVEMENT AND QUALITY OF EDUCATION

According to Jennifer Pattison of Indiana University Purdue University Fort Wayne, a popular buzzword in education These Days is best practices. Many Consider best practices as constructivist techniques, methods, processes, or activities that are Believed to be more effective at delivering a particular outcome. However, research on best practices in technology integration seems difficult to find. Ertmer, Gopalakrishnan, & Ross (2001) Examined how teachers, who were perceived as exemplary technology-using teachers by Reviews their peers, taught with technology and Reviews their practices Compared to the corresponding printed literature on best practices. They found a discrepancy exists since teachers 'use of technology reflected more the teachers' personal beliefs about teaching, learning, and teaching specific Contexts and did not readily match the descriptions of best practices in literature. Researching technology integration from a constructivist viewpoint Taylor, Casto, and Walls (2004) found that grant money, used to purchase

computer software and finance teacher training resulted in a significant increase is in teacher and student use of technology and pre- and post-learning students with technology versus no technology. They also noted positive student evaluations of instructional units with a technological learning component. This positive educational effect that technology has on student learning and attitudes warrants further research on how to increase of its usage in classroom instruction.

Research on successful technology integration is more plentiful. O'Bannon and Judge (2004-2005) Reviews their research focused on examining a model of developed to guide the implementation of the project Preparing Tomorrow's Teachers to use Technology (PT3) and its ability to improve teachers' use of integrating technology into Reviews their practice. Their findings supported that this improved model of teachers' technical skills and their abilities to use technology in their instructional practice. They Also found that teachers Adopted learned and best technology through training and support that was mentored and collaborative. One theme that continually emerged in the above studies was the call for professional training. Glazer, Hannafin, & Song (2005) addressed this issue in their paper on technology integration through collaborative Apprenticeships. They found that effective professional learning experiences could be transferred to instructional practices through Apprenticeships and modeling of educational technology. When teachers Obtained learning experiences within the context of Reviews their teaching practice they had the chance to reflect, modify, and improve Reviews their practices. Many of Reviews These cited Researchers are practicing university professors who have not dealt with the reality of implementing Reviews their research into the elementary classroom.

CLASSROOM ACTION RESEARCH TAKEN BY THE STUDENT OF EDUCATIONAL TECHNOLOGY PROGRAM

Department of Educational Technology, State University of Malang ever share concentration / specialization into communications technology education, curriculum development, and educational broadcasting. Of all the specialization, it is not uncommon student conduct action research to complete the thesis. Department of Educational Technology, State University of Jakarta, is also divided into three concentration / specialization, namely the concentration of instructional media, learning management and performance technology. Of the three concentrations of the above, already generated a lot of thesis-thesis related to the mission of educational technology. The third study in the concentration generate a lot of research on product development, evaluation, training, and even classroom action research.

Generally, students of undergraduate education technology in Indonesia required the completion of the final project in the form of thesis. During this time many research methods used. The phenomenon of the last shows also the number of students who take classroom action research design. Selection of classroom action research is motivated by considerations among others considered to be completed more quickly and easily, because it requires a theoretical study that is not too deep and minimal analysis with statistical formulas are complicated. Problems arise when this class action research procedures used by students enrolled in undergraduate studies program of educational technology for classroom action research is reserved for those who are already teaching. The question then: Is it permissible action research procedures used by students who finish their thesis ?. Basically classroom action research is one way to solve the problem of education and learning. While it is known that the mission and functions of educational technology is to facilitate learning and problem-solving learning. At this point then do action research done by the student with multiple roles allow.

First, as a teacher researcher. Researcher (student of educational technology program) can have as a researcher authority in classroom action research when he had been taught and became a teacher in an educational institution. For this position there are a few students when the college also has activity as a teacher. As his business as well as a teacher, I do not think a already identify with both the real problems that occur in its class. He also knows solving most problems can be addressed appropriately. *Second*, as an instructional designer. Researcher (student of educational technology program) in this case acts as a designer of learning, for example, create lesson plans,

develop syllabi, specify materials, strategy, media and evaluation procedures. The design of this study certainly confirmed and consulted with real teachers in the classroom teaching. *Third*, as an observer of learning. In this role, students can carry out action research study acting as data collectors. The observations in this case includes what happens in the classroom learning good behavior by the teacher and student learning behavior.

CONCLUSION

Educational technology has a great mission in problem solving teaching and learning, especially in learning activities in the classroom. Therefore, interventions in order to improve the learning can be done by conducting various studies, including action research. However, interventions that can be performed by student researchers in completing their thesis educational technology adapted to their capacities. Thus does not violate the fundamental principle of PTK as research should be a professional intervention by a teacher. Educational Technology Student limited scale still can contribute to efforts to solve the problems of education as well as to complete the academic tasks as well.

REFERENCES

Ertmer, P., Gopalakrishman, S., & Ross, E. (2001). Technology-Using Teachers: Comparing perceptions of exemplary technology use to best practice. *Journal of Research on Computing in Education*, 33 (5), from http://www.iste.org/jrte/33/5/newhouse.html

Glazer, E., Hannafin, M., & Song, L. (2005). Promoting Technology Integration Through Collaborative Apprenticeship. *Education Technology Research and Development*, 53 (4), 57-67.

Hammersly, M. (ed.). (1986). *Controversies in classroom research: A reader*. Milton Keynes: Open University Press.

Hopkins, D. (1985). A teacher's guide to classroom research. Philadelphia: Open University Press.

Kemmis, S., & McTaggart, R. (Eds.). (1990). The action research reader. Victoria: Deakin University.

Kemmis et.al. 2014. *The Action Research Planner: Doing Critical Participatory Action Research.* Singapore: Spinger Science-Business Media Singapore.

Mills, G., (2007). *Action Research A Guide For The Teacher Researcher*. Upper Saddle River, NJ: Pearson Education, Inc.

O'Bannon, B., & Judge, S. (2004-2005). *Implementing Partnerships Across the Curriculum with Technology*. 37 (2), 197-213.

Pattison, Jennifer. *The Integration of Educational Technology into the Intermediate LoS Elementary Curriculum.* Indiana: Purdue University Fort Wayne. From https://www.ipfw.edu/dotAsset/4c7c3515-7a55-43e5-84cc-64d85e070b82.docx (accessed 2 December 2015).

Prayitno, B. A. (2008). http://baskoro1.blogspot.co.id/2008/06/CAR-basic-concept.html. (accessed 10 January 2016).

Rizkiati, R. *Thesis Classification At Educational Technology Departement of Jakarta State University* (Indonesia). From https://riiarizki.wordpress.com. (accessed 10 January 2016).

Spector, JJM, Merrill, D, Elen, J. & Bishop, MJ. (Editors). 2014. *Handbook of Research on Educational Communications and Technology*. Fourth Edition. New York: Springer.

Taylor, L., Casto, D., & Walls, R. T. (2004). Tools, Time and Strategies for Integrating Technology Across the Curriculum. *Journal of Constructivist Psychology*, 17, 121-136.

Author's Biodata

Agus Wedi is a lecturer of Educational Technology Department, Faculty of Education, State University of Malang. He received his doctor degree in State University of Malang. His major interests cover curriculum and instructional methodology (theories-models). aguswedi123@gmail.com.

PRESENTER'S PAPERS

An Analysis of University Students' Conceptual Understanding and Retention on Science Basic Concepts

Ahmad Muhlisin[1]
[1], Student of Postgraduate Program of Biology Education of State University of Malang
Malang, Indonesia
nisil.m.ahmad@gmail.com

Herawati Susilo[2], **Mohamad Amin**[2], **Fatchur Rohman**[2]
[2],Lecturers at FMIPA of State University of Malang
Malang, Indonesia

Abstract

Understanding on concept and retention is one of the achievement indicators in learning. This research attempts to describe the profile of concept and students' retention understanding of Primary Teacher Education of PGRI University of Semarang in the year of 2014/2015. The method of this research was a survey using essay test instrument of concept understanding and retention. Cluster random sampling method was used to take sample from 231 students in class 1A, 1C, 1E, 1F, and 1H. The overall result of the concept understanding value was dominated in high category at 57.6%. The highest indicator of concept understanding was in memorizing indicator (C1) at 83.6% and the lowest one was in the creating indicator (C6) at 50.3%. The overall retention mark was dominated in poor category at 50.3%. The conclusion was the high concept understanding was not followed with high students' memory.

Keywords: Concept Understanding, Retention

1.INTRODUCTION

Education is a means of developing potential owned by someone for the needs of himself, society, nation, and state. The mandate of Republic of Indonesia Act No 20 Year 2003 stated that the purpose of education is to develop students' potential so that they can become human beings with belief in one God, a good attitude, healthy, scholarly, capable, creative, independent, democratic, and responsible.

The effort to achieve the purpose of education can be trained and developed through a *natural science basic concept subject which is the main course in Primary Teacher Education. Science basic concept course accommodate the science basic concepts that consists of biology, chemistry, and physics. Science is related to fact, concept, principal, and law that tested. Developing of thinking ability can be a practical means of forming good human resource and ready to work (Mugiono&Setiawan, 2014). One of thinking ability and the purpose of science teaching is to teach for concept (Konicek, et al., 2015) so that the concept understanding and science principal is the requirement of students' learning succeed. The concept understanding is also used to solve the problem in daily life.*

Concept understanding is one of competence indicator that should be achieved after doing learning activity or as a reference in deciding students learning achievement. Learning achievement in general relates to aspects of knowledge (Arifin, 2009). Concept understanding is the ability to catch the meaning of material studied (Puspani, 2013), reveal and explain again the accepted information by using own words without changing the meaning (Marlis, 2015).

Concept understanding is related to someone's cognitive process. The level of revised Bloom's Taxonomy are memorizing (C1), understanding (C2), applying (C3), Analyzing (C4), Evaluating (C5), and creating (C6) (Krathwohl, 2002:215). Every student has the different concept

understanding in what they learnt. Some students are able to understand overall materials and some of them cannot understand what they learn. They only know about the material they learn.
Understanding is divided into three categories. The first level or the lowest level is translation understanding in a real meaning. The second level is interpretation understanding that is combining past knowledge and current knowledge or combining the parts of graphic with activity and differentiates the essential and non-essential things. The third level or the highest level is extrapolation understanding which is expected to see behind the written, able to make a prediction about consequence or enlarge the perception of time, dimension, case, or problem (Sudjana, 2010:22).
Small problems that are related to the concept cannot be solved without concept understanding (Marlis, 2015). Hence, it is very important for students to have the concept understanding. Concept understanding is a very basic knowledge to make the students able to solve more complexes problems in their life. The fact of concept understanding based on the mid test mark of science basic concept course in the year of 2014/2015. It showed that students' concept understanding in medium level is 42, 5% and in low level is 4, 4%. The observation showed that the students have difficulty in connecting the concepts they learn. Consequently, students face the barriers in completing the given task. It indicates that learning outcomes which is achieved is not so optimal. Misunderstanding or lack of concept understanding will obstruct the learning so that the result is less than maximum (Hakim, et al., 2012).

The success indicator of learning can be seen from the length of the concepts studied remain in one's memory that is required to assist the next process of learning. Retention is the activity of keeping the concept of the knowledge in long time memory and can be revealed in the specified time. Maesyarah, et al, (2015) stated that retention is related to cognitive structure that remains in the brain and can be recalled if necessary.

Retention is the activity of keeping the concept in the memory that have less attention. The result of interview with lecturer of science basic concept course explained that the lecturer give less attention to students' retention. However, actually retention can be one of indicator in deciding the successful learning or the quality of learning (Lubis&Manurung, 2010). Someone's retention can be measured in two weeks or fourteen days after someone get the certain knowledge (Putri, et al., 2013). Students who have low retention will influence the learning process and have the impact in achievement of learning objectives.

Related to that case, concept understanding and retention are necessary to be paid attention in learning process so that the learning objectives can be achieved optimally. Learning process is related to strategy and learning model that applied in teaching-learning process. Strategy and learning model influence the concept mastery and students' retention (Smarabawa et al., 2013). Learning process which can improve the concept understanding and students' retention should be able to make students active in learning. Moreover, it should make students involve in discussion with daily theme, train students to give their argumentation (Venville&Dawson, 2009), and notice the idea based on the facts (Jojo, et al., 2013).

Based on the background above, the main subject to be analyzed is the profile of concept process and students' retention of Primary Teacher Education in PGRI University Semarang in science basic concept course. Specifically, this research is to find the factual description of concept understanding and students' retention.

2.RESEARCH METHOD

This research was survey research. The purpose of this research was to gather the information about concept understanding and students' retention profile. This research was done in undergraduate program of Primary Teacher Education in PGRI University Semarang in the year of 2014/2015. The population on this research was the students on the first semester who attended the science basic concept learning. There were nine classes that consist of 419 students. Cluster random sampling method was used to take sample from 231 students in class 1A, 1C, 1E, 1F, and 1H.

The instrument that used was seven number of essay test instrument about concept understanding and retention. The reliability instrument that used in advance has tested by using Alpha Cronbach formula. The result of reliability test is 0,844.

3. RESULT AND DISCUSSION

The research was conducted from 21 November to 21 December 2014 in Undergraduate program of Primary Teacher Education in PGRI University Semarang in the year of 2014/2015. The explanation of the result is described in order (1) the description of concept understanding; and (2) the description of students' retention.

The description of students' concept understanding was obtained from essay test. Descriptive quantitative was used to analyze the result of essay test. The purpose of analyzing is to get the general description about students' concept understanding. The percentage of students' concept understanding can be seen in Figure 1.

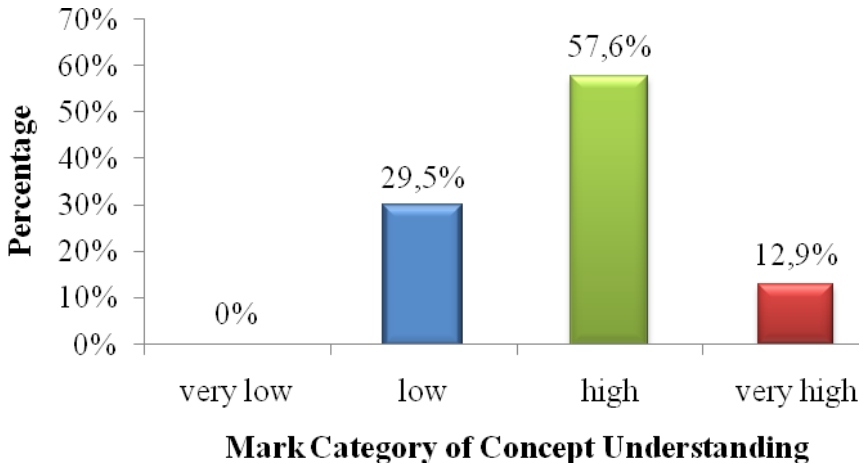


Figure 1. The Percentage of Students' Concept Understanding

Figure 1 explained that mark category of students' concept understanding has not fully reached the high and very high qualification. Some of the students are still in the low category. That information indicates that the effort to improve concept understanding is needed to reduce the low category and increase the high category.

The main factor that influences students' concept understanding in low level is that the students are unready to attend the learning process which is applied method and strategy. Another factor is learning model that less facilitate students to be active in learning. Those main factors are based on the survey result on 15 December 2014. That result showed that 74,5% students are unready to attend the learning and 70,2% students do not read the material and do not write the summary of the concept they will learn in advance. The method, strategy, and learning model that applied are group discussion (assignment), question and answer, and presentation. Presentation is dominated in learning process. The students are still passive in discussion, question and answer, and presentation. It can be seen from the certain group domination that are very active in asking and the lack of concept understanding among group members in presentation. .

Individual readiness in learning will determine the quality of learning process and achievement. Having good readiness in learning, the students are able to attend the learning actively and easy to accept the knowledge in learning process. If the students have a good readiness, they will get ease in accepting the knowledge and they will concentrate in learning process (Mulyani, 2013). It certainly will have an impact on increasing students' concept understanding and the achievement of learning goals.

One of the efforts to increase the concept of understanding is by improving the quality of learning process. Learning process is related to the strategy or learning model that applied in learning process because strategy and learning model influence the result of learning goals. The research from Puspitasari, et al, (2014) explained that strategy and learning model influence the students' concept understanding. Strategy and learning model that able to increase the concept understanding should facilitate students to be active in learning (Hermawati, 2012). It should give freedom to conduct the activity that lead to creative establishment independently and facilitate the students to present their opinion as well (Mauke, et al, 2013).

The detailed result of the analysis in each indicators of students' concept understanding can be seen in Figure 2.

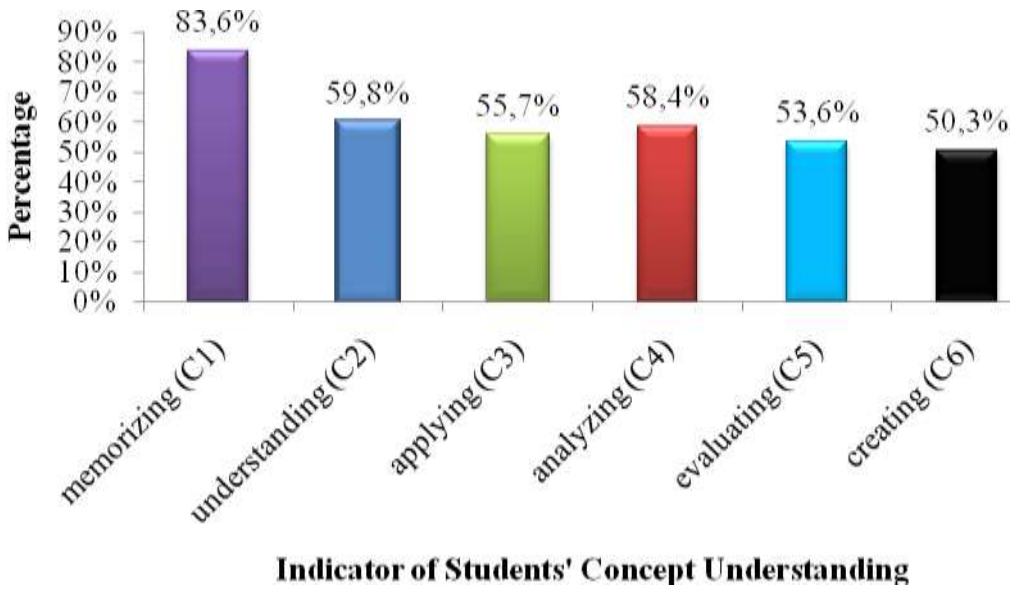


Figure 2. Percentage of Students' Concept Understanding

Figure 2 showed that the indicators order from the highest to the lowest are memorizing (C1), understanding (C2), analyzing (C4), applying (C3), evaluating (C5), and creating (C6). The lack of facility in strategy and learning model that supported the students to create the new concepts influences the low indicator of creating. Mauke, et al (2013) stated that the learning model which less facilitate students to be active and explore the idea will make the students are less accustomed to create something in finding the solution. Eka, et al (2014) explain learning that restricted the students in improving their potential has the impact in depth concept understanding.

Depth concept understanding will be embedded in the memories and can be shown through the ability in transferring knowledge in new situation and in certain time. The result of students' retention test (memory) was done two weeks or fourteen days after concept understanding test. The result can be seen in Figure 3.

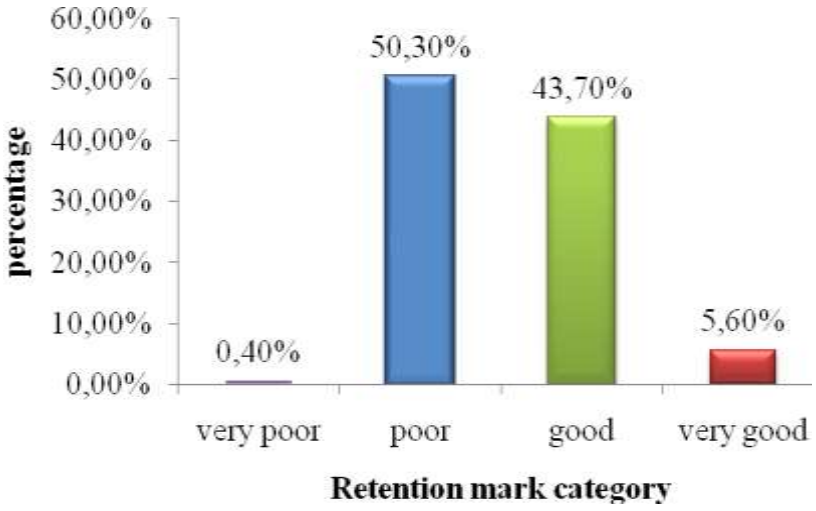


Figure 3.Percentage of Students' Retention Mark

Figure 3 explains that students' retention mark is dominated in poor category. It is happened because the learning process does not involve the students actively and oriented in memorizing not oriented in experience to find or build the new concept. This learning process does not embedded in students' memory for long time. The research from Maesyarah, et al. supported that result. It is explained that retention can be increased by using learning strategy and involving students actively in finding the relation between the knowledge they know with the new knowledge. Hermawati (2012) elaborates learning that involves students to be active mentally, intellectually, socially, and emotionally will be able to increase retention.

Information or knowledge that getting from accepting and memorizing will not embedded in the memory for long time so that it cannot be able to solve the daily life problem. Smarabawa, et al (2013) explained that in increasing retention, the teacher should revise the early knowledge of students and elaborate the knowledge so the students will build their own knowledge automatically and what they get will embedded in their memory. Eka, et al (2014) elaborates the learning process that tend to be based on theory memorizing and not be based on students' experience will make the students only able to memorize.

4. CONCLUSION

According to the result of data analysis and discussion, the research is concluded as follows:

1) The total mark of students' concept understanding is dominated on high category. The detailed marks of students' concept understanding are 57, 60% in high category, 29, 50% in low category, and 12, 90% in very low category. The lowest indicator of concept understanding is in creating (C6) indicator which is 50, 30%.
2) The total of students' retention mark is dominated on poor category. The detailed marks of students' retention are 50, 30% in poor category, 43, 70% in good category, 5, 60% in very good category, and 0, 40% in very poor category.

5. SUGGESTION

The suggestions which are given to the pertinent parties of this research are the learning process which accommodates students' readiness in learning and involved students actively is needed. Other suggestions are teacher should train the students to build and find the new concept and apply the learning process which oriented to long time memory

Those suggestions can be done by applying learning model which accommodate students to read the material before class. This effort will help students to be ready in learning. In addition, writing the students' idea will make students involve actively in learning process and make students have a good memory. And the last, discussion will also help student to have a good concept understanding.

REFERENCES

Arifin, Z. 2009. *Evaluasi Pembelajaran*. Bandung: PT Remaja Rosdakarya Offset.

Eka, I., Sadia I., & Suastra, I. 2014. Pengaruh Model Pembelajaran Perubahan Konseptual Terhadap Pemahaman Konsep Siswa Ditinjau Dari Gaya Kognitif. E-Journal Program Pascasarjana Universitas Ganesha. *4 (1): 1-12.*

Jojo, Z., Maharaj, A., Brijlall, D. 2013. From Human Activity to Concept Understanding of the Chain Rule. Journal of Research in Mathematics Education. *2(1): 77-99.*

Hakim, A., Liliasari., & Kadarohman, A. 2012. Student Concept Understanding of Natural Products Chemistry in Primary and Secondary Metabolites Using the Data Collecting Technique of Modified CRI. *International Online Journal of Educational Science*. 4(3): 544-553.

Hermawati, N. 2012. Pengaruh Model Pembelajaran Inkuiri Terhadap Penguasaan Konsep Biologi dan Sikap Ilmiah Siswa Ditinjau dari Minat Belajar Siswa. *Artikel*. Program Studi Pendidikan Sains Program Pascasarjana Universitas Pendidikan Ganesha. *(Online)*, (pasca.undiksha.ac.id), diakses pada 15 Januari 2016.

Konicek, R., Moran., & Keeley, P. 2015. Teaching for Concept Understanding in Science. *United States of America: NTA Press.*

Krathwohl, D. 2002. A Revision of Bloom's Taxonomy: An Overview. *Theory into Practice*, 41 (4): 212-218.

Lubis, A., & Manurung, B. 2010. Pengaruh Model dan Media Pembelajaran Terhadap Hasil Belajar dan Retensi Siswa Pada Pelajaran Biologi di SMP Swasta Muhammadiyah Serbelawan. *Jurnal Pendidikan Biologi*, 1 (3): 186-206.

Maesyarah., Jufri, A., & Kusmiyati. 2015. Analisis Penguasaan Konsep dan Miskonsepsi Biologi dengan Teknik Modifikasi Certainty of Response Index pada Siswa SMP se-Kota Sumbar Besar. J.Pijar MIPA. *10 (1): 1-6.*

Marlis., 2015. Analisis profil Pemahaman Konsep dan Konsistensi Konsepsi Siswa Kelas X SMA Negeri 1 Tilaang Kamang pada Materi Fluida Statis. Prosiding Simposium Nasional Inovasi dan Pembelajaran Sains. *Tanggal 8-9 Juni 2015. Bandung, Indonesia.*

Mauke, M., Sadia I., & Suastra, I. 2013. Pengaruh Model Contextual Teaching and Learning Terhadap Pemahaman Konsep dan Kemampuan Pemecahan Masalah dalam Pembelajaran IPA-Fisika di MTs Negeri Negara. E-Journal Program Pascasarjana Universitas Ganesha. *3(1): 1-12.*

Mulyani, D. 2013. Hubungan Kesiapan Belajar Siswa dengan Prestasi Belajar. *Jurnal Ilmiah Konseling*. 2(1): 27-31.

Mugiono, S., & Setiawan, A. 2014. Pengembangan Instrumen untuk Mengukur Pemahaman Konsep dan Kemampuan Menganalisis Guru Fisika Sekolah Menengah Kejuruan (SMK). Prosiding Seminar Nasional XI Pendidikan Biologi FKIP UNS. *Pada Tanggal 6 Juli 2014.*

Puspani. 2013. Pengaruh Strategi Pembelajaran STAD Menggunakan Penilaian Portofolio dan Kemampuan Akademik terhadap Pemahaman Konsep Siswa SMP pada Pembelajaran Biologi. Jurnal Pendidikan Sains. *1(4): 352-364.*

Puspitasari, D., Yuliati, L., & Kusairi, S. 2014. Keterkaitan antara Pola Keterampilan Berpikir dengan Penguasaan Konsep Siswa pada Pembelajaran Strategi Metakognisi Berbantuan Thinking Map. Indonesian Journal of Applied Physics. *4(2): 142-148.*

Putri, N., Corebima, A., Mahanal., S. 2013. Pengaruh Strategi Pembelajaran (PBL dan RT) terhadap Keterampilan Metakognitif, Hasil belajar Biologi, dan Retensi Siswa Berkemampuan Akademik Rendah Kelas X pada SMA yang Berbeda. *Jurnal*. (Online), *(jurnal-online.um.ac.id/)*,diakses pada 14 Januari 2015.

PRESENTER'S PAPERS

Smarabawa, I., Arnyana, I., & Setiawan, I. 2013. Pengaruh Model Pembelajaran Sains Teknologi Masyarakat terhadap Pemahaman Konsep Biologi dan Keterampilan Berpikir Kreatif Siswa SMA. E-Journal Program Pascasarjana Universitas Ganesha. *3(1): 1-11.*

Sudjana. 2010. *Evaluasi Proses dan Hasil Pembelajaran*. Jakarta: BumiAksara.

Venville, G., &Dawson, V. 2009. The Impacct of a Classroom Intervention on Grade 10 Students Argumentation Skills, Informal Reasoning, and Concept Understanding of Science. Journal of Research in Science Teaching. *47 (8): 954-977*

Author's Biodata

Ahmad Muhlisin is a postgraduate student of Biology Education (S3) in Postgraduate program of State University of Malang. He accepts the BPP-DN scholarship in the year of 2013.

Email:nisil.m.ahmad@gmail.com

Herawati Susilo is lecturer in Faculty of Mathematics and Science, State University of Malang Indonesia

Mohamad Amin is lecturer in Faculty of Mathematics and Science, State University of Malang Indonesia

Fatchur Rohman is lecturer in Faculty of Mathematics and Science, State University of Malang Indonesia

PRESENTER'S PAPERS

Effectiveness of Learning Method Development for Students' Critical Thinking

A. Jauhar Fuad
Institut Agama Islam Tribakti Kediri Indonesia
fuadjauhar@yahoo.co.id

I Wayan Ardana, Sulton, Dedi Kuswandi
Universitas Negeri Malang Indonesia

Abstract

Critical thinking is a must for success in modern life, as a measure to address rapid changes and complex. Nowadays people are not expected to know their place, but to define and position them. This paper describes the effectiveness of the development of teaching methods of critical thinking. This study used a quasi-experimental design to test the results of development of teaching methods. In this study design, the researchers do not fully take control of all the variables that are supposed to influence the dependent variable. Whereas the results of research that combines a constructivist approach to learning, active learning, student-centered philosophy with the most effective way to improve critical thinking. Furthermore, that critical thinking can be developed in the process of learning in the classroom. Through this active learning students can improve their critical thinking.

***Keywords**: Critical thinking, active learning, and constructivist approach*

1. INTRODUCTION

Active learning strategies beneficial to increase the understanding, retention and critical thinking than passive learning generated from conventional lecture (Hall, 2011). Using a variety of strategies to help students develop critical thinking skills (Yildirim & Ozkahraman, 2011). That the learning approach that combines constructivist, active learning, student-centered philosophy with the most effective way to improve critical thinking (Walker, 2003). Thus, critical thinking can be enhanced through learning strategies that promote active learning (Walker, 2003; Kennedy, 2007; Snyder & Snyder, 2008; Mandernach, Forrest, Babutzke & Manker, 2009; Alexander, 2010).

Roy & Macchiette (2005) declared the debate in the classroom can effectively facilitate critical thinking. Therefore, the debate as a way of learning that enables students to enhance their critical thinking through the arguments investigate, engage in research, gathering information, analyzing, assessing arguments, question assumptions, and demonstrated interpersonal skills. Method debate is a form of verbal controversy which consists of a systematic presentation of opposing arguments on topics that understand the other party. This process involves a discussion that is contrary to his views and get involved in the argument. Kennedy (2007; 2009) disclose the debate has been successfully used in a variety of disciplines including sociology, history, psychology, biotechnology, mathematics, health, dentistry, nursing, marketing, and social work. Scott (2008) explains that the students believe that the debate helped them understand the topic better, learn new knowledge, and gain an understanding of the process of debate. In addition, students think that debate increases their critical thinking skills.

Hall (2011) describes a method debate can prepare students to become critical thinkers and effective communicators in a spacious environment, the confidence to communicate, improve critical thinking and problem solving. Roy & Macchiette (2005) argues the debate contributes many benefits for students: (1) increase the ability of students to develop a communication strategy alternatives, including the use of techniques nonverbal, (2) instill a sense of teamwork and time management, (3) building confidence for students as they gain experience in public speaking, (4) learners can also benefit by enriching the experience interesting.

Besides the method of debate there is also the method of discussion as one of the methods that encourage active student involvement. Discussion method has much in common with the method of debate. For example: discuss the new theme, controversy and development of verbal ability. Johnson & Johnson (1999) explains that the discussion had a greater effect on the achievement of the student, if the student is encouraged to get involved in controversy not just looking for a commonality of view. Slavin (2006) describes a method of discussion part of learning, for many reasons; (1) subjective topic and controversy, (2) new and difficult concepts, and (3) affective objectives. McMahon (2009) after the higher-level thinking discussion group seemed to move to a cognitive level, they use the discussion to shape responses to critical thinking.

Rahman, et al. (2011) found the discussion method is more effective than a lecture. The study recommended that the learner can choose the method of discussion in social studies learning. Kukuru (2012) describes the discussion becomes one of effective learning methods. Before discussion of learners need to manage content and learning tools. Learners determine the ability of a student and the student's ability to associate with the new experience that would be obtained so that there is equality concept. Suhari (2014) describes a method of discussion is better in achieving the learning outcomes of the simulation methods in the subject of civic education. Fuad, et al (2015) concluded the discussion method can accelerate perceived by students acquire knowledge; may be easier to understand a new knowledge; can enhance critical thinking skills; can make it easier to understand the facts and opinions; and can help students to think logically.

Exposure above concluded that the method of debate and discussion methods encourage students to think critically. Writers do development on these two methods to weigh the characteristics of the field of study, characteristic of the student and the learning objectives. Thus this paper aims to test the effectiveness of the development of teaching methods in the ability to think critically.

2. METHODOLOGY

This study used a quasi-experimental design (quasi-experimental). In this study design, the researchers do not fully take control of all the variables that are supposed to influence the dependent variable (the learning outcomes) (Tuckman, 1999). This research subject in the subject of civic education. The study treatment as in Table 1.

Table 1. Steps Learning

Lesson	Lecturer-Student Activity		time
	methods Debate	method Discussion	
The initial activity	1. Learners communicate the plan in learning activities that will be carried out 2. Learners began by digging activities prior knowledge possessed by students in the subject matter to be discussed.	1. Learners raised the issue that will be discussed, provide the necessary guidance on ways to solve them. 2. Students form discussion groups, select a discussion leader (chairman, secretary, reporter).	20 minute
Core activities	Each speaker will deliver a substantive speech, which lasted eight minutes, with the first proposition advanced and continued opposition from the speaker all the s / d to third. After all the speakers of both teams deliver substantive speeches, followed by a closing speech for four minutes. The order of discussion in the debate as follows: 1. The first speaker for the proposition	1. Students discuss in their group, while learners around from one group to another group, maintain order, provide encouragement and assistance so that each group participate actively, and discussions to run smoothly. 2. Each group reported the results of the discussion in	56 minute + 9 minute

	2. The first speaker for the opposition 3. The second speaker propositions 4. The second speaker of opposition 5. The third speaker proposition 6. The third speaker, opposition 7. Closing speech proposition 8. Closing speech opposition	note form. 3. Students record the results of each group discussion. One group presented the results of discussions in class.	
The activities cover	1. Delivering a summary or conclusion 2. Conducting formative evaluation 3. Providing follow-up activities, in the form of duties.	1. Delivering a summary or conclusion 2. Conducting formative evaluation 3. Providing follow-up activities, in the form of duties.	15 minute

These instruments were developed in the form of rating scales. Data collection procedures performed by learners (group judging other groups), learners and researchers. Development of rating scales based on indicators developed in Table 2.

Table 2. Indicators Critical Thinking Ability Limited

Variable	Indicator
critical thinking	clarity of information
	depth of ideas
	breadth viewpoint
	precision in inference

3. RESULTS AND DISCUSSION

Table 3. Descriptive statistics describes the use of methods of debate gained an average value of 35.52, the standard deviation of 3.0319, the minimum value of 31.60 and a maximum value of 41. While the use of methods with an average value of 37.75 standard deviation 0.50, the minimum value of 37 and a maximum value of 38.4.

Table 3. Critical thinking and Method

Method	N	Mean	Std. Deviation	Minimum	Maximum
Debate	24	35.5250	3.03190	31.60	41.00
Discussion	24	37.7500	.50819	37.00	38.40
Total	48	36.6375	2.42668	31.60	41.00

Table 4. The obtained F count was 12.572 with a significance of 0.001. Conclusion there are significant differences between the methods of debate and discussion method on critical thinking, discussion methods are superior in this study.

Table 4. Different test methods and Critical thinking

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	59.407	1	59.407	12.572	.001
Within Groups	217.365	46	4.725		
Total	276.772	47			

Table 5. Descriptive statistics describes the use of methods of debate gained an average value of 35.2, standard deviation 2.34, minimum value 31.6 and a maximum value 37.8. While the use of the method with an average value of 38.075 standard deviation 1.49, minimum value 35.6 and a maximum value 41.

Table 5. Critical thinking and themes

Thema	N	Mean	Std. Deviation	Minimum	Maximum
human rights and the rule of law	24	35.2000	2.34057	31.60	37.80
pros and cons of capital punishment	24	38.0750	1.49761	35.60	41.00
Total	48	36.6375	2.42668	31.60	41.00

Table 6. obtained F count was 25.693 with a significance of 0.000. Conclusion there are significant differences between the theme and the theme of the two on the ability of critical thinking, the theme of one is not better than the two themes.

Table 6. Test different themes and Critical thinking

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	99.187	1	99.187	25.693	.000
Within Groups	177.585	46	3.861		
Total	276.772	47			

The results of this study is different from the two previous studies. Goodwin (2003) asked students to debate the contrast discussion. Students noted the debate discussed the matter from different angles studies, whereas in this discussion is not always the case. The debate requires the use of logic and common sense are not merely free expression of opinion. Participants of the debate preparing abilities so that they know what they are talking about. Osborne (2005) reported that a class debate as classes are fun and the students participated with a higher percentage in the debate than a discussion. Two of these studies concluded that the debate is more favored methods of the discussion method. But the important notes of this paper is that the study has not been completed, while the research is still waiting for a few months. Treat this research there are three themes that will be discussed next week.

The research raises five theme, two themes have been implemented. The two themes of the increase was from one theme to theme two, this indicates that there is a process of adaptation to the use of methods of debate or discussion method, at the initial meeting is possible while the students are still experiencing difficulties in meeting the two have been able to adapt.

4. CONCLUSION

The results of this study can be concluded that the results of the development discussion method is superior from the development of methods of debate. The results of this study is different from the two previous studies conducted by Goodwin and Osborne. In the process of learning both the result of the development of methods of debate and discussion method slowly increased, at a second meeting students' critical thinking skills are better than at the first meeting. However, these results have not been completed there are still a few more meetings that have not been implemented.

5. ACKNOWLEDGMENT

The author would like to thank the Kementerian Agama Republik Indonesia, which has been providing financial assistance study completion.

6. REFERENCES

7.

Alexander, M. E., (2010). Using the four-questions technique to enhance critical thinking in online discussions. *Merlot Journal of Online Learning and Teaching*, 6(2), 409-415.

Fuad, A. J., Ardana, I. W., Sulton, & Kuswandi, D. (2015). Persepsi mahasiswa pada metode diskusi. *Seminar Nasional Teknologi Pendidikan UM, 2015.* Universitas Negeri Malang. Malang, 14 November 2015.

Goodwin, J. (2003). Students' perspectives on debate exercises in content area classes. *Communication Education*, 52(2), 157-163.

Hall, D. (2011). Debate: innovative teaching to enhance critical thinking and communication skills in healthcare professionals. *The Internet Journal of Allied Health Sciences and Practice*, 9(3), 1-8.

Johnson, D.W., & Johnson, R. T. (1999). *Learning together and alone: Cooperative, competitive, and individualistic learning.* Boston: Allyn & Bacon.

Kennedy, R. R., (2007). In-class debates: fertile ground for active learning and the cultivation of critical thinking and oral communication skills. *International Journal of Teaching and Learning in Higher Education,* 19(2), 183-190.

Kennedy, R. R., (2009). The power of in-class debates. *Active Learning In Higher Education*, 10(3). 1-12.

Kukuru, J. D. (2012). Encouraging representation and involvement of learners on discussion method's features towards ensuring effective teaching. *Prime Research on Education*, 2(2), 180-190.

Mandernach, B. J., Forrest, K.D., Babutzke, J. L., & Manker, L.R., (2009). The role of instructor interactivity in promoting critical thinking in online and face-to-face classrooms. *Merlot Journal of Online Learning dnd Teaching,* 5(1), 49-62.

McMahon, G. (2009). Critical thinking and ICT integration in a western australian secondary school. *Educational Technology & Society*, 12(4). 269-281.

Osborne, A. (2005). Debate and student development in the history classroom. *New Directions for Teaching & Learning*, 103, 39-50.

Rahman, F., Khalil, J., Jumani, N. B., Ajmal, M., Malik, S., & Sharif, M. (2011). Impact of discussion method on students performance. *International Journal of Business and Social Science,* 2(7), 84-94.

Roy, A., & Macchiette, B. (2005). Debating the issues: a tool for augmenting critical thinking skills of marketing students. *Journal of Marketing Education,* 27(3), 264-276.

Scott, S. (2008). Perceptions of students' learning critical thinking through debate in a technology classroom: a case study. *The Journal of Technology Studies*, 34(1), 39-44.

Slavin, R.E. (2006). *Educatinal psychology: theory and practice.* New York: Boston.

Suhari. (2014). Pengaruh metode (diskusi vs simulasi) pengetahuan awal dan gaya belajar terhadap hasil belajar pendidikan kewarganegaraan. *Disertasi*. Malang: PPS Universitas Negeri Malang tidak diterbitkan.

Tuckman, R.R. (1999). *Conducting educational research 5th Edition.* Orlando: Harcourt Brace College Publishers.

Walker, S.E. (2003). Active learning strategies to promote critical thinking. *Journal of Athletic Training,* 38 (3), 263-267.

Yildirim, B. & Ozkahraman, S. (2011). Critical thinking in nursing process and education. *International Journal of Humanities and Social Science,* 1(13), 257-262.

PRESENTER'S PAPERS

Author's Biodata

A. Jauhar Fuad is a lecturer in Islamic Institute Tribakti Kediri , home address, Dsn. Waung Ds. Sonoageng RT / RW 07/28 Prambon Nganjuk, Hp numbers. 081 336 123 263, e-mail; fuadjauhar@yahoo.co.id. S1 Department of Islamic Religious Education (PAI) Faculty of Tarbiyah Islamic Institute Tribakti Kediri graduated in 2004, S2 Instructional Technology Program (TEP), State University of Malang, graduated in 2007. The process S3 Learning Technology Program (TEP), State University of Malang, academic year 2013.

I Wayan Ardana is lecturer in Universitas Negeri Malang

Sulton is lecturer in Universitas Negeri Malang

Dedi Kuswandi is lecturer in Universitas Negeri Malang.

PRESENTER'S PAPERS

Evaluation on the Implementation of Inclusive Education in SDN Ketintang II Surabaya

Ana Rafikayati
Universitas PGRI Adi Buana Surabaya
Margorejo 3E No. 46 Surabaya 60238
Email: ana_rafika@yahoo.co.id

Abstract

Today, many schools have been declared as an inclusive school. This is reasonable because of the mandate of National Education Act No.70 of 2009 about inclusive education. In the implementation, inclusive education is not completed when the regular school accepts children with special needs to learn together with regular kids. Many things must be fulfilled in order to serve them optimally in accordance with National Education Act No.70 of 2009. In East Java, especially Surabaya City, SDN Ketintang II Surabaya has been one of the schools selected by the Education Department of Surabaya as one of inclusive school in Surabaya since 2009. Although SDN Ketintang II Surabaya has been 5 years of being an inclusive school, the implementation of inclusive education has not been evaluated. Based on these reasons, this study aimed to evaluate the implementation of inclusive education in SDN Ketintang II Surabaya. It used descriptive evaluative research where the researcher would collect data, and describe the policy implementation. Sources of data in the study were students with special needs, regular students, principals, classroom teachers, subject teachers, special education teacher, parents of regular students and special needs students and local residents. The techniques of collecting data included interviews, observation and documentation. Data analysis techniques followed the flow analysis techniques of Miles Huberman consisting of data reduction, data display and verification. The results indicated that from the aspects of learners, curriculum, learning process, educators and education personnel, instructional media, school and community relations, SDN Ketintang II Surabaya mostly has been implemented the inclusive education in accordance with the policy, except the infrastructure. It is because the building, wall and the road is still not accessible for students with special needs, especially physical impairment and visual impairment.

Keywords: implementation of inclusive education, policy, inclusive school

1. INTRODUCTION

The issue of discrimination in education for learner with special needs has been rolling in Indonesia for long time. Before, education that are available for them are limited in segregation educational setting (exclusive). There are 3 service segregation educational settings, which are, (1) special schools that only serve learners with the same type of disabilities, (such as: SLB/ A, SLB/ B, SLB/ C etc.), (2) special schools accommodate different types of disabilities, (such as: SDLB, SMPLB and SMALB), and (3) regular schools that accept learners with special needs or commonly called as an integrated school.

From those 3 of education services, segregated education services is more inclusive than others. Because another education services do not give chance for learner with special needs to go school in regular school. However, in an integrated school learner with special needs must adapt to the school curriculum, teachers, learning infrastructure, and learning activities. So the one who must adapt the system is the learner with special needs not the school.

Based on world issues on education for all, then Indonesia began to be introduced to inclusive education, education system which more friendly and do not discriminate against learner with special needs. Inclusive education is an education system that provides opportunities for all

learners including learners with disabilities and learners who have intelligence potential and / or special talents to participate in education together with general learners (Kemendikbud, 2011: 1). The concept of inclusive education appears intended to provide solutions to their discriminatory treatment in educational services, especially for learner with special needs. Inclusive education has a basic principle that as long as possible, all learner have a right to learn.

Based on the mandate of the world and national on inclusive education, especially Permendiknas No. 70 of 2009 that specifically regulates about inclusive education, today many regular schools declared into an inclusive school. In the implementation, inclusive education is not completed when the regular school accepts learner with special needs to learn together with regular kids. Many things must be fulfilled in order to serve them optimally in accordance with National Education Regulation No.70 of 2009.

There are aspects that must be consider in organizing inclusive schools, which are: (1) learners, (2) curriculum, (3) the learning process, (4) educators and education personnel, (5) facilities and infrastructure, (6) learning tools, and (7) relation between school and society. So, when the school has declared as an inclusive school, it needs to be evaluated whether the implementation is accordance with the guidelines on Organizing inclusive education Permendiknas 70 of 2009 or not.

In East Java, especially Surabaya City, SDN Ketintang II Surabaya is one of the schools selected by the Education Department of Surabaya as one of inclusive school in Surabaya since 2009. Although SDN Ketintang II Surabaya has been 5 years of being an inclusive school, it has never been evaluated on the implementation of inclusive education. Based on those reasons, this study aimed to evaluate the implementation of inclusive education in SDN Ketintang II Surabaya.

2. PROCEDURES

This research used descriptive evaluative study which the researcher intends to collect data, and describe the policy implementation. Sources of data in this study were learners with special needs, regular learners, principal, classroom teachers, subject teachers, special education teacher, Parents (Regular and special needs learner) and local residents. All of those are persons who know well about the implementation of inclusive education in SDN Ketintang II Surabaya.

Data collection techniques used interview, observation and documentation. Observation technique is mostly used to obtain the information about the learning process, facilities and infrastructure. Interview technique is used to obtain data in all aspects and it mostly used to obtain data about curriculum and relation between school and society. Documentation technique is used to obtain data about learners, curriculum, educator and education personnel, learning tools and relation between school and society.

Data analysis techniques used flow analysis techniques Miles Huberman which covers the data reduction, data display and verification. At data reduction stage, data that has been obtained then reduced, and sorted, summarized and coded. Coding aim to facilitate discussion. In this study the data selected and categorized into (1) learners, (2) curriculum, (3) the learning process, (4) educators and education personnel, (5) facilities and infrastructure, (6) learning tools, and (7) relation between school and society.

After reduced, the data are presented (display) in order to make it easier in understanding the process and then do further analysis. The data presented in the form of narrative text. After data was displayed, then the next stage was verification. After data presented, then conducted data triangulation. After the completion of triangulation, the deduction (verification) can be done descriptively appropriate with the research focus. In this study the focus is the aspects of inclusive education implementation which are (1) learners, (2) curriculum, (3) the learning process, (4) educators and education personnel, (5) facilities and infrastructure, (6) learning tools, and (7) relation between school and society. Then final stage is comparing between the data and the

guidelines of inclusive education implementation. Then it will conclude whether the school does implement it based on the guidelines or not based on 7 aspects.

3. FINDINGS AND DISCUSSION

The components that must be considered in the implementation of inclusive education are (1) learners, (2) curriculum, (3) the learning process, (4) educators and education personnel, (5) facilities and infrastructure, (6) learning tools, and (7) relation between school and society.

a. Learners

Learners at SDN Ketintang II Surabaya consisted of regular learners and learners with special needs. At school there are many kinds of learner with special needs, such as: slow learner learner, learner with hearing impairment, learner with visual impairment (low vision), learner with mentally disabled (mild and medium), learner with cerebral palsy, learner with Attention Deficit Disorder (ADD), learner with Attention Deficit Hyperactive Disorder ADHD and learner with autistic spectrum.

In terms of identification, usually learners with special needs who enroll bring data about the child include: the results of an IQ test, psychological test results from the psychologist and the results of the identification of the physician. Additionally, SDN Ketintang II has a partnership with the Education Department of Surabaya city and psychologists so that an IQ test and psychological test can be implemented in schools. This activity is conducted on an ongoing basis. So that the test was done not only to see the child's ability, but also to track and monitor the learner development regularly. The assessment is done by special education teachers. It is done to see the child's ability in various aspects (cognitive, language, motor and socio-emotional). In conducting this assessment, a technique that is used is in-depth observation to see the potential and needs of learner. In addition, informal tests also given to see the cognitive aspects of the child.

In terms of class management, one class is managed by one classroom teacher and one special education teacher. The total number of learners per class on average is 25-35 learners. While the number of special education learners in each class vary between 6-10 learner. The placement of learners with special needs in SDN Ketintang II is full in regular classes which are based on child's chronological age. Besides that, there is a pull-out system. So learner with special needs learn together with regular child in full, but if it is necessary, for example learner having difficulties in regular class, they will move to resources room which is separated from regular school.

Beside to provide learning for learners with special needs while pull-out system is using, resources room is also provided to give extra lessons after school for them. The learning activities provided include: repetition of material in class (remedial) and therapy. The therapy that is held at SDN Ketintang II include: speech therapy, behavioral therapy and occupational therapy.

Beside the services that are academically, learners with special needs also given guidance and counseling services. With the guidance and counseling services, ABK can be served optimally both in terms of academic and socio-emotional. To support these activities, teachers always worked closely with parents to harmonize programs provided to learner in order to also be applied at home.

Program development for learners is also very calculated in SDN Ketintang II Surabaya. The school also gave vocational and extracurricular program. Learners with special needs are given exercises in art and craft such as skills at making wicker, goods of flannel, and etc. accessories from recycled materials. There are also extracurricular activities such as dance to train the child's sense of art and scouts to develop a child's socialization and leadership skills.

In terms of learning in the classroom, to make learners with special needs can socialize with regular learners, teaching and learning activities are usually carried out in groups. Besides that, teachers also asked the regular learner to assistance learners with special needs (peer tutoring). Based on observations, learners with special needs can socialize well with regular learners and regular learners also receive learners with special needs well.

In terms of managing the admission and placement of learners with special needs, SDN Ketintang II also thinking about mutations and graduation of learners. SDN Ketintang II has

cooperated with some inclusive schools in Surabaya so that if there are learners who want to move, the school will provide references and recommendations of schools that can be addressed. SDN Ketintang II also has coordination with secondary inclusive schools.

Based on the guidance of inclusive education, the inclusive school must consist of regular learner and learner with special needs. Based on that, it can be concluded that for learner's aspect, SDN Ketintang II have been implement inclusive education properly. In SDN Ketintang II, there are regular learner and many kinds of learner with special needs, such as: slow learner learner, learner with hearing impairment, learner with visual impairment (low vision), learner with mentally disabled (mild and medium), learner with cerebral palsy, learner with Attention Deficit Disorder (ADD), learner with Attention Deficit Hyperactive Disorder ADHD and learner with autistic spectrum.

b. Curriculum

The curriculum that is used in SDN Ketintang II is 2013 curriculum for grade I and IV and KTSP curriculum for grade II, III, V and VI. Meanwhile, in order to serve learners with special needs, SDN Ketintang II used adaptation curriculum based on the needs of each child. The adaptation method used escalation, duplication, modification, substitution and omission. The adaptation can be applied to aspects of learning objective, material, process and evaluation. Those adaptations can be seen at figure 1 as follows:

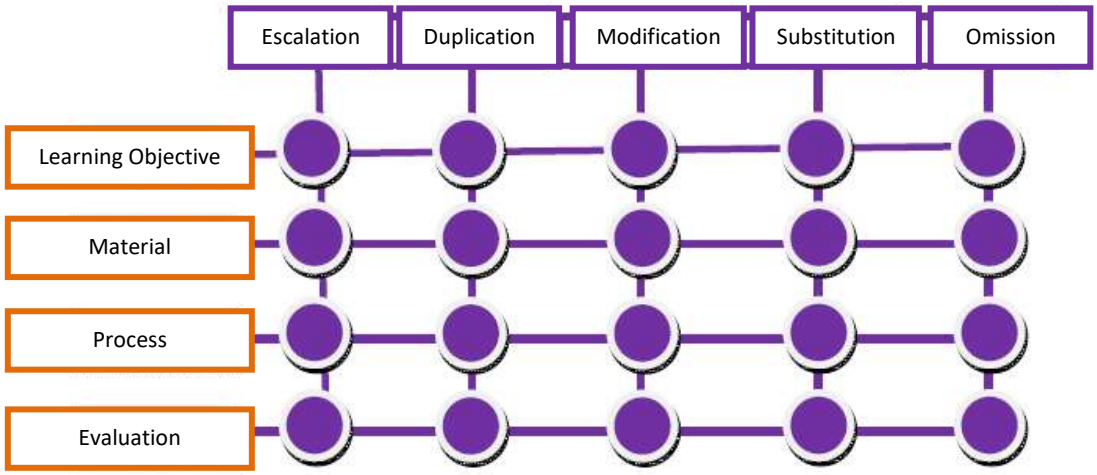


Figure I: Methods in Adapting Curriculum

Information:
Escalation: incensement, duplication: imitation, modification: alteration, substitution: replacement, and omission: removal.

In determining the education timetable and length of education for learners with special needs, SDN Ketintang II determines it just like regular learners. The learning process starts at 07 AM to 11AM for grade I-III and 07 AM to 12:30 AM for grade IV-VI. But for learners with special needs there is additional time for learners who needs remedial learning and therapy special needs learner and it is done after school hours. The duration is one hours and sometimes one hour and thirty minutes.

Based on the guidance of inclusive education, teacher must use the curriculum based on the child ability. Therefore learner can use regular curriculum or modification curriculum. Based on that, it can be concluded that for curriculum's aspect, SDN Ketintang II have been implement inclusive education properly. SDN Ketintang II use regular curriculum for the one can follow that curriculum. And the one who cannot, the use modification curriculum with escalation, duplication, modification, substitution and omission method. There is also therapy as special curriculum for learner with special needs such as mobility orientation, speech therapy, remedial teaching, behavior therapy, etc.

c. Learning process

The learning activities in SDN Ketintang consider the needs of each child as an individual. In accordance with the 2013 curriculum, learning toward to build character of the learners. In connection with that, there is agenda scheduled to pray together for grade IV-VI in the afternoon (Dhuhur praying). They pray together in mosque which is place in the school.

In its implementation, learning in the regular classroom done by classroom teacher that is accompanied by one special education teacher in each class. The role of the classroom teacher and special education teacher is balanced and mutually support each other. Special education teacher also contribute in the general classroom management and classroom teachers also deal with learners with special needs so that the teachers can understand the needs of each child. So it there is difficulties from learners with special needs, not only special education teacher who take care of it. Classroom teacher also cooperate share the responsibility.

The socialization between learners with special needs and the regular learners at SDN Ketintang II is very good so that teachers often divide the class into groups and play the game so learners with special needs became part of the team. This makes learning much more lively and the socialization among learners is growing well. Besides that, regular learners also acts as a tutor for the learners with special needs who need help. Before accepting learners with special needs, school has socialized to regular learners that there will be learners with special needs who will join to the class crews so regular learners are able to accept their joining well and trying to help them who need assistance.

The things that need to be considered in designing learning activities are as follows:

i. Develop the lesson plan

1. Deciding the setting goals
2. Planning the classroom management
3. Planning the materials
4. Planning the learning activities
5. Planning the learning resources
6. Planning the ratings

ii. Learning activities

1. Extend the learning time.
2. Sometimes the learning can be done at resource room.
3. The use of special learning tools for learners with special needs.
4. The placement of the seat at a particular location (close to the teacher).
5. Regular learners can be a tutor of learners with special needs.
6. The task sometimes different from other learners.
7. Additional explanations / specific learning outside school hours.

In managing the learning process in an inclusive education, its scope is as follows:

3.3.1 Individual Education Program (IEP)

This program is the learners' individual learning program which is based on the ability, means, and its own pace. With IEP, learner can gradually increase their learning ability through approach, attention, way, and specific actions. Preparation, implementation, and evaluation of IEP in SDN Ketintang II Surabaya apply the cooperation principle, involving: teacher, learner peer tutor, parents, and special education teacher. Preparation of the IEP considering: learning objectives, teaching and learning activities (materials, methods, media, and evaluation), and support services.

Stages of IEP in SDN Ketintang II are as follows:

3.3.1.1 To study the profile of learners is based on the identification and assessment as information to give an appropriate service for learners with special needs.

3.3.1.2 Determine the entry level of the learners ability so know which aspect needs to be improved

3.3.1.3 Determine strengths and weaknesses of learners to specific subjects
3.3.1.4 Determine basic competencies
3.3.1.5 Determine indicators
3.3.1.6 Develop the learning process (materials, media, methods, evaluation)
3.3.1.7 Determine the allocation of time, place, and the parties involved.

3.3.2 Assessment

The management of learning load for learners with special needs in SDN Ketintang II Surabaya is same as regular learner that is adapted based on the ability of learners. For learners with special needs minimum standard competency adjusted to the potential of each child. Assessment of learning outcomes in SDN Ketintang II Surabaya should describe the achievement of learners, competency skills, knowledge, and behaviors that are appropriate to the abilities and needs based curriculum adaption.

The Assessment in inclusive education should be flexible. It can use different types of tests method (oral, written, action) and can use any type of non-test method (observation, interviews, attitude scales). The timing of the assessment of learners with special needs should be programmed in the calendar of education in the form of the following activities:

3.3.2.1 Daily examination
3.3.2.2 Midterm examination
3.3.2.3 Final examination
3.3.2.4 National examination /school examination

Procedures/method for the implementation of the assessment may be flexibly based on the needs, capabilities and conditions of learners with special needs. For report cards, learners with special needs have 2 report cards. The first is the same repord card like others and the other one is the development report cards. The development report written in descriptive sentences not number. For national examination, SDN Ketintang II adapts to each child's ability. For learner who is able to follow the National Examination, they do that examination. And for learners with special needs who cannot follow the National Examination will do School Examination that is designed by inclusive schools teacher association of department education of Surabaya.

Based on the guidance of inclusive education, there are 3 management classes. First is fully regular without special education teacher. Second is learner at regular class with special education teacher help. Third, learner and special education teacher learn at resource room. Based on that, it can be concluded that for learning process's aspect, SDN Ketintang II have been implement inclusive education properly. SDN Ketintang II used those 3 management class based on the needs of learner. Teachers also make IEP and the evaluation also accordance with the planning.

3.4 Teachers and Education Personnel

The management of educators and education personnel in SDN Ketintang covers include:

3.4.1 Employee inventory

In SDN Ketintang Surabaya the employee inventory performed once a year. School renews the data about the number of active teachers, also teachers who move in or out. It is done not only for civil servant teachers, but also for temporary teachers.

3.4.2 Teacher and education personnel recruitment

Proposal waiting for vacancy from education department of Surabaya, then the principal will decide who was worthy being proposed as a permanent employee. It is done every year because of the opportunities from education department only once a year.

3.4.3 Promotion

Prior to the credit number of professorship the promotion automatically decided by education department once for 4 years. After getting the credit number of professorship, everything is depending on the achievement of teacher. Generally teacher gets promotion after 2 to 3 years. After the credit number of professorship exists, teacher evaluation is done every 4 years. There are 2 teachers have been proposed.

3.4.4 Salary of temporary teacher

The salary for civil servant teacher has been decided by the central government. For temporary teacher gets from local government. The amount is as much as the standard minimum salary in Surabaya city. SDN Ketintang II teachers and 100% of them have got that.

Based on the guidance of inclusive education, there are 3 kinds of teacher at inclusive school, there are classroom teacher, subject teacher and special education teacher. Special education must have graduated from bachelor of special education or teacher who has competency to handle student with special needs through training. School at least has 1 special education teacher at their school. Based on that, it can be concluded that for teacher and education personnel's aspect, SDN Ketintang II have been implement inclusive education properly. SDN Ketintang II has 6 special education teacher for each class and all of them are graduated from bachelor of special education.

3.5 Facilities and Infrastructure

Learners with special needs require special infrastructure in terms of accessibility of learner in the school environment. Building, buildings and roads should be designed to facilitate access to the crew in moving or looking for information in the school environment. As examples of ABK-friendly infrastructure in question, for example:

3.5.1 Building no sharp-edged and floor mats signpost for blind learner

3.5.2 The grip on the classroom walls and floors are sloping (no staircase) for a wheelchair user to learner with physical disabilities

3.5.3 Class sizes are adequate for regular learners and crew comfort in general

Based on the guidance of inclusive education, there the building must be accessible or learner with special needs. Based on that, it can be concluded that for facilities and inftrastructure's aspect, SDN Ketintang II do not implement inclusive education properly. SDN Ketintang II building, the building and the road is still the same as school buildings in general. Therefore, it is difficulty for learner with special needs especially learner with visually impairment and psychically disabled to mobile at school.

3.6 Learning tools for learner with special needs

Learner with special needs require infrastructure and facilities in the learning process at school. It is facilitate them to get access of information because of their needs sometimes they cannot get the information like others. The media that is needed for them is as follows:

3.6.1 Learners with visual impairment / Low vision; glasses, telescopes, writing Braille tools, Braille typewriters, etc.

3.6.2 Learners with hearing impairment hearing aids, audiometer, speech trainer, loop systems, audio-visual media and sign language dictionary, etc.

3.6.3 Learners with mentally disabled and learning disabilities; Tactile Pooth, Foot and Hand, Balance Labyrinth Spiral, Aroma Bottle, and props, as well as audio-visual media, etc.

3.6.4 Learners with physically disabled, such as: ramp (floor ramps instead of stairs), wheelchairs, props, and audio-visual media, books, etc.

3.6.5 Gifted (gifted and talented) such as: reference books, practical tools, laboratories, art tools and sports and IT facilities, to satisfy the curiosity and interest of gifted learner.

Based on the guidance of inclusive education, learner with special needs need special learning tools that will help them in getting information at school during learning. Based on that, it can be concluded that for learning tool's aspect, SDN Ketintang II do not implement inclusive education

properly. SDN Ketintang II has have most of the learning tools that is needed for learner with special needs. But for now school only have the learning tools for certain kinds of disability only.

3.7 Relations between school and society

Society should always be involved in the development of education in order to grow a "sense of ownership" of the existence of educational institutions around. The quality of a school in the neighborhood is also a joint responsibility of the local community so that not only the principal and the teachers who think of this but also local community involved thinking together.

To attract public sympathy to be willing to participate to promote the school, it needs to do a variety of things, such as by giving them information regarding school programs. Programs that have been implemented, ongoing programs and future program so that people get a clear picture of the school.

The involvement of the community is needed, especially in socialization about school to others. The Understanding and caring of society for learner with special needs will be very big influence on efforts to fulfill the right to education for them. This understanding will impact positively on the attitudes of other learners who are studying together with learner with special needs. Thus it will create more conducive learning environment for learner with special needs and regular learners at school.

Based on the guidance of inclusive education, school must coordinate with society to support the implementation of education for all. Based on that, it can be concluded that for relation between school and society's aspect, SDN Ketintang II has good relation with society well. To achieve that, the school often does socialization and done some activities outside of school such as outing class or during national celebration day like celebration of Kartini's day, Independence's day, hero's day, etc.

CONCLUSION

The research showed the following matters:

1. From the aspect of learners, in SDN Ketintang II has been implement inclusive education properly. In SDN Ketintang II there are regular students and many kinds of learner with special needs.
2. From the aspect of curriculum, SDN Ketintang II has been implement inclusive education properly. SDN Ketintang II use modification curriculum for children with special needs whose skill under the regular curriculum.
3. From the aspect of learning process, SDN Ketintang II has been implement inclusive education properly. SDN Ketintang II used 3 management class of inclusive education based on the needs of learner.
4. From the aspect of teacher and education personnel, SDN Ketintang II has been implement inclusive education properly. SDN Ketintang II has 1 special education teacher for each class and they all graduated from bachelor of special education.
5. From the aspect of infrastructure, SDN Ketintang II has not been implement inclusive education properly. SDN Ketintang II still does not accessible for learners with special needs. The building, wall and the road is still the same as school buildings in general.
6. From the aspect of learning tools, SDN Ketintang II has not been implement inclusive education properly. SDN Ketintang II only has learning tools for certain types of disability not all of types.
7. From the aspect of relations with the society, SDN Ketintang II has been implement inclusive education properly. SDN Ketintang II often does socialization and done some activities outside to socialize inclusive education to society.

REFERENCES

Alimin, Z. (2005). Memahami Pendidikan Inklusif dan Anak Berkebutuhan Khusus.
Makalah tidak diterbitkan. Bandung: Jurusan PLB FIP UPI. Convention on the Rights of the Child. United Nations General Assembly resolution 44/25, 20 November 1989

Mitchell, D. 2006. Special Education Needs and Inclusive Education: Major Themes in Education, New York : Publisher's Note.

Final Report of the 27th Asia-Pacific International Seminar on Education for Individuals with Special Needs: *Advancement of Education to Meet the Special Needs of Individuals toward Realization of Principle of Equity and Social Cohesion. 3-6 December 2007, Yokohama, Japan.* http://www.nise.go.jp/kenshuka/josa/kankobutsu/pub_d/d-266.pdf

Smith, J.D. 1998. Inclusion: School for All Learners. New York: Wadswarth Publishing Company.

Somad, P. and Z. Alimin. 2004. Reorientasi Pemahaman Konsep Special Education dan Implikasinya ke Konsep Special Needs Education terhadap Layanan Pendidikan. *Jurnal Jassi_anakku* 3, no. 1: 15-21. Bandung: Jurusan PLB FIP UPI

Stubs, S. (2002). Inclusive Education Where There Are Few Resources. Oslo: The Atlas Alliance. Sujarwanto. 2004. Inclusive Education in Indonesia: Lessons from Japanese Special Education Models. Tsukuba: CRICED University of Tsukuba

Sunanto, Juang. 2009. Implementasi Pendidikan Inklusif di Sekolah Dasar. Bandung: Pusat Kajian dan Inovasi Pendidikan – Sekolah Pasca Sarjana UPI. Sunardi (2009).

Tarsidi, Didi. 2004. Implementation of Inclusive Education in Indonesia, Bandung: Universitas Pendidikan

Author's Biodata

Ana Rafikayati is a lecturer in University of PGRI Adi Buana Surabaya. She got her master degree at State University of Surabaya. She has range of experiences as a teacher and consultant of learner with special needs since 2011. She joined range of project about special education, such as: the development of recorded book and orientation mobile skill of learner with visual impairment in 2010, the development of communication method for learner with special needs in 2012 and 2013 and the development of post school transition for learner with special needs 1n 2014 and 2015.

PRESENTER'S PAPERS

Character Education Values in English Textbook Entitled "English in Focus" for Junior High School Grade VII

Annysa Dwi Cahyani
annysadwic@gmail.com

ZahrahZakiyaAhda
zahrahzakiya22@gmail.com

State University of Malang
Jl. Semarang No. 5, Malang, East Java, Indonesia 65145

Abstract

As issued by The Ministry of Education in 2010, character education has to be integrated in all levels of education as well as in all subjects, including English. It can be integrated in syllabi, lesson plans, instructional materials, and teaching practices. Textbook, as one of the instructional materials, can be used as a medium to implement character education. This study aims to analyze the presentation of character education values in English textbook entitled English in Focus for Junior High School Grade VII. Specifically, it focuses on investigating the character education values in reading texts and activities. This study employs descriptive-qualitative content analysis design. The finding shows that generally the textbook presents 13out of 14 values which have to be implemented based on Guidelines for English Teacher: Integrated Character Education in Junior High School (2010). There are nine values found in reading texts namely polite, democratic, caring, responsible, inquisitive, passionate about knowledge, honest, hardworking, and respectful of diversity. On the other hand, six values are presented in the activities including cooperative, confident, precise, democratic, respectful of diversity, and creative. Thus, it can be concluded that English in Focus textbook has good potential as an instructional material for instilling character education values.

Keyword: character education values, English textbook, junior high school.

Nowadays, Indonesia is undergoing the degradation of morality and characters.The negative values and lifestyles of globalization such as hedonism, materialism,and permissiveness contribute to this matter (Azra, 2012).Today's young generation tend to leave the values of their own culture behindand simply followthe ones brought by the media and technology. This phenomenonthen leads to many serious problems such as student's juvenile, free-sexamong teenagers, drugs abuse, cyber bullying, etc.In accordance to this matter, education indeed plays an important role in developing good characters of the nation. The Ministry of National Education in 2010 ruled that character education has to be integrated in all levels of education as well as in all subjects. It should be integrated in the curriculum, student counseling, extracurricular activity, and other school programs in order to get optimal outcomes (Kemdiknas, 2011). Furthermore, since English is a compulsory subject taught from secondary to university level, it is important to apply character education in its teaching and learning process. It is expected that the values of cultures in Indonesia are reflected in the syllabi, lesson plans, instructional materials, as well as the teaching practices (Kemdiknas, 2011).

Textbook, as one of instructional materials, is best seen as a resource in achieving aims and objectives that have already been set in terms of students' needs (Cunningsworth, 1995:7). In this case, the textbook can be utilized as a medium to implement character education values. In order to find the suitable textbook which can fulfill students' needs, selecting and analyzing textbook is necessary before the teaching and learning process begins. The teachers have to determine the students' needs and select thetextbook based on them. Since character education now becomes a

major issue in our education system, this study attempts to analyze character education values which are presented in English textbook entitled *English in Focus* for Junior High School Grade VII. This study aims to examine whether the content of *English in Focus*textbook represents the character education values needed by the students.

Generally, based on Indonesian Government Guidelines of Implementation of Character Education (2011), they are 18 values that have to be implemented in teaching and learning activity. Then the governmentreformulates the values that need to be integrated especially in Junior High School level, which consist of 24 values. Those values are derived from graduate competence standard or StandarKompetensiLulusan (SKL), standard of competence or StandarKompetensi (SK), and basic competence or KompetensiDasar (KD). It is stated that each subject does not need to implement all 24 character education values. Instead, each subject can focus on particular values which are relevant withthe subject's characteristics and process. Thus, the values which are integrated in the classroom should depend on the characteristics of each subject (Kemdiknas, 2011).Furthermore, based on Guidelines for English Teacher: Integrated Character Education in Junior High School(2010), the values have been decreased into 14 values. They are specified based on the characteristics of English subject. Those values are (1) religious, (2) polite, (3) honest,(4) confident, (5) caring, (6) responsible, (7) passionate about knowledge, (8) inquisitive, (9) precise, (10) think logically, critically and creatively (smart), (11) cooperative, (12) respectful of diversity, (13) democratic, and (14) hardworking.

Previous studies with similar topic had been conducted by Lestari (2012) and Hapsari (2013). Lestari (2012) examined character building values which are presented in two English textbooks for Junior High School grade VII and VIII used in SMPN 1 Malang. The study focused on the themes, reading texts, and activities in the textbooks. The findings revealed that each unit in the textbooks has already reflected character building values implicitly. However, the two English textbooks do not cover all of the 18 values of character building launched by the government. On the other hand, Hapsari (2013) investigated English textbook used in Senior High School for grade XI. She specified her analysis on the reading sections only. The findings unfolded that from 18 character education values set by the Ministry of National Education, there are 17 of them presented in the reading sections of the book.

The current study is different from the previous ones in some aspects. First, the book being analyzed is used by several Junior High Schools in Malang. Second, the present study focuses on character education values presented in the reading texts and activities in one textbook (i.e. *English in Focus*). Third, this study uses fewer values (14 values) which are specified for English subject in Junior High School as a set of criteria in analyzing the textbook. The result of this study is expected to give valuable information about character education values presented in *English in Focus*textbook. It also can be used as a reference in teaching character education values in English classrooms, especially in the first grade of Junior High School.

METHOD

The method used in this study is descriptive-qualitative content analysis. It is aimed at identifying character education values presented in English textbook entitled *English in Focus* for Junior High School Grade VII, especially in the reading texts and activities. Two guideline tables were used as instruments to analyze the textbook. The first table was designed to identify the character education values presented in the reading texts. It containsthe definition and indicators of 14 values which haveto be integrated in teaching and learning of English subject in Junior High School. The second table was designed to identify the character education values presented in the activities of the textbook. In designing the second table, the researchers categorized the type of activities and described the purpose of each activity. Then, the researchersdecided the possible and suitable character education values that can be presented in each activity.The instruments utilized in this study were adapted from Lestari (2012).

The data collection and analysis were done in several steps. First, selecting and categorizing the data into the form of reading texts and activities or practices.Reading texts which include dialogue, short functional texts, and short monologues/essays were selected from each chapter in the book. For activities, all the practices in each chapter were collected. The similar or repeated activities were omitted if they appear again in different chapter to make the data fewer and easier to analyze.The second step was formulating the coding categories based on the reading texts and activities selected. Then, the following step was analyzing the data using the instruments. In addition, the checklists to identify values in reading texts and activities were made to make the process of data analysis easier. The last step of this stage was drawing a conclusion about the presentation of character education values in the textbook, especially in the reading texts and activities.

FINDINGS AND DISCUSSION

The findings revealed that there are nine character education values presented in reading texts. On the other hand, there are six values identified in activities. The detail of the findings are explained as follow.

The Presentation of Character Education Values in Reading Texts

In*English in Focus*textbook, 92 reading texts are identified. The reading texts consist of dialogues (transactional and interpersonal), short functional texts (greeting card, advertisement, and short message), and monologues/essays (short descriptive text and procedural text). The data mostly consist of dialogues rather than short functional or monologue texts. From total 92 texts, character education values arefound in 47 texts. One text might contain more than one value. The number of values presented is shown in the table below. The table is established from the character education values which appear the most to the least frequently in reading texts.

Table 1. Character Education Values Presented in Reading Texts

Character Education Values	Number of Presentation
Polite	29
Democratic	10
Caring	7
Responsible	4
Inquisitive	4
Passionate about knowledge	3
Honest	2
Hardworking	1
Respectful of diversity	1
Religious	0
Confident	0
Precise	0
Smart/Creative	0
Cooperative	0
Total	61

The table shows that out of 14 character education values, nine values are presented in the texts. They include polite (29 texts), democratic (10 texts), caring (7 texts), responsible (4 texts), inquisitive (4 texts), passionate about knowledge (3 texts), honest (2 texts), hardworking (1 text) and respectful of diversity (1 text). The values that appear the most frequently is polite, while the values which is found the least frequently are respectful of diversity and hardworking. Besides, the values that are not presented at all in reading texts include religious, confident, precise, smart/creative, and cooperative. From the presentation of each value in the text, it can be

concluded that the distribution of values in reading texts is not balanced. There is one value that appears many times, such as polite. There are also values which are presented poorly in the textbook, such as hardworking and respectful of diversity. Moreover, five values are not even presented in the texts. It indicates that the reading texts in *English in Focus* have not met the whole criteria that have been launched by the government. For Junior High School level, especially English subject, there are 14 character values that need to be integrated (Kemdiknas, 2010).

The Presentation of Character Education Values in Activities

The result of activities analysis shows that from 92 activities listed, 61 of them contain character education values.One activity might contain more than one value. The Table 2 shows the number of the character education values appearthe most to the least frequently in activities.

Table 2. Character Education Values Presented in Activities

Character Education Values	**Number of Activities**
Cooperative	28
Confident	22
Precise	22
Democratic	21
Respectful of diversity	20
Creative	16
Total	129

The table shows that the values that are found the most frequently is cooperative, while the values which are found the least frequently is creative. Cooperative value is presented in 28 activities, confident is presented in 22 activities, precise is presented in 22 activities, democratic is presented in 21 activities, respectful of diversity is presented in 20 activities, and creative is presented in 16 activities. Even though the values found in activities is fewer than in reading texts, the distribution of values in activities is quite balanced. It can be seen from the number of presentation of each value in the table. The number of values presentation shows that there is no wide gap as in reading texts. Nevertheless, in terms of the value presented in each of activity, there are many activities which do not contain any character value at all.

To overcome this matter, as stated in Guidelines for English Teacher: Integrated Character Education in Junior High School(2010), the integration of character education values can be implemented through adaptation of textbook before the teaching and learning process. The adaptation can be complete or partial. Complete adaptation refers to the revision or addition of content, teaching and learning activity, and evaluation of teaching materials. On the other hand, partial adaptation covers one/two aspects from content, teaching and learning activity, and evaluation of teaching materials.For example, in adapting activities, the teacher can modify *Answer the following questions* into *Answer the following questions orally in front of class*. The first activity does not seem to reflect the character education value. On the other hand, the modified activity requires the students to be confident to answer the questions in front of class. It indicates that the latter activity integrate the character education values in its process. Furthermore, for texts modification or adaptation, the teacher can edit the text and add some values by themselves or find the materials that already contain character values in good and reputable sources.

CONCLUSIONS AND SUGGESTIONS

In terms of the presentation of character values in reading texts, nine values were found out of 14 character values set in Guidelines for English Teacher: Integrated Character Education in Junior High School(2010). They are presented in 47 texts out of 92 texts in the textbook. One text might present more than one value. The character values presented are polite (29 texts), democratic (10 texts), caring (7 texts), responsible (4 texts), inquisitive (4 texts), passionate about knowledge (3 texts), honest (2 texts), hardworking (1 text) and respectful of diversity (1 text). The values which appeared the most frequently is polite, while the values which is found the least frequently are respectful of diversity and hardworking. Moreover, in terms of the presentation of character education values in activities, six values are presented in the textbook. From 92 activities listed, 61 of them contain character values. One activity might present more than one value. They include cooperative (28 activities), confident (22 activities), precise (22 activities), democratic (21 activities), respectful of diversity (20 activities), and creative (16 activities).

In general, the English textbook entitled *English in Focus* for Junior High School Grade VII present 13 character values in the texts and activities. The values are polite, democratic, caring, responsible, inquisitive, passionate about knowledge, honest, hardworking, respectful of diversity, confident, precise, creative, and cooperative. The value which is not found at all in the textbook is religious. It can be concluded from the result of analysis that the character education values presented in *English in Focus* textbook has not meetthe criteria set by the government. However, *English in Focus* has a good potential as a material for instilling character education values in the classroom. For practical implication, English teachers could use*English in Focus* textbook as one of the materials to implement character education in their English classrooms. The teachers could refer to the results of this study to get the information about what values are presented in *English in Focus*.

Based on the conclusion drawn, the researchers would like to offer suggestions to English teachers to select the materials in the textbook which consists of the values which have been launched by the government. Besides, the teachers can modify the materials in the textbook by inserting certain values to meet the criteria of character education implementation. Adaptation from other learning materials (i.e article from Internet, videos from Youtube) could also be done if the teacher think it is necessary. For English textbook writers, it is suggested to concern on the balance distribution of character education values in the textbook such as in the texts, pictures, as well as the activities.

REFERENCES

Azra, A. (2012). *Pendidikan Karakter: Peran Sekolah dan Keluarga*. Paper presented in Seminar Pendidikan Karakter Teguhkan Pribadi Bangsa Jurusan Biologi, FMIPA, UNNES Semarang, Sunday, September 23rd, 2012.

Cunningsworth, Alan. (1995). *Choosing Your Coursebook*. Heinemann: Macmillan Education.

Hapsari, P.L. (2013). Character Education Values in Reading Section of E-English Textbook for Senior High School Students Grade XI. *ELT Forum: Journal of English Language Teaching,* 2(1). Retrieved from http://journal.unnes.ac.id/sju/index.php/elt/article/view/1559.

Lestari, I.P. (2012). *Character Building in Junior High School English Language Textbooks: A Content Analysis.*Unpublished thesis: State University of Malang

-------. (2010). *Panduan Guru Mata Pelajaran Bahasa Inggris: Pendidikan Karakter Terintegrasi dalam Pembelajaran di Sekolah Menengah Pertama*. Jakarta: Kementerian Pendidikan Nasional.

-------. (2011). *Panduan Pelaksanaan Pendidikan Karakter*. Jakarta: Kementerian PendidikanNasional.

PRESENTER'S PAPERS

Author's Biodata

Annysa Dwi Cahyani is a student in Graduate Program at State University of Malang. iversity of Malang. She is currently pursuing her master's degree in English Language Teaching (ELT). Her area of interest in research coverscharacter education, language learning strategies, and English literature and linguistics. annysadwic@gmail.com

Zahrah Zakiya Ahda is currently a student in Graduate Program of English Language Teaching (ELT) at State University of Malang. Her bachelor degree was accomplished from State University of Malang in 2013. Her areas of interest include media and materials development, teaching of speaking, character building, English literature, and young learners. zahrahzakiya22@gmail.com

Teachers' Perceptions of ESP Students' Speaking Skill Development

Atiqah Nurul Asri
State Polytechnic of Malang
atiqah.na@gmail.com

DyahRochmawati
University of PGRI Adi Buana Surabaya
dyra.hadi@yahoo.com

Abstract

The present study has investigated teachers' perceptions about the development of their English for Specific Purposes (ESP) students' speaking skills during the ESP courses at State Polytechnics of Malang and PGRI AdiBuana University of Surabaya in 2015. The study employed a survey research design. Teachers' perceptions were determined by using an informal unstandardized questionnaire developed by the researcher. Information gathered from responses was analyzed using percentiles and frequency counts. The questionnaire was administered to the teachers as well as the students and its subsequent comparative analysis. The findings revealed that: (1) both the teachers and students perceived improvement on their oral skills, (2) the teachers and the students perceived the importance of using the target language inside and outside the classroom, (3) the teachers and the students perceived the students' making fears of making mistakes in front of the classmates were perceived as negative influence in the students' participation in class, (4) the teachers and the students perceived that the students needed to be encouraged to use of English in and outside the class, and (5) the grade was perceived as a positive influence by either the teachers and the students. The teachers' perceptions of classroom assessment have influence on their classroom assessment practices. Implications of this study for ELT include among others that teachersshould be aware of the need of helping students to develop their autonomy and a sense of self-responsibility own learning which motivate them to more participate in class.

Keywords: teachers' perceptions, ESP students' speaking skill development

1. INTRODUCTION

The English language has become a major medium for communication across borders globally and is seen nowadays as the medium of communication not only for business but also for academic purposes. The globalization of English has brought about a growing demand for good English speaking skills for English for Specific Purposes (ESP) students. One of the goals of an ESP course is therefore to boost the students' oral communication skills and to help them develop oral abilities to communicate fluently in different professional contexts (Day &Krzanowski, 2011). Acquiring a foreign language gives people the opportunity to get better work opportunities since English nowadays is seen as a bridge to improve life quality (Ramirez, 2010, p. 7-9).

Accordingly, mastering speaking skills for ESP students is crucial (Bojovic, 2006). Oral communication reflects the persistent and powerful role of language and communication in human society. Speaking is the mode of communication most often used to express opinions, make arguments, offer explanations, transmit information, and make impressions upon others. The students need to speak well in their personal lives, future workplaces, social interactions, and political endeavors. They will have meetings to attend, presentations to make, discussions and arguments to participate in, and groups to work with (Rahman, 2010).

In order to achieve mastery of English as a foreign language (EFL), the students must develop the four principal language skills: reading, writing, listening and speaking. However, being able to interact orally with others, using effectively the target language, is nowadays of the utmost importance, up to the point where people who cannot speak a foreign language cannot be considered effective language users, even if they can read it and understand it. The development of efficient oral skills is especially significant necessity since students need not only to be able to perform accurately, fluently, and spontaneously in any situation, but as future professionals will be in charge of educating others and helping them to develop their own communicative competences (Ramirez, 2010, p. 10). Thus in order to function successfully academically and professionally, one needs to learn effective oral communication skills (Rahman, 2010).

The teachers' role in promoting foreign language acquisition is very important, as they are responsible for providing students appropriate contexts to foster communicative situations that allow students to express themselves and interact in the target language. However, students' dynamic role, attitude, participation and motivation, are vital in the process. Without their active involvement in class activities, oral skills cannot be properly developed, especially as the classroom is, in many occasions, the only environment in which they have opportunities to use orally the target language (Ramirez, 2010, p. 10).

In addition, the teachers have to be aware that regardless of the fact that he/she invested a lot of effort into providing the students with quality knowledge before providing them with proper conditions for learning. It is a component part of the pedagogical proficiency of teachers. Professional competencies of a successful teacher include knowledge and understanding, as well as skills. Knowledge and understanding further encompass the knowing of students and their ways of studying, professional knowledge of the taught subject, being familiar with the curriculum, educational system and teacher roles (i.e. ability to reflect, administrative chores, legal responsibility, team work).One of them is concerned with how their students develop their oral skills. In response to such question, the teacher should have ability to reflect on, explore and question their own work. Along with the need for self-evaluation, which enables teachers to improve their teaching, outside evaluation is also gaining ground (Lavrič, 2006).

The present study therefore aimed at understanding the teachers' perceptions and opinions about the development of their ESP students' oral skills in order to get insights about the kind of activities and personal motivating factors that may contribute to provide the students appropriate contexts to foster communicative situations that allow the students to express themselves and interact in the target language, i.e. English. This knowledge of the students' speaking skills development ensures a wider base for establishing quality relationships between teacher and student. Specifically, the following three questions guided the study: (1) How do teachers perceive their ESP students' development of speaking skills? (2) What kinds of methods and tools do the teachers use to develop the students' speaking skills? (3) What is the influence of the teachers' perceptions of development of the students' speaking skills on their speaking classroom practices?

2. THE IMPORTANCE OF ESP SPEAKING SKILLS DEVELOPMENT

ESP (English for Specific Purposes) involves "teaching and learning the specific skills and language needed by particular learners for a particular purpose, that is, a set of skills that learners currently need in their work or will need in their professional careers". ESP teachers should provide the opportunity to base activities on the situations and texts the professional learners actually need English for in the workplace(Day &Krzanowski, 2011, p. 5-6).

Modern workplace communication expects well-rounded professionals who not only have an excellent command of their subject area, but who can also communicate well both with colleagues and the general public. The focus needs to be on communication, and consider both accuracy and fluency (Day &Krzanowski, 2011, p. 13).

Research in the area of workplace communication suggests that it is important for ESP students to demonstrate excellent soft competencies such as effective oral communication skills.

Many researchers have worked on this issue and found that the significance of communication skills as one of the competencies highly needed in the business industry (Patil&Karekatti, 2012).

As speaking is such a prominent part of the English language, the teacher is obliged to possess knowledge of how to improvestudents' proficiencies in an efficient way. The question is how to use this knowledge whenthe teacher is supposed to compose different methods for lessons, evaluate the exercises andgive proper feedback to the students (Elftrop, 2007). In this instance, teachers make use of a variety of approaches ranging from direct approaches focusing on specific features of oral interaction (e.g. turn taking, topic management, questioning strategies) to indirect approaches which create conditions for oral interaction through group work, task work, and other strategies (Richards, 1990). In designing materials, teachers should base on the three functions of speaking in human interaction: talk as interaction, talk as transaction, and talk as performance (Jones, 1996; Burns, 1998).

Assessment is part of a cyclical model serving as part of the learning process (Owen, 2016). Concerning students' speaking development, the students consequently should oftentimes "evaluate their success in language learning as well as the effectiveness of the English course on the basis of how well they feel they have improved in their spoken language proficiency." (Richards, 1990) In this instance, the teachers should report the students' progress through teacher composed narratives.

3. METHOD

The present study was carried out at State Polytechnics of Malang and PGRI AdiBuana University of Surabaya in 2015. Six ESP teachers and a total of 100 students who enrolled 'English for Specific Purpose' in their second semester participated in the study. They were comprised of three teachers from State Polytechnics of Malang (POLINEMA) and three teachers from PGRI AdiBuana University of Surabaya (UNIPASurabaya), and 50 students from State Polytechnics of Malang and 50 students from the Accounting Department of PGRI AdiBuana University of Surabaya.

The students had varying levels of proficiency in English. The ESP syllabus of both institutions focused on both English oral and written forms of communication which included communication theory; techniques to improve communication; vocabulary, grammar, and basic official correspondence (business letter writing); basic to advanced technical writing (report writing, technical paper writing, writing business proposals etc.); interpersonal skills; presentation skills; career skills (resume and cover letter writing, interview techniques); group discussion etc. Sixty-two of the students were male and 38 were female. All of the studentswere full-time students. The age range of the participants was from18 years to 22 years, with an average age of 20.9 years.

The study employed a survey research design since it was used to assess thoughts, opinions, and feelingsof both teachers and students regarding students' oral skills development. For the teachers' perceptions, a questionnaire was used aimed at determining the teachers'perceptions. The questionnaire had eleven closed items. The first four questions sought to establish teaching experience, how long the teacher had been teaching ESP, the grade level at which the teacher was teaching ESP and how long the teacher had been teaching ESP at that grade. The rest of the items were in two major categories, namely perception of students' speaking skills development and speaking classroom practices, including, psychological barriers in learning of speaking, positive learning environments inside and outside classroom, innovative teaching of speaking, various functions of speaking, using conversational conventions, using communication strategies, using public talk-based activities, using authentic materials and real-world transactions, reflecting the learning and giving feedbacks, and using authentic assessment.

For the students' perceptions, the data were collected by using an informal unstandardized questionnaire developed by the researchers and adapted from the improved questionnaire for gathering student perceptions ofteaching and learning by Devlin (2002). The questionnaire was applied to the teachers as well as the students and its subsequent comparative analysis. It contained

tenclosed questions. The first group of questions addressed demographic data, such as grade level taught, major, age, and gender. A second group of questions used a Likert scale to rate teacher perceptions on issues such as, students' needs analysis, psychological barriers in learning of speaking, positive learning environments inside and outside classroom, innovative teaching of speaking, various functions of speaking, using conversational conventions, using communication strategies, using public talk-based activities, using authentic materials and real-world transactions, reflecting the learning and giving feedbacks, and using authentic assessment.

For the students' perceptions, the collection of data took place a number of weeks into second semester so that the students had at least one semester's experience of university study and so that perceptions about their current experiences had had time to stabilize. Information and consent forms and questionnaires were administered at the end of lectures timetabled in the morning and afternoon of a day when students had both morning and afternoon classes. Potential participants were instructed to read the information and consent form and if they were willing to continue and participate, fill in the questionnaire that day, on their own, by following the instructions within it. They were asked to then bring the completed questionnaire to a specific lecture timetabled for the same afternoon where it was collected by the researchers.

Two questionnaires (Five point Likert type scale) for students and teachers were developed respectively. Each questionnaire was consisting of ten statements. The questionnaires were tryout and piloted before finalization. After tryout and piloting questionnaires were reviewed by three experts and five doctoral research fellows. The reliability coefficients of point biserial correlation α for teachers' and students' questionnaire were 0.92 and 0.88 respectively.

In addition, the study employed observation and interview. The collected data through the student survey questionnaire and these two methods were used to triangulate the information gathered through the teacher survey questionnaire.Information gathered from the responses was analyzed using percentiles and frequency counts.

4. RESULTS AND DISCUSSION

The teachers' data is analyzed and results are tabulated as under. Frequencies and percentages are calculated for analyses.

Table 1 Teachers' data

Topics of Statements	**Percentages of Responses**									
	POLINEMA					**UNIPA Surabaya**				
	1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
1. Students' needs analysis	-	-	-	66	34	-	-	-	100	-
2. psychological barriers in learning of speaking	-	-	-	66	34	-	-	-	66	34
3. Positive learning environments	-	-	-	100	-	-	-	-	100	-

inside and outside classroom										
4. Innovative teaching of speaking	-	-	-	66	34	-	-	-	100	-
5. various functions of speaking	-	-	-	34	66	-	-	-	66	34
6. using conversational conventions	-	-	-	100	-	-	-	-	100	-
7. using communicatio n strategies	-	-	-	100		-	-	-	100	-
8. using public talk-based activities	-	-	-	66	34	-	-	-	66	34
9. using authentic materials and real-world transactions	-	-	-	66	34	-	-	-	100	-
10. Reflecting the learning and giving feedbacks	-	-	-	100	-	-	-	-	66	34
11. using authentic assessment	-	-	-	66	34	-	-	-	100	-

Table 1 reveals that almost all of the teacher respondents agreed and strongly agreed with the points being asked. Regarding the students' needs analysis, of 3 respondents of POLINEMA, 2 (66%) replied 'agree' and 1 (34%) answered 'strongly agreed'; whereas 100% of the respondents of UNIPA Surabaya replied that they agreed to assess the students' needs before planning the ESP course.In relation to psychological barriers in learning of speaking, the respondents of both institutions shared the similar results that they agreed to consider the students psychological problems in learning how to speak. In terms of positive learning environments, all of the respondents agreed that they provided and fostered constructive learning environments both inside and outside classroom. Other responses regarding the application of innovative teaching, of POLINEMA respondents, 66% respondents agreed that they implemented innovative teaching of speaking and 34% respondents strongly agreed that they applied the teaching of speaking with innovation; whereas all of the respondents from UNIPA Surabaya agreed to apply such teaching of

speaking. In addition, 34% of respondents of POLINEMA agreed that they included various functions of speaking in their ESP class and 66% responded 'strongly agreed'. Conversely, of UNIPA Surabaya respondents, 34% respondents agreed that they implemented innovative teaching of speaking and 66% respondents strongly agreed that they applied the teaching of speaking with innovation. Furthermore, all of the respondents from both institutions agreed that they introduced conversational conventions and communication strategies to their students. In connection with the use of public talks, 66% of the respondents either from POLINEMA or UNIPA Surabaya agreed, whereas 34% of the respondents from both institutions strongly agreed that their teaching of speaking was based on public talks. Relating to the speaking materials, 66% of the respondents from POLINEMA replied 'agree' with the use of authentic materials and real-life transactions and the rest of them answered 'strongly agree', while 100 % of the UNIPA Surabaya respondents agree to apply the materials and the transactions. For the reflections, all of the POLINEMA respondents agreed to do the reflection and provision of feedbacks for their students, whereas 66% of the respondents from UNIPA Surabaya agreed and 34% of the respondents strongly agreed to applied them. Last but not least, concerning with the use of assessments, 66% of the respondents from POLINEMA agreed and 34% of the respondents strongly agreed to carry out authentic assessment for their students' speaking performances, whereas 100% of the respondents from UNIPA Surabaya agreed with the use of the authentic assessments.
Table 2 presents percentages of the sample group of students.

Table 2 Students' data

Topics of Statements	**Percentages of Responses (%)**									
	POLINEMA					**UNIPA Surabaya**				
	1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
1. Students needs analysis	-	-	-	46	54	-	-	-	68	32
2. Psychological barriers in learning of speaking	-	-	-	82	18	-	-	-	77	23
3. Positive learning environments inside and outside classroom	-	-	17	52	31	-	-	12	67	21
4. Innovative teaching of speaking	-	-	-	79	21	-	-	-	66	34
5. various functions of speaking	-	-	-	91	9	-	-	-	78	22
6. using conversational conventions	-	-	-	86	14	-	-	6	83	11
7. using communication strategies	-	-	-	66	34	-	-	-	64	36
8. using public talk-based activities	-	-	-	89	11	-	-	-	76	24
9. using authentic materials and real-world transactions	-	-	-	78	22	-	-		74	26
10. Reflecting the learning and giving	-	-	-	85	15	-	-	-	94	6

feedbacks										
11. using authentic assessment	-	-	-	98	2	-	-	-	89	11

Table 2 reveals that almost all of the student respondents agreed and strongly agreed with the points being asked. Regarding the students' needs analysis, 46 % respondents of POLINEMA, replied 'agree' and 54% answered 'strongly agreed'; whereas 68% of the respondents of UNIPA Surabaya replied that they agreed and 32% of the respondents strongly agreed to be asked for their' needs before the ESP course started. In relation to psychological barriers in learning of speaking, 82% of the respondents of POLINEMA replied that they agreed and underwent psychological problems (such as, fear of making mistakes, anxiety, inferiority, and so forth) when performing aspeaking task. 18% of them answered 'strongly agree', whereas of the respondents from UNIPA Surabaya, 77% of them agreed and 23% strongly agreed that they had similar experience when speaking. In connection with positive learning environments, 17% of the respondents from POLINEMA were not sure that they were provided with constructive learning environments both inside and outside classroom, 52% agreed and 31% strongly agreed, while 12% of the respondents from UNIPA Surabaya were neutral regarding the learning environments on and off campus, 67% agreed and 21% strongly agreed. Other responses regarding the application of innovative teaching, of POLINEMA respondents, 79% respondents agreed that their teacher implemented innovative teaching of speaking and 21% respondents strongly agreed that their teacher applied the teaching of speaking with innovation; whereas of the respondents from UNIPA Surabaya 66% agreed and 34% strongly agreed to be experiencing such teaching of speaking. In addition, almost all (91%) of the respondents of POLINEMA agreed and only 9% of them strongly agreed that they performed functions of speaking in their ESP class, whereas of UNIPA Surabaya respondents, 78% respondents agreed and 22% replied that they strongly agreed to have speaking for a variety of functions. Furthermore, the respondents from both institutions shared similar results. 66% and 64% of the respondents of both institutions agreed that they were introduced to communication strategies, whereas 34% and 36% strongly agreed to be presented with communication strategies. In connection with the use of public talks, 89% of the respondents from POLINEMA and76% of UNIPA Surabaya agreed, whereas 11% of the respondents from POLINEMA and 24 % of UNIPA Surabaya strongly agreed that their learning of speaking was based on public talks. Relating to the speaking materials, 78% of the respondents from POLINEMA replied 'agree' and 22% had 'strongly agree' replies in connection with the use of authentic materials and real-life transactions, while74 % of the UNIPA Surabaya respondents agreedand 26% strongly agreed to apply the materials and the transactions. For the reflections, 85% of the POLINEMA respondents agreed and 15% strongly agreed to do the reflection and provision of feedbacks by their teacher, whereas almost all (94%) of the respondents from UNIPA Surabaya agreed and only 6% of the respondents strongly agreed to applied them. Last but not least, concerning with the use of assessments, nearly all of the respondents from both institutions (98%) and (89%) respectively agreed and the other respondents strongly agreed to have authentic assessment for their speaking performances, whereas the rest of the respondents from both strongly agreed with the use of the authentic assessments.

These results indicated that numerous attempts have been made by the teachers to acquire the knowledge of how their students experience the whole process of learning of speaking. Additionally, the teachers considerably valued the process of learning. They addressed the core issues in planning speaking activities. This was confirmed by the students' responses in the questionnaire. Furthermore, in designing speaking materials and activities, the teachers recognized various functions and setting speaking performs in daily and real-world communication and interaction. After the learning, the teachers considered the assessment of their students' speaking performances and how the feedbacks were given. This is in line with the true purpose of assessment, that is, to evaluate a student's level of understanding, and the assessment should be used to provide appropriate feedback and guidance in planning future instruction (Owen, 2016).

Underlying the study was recent research into teacher and student perceptions of their own experiences. Teachers holding these perceptions can be used to encourage enhanced learning outcomes. Students' success requires understanding the complex interactions in classrooms between teachers and students. Understanding teachers' and students' perceptions of learning contexts can improve teaching and learning. It can establish a series of systematic associations linking teachers' perceptions and approaches with students' perceptions, learning approaches and outcomes. By doing so, teachers conceptualize and approach teaching in a number of different but related ways. The learning context provided by a teacher is the practical implementation of the teacher's perceptions of learning and teaching, and approach to teaching. Students have been found to vary their learning approach in response to certain factors they perceive in the learning context (Cope & Ward, 2002).

5. CONCLUSION AND SUGGESTION

Based on the previous discussion, some conclusions can be drawn. First, in order to function successfully academically and professionally, one needs to learn effective oral communication skills. By becoming an effective communicator one will be able to conduct himself in a variety of personal, professional, and academic environments with confidence.

Second, teachers need to acknowledge the students' factors contributing to learning and reflect on their relationships with the students and thus made them think about the day-to-day communication between them. The teachers'starting point for own reflection was their commonly accepted premise that in order toachieve teaching goals, the role of learning processes cannot be overlooked (Lavrič, 2006). This instance applies to the cases of ESP students' learning of speaking.

All in all, it is vital that both teachers and students realize their share of responsibility in the pedagogical process. Teachers should also be aware of the possibility that even though they might do their best to provide students with quality knowledge, the latter might not get across. By trying, though, they might prepare ground for success.

For future researchers, it is suggested that the sample size, sample frame and sampling method make it difficult to generalize the results to the whole population of teachers and universities in East Java. However, the results are generalizable to the universities sampled and give an insight of what the picture could be like if more participants and other sampling methods were used.

REFERENCES

Alftrop, F. (2007).*Howto Improve Students' Writing and Speaking Skills.*(Unpublished dissertation), HögskolanFörLärandeOchKommunikation (HLK).

Bojovic, M. (October, 2006). *Teaching Foreign Language for Specific Purposes: Teacher Development.* Paper presented at the 31st Annual ATEE Conference in Portorož, Slovenia.

Burns, A. (1998). *Teaching Speaking.* Annual Review of Applied Linguistics. 18,102-123.

Cope, C.& Ward, P. (2002). Integrating learning technology into classrooms: The importance of teachers' perceptions. *Educational Technology & Society 5 (1), ISSN 1436-4522*

Day, J., &Krzanowski, M., (2011). *Teaching English for Specific Purposes: An Introduction.* Cambridge: Cambridge University Press.

Devlin,M. (2002). An improved questionnaire for gathering student perceptions of teaching and learning. *Higher Education Research and Development* 21 (3), 289-304.

Jones,P. (1996). Planning an oral language program. In Pauline Jones (ed). *Talking to Learn*. Melbourne: PETA 1996, 12-26.

PRESENTER'S PAPERS

Lavrič, A., (October, 2006). *Teachers' Reflections on Their Attitude toward Students*. Paper presented at the 31st Annual ATEE Conference in Portorož, Slovenia.

Owen, L. (2016). *How Important are grades?* Retrieved from http://teaching.monster.com/education/articles/8138-how-important-are-grades

Patil, S. &Karekatti, T. (2012). Correlation between Level of Communication Apprehension and Development of Communication Skills in Engineering Students. *English for Specific Purposes World*, Issue 36, vol. 12, ISSN 1682-3257. Retrieved from http://www.esp-world.info

Rahman, M.M. (2010). Teaching Oral Communication Skills: A Task-based Approach. *ESP World*, Issue 1 (27), Volume 9, Retrieved from http://www.esp-world.info.

Ramirez, V. A. C., (2010).*Students' Perceptions about the Development of Their Oral Skills in an English as a Foreign Language Teacher Training Program.* (Unpublished Thesis). Universidad Tecnológica De Pereira, Columbia.

Richards, J. C. (1990). Conversationally speaking: approaches to the teaching of conversation.In Jack Richards (ed), *TheLanguageTeaching Matrix*. New York: Cambridge University Press, 67-85.

PRESENTER'S PAPERS

APPENDICES

1. Teacher's Questionnaire

TEACHER PERCEPTION SURVEY

Please read each statement and select the response that best describes your perception by circling the appropriate response number. All of your answers are confidential.

1- strongly disagree

2- disagree

3- not sure/neutral

4- agree

5- strongly agree

1. I usually assess my students' actual needs from my speaking class before planning the semester course.

   1 2 3 4 5

2. I take into consideration my students' psychological barriers in speaking activities.
   1 2 3 4 5
3. I oftentimes try to do my best to foster a positive, autonomous, and practical speaking classroom environment inside and outside classroom and campus.
   1 2 3 4 5
4. I employ various speaking classroom activities in a fun, comfortable, and engaging way, in pairs, in small groups, and in classroom discussions.
1 2 3 4 5
5. I include current and real-world communicative tasks for various functions and settings for my speaking class.

   1 2 3 4 5
6. I introduce the conversational conventions to my students before performing a speaking task.
   1 2 3 4 5
7. I introduce various communication strategies to perform a speaking task to my students.
   1 2 3 4 5
8. I refer to public talks to develop my speaking materials.
1 2 3 4 5
9. I use authentic materials and real-world transactions.
1 2 3 4 5
10. I reflect and give feedbacks to my students regarding the learning of speaking at the end of the class.
    1 2 3 4 5
11. I use various kinds of speaking assessment during and after the learning and grades are essential to informing parents of student progress and traditionally serve as the overall measure of assessment of a student's academic success.
    1 2 3 4 5

PRESENTER'S PAPERS

2. Students' Questionnaire

STUDENT PERCEPTION SURVEY

Please read each statement and select the response that best describes your perceptionby circling the appropriate response number. All of your answers are confidential.

1- strongly disagree

2- disagree

3- not sure/neutral

4- agree

5- strongly agree

1. I have the opportunity to inform my teacher what I really need from my speaking class.

1 2 3 4 5

2. I oftentimes feel afraid, tense, uncomfortable, and anxious about performing a speaking task.
1 2 3 4 5
3. I have a positive, autonomous,and practical speaking classroom environment inside and outside classroom and campus.
1 2 3 4 5
4. I do various speaking classroom activities in a fun, comfortable, and engaging way, in pairs, in small groups, and in classroom discussions.
1 2 3 4 5
5. I carry out current and real-world communicative tasks for various functions and settings.

1 2 3 4 5
6. To do a speaking task, I always refer to the conversational conventions.
1 2 3 4 5
7. I use various communication strategies to perform a speaking task.
1 2 3 4 5
8. My speaking activities are based on public talks.
1 2 3 4 5
9. I use authentic materials and real-world transactions.
1 2 3 4 5
10. I reflect and give feedbacks to my teacher regarding the learning of speaking at the end of the class.
1 2 3 4 5
11. I do various kinds of speaking assessment during and after the learning and grades are essential to informing parents of student progress and traditionally serve as the overall measure of assessment of a student's academic success.

1 2 3 4 5

PRESENTER'S PAPERS

Author's Biodata

Atiqah Nurul Asri has been a faculty member of Information Technology Department at State Polytechnic of Malang since 2005. She earned both her undergraduate (1999) and graduate (2010) degrees in English Language Teaching from State University of Malang. She has been actively presenting papers and participating at seminars and conferences both national and international ones. Her fields of interest are mostly about integrating technology especially computer and the internet into her ESP classes.

DyahRochmawati is a faculty member of Universitas PGRI AdiBuana, Surabaya, East Java province. In 2011, she gained her master degree in English Language and Literature Teaching from UniversitasNegeri Surabaya. Now she is a doctorate student of the English Language and Literature Teaching of Post Graduate Program of UniversitasNegeri Surabaya.

PRESENTER'S PAPERS

Improving *OIDDE* Learning Model for Ethic and Values Learning

Atok Miftachul Hudha
Biology Education Department, Faculty of Teacher Training and Education
University of Muhammadiyah Malang Jalan Raya Tlogomas 246, East Java, Indonesia 651 44
atok1964@gmail.com

Mohamad Amin
Biology Department, State University of Malang
Jalan Semarang 5 Malang, East Java, Indonesia 65145
rizalamin98@yahoo.co.id

Sutiman Bambang Sumitro
Biology Department, Brawijaya University, Jalan Veteran, East Java, Indonesia 65145
sutiman@ub.ac.id

Sa'dun Akbar
Department of Education, State University of Malang
Jalan Semarang 5 Malang, East Java, Indonesia 65145
mbahdun2011@gmail/com

Abstract

A set of problems in learning that contains characters of values and ethics in science subject in school have not perfectly executed yet because science teachers find difficulty in choosing the appropriate learning model to implement an indicator of character of values and ethics that are set, so that the values and ethical character indicator is only contained in the plan of implementation of learning. Based on these problems, OIDDE learning model was then developed to overcome the difficulties faced by science teachers. The OIDDE learning model was developed by combining social learning and combined with model of syntax learning by Tri Prakoro. The result of modifications and integration of syntax model of social learning and learning model of Tri Prakoro resulted in the OIDDE learning model consisting of five stages: orientation, identify,: discussion, decision, and engage in behavior. Based on the contextual learning model theory and cooperative learning theory (cooperative teaching and learning), then OIDDE learning model could be a very suitable model to be implemented in the learning of values, especially with regard to ethics, as well as biological ethics learning (Bioethics).

Keywords: Improving Models, OIDDE Learning Models, Social Learning Models, Values and Ethics

1. INTRODUCTION

OIDDE learning model (orientation, identify, discussion, decision, engage in behavior) is a learning model that is developed to answer the difficulty in selection of learning model of education character by science teacher in school. It is based on the opinion from Hudha, at al. (2014a, 2014b, and 2014c) science teacher in school who is find the difficulties in implementing the character values in science learning because they have not known yet a kind of learning model that right to science learning, so that the values of character only as an indicator value in the plan of implementation of learning (RPP).

The development of OIDDE learning models (orientations, identify, discussion, decision, engage in behavior) is settled by adopting and integrating syntax social learning model by Weil and Joyce (1978), Joyce at al. (2009) in learning model such as *group investigation model, role*

playing models, and jurisprudential inquiry model, and combine it with syntax learning model of *Tri Prakoro* according to Akbar (2014).

The adoption of social learning model and Tri Prakoro learning model become OIDDE learning model caused by social learning model and Tri Prakoro learning model is focused for learning values. Therefore, the development of OIDDE learning models is directed to implemented in values learning of character education (Mundilarto, 2013) the establishment of moral-ethic (Suseno, 1987) and also by integrative science learning (Pantiwati, at al. 2014), science and non-science for wider student.

2. OIDDE LEARNING MODEL

2.1 Syntax OIDDE Learning Model

The implementation of OIDDE learning model based on the right stage (syntax) that are assigned based on acronym of OIDDE learning model, that are: stage 1: *orientation*, stage 2: *identify*, stage 3: *discussion*, stage 4: *decision*, stage 5: *engage in behavior*.

The first stage is *orientation stage*. In this stage the teacher or lecturer directed the student on the various problems that connected to the subjects. For example, the case of water pollution on biology subject, then the teacher asks the student to observe the case of water pollution deeply.

The orientation that done by learners is a conditioning so that the learning process is more centered on learners (*student centered learning*) than on teacher. According to Joyce at al. (2009) orientation stage can be done by teacher by serve the case by reading a story or history narration, or play a documentary film depicting the presence of two values that collide, or discuss an event, both in the student's live at the school, in the community and state.

The second stage is the *identification stage* (*identify*). Identification stage is an advanced stage after orientation stage. Learning activities that conducted by learners at this stage are: 1) review the facts of the case that faced 2) make a synthesis between the facts with a dilemma 3) choose priority issues as a discussion topic 4) identify values and value conflict (two or more) values that were successfully identified.

The third stage is *discussion stage*. Stage discussion is advance stage after the learner done the identification of values in the priority case. Learner activity in this stage are: 1) the teacher directs the student to make a small, heterogeneous discussion groups between 4-5 people each group; 2) the student conduct the discussion about the issues in a priority case that is chosen in a second stage; 3) determines the position of self and group against discussed case; 4) explain the fundamental reason why they chose that position. the result of group discussion and determining of attitude that is chosen in a third stage is used as a base to do the activity in the four stage.

The fourth stage is *decision stage.* The decision stage is the stage when the students dared to show what attitude is taken from the discussion result that have been conducted, both individually and group. Learning activities that done by learner In this stage are: 1) plan the sequence of the process of decision making that is taken over the cases that have been discussed on the basis of the principles of decision making which explained by teacher 2) sets out the decision taken (either in the form of public decisions or ethics decision) of the selected case. The example of decision making can used *Ethical Decision Making* (American Accounting Association, 2015) and to combined by moral ethics (Kohlberg, 1971).

The fifth stage is *engage in behavior stage*. In this stage is a stage where the learners are directed to show attitude and can rely on a tripartite model theory that advance by Rosenberg and Hovland (1960) in Ajzen (1988). Based on *tripartite model* theory the learner can demonstrate their behavior through their action that looks and/or oral statements about the behavior that they done.

The overall stages of learning steps (Syntax) in OIDDE learning model (*orientation, identify, discussion, decision, and engage in behavior*) can be seen in this following table 1.

PRESENTER'S PAPERS

Table 1 The Steps (*Syntax*) in OIDDE Learning Model

Syntax	The Behavior of Teacher or Lecture	The Behavior of Student (Learner)
Orientation	1. Directing the learner on case or problems (science and non-science). 2. Present the case by reading a story, historical narrative, play the documenter film that consist of contradiction values, and direct the learners to identify the facts of the dilemma ethic case that faced in a story, historical narrative or documenter film	1. Understanding and response to the direction of the teacher and lecture in ethical dilemma case based on biology problem. 2. Listen to the story or historical narrative or observe and identify the contents of documenter film about value and contradiction.
Identify	1. Assign students to create a synthesis between reality and ethics dilemma based on orientation case result. 2. Direct the learners to choose the issues of dilemmatic ethics that are considered as a priority in the process of identifying the values and conflict values as material/ topics of discussion group.	1. Review the facts from the ethical dilemma issues faced (reviewed) and asked about what kind of ethics dilemma that is being faced in story, historical narrative or movie. 2. Create a synthesis between facts and dilemma. 3. Choose priority issues for discussion. 4. Identify the values and conflict values (two or more) values that were successfully identified.
Discussion	1. Assign students to form a small heterogenic group that consist of 4-5 people in one group. 2. Be a facilitator in group discussion 3. Direct the group discussion to discuss the dilemma ethics problem (science or non-science) which is be a priority in group. 4. Direct the student in a group to explain the reason why they choose their position that be their priority, both individual and/or group.	1. Form a small heterogenic group with 4-5 people each group. 2. Discuss the issues of dilemmas ethics problem based on biological priorities. 3. Determine the position of an ethical position. 4. Explain the basics reason why they choose that position.
Decision	1. Explain the decision that may be taken on the basis of the principles of principles of decision making that habe explained.	1. Planning the sequence of the process of decision making (ethics decision). 2. Assigns the decision on the issue is based on the principle of the dilemma of decision making.
Engage in	1. Encourage student to demonstrate	The students demonstrate their behavior

behavior	their behavior that is performed based on the decision that be taken. 2. Explain the tripartite theory model to all students in order to make the attitude taken be known.	through action that looks and/or oral statements (about the behavior that they did).

2.1 The Benefits of OIDDE Learning Models

OIDDE learning models starts with the orientation of case either independently or based on the student's choice or based on the material from teacher. Participation and learners' self-reliance will be increased individually or by group in finding and observing the cases happened. When these two things are done cooperatively between students and teacher, then a good responsibility will be born on both sides. Johnson, et al (2004) indicates that the cooperative learning in the situation of the students has two responsibilities, i.e. studying the material commissioned and ensures that all members of the Group actually learn the material.

In the term of identification of a dilemma will teach the learner to be aware and responsive to the problem of dilemmatic issues in daily life, in particular the biological problem, such as the case of human cloning (Helianti, 2004) bioethics for the baby tube (Hidayat, 2012) and various bioethics' problem (Minarno, 2010).

Through the identification dilemma toward some problems indirectly will build the perception that gave create the feelings and actions, as stated by Hudha et al (2011, 2012, 2013 and 2014), that perception will bear positive feeling and positive action and negative perception will bear negative feeling and negative action. This is supported by Subiantoro (2008) said that, the responsibility that is given to the student create a huge influence to the perception of their responsibilities whether in private or group, and also the perception against the results of the study reached the basis of a strong orientation to more motivated in interacting and sharing learning experiences and knowledge with one another. Formation of a positive perception will support the organizing of good decision making, when the decision is related to ethics decision (Nelson, 2005; Hudha, 2015).

2.3 Basic Theory of OIDDE Learning Model

The developing OIDDE learning model can be separated from many basic theory that have been exist before, the basic theory that support OIDDE learning theory is based on two learning model; contextual learning model (*contextual teaching and learning*) and cooperative learning model (*Cooperative learning*).

Generally the application of contextual learning model (*contextual teaching and learning*) as stated by Wisudawati and Sulistyowati (2014) have to fulfill these steps: a. develop the mind, that the students will learn more meaningful by working on their own, find out, construct their new knowledge and skill by their own, b. do the inquiry activities as far as possible to all science topic, both experimental or non-experimental; c. develop nature curious in student feeling by asking a question; d. create "learning community) (learning groups) in the process of learning science; e. present "model" as an example of learning science; f. do it in the end of section; g. the actual assessment Done in different ways.

Based on the basic theory of contextual learning model (*contextual teaching and learning*) as stated by Wisudawati and Sulistyowati (2014), these are: a the actual experience; b. cooperation, mutual support; c. happily, studying with passionate; d. integrated learning; e. using a variety source; f. active learners and critical; g fun, not tedious; h. shaing with friends; i. creative teachers, then the OIDDE learning models also reflect the contextual learning characteristics (*contextual teaching and learning*).

Basic theory of OIDDE learning model also supported by basic theory of cooperative learning model as stated by Arends (2007), that is cooperative learning model that aims in increasing academic achievement, an increased sense of tolerance and respect

for differences, and build social skills learners. Cooperative learning in cooperation carried out by learners is in order operates a sense of personal responsibility for the achievement of the group. Similarly in study OIDDE, a discussion that was implemented was coached for the achievement of personal responsibility, a sense of the group.

According to Wisudawati and Sulistyowati (2014) the implementation of cooperative learning model in reality is not only handled by group discussion, but prefer to how a learner has a responsibility to be together in one group reach a predetermine competence following steps: a. the student study in a group to reach the competition that have been made; b, team that is formed from student with high, rare and low ability; c. the team formed heterogenic (race, literature, gender); and d. awarding system is oriented in group and individually.

Because of that, OIDDE learning model that is developed with syntax orientation, identify, discussion, decision, and engage in behavior is very integrative, synergies, and fulfill the characteristic of contextual and cooperative learning model.

3. CONCLUSION

OIDDE learning model (*orientation, identify, discussion, decision, and engage in behavior*) is a learning model that combine contextual and cooperative learning model and adopting syntax of social learning model (*group investigation, role playing, jurisprudential inquiry and simulation*) by Joyce, at al (2009) and *Tri Prakoro learning model* by Akbar (2013). OIDDE learning model is developed to be implemented in integrative learning of science, science and non-science to create character values and ethics morality for student.

ACKNOWLEDGEMENTS

This article as part of the research dissertation, for that thanks to procotor and co-promotor which cooperate to this article.

REFERENCE

American Accounting Association, (nd). *Ethical Decision Making*. (Online). http://kfknowledgebank.kaplan.co.uk/KFKB/Wiki%20Pages/ thical%20decision%20 making. aspx, accessed on January 4, 2015

Arends, Richard I. (2007). *Learning to Teach (Belajar untuk Mengajar).* Edisi Ketujuh. Penerjemah Helly Prajitno S., dan Sri Mulyantini S., 2008. Yogyakarta: Pustaka Pelajar

Akbar, Sa'dun. (2013). *Instrumen Perangkat Pembelajaran*. Bandung: PT Remaja Rosdakarya.

Hidayat, Taufiq. (2012). *Bioetika Dalam Perspektif Hukum Islam. Sebuah Telaah Ulang Status Bayi Tabung.* (Online). http://muhajirbanyumas.blogspot.com/2012/12/bioetika-dalam-perspektif-hukum-islam.html. accessed on December 10, 2014

Hudha, dkk. (2011). *Membentuk Pribadi yang Unggul Membangun Peradaban Utama*. Materi Penunjang Pembentukan Kepribadian Mahasiswa Periode VIIX. Yogyakarta: Aditya Media Publishing.

Hudha, dkk. (2012). *Membentuk Pribadi yang Unggul Membangun Peradaban Utama*. Materi Penunjang Pembentukan Kepemimpinan dan Kepribadian Mahasiswa Periode IX. Yogyakarta: Aditya Media Publishing.

Hudha, dkk. (2013). *Membentuk Pribadi yang Unggul Membangun Peradaban Utama*. Materi Penunjang Pembentukan Kepemimpinan dan Kepribadian Mahasiswa Periode X. Yogyakarta: Aditya Media Publishing.

Hudha, dkk. (2014). *Membentuk Pribadi yang Unggul Membangun Peradaban Utama*. Materi Penunjang Pembentukan Kepemimpinan dan Kepribadian Mahasiswa Periode XI. Yogyakarta: Aditya Media Publishing.

Hudha, Ekowati, dan Husamah, (2014a). *Pengembangan Model Pendidikan Karakter Pada Pembelajaran MIPA Melalui Konsep Integratif Sebagai Upaya Penguatan Jatidiri Siswa*

Di SMP Muhammadiyah Se-Malang Raya. Competitive Grnt Research Report. DPPM Universitas Muhammadiyah Malang.

Hudha, Ekowati, dan Husamah. (2014b). *Model Pembelajaran Pendidikan Karakter Terintegrasi Pada Bidang Studi Biologi Untuk Meningkatkan Jatidiri Siswa*. Paper presented in Seminar Nasional Pemberdayaan Pendidik Abad 21 organized by SMK Negeri 13 Malang and Dinas Pendidikan Kota Malang. Malang, May 10, 2014

Hudha, Ekowati, dan Husamah. (2014c). Character Education Model In Mathematics and Natural Sciences Learning at Muhammadiyah Junior High School. *International Journal of Education, Learning & Development*. Vol 2, N0.4, pp. 33-47, September 2014

Hudha, Atok M,. (2015). Kajian Pengetahuan Bioetika dan Kemampuan Pengambilan Keputusan Etis Mahasiswa Calon Guru Biologi. *Prosiding Seminar Nasional Pendidikan Biologi.* Prodi Pendidikan Biologi FKIP UMM, Malang, April 21

Joyce, Bruce., Weil, Marsha & Calhoun, Emily. (2009). *Models Teaching, Model-model Pengajaran*. Terjemahan Fawaid dan Mirza. 2009. Yogyakarta: Pustaka Pelajar

Johansen, C.K and Harris, D.E. (2000). Teaching the Ethics of Biology. *The American Biology Teacher*, 62 (5): 352-358.

Kohlberg, Lawrence. (1971). *Stages of Moral Development*. (Online). http://info.psu.edu.sa/psu/maths/Stages%20of%20Moral%20Development%20According%20to%20Kohlberg.pdf, accessed on January 27, 2015.

Minarno, Eko Budi.(2010). *Pengantar Bioetika Dalam Perspektif Sains & Islam*. UIN Maliki Press. Malang

Mundilarto. (2013). *Membangun Karakter Melalui Pembelajaran Sains*. Jurnal Pendidikan Karakter. Tahun III, Nomor 2, June 2013 Universitas Negeri Yogyakarta

Nelson, William A.,(2005). An Organizational Ethics Decision-Making Process. *Healthcare Excutive*, July/Aug

Pantiwati, Yuni., Hudha, Atok Miftachul., Kuswinarti, Tuti. (2014). Triple Approach Instruction to Improve Learning Process and Outcome of Integrated Science Subject. (Online). *Journal of Education and Practice*. Vol.5, No.38, 2014

Rustaman, Nuryani Y. (2002). Pendidikan Biologi Dan Trend Penelitiannya. *Makalah (Online)*. https://www.academia.edu/6502287/PENDIDIKAN_BIOLOGI_DAN_ TREND_PENELITIANNYA. FP MIPA. UPI. Bandung

Shannon, Thomas A. (1995). *Pengantar Bioetika*. Terjemahan Bertens, K. 1995. Jakarta. PT Gramesia Pustaka Utama.

Suseno, Franz Magnis. (1987). *Etika Dasar, Masalah-masalah Pokok Filsafat Moral*. Yogyakarta: Penerbit Kanisius

Subiantoro, W.A., dan Faturohman, B. (2008). Jigsaw and Enhancing Group Activities Quality an Instructional Innovation through Classroom Action Research. *Makalah* disajikan dalam The 2nd International Seminar on Science Education "Current Issues on Research and Teaching in Science Education". Bandung: UPI, October 18, 2008.

Sincero, Sarah Mae. (2012). *Theory of Moral Development*. (Online). https://explorable.com/theory-of-moral-development, accessed on January 27, 2015

Sachedina, Abdulaziz. (2009). *Islamic Biomedical Ethics, Principles and Application*. New York: Oxford University Press, Inc

Weil, Marsha & Joyce, Bruce .(1978), *Social Models of Teaching, Expanding Your Teaching Repertoire*. New Jersey: Prentice-Hall, Inc. Englewood Cliftas

Wisudawati, A. W. & Sulistyowati, E. (2014). *Metodologi Pembelajaran IPA*. Jakarata: Bumi Angkasa.

PRESENTER'S PAPERS

Author's Biodata

Atok Miftachul Hudha is a lecturer of Biology Education Department, Faculty of Teacher Training and Education University of Muhammadiyah Malang and Doctoral Program of Biology Education, State University of Malang. His Major interests teaching zoology (invertebrate and vertebrate) and bioethics.

Mohamad Amin is lecturer in Biology Department, State University of Malang. rizalamin98@yahoo.co.id
Sutiman Bambang Sumitro is lecturer in Biology Department, Brawijaya University, sutiman@ub.ac.id
Sa'dun Akbar is lecturer in State University of Malang. mbahdun2011@gmail.com

The Implementation of Problem Based Learning and Cognitive Style to Improve Learning Achievement of Nursing Clinical Study

Atti Yudiernawati
Poltekkes Kemenkes Malang
Jl. Ijen 77 C, Malang, Indonesia
E-mail :ayudiernawati@gmail .com

Abstract

The main purpose of this study were to examine : (1) the difference of nursing process application achievement among student instructed with problem based learning vs direct instruction strategy (2) the difference of nursing process application achievement of students with different cognitive styles and (3) the interaction learning strategy and cognitive style on students nursing process application achievement. This study used quasi experiment. The research variables were (1) independent variables: learning strategy (problem based learning and direct instruction, (2) dependent variable: learning achievement on nursing process application and (3) moderator variable: students' cognitive style. The subject of this research were 267 students from the 2nd grade of Malang Nursing Department (Prodi DIII Malang, Lawang, and Blitar). Sampling technique was using random sampling, where the classes were randomized. The data were collected using test for learning styles and using performance assessment for learning achievement. The hypothesis were examined with two ways ANOVA by using SPSS for Windows version 15,0.The findings of the study were : (1). There is a difference in learning achievement between the students who were taught by using PBL strategy and those who were taught using direct instruction. The descriptive statistics shows that (1) the learning achievement of those using problem based learning strategy (the average score is 79.03) is better than direct instruction (the average score is 75.99), 2). There is a different achievement in students with different cognitive style, where those with FI cognitive style has higher average score (80.10) than those with FD style (75.54) and neutral style (76.073), and 3) There is no interaction between learning strategy and students' cognitive styles toward learning achievement on nursing process application.Based on the result of the study, it is suggested that (1) nursing education institution should develop learning strategy, especially for clinical nursing, by employing PBL strategy (2) lecturers should use variety of learning strategy to accommodate the learning needs of students and more understanding about students' characteristics, especially their tendency in cognitive style.

Keywords: learning strategy, Problem based learning, cognitive style, learning achievement

Introduction

Clinical learning of nursing is a learning experience that is very important in nursing education, because the clinical learning is a process of learning that gives students the opportunity to apply nursing science and practice work in the real order, with the aim to foster professional socialization, decision-making clinics, sensitivity to the situation of health problems and the public response. Nursing clinical learning is designed to provide a learning experience to the students to apply the nursing care to patients, according to standard in integrated and holistic profession in real conditions in a variety of health care structure. In doing nursing care by applying nursing process, which is a method of giving a systematic and rational nursing care, and serves as a frame of nurses in carrying out the functions, responsibilities and as a tool to identify and solve client problems (Carpenito, 1991).

In carrying out the clinical learning of nursing there are still a lot of problems encountered in achieving the learning objectives. Problems are often found in students who failed to apply the

nursing process in solving the problems of patients. Researchers have assumed that this problem occurs because the learning process experienced by students during their academic process. In their lessons, students are not accustomed to critical and systematic study. Learningstrategies that are also rarely used approach which involves a lot of student activity, which is certainly not in accordance with the general principles of the use of learning strategies that states that there is no learning strategies better than others for all the conditions to achieve goals and overcome the problem of learning. The general principle was stated by Killen (in Sanjaya, 2007: 129) says that no teaching strategy is better than others in all circumstances so you have to be able to use a variety of teaching strategy, and make rational decisions about when each of the teaching strategies is likely to be most effective ". A lecturer in the learning process is less likely to accommodate the characteristics of the students, one of which is the cognitive styles of students. According to Keefe (1987) cognitive style is part of the learning styles that describe the habit of behaving stays in a person in receiving, solving problems or store information. For a university student, it determines cognitive style that can accommodate different cognitive styles with a variety of learning strategies.

To improve the quality of nursing clinical learning a change in mindset is needed that is used as the basis for learning. Education reform should be started in the learning process. Nursing education in the 21st century are expected to use learning strategies that can integrate moral reasoning and ethical, technical skills and expertise of intellectual, thus preparing graduates to be able to compete, face a moral challenge, more creative, able to think critically and, apply their knowledge in the form of measures to empower patients, the community and developing the nursing profession.Oneof the appropriate learning strategies is by using the strategy of Problem Based learning (PBL). PBL focuses on presenting a problem (real or simulated) to students. Then the students were asked to look for solutions through a series of assessments and investigations based on the theory, concepts and principles learned from a variety of disciplines (multiple perspectives).

The study findings showed that PBL had a very positive impact on learning achievement, among others are a research conducted by Forbes (2000) using PBL enhances the understanding of the nursing students. Thestudy obtained that PBL tend to have better results on average students who have higher learning achievement. Research conducted by Heinrichs (2002) concluded that the use of PBL turns integration to occur and can facilitate the ability of students to grow professionally, so that is the basis for clinical decision-making capacities and procedures to the situation or facts can be achieved. Another study conducted by Halla and Neamat (2011) with PBL have effects on nursing students who have average a higher capacity than conventional learning.

Compared with PBL strategy,direct strategy instruction was used. This learning strategy is a strategy that was in actuality teacher-centered learning. This strategy, according to researchers is a strategy that can be used for appropriate clinical learning in the essence of procedural and declarative issues. In applying direct instructional strategies, teachers should demonstrate the knowledge or skills to be trained to the students step by step. Basically in learning the role of the lecturer is dominant, and the lecturers are required to be an attractive model for students.

Direct Instruction is designed specifically to develop procedural and declarative knowledge. This learning strategy emphasizes the mastery of concepts and behavior change with emphasis on deductive approach. The characteristics of direct learning are as follows: (1) the transformation and skills is direct; (2) a specific learning goal oriented; (3) the learning materials have been structured; (4) have a structured learning environment; and (5) structured by the lecturer. Lecturers act as a transmitter of information. In this case the lecturer should use a variety of appropriate media, e.g. films, tape recorder, pictures, demonstrations, and so on.

Assumptions about the increased achievement of students with different learning strategies, cannot be separated from the characteristics of the students because the effectiveness of learning and guidance greatly influenced by the characteristics of the students. Bloom (1982) suggested that learning achievement related to two main factors, namely the characteristics of students and the quality of learning. The same is stated by Reigeluth (1983) that the learning outcomes related

to the interaction between the learning strategies and learning conditions, one of which is the student characteristics. One of the characteristics of students who heavily influence the cognitive style of learning is the student.

Student cognitive style associated with a person's cognitive processes. Growth and activation of cognitive processes are very closely related to the cognitive characteristics of students. According to Witkin (1976) cognitive styles are forms of functioning in a characteristic manner based on a person's intellectual ability displayed in the activities of perception and intellectual activity. Keefe (1987) suggests that cognitive style is part of the learning styles that describe the habit of behaving relatively fixed in a person in receiving, thinking, solving problems or store information. It can be concluded that cognitive style involves a person's intellectual ability to process and store information.Expertshave sought to identify the various dimensions or cognitive style. Experts agree cognitive style divides into two kinds, namely field dependence (FD) and field independence (FI).

This study aims to examine and analyze: (1) differences in learning achievement in the application of the nursing process in clinical learning of nursing among the group of students who earn a strategy problem based learning (PBL) and direct instruction (2) differences in learning achievement in the application of the nursing process in clinical learning of nursing between a group of students who have different cognitive styles (field independence, neutrality and field dependence, and (3) the effect of the interactionbetween thelearning strategies andcognitive stylesof studentsto the student achievementinthe applicationof the nursing processof MalangHealthPolytechnic students.

Research methods

This study was an experimental research by using a quasi-experimental (quasi), researchers manipulate and control the independent variable, the moderator variable and made observations on the dependent variable to find variations that arise due to the manipulation of independent variables without changing the condition of the class. Experimentaldesign used in this study was the nonequivalent control group design (Tuckman, 1999). It also used a 2 x 3 factorial design.

The subjects of the study, based on research design, was taken by random assignment, the selection was based on the grounds that the subject set as a goal of research selected by following the pattern of a group of subjects (classes) as is already structured byHealth Polytechnic of Malang in Nursing Department as the target of research. The subjects were students of the Department of Nursing at Malang, Blitar, and Lawang study program in semester III. The number was 267 students.

The research instrument used as a data collection tool in this study consisted of two types, namely: (1) Instrument Style Cognitive, is a test of cognitive styles of students is the Group embedded figures test (GEFT), developed by Witkin, et al (1971). (2) Instrument learning achievement application of the nursing process used. Performance Assessment which is an assessment based on the observation of the activity of student in applying the nursing process. Assessment is done by observing the activities of students in performing nursing care based on standards of competence .Data analysis techniques in this study was using two-way ANOVA technique (Analisys of variance).

Research result

The student scores were analyzed and presented in figure 1 and table 1.

Figure 1. Results of student learning based learning strategies and cognitive styles

Table1Summary ofthe results ofthe analysis of2-wayANOVA test

Tests of Between-Subjects Effects

Dependent Variable: Nilai post test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1827.017[a]	5	365.403	40.016	.000
Intercept	1578394.039	1	1578394.039	172853.3	.000
gaya.kognitif.3	1147.894	2	573.947	62.854	.000
strategi.belajar	657.348	1	657.348	71.988	.000
gaya.kognitif.3 * strategi.belajar	32.339	2	16.170	1.771	.172
Error	2383.298	261	9.131		
Total	1603929.000	267			
Corrected Total	4210.315	266			

a. R Squared = .434 (Adjusted R Squared = .423)

Discussion

Based on the results of testing hypothesis 1, it shows that different learning strategies have different effects on learning achievement significantly with a significance value of 0.000 (p <0.05). The result showed the average value of the learning achievement of students with the treatment of PBL group was superior to the group of students who received direct learning strategies. The results showed an average of 79.03 on PBL group and 75.99 on the group with direct instruction. This means that the application of PBL learning strategy provides a better learning achievement than the direct instruction.

The findings of this study are consistent with previous studies in the fields of nursing education and research findings in the field of other disciplines. Some research the average shows that the PBL strategy improves learning achievement for students, it is suited wioth the research results by van Til, et al (1997) on student of health science who shows that an increase learning achievement is significantly influenced by the activity in PBL, for the implementation of PBL in the learning process filled with activities and discussion group meetings so that the interaction and collaboration is becoming a strong determining factor for student academic achievement.

The results ofForbes study (2000) on the application of problem-based learning that is given to undergraduate nursing student PBL shows higher understanding in the role of the nurses. High-

achiever students become more facilitated with PBL approach the student is able to use a variety of sources and have a good interaction with the activities of the group and mentor. While low-achiever students seem to be lacking in the skills and interests and use resources that tend to occur in the achievement of minimal repetition of material and less explores the problems that they face. Brett (2009) implies that PBL improves a better understanding of concepts and problem solving and an increase of the structure of matter and meaningful participation in professional development. Heinrich, (2002) states that PBL can facilitate the learners development professionally, the ability of lifelong learning that is the basis for making clinical decisions and procedures of the situation or facts.

PBL provides more meaning, for example: the real, the implementation and the obvious benefits of the lecture material (facts, concepts, principles and procedures). The higher the degree of complexity of the problem, the higher the required skills and knowledge of students to be able to solve the problem.The more real the problem the higher the level of skill and knowledge transferrability students into everyday life. Research from Halla & Neamed, about Effect of Problem Based Learning on Undergraduate Nursing Students Enrolled in Nursing Administration Course, shows the results that . There is a significant difference between the learning outcomes of students who receive learning strategy and problem based learning compared with traditional learning. Students get a lesson with better mastery of concepts and able to complete the task of professions higher than traditional learning.

Associated with nursing clinical learning, PBL strategy is very helpful and facilitate students in critical thinking skills, according to the nursing clinical learning objectives. Nursing clinical learning is a very important part, because it is the performance of the students to apply the knowledge, attitudes and skills in a real situation that aims to solve problems that occur in patients. Clinical learning provide learning experiences for students to apply aspects of knowledge, attitudes and skills that they acquire in college or in the nursing laboratory in real conditions on the field. Thus the nursing clinical practice gives students the opportunity to use their skills snd apply theories in action.

To develop the students towards professional career, learning strategy with the PBL approach is an appropriate choice because with this approach students will learn actively about the problems they will face in the field and students can use it to solve the problems that exist either individually or in groups, Finding solutions / alternative solutions to problems both independently and in collaboration. In the study by using PBL students will be trained to think creatively, innovatively, and able to collaborate in solving a problem, is able to develop an attitude of listening skills, respect the opinion of a friend, critical thinking, independent learning and the use of multiple sources to solve their problems.

Problem-based learning also helps in professional socialization, Reilly and Oermann (1999) says that "education professionals must be able to equip learners, a component of practice allows them to learn to think and act like professionals in a particular field. PBL students are expected to play the role of the professional nurse and learn to think like as a professional nurse. Therefore, PBL activity will encompass all of their practices, as the main idea behind problem-based learning that the starting point of learning to be a problem. With the stimulation of their problems they will begin the assessment, problem identification and planning of nursing interventions, and in any problems they are required to be self-sufficient and collaborate with others.

Based on hypothesis testing 2 in Table 1 it can be seen the significance level or probability of cognitive style value is 0.000 ($p < 0.05$), so Ho rejected and concluded that there were significant differences (significant) to the average value of the achievement of students between those who have cognitive style in FI, neutral, and the FD.In theory FI and FD cognitive style may affect the achievement of students. It depends on the student's characteristics and properties of the lecture material. FI cognitive style has characteristics which include: 1) easy to understand the ingredients that are not structured. 2) tends to have its own purpose and reinforcement alone, 3) be able to solve the problem without guided, 4) need help to understand the science of social, 5) can analyze a situation and reorders and 6) are less affected by criticism, in contrast to the FD has characteristics, namely: 1) difficult to learn which lectures unstructured, 2) tend to accept the

course that has been structured, 3) need to be taught how to solve problems, 4) have a good memory to update social, 5) need to be taught to use assistive devices memory, and 6) are more easily affected by criticism (Witkin in Mahmud, 1989).

The research findings application of the nursing process in clinical learning more easily control cognitive style students of FI. This is possible because the characteristics of students' cognitive style appropriate to the nature and characteristics of the nursing clinical learning materials. Therefore, clinical learning material is a very important part, because it is the performance of the students to apply the knowledge, attitudes, and skills in a real situation that aims to solve the problems that occur in patients. Learning clinics provide learning experiences for students to apply aspects of knowledge, attitudes, and skills that you acquired in college or in the nursing laboratory in real conditions on the field. Thus the nursing clinical practice gives students the opportunity to use skills and apply theories to action and adapt the professional behavior.

In accordance with the description above then theoretically individual cognitive style FI and FD have the distinction of receiving or responding to stimuli coming from the environment of the students. In fact FI individual cognitive style more thorough and detailed in receiving and presenting information or stimuli from their environment than students whose cognitive style is FD. Therefore, FD response to stimuli cognitive style as a whole or globally. While students who are inFI cognitive style respond to each part or is analytic. In receiving the information undertake active analysis first, Describe and explain the material in detail or details. This has an impact on the mastery of the case / matter that is become wider and deeper, thus contributing to improving learning achievement. These findings were also found in clinical learning, better learning achievement with cognitive styles of FI.

Lamba research results (2006) show that there are differences in the acquisition of Physics learning outcomes of the students who have the cognitive style of FD with students who have the cognitive styles of FI, then the average student FI has higher achievement than students whose style is FD. It is also consistent with the results of research of Wijayanti with respondents of fifthe grade students in science subjects. Holden & Yore (1996) suggested that cognitive style has a strong correlation with the initial conceptual knowledge, metacognitive size and learning achievement of science in biological sciences topics on elementary school students and the results of students with FI style better than FD. Results of Sahertian research (2007) showed that (1) there is a difference of learning achievement between groups of students withFI cognitive style and students withFD cognitive style, and (2) there is an interaction effect between teaching methods Team Assisted Individualization versus individual and cognitive style on learning achievement according to Christian Religious Education lectures evaluation in STAPKN Ambon. In accordance with a previous study it was found out thatFI cognitive styles students have higher achievement than the FD.

Based on hypothesis testing 3 in Table 1, it also showed an average ratio of the value of student achievement based on the interaction between the treatment strategies above which shows the significance value of 0172 ($p > 0.05$), so Ho is accepted, as well as cognitive style (FI, FD and neutral) from the ANOVA results concluded that there is no interaction between the learning strategies and cognitive style on learning achievement in the application of the nursing process in clinical learning in students of health polytechnic of Malang.

Based on the research findings, it can be indicated that the main learning strategy provides a strong influence on learning achievement, and therefore the results of analysis of PBL showed improving learning achievement for all cognitive styles. Likewise, the cognitive style of the result showed that the FI cognitive style has an average learning achievement higher than neutral and FD. The influence of learning strategies and cognitive styles have the same powerful effect on learning achievement so that the interaction is not significant. Some of the research results using PBL strategy as almost all the independent variables showed that PBL strategy gives a better effect, both in nursing and other fields. This strategy shows the average learning achievement better than the other strategies. This suggests that PBL has a strong influence on the dependent variable (the learning achievement). Besides the main influence learning strategy variables, this

study also examined the effect of variable cognitive style on learning achievement. Differences in cognitive styles that are owned by individuals affect the achievement of individual learning. The study's findings showed major cognitive styles FI has a strong influence in clinical learning, the FI has a higher average than direct learning learning. It is also supported by the findings of previous researchers. Theoretical and empirical support of major issues influence their learning strategies and cognitive style on learning achievement impact with no interaction effect on learning strategies and cognitive style on learning achievement. The study findings are consistent with the findings of DeCaro, et al (2013) which states that there isstrong effect of the weakening of the interaction between independent variables and the dependent variable moderator.

Conclusion

Based on the research, it can be concluded that the Problem based learning strategies and cognitive styles give effect to the learning achievement of clinical nursing student of Nursing of Health Polytechnic of Malang.

Based on the findings in this study, it is recommended that: 1). Seeing the results of research, educational institutions should be able to create policies that can improve the quality of learning, especially in the development of learning strategies that are more oriented to students, known as student centered learning, especially for clinical learning of nursing subjects are advised to use the strategy of PBL, 2) In using PBL strategy lecturers should make the planning, preparation and adequate time and always conduct a review of the case by identifying up to date cases, one of them is with updating via Index Clinical Situation (ICS).

Acknowlwdgements

A big gratitude toward the following1) the Director of Healthpolytechnic of Malang for facilitating the researchandresearchcosts, 2) the lecturers inclinical learningof nursingwho helpedin the research process, and 3) second grade studentsinNursingDepartment that contributed to thelearning process**.**

BIBLIOGRAPHY

Andrew Wolker, Mimi Recker, M Brooke Robertshaw, Jeffrey Olsens, heather Leary, Lei Ye, Linda Sellers. 2011.Integrating Technology and Problem-based learning :A Mixed Methods Study of Two Teacher professional development Design. *The InterdisciplinaryJournal of Problem based Learning. 5 (2), 70-94*

Arends,R.I, 2004. *Learning to teach*.Sixth Edition. New York :Mcgrw-Hill

Barrows, H.S. and Tamblyn,R,M. 1980. *Problem-Based Learning : An Approach to Medical Education.* New York : Springer

Brett Williams. 2009. Do Undergraduate paramedic students embrace case based learning using a blended teaching approach? A 3 years review. *Australasian Journal of Educational Technology 2009, 25(3), 421-439*

Daniels, H.L. 1996. *Interaction of cognitive style and Learner control of presesntation mode ini hypermedia environment*, Dissertation.Virginia : Virginia Polytechnic Institute and State University.

Darmawan .2010. *Penggunaan Pembelajaran Berbasis Masalah dalam Meningkatkan Kemempuan Berpikir Kritis Siswa pada Pembelajaran IPS di MI Darrusaadah Pandeglang*. Jurnal Penelitian Pendidikan 2011, 11(2), 106-117.

Forbes, H. 2000. Beliefs and Learning Approaches of Undergraduate Nursing Students in a Problem-Based Learning (PBL) Environment. The *Australian Electronic Journal of Nursing Education* 5(2) March 2000.http://www.scu.edu.au/schools/nhep/aejne/archive/vol5-2/forbeshvol5-2.html.

Globerson,T. 1990. *What's is the relationship between cognitive style and cognitive development?*. Dalam T. Globerson dan T. Zelniker (Ed.)Cognitive style and cognitive development, Norwood, N.J : Abtex Publishing Coorperation

PRESENTER'S PAPERS

Halla Gabr, Neamat Muhamed. 2011. Effect of Problem Base-Learning on Undergraduate Nursing Students Enrolled in Nursing Administration Course. *International Journal of Academic Research . volume 3 (1), 154-162*

Hyo-Jeong So, Basung Kim. 2009. Learning about Problem Based Learning : Student teachers integrating technology, pedagogy and content knowledge. *AustralianJournal of Technology Educationvolume 25 (1), 101-116)*

Jonassen D. 2011.*Supporting Problem Solving in PBL.The InterdiciplinaryJournal of problem Based Learning .volume 5 (2), Fall 2011*

Jennifer,M.S. Brenda Mc.D & Adele L. Schmitdt. 2012. ICT Supported, scenario Based Learning in Preclinical Veterynary Science Education : Quantifying learning Outcomes and Facilitating the novice-expert Transition, *Australian Journal of Educational Technology 2012, 28(2) 214-231*

Keefe, J.W. 1987. *Learning Style theory and practice*.Virginia : National Association of Secondary School Principals

Kerlinger, F N. and Lee, H.B. 2000.*Foundations Of Behavioral Research (4TH ED*) Jogjakarta New Yoyk : Holt, Rinehart and Winston

Lamba, H.A. 2006.*Pengaruh pembelajaran kooperatif model stad, pembelajaran klasikal dan gaya kognitif terhadap hasil belajar fisika siswa kelas sati sma gkst Imanuel Palu*. Tesis tidak diterbitkan, Malang : Program Pascasarjana Universitas Negeri Malang

Novanhadi, T. 2005. Pengembangan paket pembelajaran problem based learning bagi kelompok karyawan peningkatan mutu (QIT/QCC) di PT HM Sampoerna, tbk, Tesisi tidak diterbitkan. Malang: PPS Universitas Negeri Malang.

Ramsay, J. & Sorell, E. 2006.*Problem-based Learning: A Novel Approach to teacing safety, health and enviromental course*. Journal of SH & E Reseach.3 (2). 1 - 8

Reilly and Oermann. 1999. *Clinical Teaching in Nursing Education* second edition. Philadelphia : JB. Lippincott Company

Rosdiani, D. 2012. *Model Pembelajaran Langsung dalam Pendidikan Jasmani dan kesehatan*.Bandung : penerbit Alfabeta

Sahertian, C. J. W. 2007. *Pengaruhmetodepembelajaran TAI vs Individual dan gaya kognitifterhadapprestasibelajar pada mata kuliahevaluasipendidikan agama kristenmahasiswa STAPN Ambon*. Disertasitudakditerbitkan. Malang :Program Pasca SarjanaUniversitas Negeri Malang

Sanjaya,W. 2007. *Strategi Pembelajaran : Berorientasi standart proses pendidikan* . Jakarta : Kencana Prenada Media Group.

Tegeh, I.M. 2009.*Perbandingan prestasi belajar mahasiswa yang diajar dengan menggunakan problem-based learning dan ekspositori yang memilki gaya kognitif berbeda*. Disertasi tidak diterbitkan Malang : PPS Universitas Negeri Malang.

Trianto, 2009.*Mendesain Model Pembelajaran Inovatif- Program, Konsep, Landasan dan Implementasinya pada Kurikulum Tingkat Satuan Pendidikan (KTSP)*.Jakarta : Kencana

Va, Til,C.T., Van der Vleuten,P.M. & van Berkel, H.J.M. 1997. Problem based learning behavior :*The impact of differences in problem based learning style and activity on students achievement*. (Online), (http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content-storage 01/0000019b/80/16/b8/72.pdf, diakses 8 Mei 2012)

White, H. 2001. *Problem-based learning*.Speaking of teaching. 11 (1) : 1-7

Woods,D.R& Bayley, L. 2006. *Assesing student performance in problem-based learning*.Hamilton : Mc Master University.

Author's Biodata

Atti Yudiernawati is a lecturer of Nursing Education Department, Health Polytechnic of Malang, a graduate from the Department of Nursing Science, University of Padjadjaran Bandung, S2 and S3 of learning technology State University of Malang. ayudiernawati@gmail.com

Residential Education and Training for Indonesian Future Teachers' Professional Development

Ayunda Azalea Arham
State University of Malang
JL. Semarang N0. 5, Malang, Indonesia
ayundaazalea@ymail.com

Evi Yuniarisda Hutagalung
State University of Malang
JL. Semarang N0. 5, Malang, Indonesia
e.hutagalung1992@gmail.com

Eliasanti Agustina
State University of Malang
JL. Semarang N0. 5, Malang, Indonesia
elia.zenfone5@gmail.com

Abstract

The percentage of low qualified teachers in Indonesia has become something perturbing among both non-educators and educators. One research done by UNESCO in 2012 even showed that Indonesian teachers' quality is listed on number fourteen out of fourteen developing countries, which is, surely, a disheartening fact. One way to overcome this situation is by decreeing standard of academic qualification and standard competence in the Regulation of Minister, Republic of Indonesia, Number 16 Year 2007for teachers to obtain. However, this effort is not adequate since the standard competence, which comprises four competencies; pedagogy, personality, social, and professionalism,lacks details in professionalism aspect. As a result, future teachers from different universities in Indonesia study different courses and have different professional quality, yet they take the same study programme. This paper attempts to suggest more specifications of the professional standard for, especially, Indonesian future EFL teachers. It also suggests an establishment of residential education and training to make the future teachers immerse in the study programme while shaping their personality and social competence all the more. In this way, Indonesian future EFL teachers will thrive outstandingly in pedagogy, personality, social, and professionalism.

Keywords: Residential Education, Pre-service Training, Teacher Professional Development

1. INTRODUCTION

The percentage of low qualified teachers in Indonesia has become something perturbing among both non-educators and educators. One research done by UNESCO in 2012 even showed that Indonesian teachers' quality is listed on number fourteen out of fourteen developing countries, which is, surely, a disheartening fact (Web-1). This situation is even strengthened by a proof which shows that 54% of teachers in Indonesia are not qualified enough to teach. The qualification of teachers set by the Ministry of Education has turned out to be inconsistent with what are expected to happen in the practice. The head of Human Resource Development of Education and Culture Institution and Education Quality Improvement, Ministry of Education, Syahwal Gultom, in 2013 stated that the low quality of teachers in Indonesia is mainly initiatedby the teachers' deficiency of the substance of their pedagogy knowledge, as well as,understanding about learning pattern theories appropriately applied to learners (Web-2).

Thoughtfulness towards teachers' low quality has set off some prejudices in Ministry of Education's efforts in overcoming the issue. They have actually proposed and organized pre-service and in-service training programs for teachers to maintain theircompetence. The authority of managing pre-service training programs, for instance,has promptlybeen handed over to the universities which produce future teachers. This practice is actually considered ineffective since the curriculum, along with the subjects, the teaching strategies and the assessment is set up by the considerations of each university, which then results in dissimilar learning outcomes among different universities.

Higher Education Institution, under the supervision of Ministry of Education, manages all regulations for universities written inthe Book of Curriculum of Higher Education (2014), whichprovides only information about a schemeofimplementing the curriculum, for example how to do assessment. This is actually trivial. Providingonly a manual of how to implement the curriculum does not guarantee equality of competence standards and basic competences that should be achieved by future teachers from different universities. In other words, future teachers from different universities study different courses and have different competence, yet they take the same department.

Another problem, but more related to in-service training programs, also emerges. Based on datastated in Web-3, 2.06 million teachers, or about 70.5 percent of teachers are eligible for certification, while the rest of them are not. Certification program, intended for teachers, is aimed to be a proof of teachers' competence. However, it is apparently difficult to academically rely on it, (Web-8). Those teachers who are certified do not always have the expected long-term pedagogy competence. Furthermore, certification program is perceived inadequate strategy since it only provides trainings related to pedagogic and professional competencies. In fact, there are two more competencies that a teacher must have: social and personal competencies. To overcome these shortages, there must be a well-developed institution with well-planned concepts, which produces competent teachers with four competencies mentioned previously. Teachersshould also involve themselves in on-going professional development activities, and government should facilitate them with this.

Pointing out more to teacher competence, it is important to understand the definition. Teacher competence is defined as teacher's ability to adequately perform a task, duty or role. Competence integrates knowledge, skills, personal values and attitudes. Competence builds on knowledge and skills and is acquired through work experience and learning by doing. It is stated in the Law number 20 in 2003 about education system that educators must have qualification and certification of subject they teach, the ability to realize the goal of national education review, and must be physically and spiritually healthy. The term'qualification' is a competence needed to do something or to reach certain function (Minister of Education, 2001). Law number 14, 2005 about teachers and lecturersstates that academic qualificationsare obtained through a completion of higher education degree program or diploma program of four; and teacher competence includes pedagogical competence, personal competence, social competence, and professional competence acquired through professional education. Further, Minister of Education's regulation number 16, 2007 states that each teacher is required to meet the standards of academic qualifications and competence of teachers which is nationally applied. It is evident that a teacher must have specific qualification as he directly connects to the students. His competence makes him able to run his task well to educate the students. Now, it is time for figuring out what each of four competences, mentioned previously, means.

Pedagogy competence is essentially the ability of teachers to understand the characteristics or capabilities of the students through a variety of ways. The main way is through understand the cognitive development of pupils, design the learning and the implementation of it also the evaluation of learning outcomes at the same time student development. It is a competence which is unique and differentiates teachers to other professions.According to Law number 14, 2005, pedagogy competence is explained as the capability of managing education of students. It relates to the teachers' understanding towards learner, planning lesson, evaluation, and learners development to actualize their potency. In this case, the knowledge about characteristics of

learners, theories of learning, principle of teaching and learning includes skills in planning lesson needs to be mastered by teachers. Not to mention, understanding the regulation given by ministry of education should not be slipped in the part of learning.The aspects of pedagogy competency may become the basis in developing applicable curriculum for student teachers across universities in this country in order to facilitate the efforts of equalization of quality of teachers. Without curriculum, it seems to be unfair to establish competencies standard for teachers without providing the way how to reach the standard. In addition, by providing curriculum, it is considerably easier to equally control the quality input of student teachers related to teaching and learning knowledge. At least, there will be no case of one student teacher who has different subject with other student teachers.

Personality competence refers to virtuous characteristics that include: steadiness, maturity, wisdom and dignity. This competence requires teachers to become noble role models for students. Personality competence of teachers also include attitude, value, and personality as an element of behaviour. Teachers are often regarded as those who have ideal personality. Therefore, they must have the competence related to personality development, including: spiritual development; respect among and accross religious believers; obidience to the norms, rules, and the system of values prevailing in society; development of commendable quality of manner and;democracy and open-mindness to reform and criticism. Regrettably, not all of the teachers in his country have personality competence. One of the cases is lack of discipline, for instance, those teacherswho come late to class, leave the class before time, and those who gradually do not attend class due to sensible reasons.

Social competence is the ability of teachers to communicate and interact effectively with the environment of the school and outside the school environment such as students, stakeholder, students' parents and society. The process of education or learning will not work properly if the teacher is not able to communicate with learners. Therefore, teachers must have an ability to associate or communicate with students. Teachers must also be able to communicate with fellow educators, staff, parents or guardians of students, and society. This ability is what is often called the social competence of teachers.

Professional competence is capability of mastering on particular subject broadly and deeply. In more detail, principles of professionalism is defined as follows: the teaching profession is the field of specific work which is performed based on the principles of professionalism as follows: possess talent, interest, passion, and idealism; commitment to escalate the quality of education, faith, piety, and exalted morals; academic qualification and education background in accordance with its duties; required competence in line with its duties; responsibility over performing professionalism task; income determined in accordance with job performance; opportunity to develop professionalism sustainably through long-life learning; legal protection in performing professionalism task and; organization for teaching profession which has authority to set things pertaining to teachers' professionalism task. The required principles are not magically possessed by the teachers unless they managed to have it through training or any possible programs. Therefore, in developing teachers' professional competence, any programs which would boost all of those principles are required.

Although various ideas have been proposed or even implemented to develop teacher competence, there is few that proposes residential education as a prospective solution. This idea has actually been put forward by Bedjo Susanto in his article for a book entitled 10 Windu Prof. Dr. H.A.R Tilaar, M.Sc.Ed Pendidikan Indonesia: Arah Kemana?" He wrote that residential education system for teachers was once implemented in the early days of Indonesian's independence. However, due to some glitches that followed, this system was then terminated. Even so, the idea is actually respectable and worth considering. We strongly believe that there must be an embodiment of residential education system to make the future teachers immerse in study program while shaping their personality and social competence all the more during the program.Engkoswara, et al. (2000) also believe that it is better to design a management or system which requires future teachers live in a residential school at least for a year. This residential school should be equipped by programs

and activities which create a good learning environment through the hidden curriculum, which is designed to help the development of teachers' behaviour.
Intrigued by these ideas, this paper will try to: elaborate the notion of residential education system since it plays an important role in evading fallacies; explain how the proposed system may do good to future teachers, as well as, proposes a model residential education system.

2. THE NOTION OF RESIDENTIAL EDUCATION SYSTEM

Residential education system refers to a system of education which requires the learners or the students to live in a dormitory provided by the school, and engage them in a series of academic and not academic, yet constructing activities. The housing system is designed to create a full collegiate experience for all four years of education. The place where the students live in is then defined as a residential school. The term 'residential school' in this paper is used interchangeably with these prevalent terms, such as: boarding school, school's residence of hall, and school's dormitory.
Historically speaking, according to Web-4, the first residential schools were established in the 1840s in the United States. There were so many critics towards them because their primary roles were to convert Indigenous children to Christianity and to "civilize them". The last residential school was then closed in 1996.
In Indonesia, a country with diversity of culture, religion, and ethnics, the existence of residential school is not a new thing anymore. There are, in fact, several types of residential schools exist, such as the ones that are based on a certain religious practice. Take *Pondok Pesantren* as an example. This kind of residential school bases their value more on Islamic doctrine and practice. Thus the students are obliged to not only immerse themselves in academic but also non-academic activities related to Islamic principles.
Students of residential schools routinely return home during the school holidays and often weekends, but in some cultures may spend the majority of their childhood and adolescent life away from their families. Students of residential schools can vary from any ages.

3. THE ADVANTAGES OF APPLYING RESIDENTIAL EDUCATION SYSTEM

Having some understanding of the chief definitions of residential school and its education system, it is now sensible to get the drift of some advantageous sides of it. There are many researchers working on this topic to investigate how residential education system benefits students.
Oneresearch conducted by Octyavera, et.al (2009) showed that there is actually an effective contribution of residential education system to students' social adaption growth because the quality of school life was considered high. This study proved that residential education system helps students gain social adaptation in a way of promoting growth of personal understanding as well as a greater understanding of how torelate to and live with others
Another research conducted by Frazier (2012) also proved that students in residential learning communities with direct and intentional involvement on the part of the faculty and resident staff had a higher level of overall student satisfaction than did students in communities with less faculty and staff involvement.
Briggs (2012) also presented two major findings that were identified from the research he had conducted. First, the programs provided in the residential college assisted first year students in adjusting to college through identifying student support resources. Second, living in campus during the freshman year, with mentoring support, could promote academic success, compared with living at home due to the close living proximity of their peers.
According to these findings, it is quite evident that residential education system is really beneficial for students in ways of enhancing social adaptation, as well as connecting academics to student life by providing reflective discourse.
Curriculum for residential education in terms of the portion of knowledge and the substance of knowledge will not be really different with regular education for student teachers. What makes it different is only in terms of giving the taken home assignment since the students will not go home

but they go to their room after school. In fact, students will do their project in the school time (7 A.M-12 P.M) for particular subject or they can do their project in group after school time.
Another positive side is that future EFL teachers will find it helpful that they can interact more with their colleagues in the same subject. As we know that they need English environment either in the class and outside the class. This will make their English skill, especially speaking, thrive outstandingly. As stated by Dulay, et al. (1982), language environment is determinant of learners' success in mastering L2. The more they are exposed to environment of English, the better they master English. Residential school offers this chance.

4. THE MODEL RESIDENTIAL SCHOOL

Considering the significances of residential education system mentioned previously, determinants contribute to a model residential school are worthwhile to be elucidated. Let us, firstly glance at a research by Takahashi & Majima, concerns more to social aspect described as follow.
Takahashi & Majima (1994) conducted a research which examined how the pre-established framework of social relationships of an individual student affect adjustment to the transition from home to the college campus dormitory. Based on an initial measurement, 23 agemate-dominant students and 14 family-dominant students were selected and compared in terms of how their new social relationships were formed and how their adjustment was supported by pre-established and or new relationships. As predicted, the agemate-dominant-type students more easily developed relationships with new agemates and reported fewer difficulties in making the transition than their family-dominant-type counterparts.
From the research, it can be undoubtedly said that there is an importance for residential school management to build a social relationship among students living in one residence hall. In other words, a model residential school demonstrates a social relationship among learners, which can beattained by designing any activities or programs for learners in which they can immerse and involve. In addition, these programs should demand learners to meet these requirements: residents get to know each other, residents learn to respect each other and their community, residents learn to communicate with each other and interact positively. By doing so, the goal of building a community may take place, which is actually the residential education system is all about.
The process of education or learning will not work properly if the teacher is not able to communicate with learners. Therefore, teachers must have an ability to associate or communicate with students. Teachers must also be able to communicate with fellow educators, staff, parents or guardians of students, and society. This ability is what is often called the social competence of teachers. Sanusi (2013) revealed that "social competence include the ability to adapt to the demands of work and the environment at the time brought his job as a teacher". According to Permendiknas 16, 2007 a teacher who has social competence must be able to; communicate orally, in writing, and gesture, use information and communication technology functionally, interact effectively with students, fellow teachers, staff, and parents or guardians of students, interact politely with the surrounding community and, and be sympathetic. Examples of activities that help student teachers gain their social competence are and out-bound or a live in program which can build students' teamwork and other social competence. Other programs are Residence Association, Hall Leadership Team, Student Board Organization, etc. Those organizations will give leadership opportunity for them. Moreover it opens up chances to socialize broadly and assist in planning campus-wide events. Becoming part of an organization, they will meet people with various characters. It helps them to learn how to communicate effectively to kinds of personality.
Second, concerns more about the development of teachers' personality, a perfect residential education system should demonstrate a full, yet constructive, challenging, and interesting activities. Student teachers can build their independency, responsibility, open-minded character, leadership, functioning roles, etc. One example has been applied by Harvard University, one of the best universities in the world for both its academic success and residential system excellence.
"With over 400 official student organizations including extracurricular, co-curricular and athletic opportunities in addition to academics, Harvard students are active around and beyond campus. Whether in Harvard Stadium playing on the field or cheering on The Harvard Crimson,

volunteering through organizations like PBHA, fostering entrepreneurial activities in the Harvard innovation lab, writing or editing at The Harvard Crimson or The Harvard Lampoon, or researching in one of the many labs." (Web-5)

Harvard students are continuously learning and are busy most of the time. Those activities will surely provide opportunities which will challenge and support the development of each resident as he or she gradualy matures in both thought and action. Inspired by this, residential school in Indonesia prepared for future EFL teachers can organize any activities that help them develop characters, such as: organizing anual bazaar which teaches them how to be a creative, risk-taking, innovative individuals.

Third, residential school should have a resident master and a staff of tutors. Their roles are important as residents need supervision as well as monitoring. As stated by Briggs (2012)mentoring support could promote residents' academic success. We also believe that by providing the authorities, student teachers will develop discipline, honesty, and integrity, spiritual experience, etc.

To achieve those goals, there are proposed ways that can be done as listed below:

a. Shaping teacher candidates' punctuality and discipline by setting punishment and rewards. It is already applied in military education, which sets tight schedule and strict rules for the students.
b. Providing canteen without the seller that frees teacher candidate to take up and pay for their own needs. It is called as "kantin kejujuran". Some of canteens inside the schools in Indonesia have already adopted this way to train students' honesty. One of the schools which has "kantin kejujuran" is SMAN 29 Kebayoran Lama, Jakarta. It is applied since January 2015, moreover the headmaster said that this canteen is effective to build students' honesty (Web-6).

Fourth, a good residential school provides facilities that help students achieve their goals. One facility proposed is a library. Teachers should have a wide horizon. One of the ways to enlarge student teachers' knowledge is through reading. Forming student teacher reading habitby providing a schedule to read any kinds of book they interested in after breakfast (30 minutes) and then to share their reading in a small group (15 minutes) will not only make them more literate but also make them keen on reading. There will be a club or organization for book lover and it is divided based on the interest such as literary, science, fiction, psychology, and so on. The club is good to broaden their knowledge about thing they are interested in. Twice in a year, the club may invite the author of the book to give speech about what is inside the book, what is the interesting part of the book, how is the process in creating it and so on. The residence will facilitate the teacher candidate to be knowledgeable person by providing both online and offline library. Spreading newspaper corner in some spots so thatstudent teachers keep update ofcurrent issues. High speed internet access with security to negative content will be provided.The key is make them to enjoy reading and think reading is valuable (Hunter, 2005).

5. CONCLUSION

Although various ideas have been proposed or even implemented to develop teacher competence, there is few that proposes residential education as a prospective solution.According to some findings, it is evident that residential education system is really beneficial for students in ways of enhancing social adaptation, as well as connecting academics to student life by providing reflective discourse. Another benefit especially for future EFL teacher is that they would find it helpful to live in a residence school since they could interact more with their colleagues in the same subject. As we know that they need English environment either in the class and outside the class. This will make their English skill, especially speaking, thrive outstandingly. Considering these benefits, it is strongly proposed that residential education system is used for future teachers in Indonesia, especially for future EFL teachers. A model residential school is those whose management builds a social relationship among students living in one residence hall through series of constructive, interesting, and challenging activities and programs which will promote the residents to thrive socially and personally and academically.

REFERENCES

Briggs, Ronald. (2012). Increasing First-Semester Student Engagement: A Residential Community Retention Study. Dissertation. Phoenix:Arizona State University.

Dulay, Heidi, et al. (1982). Language Two. New York: Oxford University Press.

Engkoswara, et al. Keefektifan Program Pendidikan Guru Sekolah Dasar. Jurnal Ilmu Pendidikan, jilid 7, nomor 2, 2000.

Frazier, William and Eighmy, Myron. (2012). Themed Residential Learning Communities: The Importance of Purposeful Faculty and Staff Involvement and Student Engagement. Journal of College and University Student Housing, volume 38, no 2, page 10-31.

Hunter, Phyllis S. 2005. Raising Students Who Want to Read. New York: Scholastic Professional Paper

Keputusan Menteri Pendidikan Nasional Nomor36/D/O/2001 TentangPetunjuk Teknis Pelaksanaan Penilaian Angka Kredit Jabatan Dosen

Octyavera, Ruri, et al. Hubungan Kualitas Kehidupan Sekolah dengan Penyesuaian Sosial pada Ssiwa SMA International Islamic Boarding School Republic of Indonesia. Jurnal Psychoidea.ISSN 1693-1076. 2009.

Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 16 Tahun 2007 Tentang Standar Kualifikasi Akademik dan Kompetensi Guru.

Sanusi, Achmad. 2013. Kepemimpinan Pendidikan: Strategi Pembaruan, Semangat Pengabdian, Manjemen Modern. Bandung: Nuansa Cendekia.

Susanto, Bedjo. 2012. "Mengemas Kembali Pendidikan Indonesia". Dalam Sutjipto (Ed), *10 Windu Prof. Dr. H.A.R Tilaar, M.Sc.Ed Pendidikan Nasional: Arah Ke Mana?*(hlm. 24-35). Jakarta: Penerbit Buku Kompas.

Takahashi, Keiko and Majima, Naomi. Transition from Home to College Dormitory: The Role of Pre-established Affective Relationships in Adjustment to a New Life. Journal of Research on Adolescence. Volume 4, Issue 3, page 367-384, 1994.

Tim Kurikulum dan Pembelajaran, Direktorat Pembelajaran dan Kemahasiswaan, Direktorat Jenderal Pendidikan Tinggi, Kementrian Pendidikan dan Kebudayaan. (2014). Buku Kurikulum Pendidikan Tinggi.

Undang-Undang Republik Indonesia Nomor 14 Tahun 2005 Tentang Guru dan Dosen

Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional

LISTS OF WEBSITES

Web-1 http://www.kompasiana.com/www.savanaofedelweiss.com/kualitas-pendidikan-indonesia-refleksi-2-mei_5529c509f17e610d25d623ba (accessed on 20th of February 2016)

Web-2 http://indonesia.ucanews.com/2012/10/02/kualitas-guru-di-indonesia-masih-rendah/(accessed on 20th of February 2016)

Web-3 https://www.selasar.com/budaya/kualitas-guru-berdasarkan-tingkat-pendidikan-di-indonesia-masih-rendah (accessed on 20th of February 2016)

Web-4 http://www.thecanadianencyclopedia.ca/en/article/residential-schools/(accessed on 20th of February 2016)

Web-5 http://www.harvard.edu/about-harvard/harvard-glance/student-life (accessed on 20th of February 2016)

PRESENTER'S PAPERS

Web-6 http://wartakota.tribunnews.com/2015/01/09/melatih-kejujuran-sman-29-buka-kantin-adik-kakak (accessed on 20th of February 2016)

Web-7 http://radio.itjen.kemdikbud.go.id/?p=18096(accessed on 20th of February 2016)

Web-8 http://izzaucon.blogspot.co.id/2014/06/strategi-pengembangan-profesionalitas.html(accessed on 20th of February 2016)

Web-9 http://arisudaryatno.blogspot.co.id/2010/04/kinerja-mengajar.html(accessed on 20th of February 2016)

Author's Biodata

Ayunda Azalea Arham is a graduate student of State University of Malang. She took her bachelor degree at Mulawarman University Samarinda. Her major interests cover TEFL and Teacher Profesional Development.Email:ayundaazalea@ymail.com

Evi Yuniarisda Hutagalung is a graduate student of State University of Malang. She took her bachelor degree at State University of Surabaya. Her major interests cover ELT methodology and English literature.Email:e.hutagalung1992@gmail.com

Eliasanti Agustina is a graduate learner of English Education Department, State University of Malang. She pursued her Bachelor degree at State University of Surabaya taken the same major. She is currently working as a part time lecturer at Cipta Wacana Cristian University of Malang. Her interest is in Teacher Professional Development, Technology for teaching, Reading, and Speaking.

Self Acceptance: a Concept of Guidance and Counseling

Boy Soedarmadji
Adi Buana University of Surabaya
Kampus I: Jl. Ngagel Dadi III-B/37 Surabaya 60245
boyunipasby@gmail.com

Cindy Asli Pravesti
Adi Buana University of Surabaya
Kampus I: Jl. Ngagel Dadi III-B/37 Surabaya 60245
cindyaslibks2a12439@gmail.com

Abstract

This research aims is to developing guidance and counseling concept of self acceptance. Self acceptance has become life issues among Indonesian students. However, most of the concept of self acceptance derives from self awareness, self understanding and self knowledge. This research aimed at developing the concept of self acceptance derived from existing self awareness, self understanding and self knowledge on literature review in much different individuality. The results of literature analysis were compared. This research concluded that there were five aspects of self acceptance: (1) self regulated (2) tolerance (3) openness (4) responsibility (5) be yourself.

Keywords: self acceptance, guidance and counseling concept

Introduction

The process in each individual's life will continue to looking and find so called happiness. Shaver and Friedman in Hurlock (2004) mentioned that some of the essence of the state of happiness or well-being, pleasure or satisfaction, among which is the acceptance (acceptance), affection (affection) and achievement (achievement). Furthermore, Al-Mighwar (2006) mentionsnthat acceptance is an important factor in happiness, good acceptance of self, and self awareness, self understanding, and self knowledge. Based on this it can be seen that in the pursuit of happiness, the individual must have self acceptance.

Husniyati (2009) the individuals who have self acceptance low will easily discouraged, always blaming himself, shame, low self-esteem would be the case, feel insignificant, feel jealous of the circumstances of others, it will be hard to build positive relationships with others, and was not happy. Students who dont have a good self acceptance will be very susceptible to becoming depressed and have difficulty in focusing concentration of the mind, weaken motivation and fighting spirit in student. In the end students are not able to actualize its ability to develop himself so well.

Erickson (Santrock, 1996) refer to as a crisis of identity which occurs an internal dialogue with himself about who is he, what to do and done for that be accepted the environment. Hurlock (2004) explains that adolescence is a problematic age. Problems encountered cant be overcome fully for childhood, the problem partially solved by the parents. The development of adolescence is the transition of children into adolescence. This period is considered very important in one's life, especially in the formation of one's personality so that each student requires self acceptance so that they can develop optimally. Self acceptance is an aspect that is needed by every student, especially in the process of actualizing.

Santrock (1996) which describes adolescence is an age of dependence which often conflicts with parents. The one side adolescents want to free and doesn't depend on the parents but in reality they are emotionally attached. Adolescence is also known as the period of maturation

physically because at this time there is a change of physical shape is very significant. Ripeness and physical changes at times been a problem if teens are not prepared to accept his situation. It is strongly associated with adolescent perception and acceptance of adolescent regarding the state itself.

The meaning of most important aspects in the life of Adolescence is self acceptance. Chaplin (1992) explains that self-acceptance is an attitude that is basically satisfied with yourself, qualities and talents of its own, and the recognition of his own limitations. Self acceptance is closely related to self understanding, namely the extent to which people understand the advantages and disadvantages. Especially adolescent known as an identity crisis, it is closely related to self-acceptance as an adolescent. The individual's condition was himself who receive both benefits and drawbacks susceptible to stress.

Self acceptance is defined as an affirmation of self despite certain shortcomings. It is an agreement with yourself to appreciate, validate, accept, and support who you are eventually going to change (Ziglar, 2005). In other words, self acceptance means being happy and loving yourself. So, the greater your self acceptance, the greater your level happiness. In order to achieve effective results, through self counseling, an individual will have to willingly explore a number of essential qualities. These include self-acceptance and the ability to work towards creating positive changes in the behavior, thoughts and emotions that are considered to be unacceptable. Self acceptance having five aspects self regulated, tolerance, openness, responsibility, be yourself.

Being accepted for who you are, regardless of your thoughts, beliefs, feelings, values and behavior is a liberating experience. It allows us to move through life with less concern about holding ourselves in check. Acceptance usually comes after other people have taken the time to understand who we are, what we do and how we deal with issues and situations, as well as how we interact with other people. If we feel judgment is being passed on us however, it creates a barrier, which may stop an individual accepting him or herself. Being able to accept ourselves fully can only happen if we accept that our psyche does not judge us in any way, and that it will therefore help us overcome our issue with self acceptance.

At large, self-acceptance related with our willingness to open or revealed miscellaneous thoughts, feelings, and reactions to other people. Self-acceptance is built through our understanding that other people accept us. If others perceive us precious, then we will consider ourselves precious. More Hurlock (2004) revealed that people really consider the personal characteristics and want to live with these characteristics. People who accept themselves have a realistic assessment of the potential and dignity, is responsible for the existing norms and also think realistically about the deficiencies himself without blame themselves for the shortage. Self-acceptance is closely related to one's own self-understanding. Positive progressively understanding of himself, the higher acceptance of himself, and vice versa, if the self understanding of one's own low then it would lower her acceptance. Self acceptance is more directed at one's humility and generosity. People who have good self-acceptance can accept what itself (Calhoun and Acocella, 1995).

Conditions that affect the formation of self-acceptance involves self understanding. Self understanding is a perception of yourself that is characterized by authenticity instead of pretense, realistic instead a fantasy, truth not lies, candor is not convoluted. Understanding and self acceptance have a positive relationship, the better man to understand himself, the better he accepts who itself, with a lack of understanding yourself, then indirectly will try to understand, comprehend and accept such all that exist in itself, including all of the advantages and disadvantages, so it can be defined as individuals who have no problem with itself (Oktaviana, 2004). Self acceptance is also one way to help individuals acquire self knowledge is very useful for the good adjustment and a criterion for mental health. Self knowledge requires an ability to find personal assets owned so there are weaknesses that can be reduced or eliminated. Self knowledge will lead to self acceptance (Handayani, Ratnawati and Helmi, 1998). Reception with respect to the psychologically healthy people who have full self awareness to who and what they are. Then the self awareness can be considered as part of self acceptance.

PRESENTER'S PAPERS

Self Acceptance of Guidance and Counseling

Self acceptance is a positive attitude towards itself in the form can accept his situation is quiet with all the advantages and disadvantages, as well as awareness and full acceptance of who and what they are, can respect themselves and respect others, and receive state emosionalanya (depression, anger, fear, anxiety, etc.) without disturbing others. Hurlock (2004) states that many factors affect people like and accept themselves. These factors are the opposite of the factors that lead to self denial. Furthermore, Hurlock (2004) conditions that can affect such self acceptance is; self understanding is a perception of yourself that is characterized by authenticity instead pretense, realistic instead a fantasy, truth not lies, candor instead convoluted. Understanding and self acceptance have a positive relationship, the better a man to understand himself, the better he accepts who she is, with a lack of understanding yourself, then indirectly will try to understand, comprehend and accept such all that exist in itself, including all of the advantages and disadvantages, so it can be defined as individuals who have no problem with itself (Oktaviana, 2004). Self acceptance is also one way to help individuals acquire self knowledge is very useful for the good adjustment and a criterion for mental health. Self knowledge requires an ability to find personal assets owned so there are weaknesses that can be reduced or eliminated. Self knowledge will lead to self acceptance (Handayani, Ratnawati and Helmi, 1998). Self acceptance with respect to the psychologically healthy people who have full self awareness to who and what they are. Then the self awareness can be considered as part of self acceptance.

Hurlock (2004) divides the influence of self acceptance into three; First, influence of self awareness, that is one who can accept himself able to receive all the strengths and weaknesses of himself, he is aware of the weaknesses of himself as well as he realized the advantage of himself. Second, the influence self understanding, a person who can accept himself able to receive all the strengths and weaknesses of himself, he understood the weaknesses of himself as well as he understood the excess itself. Third, the influence of self knowledge Someone, who can accept themselves able to receive all the strengths and weaknesses of himself, he is able to recognize the weakness herself as she recognized the advantages of herself.

Then the individual accepting he will felt safe to collectively and connect with other people and showing empathy. As a result, she can create self-awareness, self-understanding, self-knowledge are better. People who accept themselves tolerant with others, to forgive their weaknesses. Tolerance with others often accompanies the desire to help others. When a person who accepts himself not oriented to yourself and do not blame others for their weaknesses, it will help people in need around them.

Basically the objective of guidance and counseling in schools is the one student individually. This does not mean that guidance and counseling services individualistic who put the interests of the individual above all else, but guidance and counseling targeted to develop what is contained within each individual optimally that each individual can be maximum useful for himself, environment, and the general public. More specifically, the students personal development objective through guidance and counseling services include development stages disclosure capabilities, the introduction and self acceptance. The ability of self disclosure does not raised in a person, but requires the help of others, one must know the limits of their own abilities, talents and interests and others. The result of an objective self disclosure is a sound basis to know yourself and receive the capability of its own.

Considering the importance of self acceptance in adolescent development, Kartadinata (2003) set the self acceptance and development is one of the development tasks that must be met in adolescence. Guidance and counseling services as professional services to help have roles and functions to assist individuals in achieving the developmental tasks. Yusuf (2006) explained that the counseling is the process of providing assistance to students to be able to understand the potential of themselves and their surroundings, accept themselves, develop themselves optimally

and adapt positively and constructively to the demands of the norm of life (religious and cultural) so as to achieve a meaningful life good personal and social. Self acceptance is one of the important tasks that adolescents developments in the success of its development. Therefore, guidance services as a process help was instrumental in helping to achieve the development of self acceptance in adolescents.

Self counseling provides an opportunity to explore all the areas of our personality or behavior that we do not like or accept. Developing our skills and personal awareness, understanding, knowledge of self acceptance can only be possible if we recognize that changes need to be made, and are prepared to accept this. In order to make the changes we want to we need to bridge the gap between our current actual state of self acceptance and the ideal. Although perfect acceptance probably does not exist, we can work towards bridging the gap, between what we have and what we would ideally like to have, by being open to exploring feelings and emotions through self counseling and personal development and growth.

Conclusion

The role of guidance and counseling as a professional services in helping people, especially adolescents to provide an understanding of him that is able to accept themselves. In the words of Kartadinata (Yusuf, 2006) that the ultimate purpose of the guidance is the development of individual potential optimally. Aspects of self-acceptance is not met in the task of development, will bring other problems in the development of adolescents. Therefore, guidance and counseling services are not only healing (curative) but also has a function as a prevention (preventive) to the problems that occurred. This provides an explanation that counseling services are not only given to students who have problems but for all (for all). Thus, the position of guidance and counseling services in schools have an important position in supporting educational success.

References

Al-Mighwar. 2006 . *Psikologi Remaja: Petunjuk bagi Guru dan Or*angtua. Bandung: Pustaka Setia.

Hurlock, E. 2004. *Psikologi Perkembangan*. Jakarta: Erlangga.

Husniyati. 2009. *Pengaruh Konsep Diri Terhadap Penerimaan Diri Anak Jalanan (Street Children) di RPSA Kota Semarang.* Skripsi. *Tidak diterbitkan*.

Santrock, J.W (1996). *Adolescence:6th Edition*. Dubuque, Lowa: Wm. C. Brown Publishers.

JP, Chaplin. 1992. Psikologi Pengajaran. Jakarta: Pustaka Jaya.

Calhoun, J & Acocella, J. 1995. *Psikologi tentang Penyesuaian dan Hubungan Kemanusiaan (Edisi ketiga)*. Semarang: IKIP Semarang Press.

Oktaviana, R. 2004. *Hubungan antara Penerimaan Diri terhadap Ciri-Ciri Perkembangan Sekunder dengan Konsep Diri. Jurnal Psyche*. Palembang: Vol.1 No.2.Desember 2004.

Handayani, Ratnawati dan Helmi. 1998. Efektifitas Pelatihan Pengenalan Diri terhadap Peningkatan Penerimaan Diri dan Harga Diri. *Jurnal Psikologi*, No.2 hal.47-55.

Kartadinata. 2003. Bimbingan dan Konseling Perkembangan: Pendekatan Alternatif bagi Perbaikan Mutu dan Sistem Manajemen Layanan Bimbingan dan Konseling Sekolah. *Jurnal Bimbingan dan Konseling*, Vol.VI No.11

Yusuf, Syamsu dan Nurihsan, Juntika. 2006. Landasan Bimbingan dan Konseling. Bandung: Rosda Karya.

PRESENTER'S PAPERS

Author's Biodata

Boy Soedarmadji is a lecturer of Guidance and Counseling Department, University of Adi Buana Surabaya. He is certified of hypnotherapy. He received his Master Degree in Adi Buana University of Surabaya. His major interests guidance and counseling. boyunipasby@gmail.com

Cindy Asli Pravesti is a lecturer of Guidance and Counseling Department, University of PGRI Adi Buana Surabaya. She received her Master Degree in State University of Malang. Her major interests guidance and counseling. cindyaslibks2a12439@gmail.com

PRESENTER'S PAPERS

How to Improve Processed Food Product Competition on Democracy Basic in Asean Community Era

Budi Prihatminingtyas
Jln Ikan Nus II/5 Malang, Indonesia
Economic Faculty of Tribhuwana Tunggadewi University
Email : hatmining@yahoo.co.id

Abstract

The current problem of local products in Indonesia is in the framework of tight competition facing against the high quality overseas products. Population of 241 million, Indonesia has become a target for trading due to the high consumption. ASEAN community era, one of ASEAN community pillar is ASEAN economic community pillar. It brings an impact of economic sector and societies. The aims of this research were: (1) the ability of processed food industry in facing competition, (2) the ability of processed food industry in providing the products with the high quality, (3) the small industry's role to carry on supporting economic growth. The research was an explanatory research applying qualitative method in 2015. The respondents were 25 processed food businessmen in Magelang Regency. The results showed that processed food product in the research area had an ability to make a competition. The product availability was of high quality. The increased economic development through micro, small and middle business could absorb manpower and created full employments. With regard to that matter, cooperation programs among universities, local government and local societies should be forged. It is suggested that companion programs from universities should be conducted regularly.

Keyword: competition, processed food product

1. INTRODUCTION

The China-ASEAN Free Trade Agreement (CAFTA) era is approaching, if this event not respond quickly by Indonesian businessman this will make imported products flooding our domestic market, including imported food products. According to Prihatminingtyas, (2015) some of the risks are: 1) threatening Indonesia economic, 2) making our local resources unable to compete with imported products, 3) rising up our compsumptive way of life among our society and 4) increasing our unemployment rate. These problems will need better management of processed food industry/sectors with household processed food industry in particular, because household industries have significant role in developing regional economic growth.

It also make consumer feel easier to choose many available processed food. These days, products competition are really getting tight which make many business maker no longer give attention to the applied regulation. The ability to supply market with high quality products force household industry maker who produce processed food use dangerous substances as additional ingredients without any hesitation when processing many traditional culinary products. The government is emphasizing on regulation, assistance, and surveillance to reach and maintain equal positioning between business doers and their consumers. According to goverment regulation no.8 in the year 1999, Indonesia government tends to give more attention to consumers and has not giving serious attention about rights and obligations of business doers.

2. REVIEW OF RELATED THEORIES

The government regulation no.18 2012 states that " Food (*Pangan***)** is all substances come from biological sources; product of agriculture, plantation, foresty, fishery, animal husbandry, and waterworks whether processed (*diolah)* or unprocessed (*tidak diolah).* Food production that states in Article 1 Section 6 says "...food production is activity or process of resulting, preparing, processing, making, preserving, repackaging, and changing these 'food' forms. While Article 1 Section 5 states "...food safety is the condition and necessary efforts to prevent food from unsafe

chemical, biological, and other substances that can disturb, damage, or threaten human health with no potential conflict of religion, faith, and society culture to make it safe for consumption.
Indonesia has extraordinary culinary heritage with its richness variety and taste from all parts of regions. Every region has its own culinary delights from traditional to many modern experimental and modified culinary that bring good competitiveness. Moreover, some areas have more than one cuisine to offer. Indonesia traditional culinary is every kind of processed food that produce in certain regions, starting from full course dishes to snack meal with enough nutritions that usually consume by those people in that area. While traditional food is culinary delight that inherited from our older generations or ancestors. Many tribes and lots of natural diversities make Indonesia posses enormous traditional culinary heritage that come in many distinctive cookings. These food diversities appear from varieties of food stuff/raw materials, way of processing, and ways to presenting these cookings. Traditional culinary are potential enough as media to bring food diversification in to reality in order to enhance Indonesia's competitiveness ability.

In effort to elevate the role of microbusiness industry as supporter of Indonesia's economic growth, management divisions from all producers attempt to produce qualified product which met costumers expectation but in low cost, make simultaneously reparation in their production process which has purpose to increase product's quality and time efficiency. The availability of this raw ingredient are easy to find in respondents location because most of these ingredients planted for commodity that develop specific to be superior ingredients in the region/area where traditional processed food being manufactured. This product is really potential to be develop in the purpose of society empowerment, either economic or food independency because of its characteristics as something that easy to get, easy to make, and easy to consume for fulfill food demand in the society. The trends or habit in utilize/make use any local potency should be socialize to educate society for lessening the tendency of consumptive way of life and change it into productive way of life.
Limitatiton of traditional processed food industry are as follow: first, education lackness in managing their businesses in professional methods. For instance, good packaging is one of the key to increase *plus point* for the product. In reality, many traditional processed food have a problem in their packaging. Second, there are many prospective traditional processed food industries are running only in household capacity. They are having flaws in narrow knowledge of good business management. Third, limited access for those business doer to financial organizations, or unable to meet the requirements set by those financial organizations, which resulted in limited capital to run the business, and in the end, many of these traditional food businesses unable to flourish. Finally, there are infrastructure matters, environment, economic and also social impact.

Good product of traditional processed food must concern about its sanitation aspect. Definition of hygienic principle in this industry is control/management of these four factors: site/location, equipment/tools, people/empoyee, and its raw ingredients. These factors are controlled by six principles of sanitation hygiene for food and beverages that issued by Indonesia Department of Health in 2004 which states: 1) Food ingredients selection, 2) Food ingredients storage, 3) Food ingredients processing, 4) Food product preservation, 5) Food product transportation, and 6) Food product presentation. Food products that proven safe from microorganism is related to good maintainance of hygiene and sanitation because it is one of the solution to protect the food product from contamination Susanto (2015). Then, food presentation is the final chain from these journey. The food product must follow sanitation regulations (free from contamination, clean and well covered, also fulfill the buyer's appetite or taste).

3. METHODS

Research was held from March to October 2015. Site or location of this research was covered the entire area of Malang or commonly called as *Malang Raya* that include the city of Malang, the city of Batu and the regency of Malang. Respondents were selected by purposive sampling with data collection held by several methods; survey, interview, observation and object documentation. Singarimbun, (1990). Total respondents were 45 businessdoers which consist of household food industry owners that make food processed product for sale; and housewives that make food

processed product for own consumption and also for sale. The gathered data taken form in primary and secondary data. Primary data collected by questionnaire prepared before, consisted of respondents general data, information from the product (its raw ingredients and how to process), hygiene level of its processing (application of good food production), and product development. Every respondent interviewed only once for one local processed food product. While secondary data taken from reports, documents that link with local processed food product and related institutions, in order to maintain sustainability of food stability (*ketahanan pangan)***,** tackling many nutrients problems, society empowerment and increasing *plus point* from these products for promotion and business development.

4. RESULT DISCUSSIONS

The limitation of processed food industry may be seen from internal side, which are: 1) Tools or product equipments are far too simple, where majority of production process using very simple tools which operate by hands or manually, 2) Lots of unecessary spent in the process of production, 3) Motivation and quality of the employee are consider low, where employee often work and talk to others and lose their focus on the products and often come late in work. Besides, most employees do not have enough knowledge about strategic process, 4) Limited capital, which make these traditional industry hard to increase their food production either in its quality nor quantity. 5) There has no standard to assuring quality from traditional processed food product that resulted in less trust from our own society. Apart from that, there are also some external side that demotivate traditional processed food product/industry which are: 1) Lackness of facilities, 2) Industry competititiveness rate that tighten/fill with competitors come from outside or inside our own country.

Most of raw ingredients for food product are easy to get in the surronding environment of respondent locations, because majority of these ingredients are planted as superior commodities around these traditional food being produced. The products are very potential to develop in the purpose of society empowerment, not only economic but also food independency because its characteristics of easy to get, easy to make, easy to consume to fulfill daily food demands inside the society. The trends or habit in utilize / make use any local potency should be socialize to educate society for lessening the tendency of consumptive way of life and change it into productive way of life.

The primary problem about food stability is narrow knowledge of energy sources, nutrients contents from food and the availability of many variety *ready to eat* products in individual level. By development of this processed food product, then in Malang Raya which has not know about product of fresh or processed food can be introduce from other region outside Malang. Traditional processed food product which has not known in Malang Regency or Malang City can be introduce from other region, according to the availibility of raw ingredients topography of its local products.

There are some products which can be develop as traditional processed food products in home industry basis, with characteristics of dry products, semi dry product, and liquid drinks that processed and packed with certain labels and have long expiry date. Some of the products are Krispy salty fish, Krispy chicken, vegetables stew**,** fish floss, salty mustard green, carrots chips, zuurzak sweets, and others. A good processed food product must be seen from its sanitation aspects, which include: free of pathogen, no illegal preservatives (not approved by Health Department) added, using package that safe for human health and put expiry date in that packagin Prihatminingtyas, (2010), Futhermore, *Susanto*, (2015) said that a good processed food product must pass 6 requirements: pathogen free, chemical free, piracy free (trade mark and composition), having effective protection during storage time, attract consumers appetite/taste, and has a continually shipping/deliverance in long period. The future of business development of traditional processed food products are in our hands. By considering this magnificent potential as business opportunity that can be broaden from these traditional food products, then it become one of homework duties for government, microindustry, and society to escort Indonesia's Traditional Food Industry to *Go International.*

5. CONCLUSION

Malang Raya has magnificent potency of diversities of processed food products. These diversities are determine by location of raw ingredients/material. It is better to conduct training and assistance about traditional processed food using advance technology processing, better quality, packaging, and food safety aspects which work together simultaneously. Then, in ahead time must make partnership arrangement/cooperation with university, local government and businessdoers.

6. ACKNOWLEDGEMENTS

The author gives great gratitude to processed food product business owner in Malang Raya, Thanks also due to The Head and Staff of Tribhuwana Tunggadewi University and local government in Malang Raya.

REFERENCES

Prihatminingtyas, B. 2005. *The Influence of Work Performance Ability and Its Impact to Work Satisfaction.* Journal of Social Sciences. Vol 17 Number 1 August pg. 118-123

Prihatminingtyas, B. 2010. *Analysis of Influential Factors of Microbusiness Work Performance Run By Wemen in Malang City.* Dissertation. Merdeka University. Malang.

Prihatminingtyas Budi, 2015 the business opportunity of micro industry of crispy chicken and crispy salty fish in malang city, Indonesia International journal of economics, commerce and management united kingdom vol. III, issue 2, feb 2015 licensed under creative common page 1 http://ijecm.co.uk/ issn 2348 0386

Susanto, Budi Prihatminingtyas Vol 7, No 3 (2015) Business Development of Iwak Peyek Business Group ISSN (Paper)2222-1905 ISSN (Online)2222-2839

Singarimbun, M., dan Efendi S., 1990 *Metode Penelitian Survei,* Jakarta LP3ES.

Undang-Undang Nomor 8 tahun 1999 tentang perlindungan konsumen

Undang-Undang No.18 Tahun 2012 Tentang Pangan.

Author's Biodata

Budi Prihatminingtyas is a lecturer, researcher from University of Tribhuwana Tunggadewi Malang Indonesia Position the last five years: Secretary LPPM, head of researcher LPPM, Entrepreneurship. Research experience: MP3EI (2013-2015), Damandiri (2011-2016), the French INRA (2011-2013) PHB (2012-2013), Stranas (2011) and Pekerti (2007). hatmining@yahoo.co.id

PRESENTER'S PAPERS

Developing Materials of Advanced Nutrition Course to Enhance Functional and Nutraceutical Food Processing at Food and Nutrition Concentration Course of Home Economics Department

Diana Evawati
University of PGRI Adi Buana Surabaya
diana_evawati@yahoo.com

Susilowati
University of PGRI Adi Buana Surabaya

Abstract

The present study aimed at investigating the undertaking of Advanced Nutrition course learning, (2) to analyze the feasibility and effectiveness of instructional materials on functional and nutraceutical food processing based on local food and development results. The study was a research and development of which the procedure followed the design and development research by Richey and Klein. It constituted two phases of development. They were (1) comprehensive product development and (2) developmental process of product components. The internal and external validations were employed. The internal validation was carried out for components of the instructional materials by using peer review and focused group discussion, whereas the external one was applied with the try-outs. These validations involved nutrition experts, peer supports, lecturers and students of the Food and Nutrition Concentration Course of the Home Economics Department. The method used for the try-out phase was descriptive qualitative and quantitative. The results indicated that (1) development of the teaching materials further increases the functional and nutraceutical food processing competence nutraceutical on the basis of local food, (2) the teaching materials could be applied independently or in groups, on any matter ended with practice questions and tasks in accordance with the purpose of each material, (3) modules and learning of the development outcomes were feasible and effective in improving the competences of the students in accordance with the demands of the curriculum that could be achieved by the students after applying teaching and learning materials of the development results.

Keywords: *development, instructional materials, functional food and advanced nutrition*

1. INTRODUCTION

1.1. Background of the Study

Education is organized as a civilizing process and the empowerment of learners that lasts a lifetime. That process requires lecturers who can serve as a role model, have willingness to build up and develop the potentials and creativity of learners. This implies that there has been a paradigm shift of educational process, from teaching to learning paradigm shift. Since learning is regarded as a process of interaction of students with faculty and learning resources in a learning environment, the learning process needs to be planned, applied, evaluated and monitored in order to be effectively and efficiently implemented.

The world of education cannot cope with the rapid advancements of technology in the industrialized world. About 60% to 80% of the competencies developed in universities are less relevant with the competencies required by the industrialized world, in particular, the ones connecting with entrepreneurship. In addition, learning for new subjects listed in the competency-based curriculum cannot be carried out effectively because it is still oriented to conventional learning models.

Advanced Nutrition Learning for students at the University of PGRI Adi Buana has not yet successfully accomplished adherent to the purpose of competency-based curriculum due to the

limited facilities and infrastructure. The teaching and learning materials (learning methods, learning strategies, learning approaches, course schedule, as well as models of learning) for Advanced Nutrition course are not yet adequate for the achievement of the students' competencies of the functional food processing. It is because the processes and infrastructures for the students' practicum for students are not yet standardized as required. The laboratory facilities and infrastructure of the Home Economics Department have not met the requirement as well. Apart from that, the effective and efficient learning of Advanced Nutrition has not yet developed and applied. It can be seen from the observation data that the implementation of learning in terms of teaching materials, schedules, learning approaches, the number and the type of equipment, and the means or tools of learning used varied.

1.2. Limitation and Research Focus

Based on the afore-mentioned problem, this study was limited to the development of learning materials for Advanced Nutrition course competencies. This material development is very important because of the problems related to the learning process can be solved as well.

1.3. Statement of the Problem

Based on the background of the study, the identification of the research problems, and their limitation mentioned above, the problems raised in this study are:

(1) How is the implementation of Advanced Nutrition learning and practicum on functional and nutraceutical food processing?

(2) Is the teaching materials and lesson plan of Advanced Nutrition vocational competences feasible and effective to improve the competences of students in the cognitive and psychomotor aspects in the implementation of the practice of functional and nutraceutical food processing?

1.4. Objectives of the Research

Based on the formulation of the above problems, the objectives to be achieved in this study are: (1) to analyze the implementation of learning of the vocational competences of Advanced Nutrition currently applied and the implementation of functional and nutraceutical food processing practices, and (2) to analyze the feasibility and effectiveness of the vocational competence learning materials for Advanced Nutrition.

1.5. Specifications of the Developed Products

Based on the formulation of the problem and research objectives above, this research is a research & development (Design and Development Research), because the main purpose of research is to produce teaching materials for Advanced Nutrition competences and to validate the developed products made. The learning approach used is Student-Centered Learning. The study employed a combination strategy of group and individual learning strategies according to the students' characteristics. The materials are prepared for the learning process of competences in Advanced Nutrition. The competency standards used as reference in the preparation of the teaching materials and the learning process of the following vocational competences: Nutritional science, Basic Knowledge of foodstuffs, analysis of Functional Food Science and Nutrition functional and nutraceutical food product processing.

2. THE THEORETICAL FOUNDATIONS

2.1. Review of the Related Theories

2.1.1 The Basics of Philosophy of Learning in Vocational Education

In accordance with National Education Act No. 20 of 2003 on National Education System, education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for them to have the spiritual power of religion, self-control, personality, intelligence, character, and skills needed for them, society, nation and state. The vision of national education is the realization of the education system as a

social institution that is strong and authoritative to empower all citizens of Indonesia to develop into a human quality so capable and proactive to answer the challenges of the times that are always changing (Ministerial Regulation No. 41 of 2007). The curriculum of the Home Economics Department has noticed some fundamental things as follows: (1) education must instill strong and clear values as the foundation of formation of character and development of human life; (2) education should give something meaningful, both ideally and pragmatically, in accordance with the needs of learners, and (3) education should provide direction planned for the mutual interest of the students, families, communities, nations, and states (MONE, 2004). Vocational education consists of a wide range of expertise in areas of existing expertise in the world of work. All areas of expertise have goals that generally refer to the content of the National Education System Act Article 3 of the National Education Goals and the explanation of Article 15 which states that vocational education is secondary education that prepares students primarily to work in a particular field. Specifically, the goal of Food Management Program is to equip students with the skills, knowledge and attitudes to be competent: (1) to work either independently or fill up vacancies that exist in the world of business and industry as an expert in Food Management (2) to choose a career, compete, and develop a professional attitude.

The purpose of vocational education and philosophy outlined above is in line with what has long been put forward by Charles Prosser who is an important figure in the establishment of vocational education (Vocational Education or Career and Technical Education) in the United States. Prosser suggests sixteen theorems of vocational education.

2.1.2 Learning on Vocational Education

Implementation of learning for Advanced Nutrition is conducted in the laboratory. Practical lesson in the laboratory is intended for workability of learning according to the learning objectives in the mastery of competencies as written in the standard of competence which is the basis for curriculum development. Learning in the lab is a very important part of the learning process. Students will learn and remember information longer after carrying out laboratory experiments.

According to Wena (2009:135), the learning process in the study program should: (1) be based on problem-solving and experimental approach and involve experience in planning methods and decision-making; (2) introduce the learner to a broad spectrum of technology and productive work situations; (3) develop special procedures concerning valuable practical skills such as tool use, repair and maintenance and safety procedures, and appreciate the value of work; (4) develop an appreciation of design, workmanship and good quality; (5) develop the ability to function as a team member and to communicate technical information; (6) be close to the local environment without limiting oneself.

As aforementioned, it is understood that the implementation of learning in vocational education includes learning theory and practice. The study program should be in cooperation with the professional community in the field. By doing so, learning in vocational education leads to relate itself to the world of business and industry.

2.1.2.1 Learning Models for Development of Teaching and Learning materials of Advanced Nutrition

One's competences in the Advanced Nutrition cover competences in the cognitive, psychomotor, and affective aspects. Accordingly, the following explanation addresses mastery learning model, model of competency-based learning, computer-based learning model and experiential learning as models of learning that can be used for the preparation of teaching materials and learning competencies of Advanced Nutrition.

2.1.2.1.1 Mastery Learning Model

Competency-based learning must be adherent to thorough learning principles (mastery learning) to be able to master the attitude, science (knowledge) and in order to work in accordance with his profession as demanded by the set competencies. In order to learn thoroughly, it needs to develop learning principles as follows: (1) Learning by doing (learning through activities/concrete

activities which provide a meaningful learning experience developed into a product-based learning, and (2) Individualized learning (learning by observing the uniqueness of each individual)

2.1.2.1.2 Competency-based learning model

This section discusses competency-based learning model proposed by Voorhees (2001: 5-13). The model of conceptual learning for competency-based learning was compiled by the US Education Department. The competency-based learning model is described as a ladder with each rung affects the steps above or below. The bottom rung is the Foundation; these two skills, namely the ability and knowledge are developed in the learning process. The third step is the competencies acquired through learning and experience, and the latter is a demonstration (performance) as a result of applying the competencies acquired. This top-level performance-based learning can be assessed.

2.1.2.1.3 Experiential Learning Model

The learning model is related to the learning styles of students. Kolb's learning theory specifies the four different learning styles, which are based on a four-stage learning cycle (can be interpreted as a training cycle). Kolb's model offers two ways to understand a variety of individual styles of learning, and also an explanation of the cycle of experiential learning that applies to all. The learning model that is the basis of learning is learning by doing suggested by the competency based curriculum in vocational schools (MONE, 2004). It reveals from the beginning of the learning cycle that is a real experience (concrete experience), according to the learning process on vocational education that focuses on learning practices to obtain real experience. It is expected to develop an effective learning process of competences of Advanced Nutrition.

3. METHOD

3.1 Procedure of Development

According to Richey and Klein (2007: 8) design and development research consists of two main categories: (1) research product and tool, and (2) research models. The stages of research on the category of product development are: analysis, planning (design), development, and evaluation. While the development tool is basically the same with product development but it puts a more emphasis on: (1) development (development of tool), and (2) use (tool use). The steps undertaken for the research model includes: (1) development, (2) validation, and (3) use. In this research, a model by Richey and Klein (2007: 65) is used.

3.2 Pilot Testing

The pilot testing is trying out the learning activities in the Food Management Concentration Course of the Home Economics by the students who are expected to have the same characteristics as those that will use the instructional materials. The implementation is usually done in one location. The trial focuses on aspects of acceptability and practicality of quality curriculum materials. Because the pilot test can be regarded as a prerequisite for field testing, the information obtained from the pilot test is more towards a purely descriptive (Finch and Crunkilton, 1999: 297). According to Dick, Carey and Carey (2005: 289-290) data for the evaluation of small groups in addition to pre-test and post test is a attitude questionnaire and in-depth interview with the students in the group.

3.3 Design of Pilot Testing

Prior to the trial to the implementation of the study, the first students are given a description of the learning scenario. The learning scenarios contain a description of the procedures to be used for Advanced Nutrition, and practice using modules/materials and instructional media that have been drafted. Instructional materials learning are arranged there instructions for lecturers in implementing the learning, these steps are briefly described in the Learning Map (viewable on

learning modules for Nutrition Advanced and designed for each meeting in Learning Implementation Plan (RPP). In the conduct of this trial, the faculty and students carry out learning using the instructional materials for Advanced Nutrition competences.

3.4 Subjects of Pilot Testing

The subjects of the pilot testing try to experience the external validation phase and research into the use of teaching materials in learning Advanced Nutrition. The trial is carried out by eight to twenty students in a small group (Dick, Carey, and Carey, 2005: 288). Learning to use the teaching materials can be accomplished if the components of the learning process that are developed can be met, learning in the laboratory of Skin Beauty. In order for the process of researching the use, the subjects in the form of pilot study can be done, then selecting the schools that have adequate means in accordance with the specifications of the teaching materials studied. It involves 20 students, 1 lecturer and 1 observer.

3.5. Types of Data

The data are obtained from the administration of the test, qualitative data as to obtain a description of use in the learning module. The main data is document of the implementation of learning such as: the students' result sheet on the capabilities checklist, the students' result sheet on exercises or tasks, notes on learning implementation in accordance with the lesson plans, images of learning process and the results of student practice, video learning implementation, notes on the comments of students and comments of the lecturers during the trial, and the description of the learning process of students and the teaching faculty.

3.6 Method of Data Collection and Research Instruments

In the validation phase of the internal components of instructional materials and learning design, the data collection method used is analysis of the review results by the experts. At this stage of the external validation, the data collection methods used is observation of the learning implementation, documentation and interviews. The researchers in this instance serve as an observer of the process of learning about nutrition by using the teaching materials of the nutritional competence. For the implementation of learning, the data collection and data analysis are performed continuously during the course of the study in forms of pre-observation, and observation of learning about nutrition which have been piloted previously. The results of the pilot testing concerning the application of teaching are: (1) the procedure recommended in the use of the model, (2) the conditions that support the successful use of teaching materials, and (3) the explanations of the successes and failures in the use of instructional materials in the teaching (Richey and Klein, 2007: 13).

3.7 Quantitative Data Analysis

The quantitative data analysis is conducted to answer the second and third research problems regarding the feasibility and effectiveness of the module and the learning process. It is carried out by comparing the components of a long learning process with learning components developed by using a comparative descriptive analysis (Sukmadinata, 2008: 79). The components of learning are analyzed in advance with the aim of finding differences or contrasts, in accordance with what has been cited by Spradley (2007: 247). The learning by using the teaching materials is regarded as effective if it can improve the competence of students in the learning competencies of Advanced Nutrition, particularly regarding the functional and nutraceutical food processing.

4. RESULTS

The study results constitute the description and data analysis obtained from the observation, documentation, field notes on the learning, development of the teaching materials in the form of module on Advanced Nutrition and its pilot testing. To be more specific, it results in the preliminary study comprises the description and analysis of the implementation of learning, the results of pilot testing and data analysis, and a review of the product.

4.1. Pilot testing

Before the pilot testing is implemented, the researcher makes the preparation including: the laboratory room and its learning facilities, for instance, tools and accessories, materials, procurement, processing tools and serving tools. It is conducted five times in ten meetings. Each meeting has a three-hour lesson (3 X 50 minutes) at the Food Management Laboratory of University of PGRI Adi Buana Surabaya. The purpose of the pilot testing is to determine the feasibility/workability of the instructional materials and the planned learning and their effectiveness in boosting the students' competences in the functional and nutraceutical food processing. The feasibility means that the instructional materials developed can be presented for the learning of functional and nutraceutical local food- based processing. The materials are considered to be effective if the end of the pilot testing the students have the competences and skills in the local food functional management.

4.2 Students' increased competence obtained by students in the teaching and learning by using the instructional materials

The analysis of the increased competence of the students during the learning of local-food-based functional processing in the pilot testing results in: (1) the observer's field notes, photos, and videos concerning the observation of the students' learning process, (2) the results of the students' tasks and assignments, (3) the results of students' practicum on the manufacturing of food, and (4) students' notes. Those data are subsequently classified on the basis of the performance indicators stated in the learning module and the course semester plan for each meeting.

There are three competence standards to be achieved in the learning of the functional food processing based on local food. They are: (1) the knowledge of the nutrient content of local food, (2) the food processing into products of cuisines, and (3) the description of the composition of the resulting products and functioning of the produced.

The learning process must therefore be analyzed in terms of sequences of the learning, for instance, from easy to difficult, from simple to complex, and developing the students' independent learning.

The competence of students in the learning competencies of Advanced Nutrition, particularly regarding the functional and nutraceutical local food- based processing gradually increased from the first meeting to the sixth meeting. At the seventh meeting the students' competences have been fully attained and mastered to 85. They have the abilities in: product planning, analyzing the nutrition data from functional foods, food ingredients, food processing of ingredients for functional food and functional and nutraceutical food products. From the eighth to tenth meeting, the students are expected to develop their skills in having practices independently as much as possible.

4.3 Teachers and students' opinions analyses

All of the students responded that the learning by using the module was interesting. It greatly facilitates the flow of the learning. The purpose of learning and making the materials

developed is to increase the students' competences. In relation to the aforementioned students' responses, it can be inferred that the purpose previously stated has been achieved.

The students' competence in managing the manufacturing of functional food products independently is what is required by the competence standards. Competence is defined as the ability of the students in the domains of affective, cognitive, and psychomotoric. In the pilot testing the students' affective domains are not measured. However, the students were seriously learning and following the steps written in the materials. In terms of the students' cognitive domain, the students were able to do the practicum and tasks which could improve their cognitive abilities. The students' skills also improved after the learning.

4.4 Feasibility/Workability of the teaching materials as result of the development

The instructional materials and learning as results of the development can be implemented if the learning facilities and infrastructure of functional and nutraceutical food processing are available. From this learning, it is suggested that the development of the learning process should be undertaken. The result of observation of the learning reveals that the students could follow the learning steps easily due to the availability of the module, laboratory facilities and infrastructure of the learning process. The instructional materials of functional and nutraceutical food processing could serve to learn the local setting. In addition, the development of program facilitates the learning itself. All of the students responded that the learning is interesting; whereas the lecturers suggest that the instructional materials can be implemented for the future learning process.

5. CONCLUSION

5.1. Conclusion on the product

1. The instructional materials for the learning of Advanced Nutrition to enhance the competence of functional food processing of local foodstuffs can be used for the students individually or in groups. At the end of the materials, tasks and assignments in accordance with the learning objectives are provided.
2. The laboratory facilities used for the learning of Advanced Nutrition is supplemented with reference books, and learning media in the forms of visualization video of materials of the learning modules.
3. The developed instructional materials and the learning are feasible in terms of time and laboratory facilities and infrastructure of Food Management.

5.2 Suggestions for the use of the materials

The development of the instructional materials requires all the components of learning process which include: learning and teaching materials, learning tools, instruments for evaluation, LCD projectors and screen, learning module in accordance with the availability of the learning facilities within the same framework of the module as the one used in this study).

REFERENCES

Akker, J.V. (1999). *Principles and Methods of Development Research*. Retrieved from http://projects.edte.utwente.nl/smarternet/version2/cabinet/ico_design_principles.pdf

Borg, W.R., & Gall, M.D. (1989). *Educational Research An Introduction (5th Ed)*. New York: Longman.

Bungin, B. (2003). *Data Penelitian Kualitatif, Pemahaman Filosofis dan Metodologis ke Arah Penguasaan Model Aplikasi*. Jakarta: PT Raja Grafindo Persada.

Depdiknas. (2003). Undang-Undang RI Nomor 20, Tahun 2003, tentang Sistem Pendidikan Nasional.

PRESENTER'S PAPERS

Pardjono. (2008). *Urgensi Penerapan Konstruktivisme dalam Pendidikan Kejuruan*. Pidato Pengukuhan Dosen Besar Universitas Negeri Yogyakarta.

Pribadi, B.A. (2009). *Model Desain Sistem Pembelajaran*. Jakarta: Dian Rakyat. Postholm, M.B, & Moen, T. (2010). Communities of Development: A new model for R&D work. *J Educ Change* ,DOI 10.1007/s 10833-010-9150-x.

Rehm, M.L. (2008). Career and Technical Education Teachers' Perceptions of Culturally Diverse

Richey, R.C., & Klein, J.D. (2007). *Design and Development Research*. New York: Routledge.

Riyanto, A. **(**2009**)**. *Kurikulum Pendidikan Teknologi dan Kejuruan, Pengembangan Serta Implementasinya***.** Lecture Materials. Bandung. Universitas Pendidikan Indonesia.

Samani, M. **(**2012**)**. *Rekonstruksi Pendidikan. Kumpulan Pemikiran tentang Perlunya Mengkontruksi Pendidikan di Indonesia*. Surabaya: Unesa University Press

Ozsagir, A, et.al. (2010).*The Relationship between Vocational Education and IndustrialProduction inTurkey.* International Journal of Economic Perspectives.Vol.4Issue 2,439-448. *http://www.econ-society.org*diakses10Juni 2011

Rukmana, A. & Mulyati, S. Y. (2008). *Pengelolaan Pendidkan.* Bandung: Jurusan Administrasi Pendidikan

Purwanto, Ngalim. (2010).*Prinsip– prinsip dan Teknik Evaluasi Pengajaran.* Bandung: PT. RemajaRosdakarya.

Purwanto, N. (2010).*Administrasi Dan Supervisi Pendidikan*. Bandung: PT. RemajaRosdakarya

Rohiat. (2008).*Manajemen Sekolah-Teori Dasar dan Praktik*. Bandung: Refika Aditama

Seidel, J.V. (1998). Qualitative Data Analysis. Retrieved on 18 July 2011, from ftp://ftp.qualisresearch.com/pub/qda.pdf

Straus, A. & Corbin, J. (2009). *Dasar-dasar Penelitian Kualitatif (Terjemahan Muhammad Shodiq dan Imam Muttaqien)*. Yogyakarta: Pustaka Pelajar.

Suparno, P. (1997). *Filsafat Konstruktivisme dalam Pendidikan*. Yogyakarta: Kanisius.

Sukardi. (2008). *Metodologi Penelitian Pendidikan Kompetensi dan Praktiknya*. Jakarta: PT. Bumi Aksara.

Sukmadinata, N.S. (2008). *Metode Penelitian Pendidikan*. Bandung: PPs UPI dan Remaja Rosdakarya.

Wena, M. (2009). *Strategi Pembelajaran Inovatif Kontemporer*. Bumi Aksara: Jakarta.

Author's Biodata

Diana Evawati is a lecturer of Concentration Food Management Course of Home Economics of University of PGRI Adi Buana Surabaya. She is currently pursuing her doctorate degree at State University of Malang. diana_evawati@yahoo.com

Susilowati is lecturer in University of PGRI Adi Buana Surabaya. She is currently pursuing her doctor study ini State University of Surabaya

PRESENTER'S PAPERS

Direct Instruction Model in Mathematical Game Activity for Children with Intellectual Disability in Early Childhood Education

Dian Puspa Dewi
Teacher Education-Early Childhood Education
FKIP PGRI Adi Buana University of Surabaya
dianpuspadewi90@gmail.com

Abstract

Children with intellectual disability are children with a condition over a long period of time and to a marked degree that adversely affects a child's educational performance, such as under average achievement, deficits in memory and attention, and cannot do abstract thinking. This also occurs when they learn mathematics. In the early childhood education, the purpose of mathematics is giving knowledge about basic concepts related to their daily lives. Mathematics can be presented with games so it can create a fun and enjoyable learning for the children. Mathematical games for early childhood with intellectual disability must consider many aspects, for instance, starting lessons, level of students' cognitive development, and facilities, to reach the purposes of the instruction. An instructional model that can accommodate the instructional is necessary in mathematical game for the children. The instructional model should be more meaningful than merely a strategy, method, or procedure. A direct instructional model has the steps that can accommodate instructions necessary starting from identify the purpose of learning structure lessons or skills, explaining to the students, demonstrating and giving exercises, giving chance to students to apply the concept or skills that they learned before, and the last is giving feedbacks.

Keywords: direct instructional model, Mathematical game activities, children with intellectual disability

A. Introduction

Early childhood is a child who has 0-8 year age range. In this period is often called a golden age, which is growth and child development is getting into rapid growth. Children have many kinds of potential to be developed at this time. Child development takes place continuous; it means that the level of development achieved in one phase is expected to increase both quantitatively and qualitatively in the next phase. Although each individual is unique, because the child's development are different from each other are influenced by internal and external factors, however, the child's development still follow the general pattern (Permendiknas, 2009: 58).

Therefore, basically children have the same development pattern but the rhythm of development will different between children with another child, because the child is essentially individualistic. Development occurs in all aspects of child development from the aspects of cognitive, language, physical, social and emotional, and also spiritual. So that giving stimulus is very necessary to maximize their ability. By giving stimulus for children, we should be attention to the ability level of each child. It can do by giving education for children since early age.

Early childhood education (*PAUD*) is the education level before primary education which is an effort of building that is intended for children from birth up to the age of six years is done by giving stimulation of education to help the growth and development of the physical and spiritual in order to help children have the readiness to go into further education, which was held in formal, non-formal and informal (Hasan, 2010). Now, early childhood education is growing rapidly. The government gives full attention to promote the importance of early childhood education. One of the child's developments that should be achieved is the cognitive development.

Cognitive development of each child an early age has a difference, both in age and comprehension abilities of children. Not infrequently found in the field, young children with special needs in the cognitive development. It's influenced by some factors, which are a factor of intelligence or under-average intelligence of early childhood generally. Children with under-average intelligence or intellectual disabilities are called children with intellectual disability. Amin (1995) say that the intellectual disability children are those they have the characteristics of intelligence is under average, less capable in thinking about abstract things.

Learning mathematic is abstract, as explained by Sutawijaya in Aisyah (2007: 11) state that Mathematics examines abstract object (mind object) which arranged using symbol and deductive reasoning. It becomes complicated for early childhood with intellectual disabilities, due to the limited ability to process abstract information. Mathematics is given in early childhood is learning about math concept through play activities in daily life and it's scientific.

Regardless of the children situation, however, the demand to develop aspects of early childhood development should still be maximized, including cognitive development. It is intended that after adult they will be able to meet the needs of their own life and doing social activities related to cognitive aspects such as purchase. In the end, educators or teachers must be able to choose appropriate learning models for the purpose of learning can be achieved. Educators or teacher need not only a medium of learning or just the learning device to accommodate the learning needs of early childhood especially with the presence of intellectual disability children in class.

The facts that occur in exceptionally kindergarten (*TKLB*), the teacher are less able to manage the classroom well. It means that the learning activities in the classroom are still not able to accommodate the children needs and it has not been able to maximize the learning environment at school. The example is found in one of the observation time of *TKLB* in Sidoarjo, teacher conducting conventional learning activity without the learning media and it is restricted to the material presented. On another occasion, the teacher uses interactive VCD learning media, but not maximized with other learning activities. So that children just glued to the media without being given an explanation that accompanies it.

Therefore, the teacher must be able to use other alternatives, so that classes can be managed by involving all of students and the support activities as well as a means of infrastructures relevant to the material. The learning model is a thing that must be considered by teacher in teaching. Joyce state that the learning model is a plan or a pattern which is used as a guide in lesson plan in the classroom or learning in tutorial and to determine learning tools including books, films, computers and curriculum (Trianto, 2007). One type of learning model is the direct learning model.

Arends (1997: 89) say that the direct instruction model refers to the learning approach that includes learning objectives, phase of learning activities, learning environment and classroom management. Direct instruction model is a learning model detailing each phase of learning activities conducted either teacher or the learners and attention the learning needs of the learners. Direct instruction model attention to the classroom management that can accommodate the needs of all students in the class. So it appropriate when applied in teaching learning activity in early childhood with the intelligence/mental retarded or it often called intellectual disability.

B. *Direct Instruction Model*

According to Arends in Trianto (2007: 41), direct instruction model is one of teaching approach which is designed specifically to support the student learning process related to declarative knowledge and procedural knowledge are structured well, which can be taught with the pattern of activity of a gradual, step by step, structured, directing the students activities, and maintain focus on academic achievement. Direct instruction model designed to learn students about the knowledge that is well structured and can be taught step by step. The model is not intended to develop social skills and higher level thinking.

Soetidjipto (2008) say that the direct instruction model is designed specifically to support the student learning process related to the procedural knowledge and declarative knowledge is

structured well. Related to that, if the teacher uses this model, the teacher have a responsibility to identify the learning objectives and have a great responsibility towards the structuring of the content or materials or skills, explain to the students, modeling or demonstrating combined with exercise, providing the opportunity for students to practice applying the concepts or skills that have learned and give feedback.

C. *Characteristics of Direct Instruction Model*

Trianto (2007), direct instruction model has the following characteristics.

a. Learning objectives and student learning outcomes

Nur and Wikandari (2008: 27) say that learning objective is a statement that describes the purpose of teacher for students' growth and students' changes to be achieved. The learning objective delivered in early learning activities so that students can find out about what should be comprehended after the end of lesson. While the study results can be known by the time the teacher checks the students' understanding or when the teacher gives continued exercise.

b. Syntax of Direct Instruction Model

Direct instruction model used to deliver lessons that are transformed directly by the teacher to the student. Preparation of the time used to achieve the learning objectives must be as efficient as possible, so the teacher can design with timely used. Syntax of direct instruction model is presented in five phases, as shown in Table 1 below.

Table 1. Syntax of Direct Instruction Model

Phase	The Role of Teacher
Phase 1 Deliver the objectives and prepare students	Teacher explains *TPK*, background information lesson, the importance of the lesson, prepare students for learning.
Phase 2 Demonstrate the knowledge and skill	Teacher demonstrates the skill correctly, or present information step by step.
Phase 3 Guiding training or exercises	Teacher plan and provide early training guidance.
Phase 4 Checking understanding and give feedback	Teacher check whether the student has successfully done a good job, give feedback.
Phase 5 Provide opportunities for advanced training and implementation	Teacher prepare for the opportunity to do advanced training, with particular attention to the implementation of more complex situations in daily life.

D. *Mathematics Games*

Playing is an approach in implementing learning activities in early childhood. Efforts education given by teacher should be done in a pleasant situation. Game is a very fun thing for early childhood, because they can perform these kinds of games that they all know with their

peers. According to Ahmadi (2011) state that the game is an action containing preoccupation on their own will, freely without compulsion, for the purpose to get pleasure when doing these activities. Freeman and Munandar (in Ismail, 2009: 27) defines that the game is an activity that helps children achieve full development, physical, intellectual, social, moral, and emotional. Learning activities for early childhood with the intelligence retarded is very appropriate if using the approach game. The child will feel that the learning activities are playing, so that children will enjoy.

Mathematics learning activity is abstract learning, it means that the learning must give an imaginable situation for student or have a relationship with the fact or the real world. Sutawijaya in Aisyah (2007: 11) state that Mathematics examines abstract object (mind object) which arranged using symbol and deductive reasoning. It becomes complicated for early childhood with intellectual disabilities, due to the limited ability to process abstract information. Mathematics is given in early childhood is learning about math concept through play activities in daily life and it's scientific.

The world of early childhood is playing; naturally the child will faced with activities related to mathematics. Mathematics is given in early childhood level aims to make children know the basics of learning numeracy or mathematics, so that in future the child will be better prepared to follow the mathematics learning in further education more complex. Math game activities in early childhood are given gradually from simple materials to the more complicated. The materials given to math games for early childhood according to the National Education Ministry *(Depdiknas)* among others are:

1. Correspondence One -One
2. Playing Patterns
3. Playing Classification
4. Playing Numbers
5. Playing Size
6. Playing Geometry
7. Playing Estimate (Calculation)
8. Playing Statistics

E. *Direct Instruction Model In Mathematics Games For Early Childhood With Intellectual Disabilities*

Early childhood with intellectual disabilities or mental retardation in early childhood education is a challenge for teacher to actually apply the knowledge that children's development is completely different with other. They belong to the group of children who experience obstacles in cognitive. This is evidenced in the inability of children with intellectual disabilities in understanding the material of abstract learning such as: write, concluding the content of reading and theoretical material, as well as the use of symbols and arithmetic in the mathematics learning.

The educator or teacher in the levels of early childhood must have good skills in applying their knowledge for teaching learning in the classroom. The condition of the class with the diversity of children's characteristics, especially children with intellectual disability with all their needs, should be able to be managing well. Regardless of the children situation, however, the demand to develop aspects of early childhood development should still be maximized, including cognitive development. It is intended that after adult they will be able to meet the needs of their own life and doing social activities related to cognitive aspects such as purchase.

The term of learning model has a broader meaning than the strategies, methods, or procedures. Arends in Trianto (2010) state that the direct instruction model refers to the learning approach that includes learning objectives, phases of learning activities, learning environment and classroom management. Direct instruction model is a learning model detailing each phase of learning activities conducted either teacher or the learners and attention the learning needs of the learners. Direct instruction model attention to the classroom management that can accommodate

the needs of all students in the class. So it appropriate when applied in teaching learning activity in early childhood with the intelligence/mental retarded or it often called intellectual disability.

Early childhood with the intellectual disability need assistance in learning activities in the classroom. Therefore, in learning activities in the classroom the teacher should give an example step by step so that they can imitate what is done by teacher. Another aspect to note is characteristic of early childhood that learning while playing. Playing is an approach in implementing learning activities in early childhood. Efforts education is given by teacher should be done in a pleasant situation.

Freeman and Munandar (in Ismail, 2009: 27) defines that the game is an activity that helps children achieve full development, physical, intellectual, social, moral, and emotional. Learning activities for early childhood with the intelligence retarded is very appropriate if using the approach game. The child will feel that the learning activities are playing, so that children will enjoy.

In the teaching and learning of mathematics learners introduced kinds of basic concepts of mathematics in daily life. It is intended that can help them in further education, also became the start provisions for early childhood with intellectual disability to be able to do social activities related to mathematics. So the mathematic learning activities in the classroom should be taught to pay attention the characteristics of children are learning while playing.

Math game activities for early childhood with intellectual disability should be very attentive to the needs and the child condition. Accommodate the appropriate lesson plans; it's one of them by applying direct instruction model. There are the implementations of the direct instruction model are as follows:

F. Implementing of Direct Instruction Model

a. Planning

1) Formulate the objectives

   A good goal needs to be oriented on students and specific, it contains a clear explanation of the assessment situation (evaluation conditions), and contain the level of achievement of expected performance (success criteria).

2) Select the content

   D It is recommended that in selecting teaching materials referring to the *GBRP* curriculum applicable and certain textbooks. Kardi and Nur in Trianto (2007) there are two principles that need to be considered in related to choose content, i.e.

   a) Economical

      Economical principle in teaching means that the teacher need to limit the goal to better streamline the time nor the means to give explanations and make a presentation or demonstration.

   b) Power (Strength)

      The principle of power should be applied to choose the subject matter. Power will be there, when the main information in a particular field of study selected and presented directly in a logical way. Through organizing logical that students can study the relationship between facts and key concepts that become the content of a subject.

   Economy and power in learning is determined by a good planning. In the direct learning or instruction, a good planning that must be done in five phases of learning through learning device.

3) Conduct the Task Analysis

   The task analysis is an instrument used by teacher to identify with high precision the exact nature of a skill or item of knowledge is structured, which will be taught by the teacher. Kardi and Nur in Trianto (2007: 35) say that the idea behind the task analysis is that complex information and skills can not be learned all of them within a certain time. To develop an easy understanding and finally mastery, skills, and complex understanding was

first to be divided into its component parts, so that it can be taught logically and step by step.

4) Plan of Time and Space

In the direct learning/instruction, planning and managing time is a very important activity. There are two things that need to be considered by the teacher: (a) ensuring that the time provided commensurate with the talent and abilities of students, and (b) motivate students to keep them do their tasks with optimal attention. Well acquainted with the students who will be taught, it's very useful for determining the learning time allocation.

b. Interaction

Interaction between teachers and students in direct instruction model goes through five phases with the following implementation.

1) Implement objectives and prepare students
2) Present or demonstrate knowledge
3) Provide or give guided practice
4) Checking understanding and provide feedback
5) Provide training opportunities independently or application

In the research that has been done before, it is evident that the direct instruction model can be applied to early childhood with special needs including intellectual disability. Puspitasari and Mahmudah (2005) concluded in their research that the research subjects of street children aged 4-5 years have a mathematical concept quite well after applied the direct instruction model when learning activities in the shrine of reeds in Surabaya. Mirnawati (2014) explains that by applying the direct instruction model as a model of learning in the application of mathematics learning that has developed for deaf children can help them in understanding the material taught and showed a significant improvement of learning outcomes.

Be side that, the direct instruction model is applied not only on mathematics learning activities, but also in other subjects. Ermiyanti(2014) states that the result of the data analysis show that an increase in crude motor development with the application of the direct instruction model (Direct Instruction) through the traditional game "Bali Megoak-goakan". So based on the analysis of literature review has been done above and based on the research that has been done before, direct instruction model is appropriate and may improve learning ability of early childhood with intellectual disability in exceptionally early childhood education (*PAUDLB)* or exceptionally kindergarten (*TKLB).*

G. Conclusion

The learning for early childhood with intellectual disabilities needs extra instructional services that can accommodate their needs. So, we need a model of learning that can accommodate the needs of early childhood that can facilitate learning activities. Direct instruction model is a learning model detailing each phase of learning activities conducted by teacher, learners and attention the learning needs of the learner. Direct instruction model attention to the classroom management that can accommodate the needs of all students in the classroom. So it's appropriate when it applied to teaching and learning in early childhood with the intellectual disabilities.

References

Aisyiah, Nyimas. 2007. *Pengembangan Pembelajaran Matematika SD.* Jakarta : Dirjen Dikti Depdiknas.

Ahmadi, Abu dan Sholeh, Munawar. 2011. *Psikologi Perkembangan*. Jakarta: Asdi Mahasatya Ismail, Andang. 2006. *Education Games.* Yogyakarta: Pilar Media

Ermiyanti, Ni Putu Dara., Putra2, I Ketut Adnyana., Kristiantari3, MG.Rini. 2014. *Penerapan Model Pembelajaran Langsung (Direct Instruction) Melalui Permainan Tradisional Bali*

Megoak-Goakan Untuk Meningkatkan Perkembangan Motorik Kasar Anak Kelompok B4. e-Journal PG-PAUD Universitas Pendidikan Ganesha Jurusan Pendidikan Guru Pendidikan Anak Usia Dini (Volume 3 No 1 Tahun 2015)

Hasan, Maimunah. 2010. *PAUD (Pendidikan Anak Usia Dini)*. Yogyakarta: DIVA Press.

Menteri Pendidikan Nasional. 2009. Peraturan Menteri Pendidikan Nasional Nomor 58 Tahun 2009 Tentang Standar Pendidikan

Mirnawati.2014. Pengembangan Perangkat Pembelajaran Materi Penjumlahan Dan Pengurangan Bilangan Bulat Berorientasi Model Pembelajaran Langsung Dengan Pendekatan *Savi* Pada Siswa Tunarungu Kelas V di SLB. UNESA:Tidak dipublikasikan

Moh. Amin. (1995). *Ortopedagogik Anak Tunagrahita*. Bandung: Depdikbud

Nuh dan Wilkandari. 2008. *Pengajaran Berpusat Pada Dasar Pendekatan Konstruktivis dalam pengajaran,*. Surabaya: UNESA Press

Puspitasari, Yuda dan Mahmudah, Siti.2005. *Pemanfaatan Model Pembelajaran Langsung dalam Perkembangan Kognitif Anak Jalanan Usia 4-5 Tahun di Sanggar Alang-Alang. Jurnal UNESA*

Santrock, John W. 2007. *Perkembangan Anak: Edisi Kesebelas Jilid 1.* Jakarta: Erlangga.

Soetjipto, Prajitno. 2008. *Learning to Teach Belajar Untuk Mengajar*.Yogyakarta:Pustaka Pelajar

Sujiono, Y. N, dkk. 2007. *Metode Pengembangan Kognitif*. Jakarta: Universitas Terbuka.

Sujiono, Yuliani N. 2009. *Konsep Dasar Pendidikan Anak Usia Dini.* Jakarta: Indeks.

Trianto. 2007. *Model-Model Pembelajaran Inovatif Berorientasi Konstruktivistik.* Jakarta: Prestasi Pustaka.

Trianto. 2010. *Mendesain Model Pembelajaran Inovatif-progresif.* Jakarta: Kencana

Author's Biodata

Dian Puspa Dewi is a lecturer in University of PGRI Adi Buana Surabaya. She took hes undergraduated in Exceptionally Education at the Sebelas Maret University of Surakarta. And she graduated master of Exceptionally Education at the State University of Surabaya. She is interested in discussing research on children with special needs at an early age. dianpuspadewi90@gmail.com

PRESENTER'S PAPERS

Application of Cognitive Conflict Strategy to Determine Map Analysis Misconceptions in Social Science Learning of Students of Amanatul Ummah Pacet Mojokerto

Durrotun Nafisah
STKIP PGRI Lamongan
Rejotengah Deket, Lamongan, Indonesia
Na.vius07@gmail.com

Abstract

The aims of this research were (1) to determine the cognitive conflict strategy in reducing map analysis misconception in social science learning, (2) to determine that the cognitive conflict strategy is superior to decrease map analysis misconception in social study learning comparing to lecture method, (3) to determine the positive effect of cognitive conflict strategy in reducing map analysis misconception in learning social science. The research method used quasi-experimental methods or quasi-experimental design with the "control group pretest and posttest design" involving one class (20 students) as the experimental group and one class (20 students) as the control group. Based on the results of the t test with SPSS 16, is showed that (1) there was a reduction of map analysis misconception on the experimental class students after learning with the Cognitive Conflict Strategy, (2) the reduction of map analysis misconception on the experimental class students with cognitive conflict strategy is superior compared to a decrease in the map analysis misconception in control class students with the lecture method, and (3) there was correlation between cognitive conflict strategy application and a decrease of misconception which was medium, significant and unidirectional.

Keywords: Cognitive Conflict Strategy, student misconception, map analysis

INTRODUCTION

Misconceptions children the main problem being faced education today. The misconception occurs universally around the world including socio-cultural environment , language , and ethnic. Conceptions and misconceptions of students allegedly formed in childhood brain in interaction with nature (Berg , 1991). One cause of the low universally on the learning outcomes of social science reached students are the misconceptions (misconceptions) on students. Preconceptions or prior knowladge students on the concept of social science especially material maps constructed by students through informal learning in an effort to give meaning to their experiences of everyday have a very large role in the formation of a scientific conception. Preconceptions of students who are generally continuous misconception can disrupt the formation of a scientific conception. Ausubel (1978) suggested that the learning process does not ignore the preconceptions of students, will lead to misconceptions students increasingly complex and unstable.

Learning to use a map that supports the learning media for a social science teacher in Teaching and Learning , especially with the curriculum has been put in place in 2013. The use of maps in teaching and learning and understanding can lead to an increase of learners in the cognitive domain , especially with regard to knowledge , understanding and application (Taxonomy), among others : 1) Map ease identification of the location of the location , distribution , and orientation . 2) Map ease understanding of concepts related to environmental elements , and can improve , transform and enrich the individual 's perception of the spatial environment. This is consistent with the scope of social studies covering several aspects including: 1) spatial and connectivity between spaces , 2) time and human interaction with the natural

environment , social , cultural and economic . Therefore misconceptions use of maps in teaching social sciences minimized , so as to facilitate students in learning social sciences.

Based on the author's experience during the teaching and prior studies have found quite a lot of misconceptions and vary in material maps , namely to read and interpret the concept of map scale , students in calculating the distance of the Earth's surface regardless of the object depicted , but there are many objects that depicted the Earth's surface with an irregular outline symbols such as roads , rivers , and boundaries. The misconception is that in calculating the actual distance when they use the flat distance when applied in the field then calculate the actual distance they differ from the actual distance on the ground. Examples in the everyday life of people in calculating the actual distance in a time of climbing , they can not calculate the actual distance on the flat distance in mountain climbing because they also have to measure heights and distances oblique. In addition to measuring the actual distance misconceptions common misconception is reading the directions. Membaca arah di peta dengan arah di lapangan berbeda, karena arah di lapangan menggunakan kompas sedangkan arah di peta menggunakan arah utara peta. Examples in the everyday lives of people who are confused on the directions when they see the directions on the map then that person will be confused because the different directions in the field with the directions on the map .

If all the matter of Social Sciences still use the lessons to be lecturing the learning objectives will not be achieved to the fullest. Because if it is associated with angle review of the development of children, a class VII student junior high school age were an average age of 12-13 years conceptually , these age ranges fall into the category of concrete operational stage of development and formal operation . In general, the age of the child based on the development of a way of learning that is concrete operational thinking , which means that the child is able to process at the level of concrete thinking. At this stage the child is able to perform learning tasks for things that are concrete (Wardani , 2000) . Thus the concepts being studied children should be accompanied by the things that are concrete through examples , demonstrations or other visual aids . Map in this case is one of the props that can give a concrete picture of the phenomena of nature . The authors hypothesize implementation strategies able to overcome the cognitive conflict misconceptions and maps in teaching social sciences junior high school students Amanatul Ummah Pacet Mojokerto. If in reading , menganalsis , and interpret maps many had misconceptions then use the map in the learning of social science will also have misconceptions . So that the learning objectives will not be achieved secra maximum. Certainly of Response Index (CRI) is a technique for measuring misconceptions someone by measuring a person's level of confidence or certainty in answering each of the questions. CRI method developed by Hasan et al. , (1999).

Research related to misconceptions such as that conducted and reported by I Putu Sriartha . Based on the research results Sriartha (2003 : 57) that seeks to improve student learning scientific conception of Cartography . The results of this study showed that , in the first cycle when the learning is conventional and is still ongoing lectures , the students only had 58.83 % absorption and mastery learning only reached 66.67 % . Thus, when the first cycle of the Learning Process Completed, still found there are seven kinds of misconceptions or seven Mistakes That concept identified. Based on the description of the background and the results of previous studies that have been done Sriartha (2003) , the researchers tried to do research on the grounds (1) the difficulty students in understanding the concept of an indicator of a very basic and fundamental in order to fix and repair as well as to improve the quality of educational outcomes (2) based on the results of previous studies of Sriartha (2003) , indirectly gives references to the importance of appropriate learning strategies in order to improve the quality , achievement and student learning outcomes , because the conventional learning is no longer effective in reducing the difficulties associated with the students' understanding of the concept and should be immediately abandoned . (3) the author was challenged to find a way out and also motivated to find a solution , how the fundamental problem that is often experienced by students , namely the difficulty in understanding the concept can be resolved.

Based on the description of the importance of this research was conducted , as described above , then in the current study tried to focus on students' misconceptions . By detecting the misconceptions (misconceptions) them early before learning by using analysis of CRI (Certainly of Response Index) and then apply the cognitive conflict strategy , expected misconceptions (misconceptions) the student can be minimized . On the basis of the background and the formulation of the problem above, the purpose of this study can be broken down as follows : to determine the cognitive conflict strategy in reducing misconceptions and maps in teaching social sciences junior high school students Amanatul Ummah , to know that the cognitive conflict strategy is superior to decrease misconceptions and maps in social studies learning compared to learning lectures , to outline the positive effect of cognitive conflict strategy in reducing misconceptions and maps in teaching social sciences junior high school students Amanatul Ummah.

METHOD

The method used in this research is quasi-experimental methods . The design study is that the control group pre -test and post-test design (pretest - posttest randomized control design) of a study conducted in two classes . One class of experiments that get learning approach a cognitive conflict and control classes getting conventional learning . In this study were used as the population is students of class VII MTs seed Amanatul Ummah semester of academic year 2014/2015 , which consists of eight classes of 225 people. Based on the experimental material , is then used as an experimental class is a class 7A9 , and are used as the control class is a class 7A8. Both classes are used because they have similarities in several things including age (mean those aged 12-13 years) , social (they all live in a boarding school environment that on average they come from various cities in Java) , the economy (mostly they come from the middle and upper class families) and in terms of cognitive because incoming students in the class have an average value of which has not reached the KKM .

The instrument used in this study are generally divided into test instruments and non test . Instrument tests in this study of a set of evaluation tools in the form of test capabilities beginning and end of the test questions and the ability of non-test instruments in the form of RPP , CRI . To test the hypothesis to prove the decline miskonsepsipada class that implements the constructivism learning strategies cognitive conflict with classes that apply learning to conventional (lecture) using the t test . This test is used to test the significance of the average difference of two groups. Tests carried out using SPSS 17.0 statistical application program for windows .

RESULTS AND DISCUSSION

The lesson plans used in this study held two meetings with the role in the first meeting to discuss reading a map and a second meeting to discuss the analysis of the map . Map is a learning tool that is typically used by social science teachers to support learning . However, if the student is still going on misconceptions about the map then learning will not be successful . Based on the results of validation that has been done by the validator can be concluded that the lesson plan was developed to have good validity and fit for use The diagnostic test misconceptions (TDM) is an assessment tool used by teachers to measure students' misconceptions of concepts maps in social science learning materials. TDM given before and after cognitive conflict strategies learning activities and lectures . TDM given before the learning activities aimed to determine students' misconceptions that occur in the material maps , while TDM after learning activity aims to determine the impact of learning in reducing misconceptions students. Based on the analysis of the validity (Vd) MCQ showed that the whole item includes enough valid criteria , except for items 1 , 2 and 15 including valid criteria . Analysis Reliability (RI) obtained a value of 0.85 thereby indicating that the entire item including reliable criteria .

Misconceptions that are discovered through the initial capability test well in the classroom as well as in -class control experiments showed that most of the students in the two classes already have the initial idea before learning . Preconceptions or also called the students'

initial ideas that descend can be obtained when they were in elementary school or in previous learning . This condition is consistent with the results of research Yuliati (2008 : 249), which also states that the students had already brought certain concepts that they have developed through their previous life experiences , which are then carried over into the classroom as the initial conception . In addition , preliminary results in this study also does not conflict with the opinion of Kardi (1997 : 13) who said misconceptions is not the monopoly of the children , but it can happen to anyone , at pupils, students , teachers and academics though. The initial ideas turned out to descend the cognitive structure of students and carried over into the classroom as an alternative conceptions they have. The misconception arises because mistakes one's own understanding of a concept . Someone who has a misconception very difficult to change his views on certain concepts that experienced miskonsespsi .

Description of concepts experiencing misconceptions in students knowledge in the performance of diagnostic tests prior to the start of the learning activities (pretest) . The misconception is also identified to determine the beginning of the learning activities . If there are misconceptions , it is expected that the learning strategies cognitive conflict can turn into a conception of scientific misconceptions . But if the students' conceptions of scientific conceptions or misconceptions do not occur , then learning the cognitive conflict strategy aims to strengthen the scientific conception and ease in building a scientific conception . Based on the analysis above CRI diagnostic data shows that of the 20 students who became the object of research, it was found forms of student misconceptions on the map material that is the making of maps the same as in the source map , inset is a picture that is scaled from the area mapped , in determining the direction does not match the direction of 0 degrees north , symbols object earth can be made according to the wishes mapmaker , symbol point is equal to the symbol area , symbol yellow color represents the appearance of a plateau , the larger the scale of the map , the more extensive the area depicted , Calculating distance regardless of the object surface of the earth is concerned , map Contur interpreted as a flat map , Pata thematic equal to the base map (map thematic / RBI) , Sketch equals maps and usefulness of the map is to describe the shape of the earth .

Misconception that occurs when the pretest before learning of cognitive conflict and lectures are known , there are 18 misconceptions on the map material . After learning activities using cognitive conflict strategy then there is a decrease of six misconception that children had not experienced misconceptions . While in the control group only decreased two misconceptions less than the experimental class .

The misconception that declined include: misconceptions that occur in the title map showing the location of the mapped definitely. The explanation of this concept is wrong, because not all titles map showing the location of the mapped . On the naming of the topographic map map title , usually choosing one location name / town famous or relatively large within the scope of the map sheet . Giving the name of the title of the map to different thematic maps with the name of topographic maps . Entitlements on thematic maps typically use objects depicted. So the object is mapped to the first question is in accordance with the population density map title " Population Density Map Geographic Bantul . On the concept of the child is given the title of this map challenge of the common types of maps with custom maps . The title is different topographic maps with the title of thematic maps . After the cognitive conflict on children , the teacher explains the difference titles topographic maps and thematic maps with the goal of children who have misconceptions change of the concept of scientific concepts resulting in equilibrium

In question number three misconceptions occur in the experimental class of two people after learning cognitive conflicts suffered no misconceptions . Misconception that occurs is the same as the map-making source map . The explanation of this concept is wrong, because the manufacture of different maps with the source map even lying together on the lower left edge of the line of the map . To avoid the misconception that teachers impart information that the source of the map is intended to give the reader know where the source of the map is obtained , whereas the map-making is needed, especially on a map that illustrates the volatile data such as population distribution , maps of agricultural products and so on. So that misconceptions on this concept of missing students learned concepts.

For about fifteen occurred misconception both in the experimental class of three students . Misconception that happens is necessary because the projection map of the earth is very broad . This concept shows wrong because , projected maps are techniques that are used to describe a part or the whole three-dimensional surface that is kasaran spherical to flat two-dimensional surface with little distortion as possible . In order for children to experience equilibrium then the teacher provides information that the map projection used to reduce errors in changing the shape of the earth in three dimensions into two dimensions. Teacher describes the map projection on the equator using a cylindrical projection , while in polar regions using the projection cone . Misconceptions students more on the concept of map reading compared by analyzing the map . This is caused by incorrect preconceptions in elementary school , junior high school while in the map material is not taught but directly used as a learning tool of social science . Preconception that one will affect the formation of the concept further (Suparno : 2005) . So the concept is further learned students had misconceptions . If students encounter many misconceptions about the use of maps , the map will be difficult to use as a learning tool of social science .

Errors on the concept will cause an error also at levels higher organizational concept , the law and the theory of (Ibrahim , 2008: 18) . Based on the results of research on a material error concept map due to everyday terms that were found in the students as the students said they often refer to the map of the map as dialeg PETA (Defenders of the Homeland) is not a map that is derived from the word Map. In addition , the concept of error is also found in the textbooks of students and teachers . This is in accordance with Hadiapsari , 1995; Seregeng , 1996; Susanto , 1998; Kardi , 1999 and Mufarridah , 2013 stating that the misconception is even found in the books that are used daily by teachers began to elementary, junior high to high school . Misconceptions on the map chapter in learning Imu enter the category of social knowledge is low both in the experimental class and control class . This is due to many children who do not know the concept mainly on the analysis of the map . Map as a tool of spatial information . On 13 curriculum spatial information If the students had misconceptions in the material Map Therefore, the purpose of learning spatial information Less successful .

One of the requirements experimental research is the subject of research should be homogeneous . In order to equalize the experimental class and control class in order to avoid some of the mistakes threat then tested the average difference with SPSS 17.0 for Windows is seen that the value of p value (sig .). Based on the table it appears that the value of p value (sig .) Of 0.867 with a degree of freedom df = 38 and α = 0.05 significance level . Due ie 0.867 / 2 = 0.433 > 0.05, then H0 is accepted. Thus , it can be concluded that there is no difference between the pre-test experimental class control class It can be concluded that the experimental class and control class have the same cognitive abilities.

Homogeneous both classes can be seen from the results of the pretest experimental class and control class . Results of preliminary tests in the experimental class and control class is equally no time students who completed the implementation of pretest ie 0 %, this indicates that there is no difference in the initial conception either in the experimental class or grade control. Thus, it can be concluded that there is no difference between the pre-test experimental class control class . It can be concluded that the experimental class and control class have the same cognitive abilities . The equation on the subject of research not only in terms of cognitive, they have in common in terms of age, gender, economics.

Based on statistical test shows that the value of p value (sig .) Of 0.000 with a significance level α = 0.05 . Due to $\frac{p\ value\ (sig)}{2}$ > α is $\frac{0{,}000}{2}$ = 0.000 < 0.05, then H0 is rejected or accepted H1. Thus, it can be concluded that there is a decrease misconceptions map analysis on experimental class students after learning Cognitive Conflict Strategy . It could also be the result of pretest and posttest experimental class. The results of the pretest showed that misconceptions 35,25 after learning by using cognitive conflict strategy down to 7,5 .

Cognitive conflict strategy is a strategy conception modifier (conceptual change strategies) that is based on the view of constructivism, which is a strategy of learning how to make the student's mind in order to realize the mistake conception, so that through the accommodation

process is expected to turn into a scientific concept . In many studies revealed that the concept of change theory is influenced by the philosophy of constructivism. To pose a cognitive conflict in students, to do with the presentation of counter- examples, analogies, demonstrations and experiments (Dreyfus , 1990) .

Broadly speaking, the key steps in the cognitive conflict strategy is composed of four phases, namely the identification of misconceptions , the creation of conditions of conflict , providing assistance to occur equilibration , and the reconstruction of student understanding. The first phase is to identify misconceptions that aims to determine students' preconceptions . The occurrence of misconceptions can be caused by ideas - ideas that arise in the minds of students of a personal nature . This idea is generally less scientific, but when the teacher does not attempt to look at the idea of being owned students before introducing the concepts related to prakonsep , will allow misconceptions. The teacher asks questions to find out misconceptions students as early as possible. According to the theory of constructivism learning , students must be given the opportunity to determine the individual secra information and build knowledge based schemata has. Students ' prior knowledge can help menagarahkan concept of the students to the concept of the right (Nur, 1999) .

The second phase is the creation of conditions for conflict . Interest teachers to create conditions of conflict is to make students aware that they have the wrong concept , with membrikan counter examples that are tailored to students' preconceptions which have been disclosed in the first phase . To change the students' concept that one needs to be brought dissatisfaction to the concept. Interest teachers give these conflict situations so that students realize that they have the wrong concept by giving examples of counter (Chinn , 1993) .

In this phase, the teacher did not directly blame the student preconceptions and force students to accept new concepts being taught, but students are directed to change their own preconceptions of students is wrong. According to the theory ausabel meaningful , meaningful learning occurs when there is a process where new information on relevant concepts that already exist in a person's cognitive structure . It is also appropriate Vygotsky 's theory that says that the intellectually thrive when individuals face new ideas and hard and then linking those ideas with what is known by the students .

The third phase is the provision of assistance to enable the collaboration. Providing aid to occur equilibration in students, according to Piaget's theory which states that changes in cognitive and learning will take place if the scheme impaired. This disruption will cause the property that leads to the creation of a new equilibrium. Providing assistance to the equilibration process can be through pertayaan or the provision of information (Effendy, 2005). The fourth phase is the reconstruction of student understanding. In the final phase of cognitive conflict strategy is to reconstruct the students 'understanding to strengthen students' understanding of concepts, so that misconceptions previously experienced have been lost and turned into true concept that can be embedded firmly.

Based on statistical test shows that the value of p value (sig.) Amounted to 0,012 with significance level $\alpha = 0.05$. Due ie $0.012 / 2 = 0.006 < 0.05$, then H0 is rejected or accepted H1. Thus, it can be concluded that the reduction in misconceptions and maps in the experimental class students is superior to decrease misconceptions and maps on control class .Strategi cognitive conflict developed from the views of Piaget. This strategy is more effective in improving students' mastery of concepts, because these strategies supporting students to be active reorganization of knowledge that has been stored in the cognitive structure by adapting a process of assimilation and accommodation. The concept is used as the conflict is determined by identifying misconceptions experienced by students on a pretest. It is also supported by the results of pretest and posttest experimental class and control class. The decrease misconceptions experimental class superior to decrease misconceptions from 36,75 to 7,5, while the control class lowers the misconception of 35,5 to 15,5. The decline in the experimental class misconceptions included the category of low sangant misknsepsi while decreasing the control class is still low.

One of the biggest challenges in learning by lecture method is to keep the child's attention. The results showed that, a child's attention tends to decline sharply to listen to teachers

lecture delivered in less than twenty minutes (Budiardjo, 1994: 15). Symptoms of children leaving disampakan attention to the teacher lecture. The loss of a child's attention is usually marked by the appearance of a child with a close friend talks about things people talk outside material guru.Guru can not know the extent to which students have to understand the conversation. Sometimes teachers assume that when students sit quietly listening to or nodding his head, meaning they have to understand what the teacher explained. Yet the assumption is often missed, even if students reacted as if to understand, but the teachers did not know the extent of students' mastery of the subject.

Simple correlation analysis (bivariate correlation) is used to determine the relationship between the two simple correlation coefficient indicates how much the relationship between two variables. In this study, a simple correlation method used is mindless and Pearson correlation Pearson correlation is used for interval or ratio-scaled data. note that the value of r: 0.514. This happens the relationship is between the cognitive conflict strategy to decrease variable miskonsepsi.Sedangkan way relationships are unidirectional. So the correlation between the application of cognitive conflict strategies and misconceptions decline was significant, and direction. In the process of learning is influenced by several things, not only strategies or methods that teachers do, for example on child psychology, media, infrastructure and others. In the process of learning is influenced by several things, not only strategies or methods that teachers do, for example on child psychology, media, infrastructure and others. Ibrahim (2012: 114) stated that cognitive conflict is one strategy to improve student misconceptions by showing the truth to the people who create conflict in the minds of students.

CONCLUSION

Based on the results of research and data analysis can be concluded that there forms of misconceptions on the material map in teaching social sciences including map title surely shows the location of the mapped, the cartography together with the source map, Bookmarks direction not from the area drawn, symbols object earth can be made according to the wishes mapmaker, a symbol of the yellow color represents the appearance of the plateau, the reading scale lines and scale the same score, the greater the scale of the map will be even greater, calculate the distance regardless of the object surface of the earth are drawn, contour maps interpreted as a flat map , the map projection is required because the earth is very spacious and usefulness of the map is to describe the shape of the earth.

Cognitive conflict strategy can reduce misconceptions and maps in teaching social sciences junior high school students Amanatul Ummah Pacet Mojokerto. It can be seen based on the pretest and posttest which decreased misconceptions, the misconceptions 35.25 Prestes test results included in the category of low and test results 7.5 postes misconceptions included in the very low category. The test results paired samples t test showed that the misconception decrease is as a result of learning with cognitive conflict strategies undertaken.

Besides cognitive conflict strategy can reduce misconceptions, in fact decrease the misconceptions of students is higher when compared with the lecture method. It can be seen from the results postes experimental class using the strategy of cognitive conflict and control classes using lecture. The results of the experimental class 7.5 postes misconceptions included in the category of very low while the result of misconceptions posttest control class 15.5 included in the low category. The test results of independent sample test showed that the cognitive conflict strategy is superior menurunan misconceptions than lectures. Effect of cognitive conflict strategy in reducing misconceptions and maps in social studies learning MTs students Amanatul Ummahpositif seed so that the two variables are in line with the value of r: 0.514 honing 1. Based on the criteria that there is a relationship between the two variables is significant because 0.021 <0.05. So the correlation between the application of cognitive conflict strategies and misconceptions decline was significant, and direction.

REFERENCES

Ausubel, D. P., Novak, J. D., & Hanesian, H. (1978). *Educational Psychology: A Cognitive View* (2nd ed.). New York: Werbel & Peck.

Berg, V. D. E. 1991. *Miskonsepsi dan Remediasi. Salatiga.* Universitas Kristen Satya Wacana.

Chandrasegaran, A. L., Treagust, D.F.,&Waldrip, B.G. 2009. "Students" Dilemmas in Reaction Stoichiometry Problem Solving:Deducing the Limiting Reagent in Chemical Reaction". *Chemistry Education Researchand Practice,* (10):14-23

Dreyfus. 1990. "Educational Experience and Cognitive Development". *Educational Psychologist Journal.* 12(2): 179-197

Effendy. 2002. Attempts to Overcome Errors Concepts in Teaching by Using Cognitive Conflict Strategy . Chemical Communications Media, 2 (6):1-19

Nur, Muhammad. 1999. Learning Theory . Surabaya: UNESA University Press

Suparno, Paul. 1997. Philosophy of Constructivism in education . Yogyakarta: Kanisius (Members IKAPI).

Sriartha, I Putu, dkk. 1995. Evaluation of Availability and Use of Instructional Media On Map For Primary Education in Buleleng . Research Report . STKIP Singaraja.

Wardani, I.G.A.K. 2000. psychology of Learning. Jakarta: Publishing center open University.

Author's Biodata

Durrotun Nafisah is a lecturer of pancasila and civic Education Department in STKIP PGRI Lamongan. She received a master's degree from the State University of Surabaya. Before becoming a lecturer in STKIP PGRI Lamongan, she became a teacher in junior Amanatul Ummah Pacet Mojokerto. She taught social science subjects. Email: Na.vius07@gmail.com

PRESENTER'S PAPERS

Education and Postmodernism (A Study of Implementation of Critical Pedagogy a Movement in Education in the Postmodernism Era)

Dwi Retnani Srinarwati
University of PGRI Adi Buana Surabaya
dwiretnani1964@yahoo.com

Abstract

Education becomes the frontline in forming the awareness of the nation and society because the public awareness and maturity will be formed through a process of education as a social agent. Education will create the human learners who are able to be the social agent. In reality, it shows that the culture of pragmatism that comes from economic habitus has penetrated into the world of education. Struggles between the interests of idealism with pragmatism in education take place continuously. In addition, education in Indonesia is still stuck in the traditional pedagogy in which the teacher's authority is still very dominant and become the single actor. Students marginalized in the production of knowledge in school. Critical pedagogy is still limited to the education debate and discourse. In the perspective of critical education, educational orientation is based on the ideology of idealism, the main emphasis in the pedagogical process is how to understand, criticize, produce, and use science as a tool to understand the reality of life and change it. The measurement of successfulness is emphasized on how far learners are able to become a critical citizen, active and responsible. In line with this thought, postmodernism as a period of thought, historical, and cultural rejecte d the totalitarian thinking as well as implies and encourage our sensitivity to differences and strengthen tolerance. Postmodernism admits the particularity, plurality and diversity, including their local wisdom. Education is not meant as a uniform logic, but meant by a variety of patterns and colors. Therefore, in the postmodern era teachers are required to implement critical pedagogy in learning, by creating conditions that facilitate the development of critical thinking as well as diversity of thought. The present paper addresses how education relates itself to postmodernism, in particular, the implementation of critical pedagogy as a movement in the postmodernism era.

Keyword: education, postmodernism, critical pedagogy, teaching, plurality

1. PRELIMINARY

Education is a topic that is discussed a lot in the public. Suggestions, criticisms, recommendations, and even attack has been widely addressed to educational institutions. Dissecting various educational theories have been done, both philosophical and practical. The policies have been formulated by the government, but in fact has not touched the roots of the grass and the practice in the field.

On the other hand, the culture of pragmatism gained in the education world. It cannot be denied that the pragmatic principle to be part of an activity, particularly to measure something related to "benefit". But if later interests outside nature induces a strong education, then what happen next?

The culture dominance of pragmatism in the public and education, it appears when parents send their children to the consideration that in the future get a job in accordance with the investments made. "Investment" is a word derived from the economic domain. This shows that the pragmatism that comes from economic habitus has penetrated into the education world.

Struggles between the interests of idealism - based on academic values - with pragmatism - based on corporate values - in education takes place continuously. There are three possible relationships of idealism with pragmatism education. First, make academic values as the basis of education; second, making corporate values as the basis of education; and the third making

academic and corporate values together as the basis of education, which both are positioned equivalent. Positioning these values in educational institutions has serious implications. Therefore, is required thought and mature consideration to put the value of what will serve as a base of educational institutions. (Nuryatno, 2014: 11)

Impact of pragmatism education among others; (1) the ideology of competition used as a basis and educational praxis. If this happens, then the world of education only produce the winners and losers; that is the winner (rich kids and smart) and the losers (poor children or less intelligent). Finally, education give birth to injustice and simply serves as a media reproduction of the old social structure; (2) education pragmatic orientation, in the sense faculties, or other types of education that is completely open are faculty, or field, or the kind of education that is practical-pragmatic quickly get a job. Meanwhile, faculties or fields that smelled of thought and philosophy become less salable.

Currently, pragmatic culture becomes dominant in public life, and increasingly stronger. This is marked by the strengthening of corporate values in our education. In some educational institutions, corporate values have become core values in education defeating academic values is supposed always be the basis of educational institutions. Some domains of the economic value has penetrated very strongly into the heart of education.

2. POSTMODERNISM

There are some debates whether postmodernism is a substitute (discontinuities) as stated by Featherstone (1994: 3), Baudrillard (1983), and Lyotard (1993) or the extension project of modernism that has not been completed (continuity), as stated by Jameson (1991) and Harvey (1989), but the exist phenomena that postmodern culture is marked by the strengthening rather than a sign system of meaning, emotion rather than reason, the media rather than the content, the game rather than the seriousness, fiction rather than facts and aesthetics rather than ethics (Heryanto 1996).

Postmodernism is the discourse of awareness that tries to question back the boundaries, and the implications for the realization of the assumptions of modernism; enthusiasm to expand the horizons of aesthetics, signs and codes of modern art; cultural discourse marked by the triumph of capitalism, the spread of information and technology on a massive scale, the explosion of consumerism, the birth of pseudo-reality, the world of hyper reality and simulation, and fall of use-values and exchange value by the value-sign and symbol values.

Meanwhile, Bertens, (1995: 44) states that the characters are often voiced of postmodernism include pluralism, heterodox, eclecticism, randomness, rebellion, deformation, decreation, disintegration, deconstruction, dispersal, difference, discontinuity, decomposition, de-definition, demystifying and delegitimizing. In addition, there are actually many figures of postmodernism that express his opinion about what is postmodernism, like Ahmed who reveals in the book of postmodernism and Islam (1992). According to Ahmed there are eight prominent characteristics of postmodernism, namely:

a. Uprising critically modernization projects; waning belief in the transcendent religion.
b. The explosion of mass media industry, so it is like an extension of the sensory system, organ, and our nerve, which in order to make the world a noticeably smaller. Moreover, the power of the mass media has transformed like "religion" or "God" secular, in the sense that people's behavior is no longer determined by traditional religions, but unconsciously has regulated by the mass media, such as television media.
c. The emergence of ethnic and religious radicalism. This phenomenon appears suspected as a reaction or an alternative when people are increasingly doubting the truth of science, technology and philosophy that failed to meet its promise to liberate man, but instead happened was suppression.
d. The emergence of a new tendency to find an identity and appreciation as well as attachment rationalism to the past.
e. The strengthening of urban areas (urban) as a center of culture and rural areas as a suburban. This pattern also applies to the strengthening of the dominance of developed countries on

developing countries. Like the developed countries as the "central point" that determine the motion on the "fringe"

f. The more opportunities for the social classes or groups to express opinions more freely. In other words, the era of of postmodernism has contributed to the democratization process.
g. Postmodernism era also marked by the appearance of a tendency for the growth of eclecticism and confusion of the various discourses, portraits fragments of reality, so someone is hard to be placed strictly on cultural groups exclusively.
h. The language used in the discourse of postmodernism is often impressive obscurity of meaning and inconsistencies so-called "era of postmodernism" contains many paradoxes.

Postmodernism can be simply understood as a period of thought, historically, and culturally different to the modern era. Differences in both (modernism - postmodernism) lasted quite hot and pass a lot of debate that is long enough. Not easy to define postmodernism, because there is a fairly sharp disagreements of postmodern thinkers who generally idiosyncratic. In this relation, Ritzer (2010: 629) identifies at least three establishments that differ among the postmodern thinkers. **First**, the most extreme groups who claim that modern society has severed its relationship with the post-modern society. Postmodern society completely replace the modern society. Opinionated figures like these, among others, Jean Baudrillard, Gilles Deleuze and Guattari Fellix. **Secondly**, the group said that although there have been changes, postmodern appearing and growing together with modernism. This kind of thinking is followed by Marxian thinkers such as Fredric Jameson, Ernesto Laclau and Chantal Mouffe, including who approved it are feminist Nancy Fraser and Linda Nicholson. **Third**, the group look at as an era of modernism and postmodernism. Both are involved in a long term relationship where postmodernism consistently, continuously showing the limitations of modernism. The group figures are Smart (1993).

Therefore, historically, the birth of postmodernism can be traced far into the groove of the historical failure of modernism. Around the 1960s, postmodernism has appeared as a cultural discourse that much attention. Almost all scientific disciplines, such as art, architecture, literature, sociology, history, anthropology, politics, and philosophy almost simultaneously responded to the theme of postmodernism. Postmodernism has gone through the course of history that shape up to the current situation, which causes to sue modernism monotonous, positivistic, rationalistic, and techno-centric, modernism believe fanatically in the linear historical progress, scientific truth is absolute, the sophistication of the engineering community idealized , as well as strict standardization of system knowledge and production systems, modernism lost the spirit of emancipation and trapped in a closed system, and modernism is no longer sensitive to the differences of uniqueness (Heryanto, 1994: 80).

Rosenau in his postmodernism and Social Science (1992) distinguish two forms of the postmodernism. **First**, postmodernism as a **paradigm of thought**. As a paradigm of thought, postmodernism involves three aspects of ontology, epistemology, and axiology. These three basic aspects become the framework of thinking and acting (eg, Lyotard, Derrida, and Foucault). **Second**, postmodernism as a **method of cultural analysis**. In this context, the principles and ideas of postmodernism is used as a lens to read social and cultural reality of contemporary society (eg Rorty and Baudrillard). Fredric Jameson has a somewhat different opinion. He said that the postmodern is nothing but the logical consequence of the development of late capitalism. Through his writing of postmodernism or the Cultural Logic of late Capitalism (1989), Jameson convince the inevitable risk from domination of late capitalism that has perfected itself, that is capitalism has changed the character because it has a lot to learn from various undermined and criticism. The emphasis of capitalism shifted from manufacturing to service industries and information. In addition, in the interest of long-term, capitalism intelligently accommodates the demand of trade unions, environmental persistence, and creative power / critical consumers, integrating many elements of socialism, working with the principle of decentralization and deregulation as the central system was sprightly face of rapid change, and not offers uniformity of style / cultural image because the market and workers has diversified so far.

The development of late capitalism that appear in the presence of multinational companies, global information networks and telecommunications technology, giving birth to the whole new type of society, the people who populated by subjects with traits split, losing a chain of relationships of meaning, dissolved in images as well as failing to understand the historical background of itself (Turner, 2012: 170).

To understand postmodernism fundamentally especially at the stage of ontological and epistemological is an absolute to determine the base assumptions and voice for the arguments of postmodernism in the area of philosophy. Jean-François Lyotard was the philosopher who began laying the foundation of philosophical arguments in the discourse of postmodernism. Through his book *The Condition of the Postmodern: A Report on Knowledge* (1984), Lyotard noted some of the main characteristics of postmodern culture. According to him, postmodern culture is characterized by several principles, namely the birth of a computerized society, the collapse of the big narratives of modernism, the birth of the principles of delegitimation, census, and paralogy.

Computerized society is the name given by Lyotard to designate the symptoms of post-industrial Western society towards the information technology era. Socio-cultural reality of society today as he researched in Quebec, Canada is a living community supported by means of information technology, especially computers. With computerization, the principles of production, consumption and transformation experienced a radical revolution. The use of human labor is increasingly limited in the economic sector, the folding of space in the world of telecommunications, acceleration data processing and information that is capable of changing even manipulating reality, dissemination of knowledge and power on a massive scale, are some of the consequences of technological developments (Sarup, 2008: 118). Therefore, in a computerized society, values and basic assumptions of modernism, namely the ratio, the law of linear history, subject, ego, grand narrative, autonomy and identity is no longer able to describe reality. Reality has changed according to the changing character of the people of postmodernism. The reality of such society become forum, the arena of struggle, and the new values of postmodernism.

The presence of postmodernism is a step to describe discourse and or critical-reactionism movement. Therefore, the presence of postmodernism gave birth to a debate. It means what and how conceptions attached to postmodernism, must be present as the antithesis of thought which is totalize to demonstrate the formation of a single translation. In other words, postmodernism is present as an attempt of rejection and distrust of all forms of thought which is totalize and grand narration or Lyotard called it as metanarrative. (Karim, 2009: 130). Postmodern science by Lyotard is present to reject modern science called metanarrative. Furthermore, Lyotard implies that the truth brought by Grand Narratives modernism as metanarrative has now lost its legitimacy, because in contemporary society, the source of knowledge and truth are no longer single. Contemporary realities are no longer homologous (homo: one, and logy: orderly reasoning), but paralogs (para: Varies, and logy: orderly reasoning) (Awuy, 1995: 161). Knowledge and truth are now spreading and plural. Consequently, the principle of the legitimacy of modernism to be dismantled with the principle of delegitimation. By the legitimacy, means admitted the existence of various elements of reality that has its own logic. According to Lyotard, with the delegitimation the principle of the census are more acceptable than the consensus as offered by Jurgen Habermas. Because the census is a principle that recognizes the differences and uniqueness of every element in the reality, which has its own logic and the right to life. Lyotard enthusiastically voiced rejection of metanarrative as a product of modernism. Explicitly he voiced "Let us fight against the totality, let us turn on the difference." (Ritzer, 2010: 631).

3. THE ESSENCE OF EDUCATION

Discussing about postmodern - in terms of culture - means it is very relevant to how education should be run at this time. If it is said that education is human effort to humanize humans, the study is an attempt to grow positive character like a man possessed on earth, namely, mutual love, fair, devout, peace-loving, responsible, and other positive character.

Furthermore, as disclosed by Fakih (2002: 364), that talks about the purpose of education, essentially talking about the purpose of human life. Therefore, education is a tool used to maintain

the continuation of human life (survival), both as individuals and as a society. According to Fakih who hold a critical view, that in the implementation of education should be able to create spaces order to appear critical attitude towards the system and the structure of social injustice towards a more equitable social system. In other words, education is one of the activities that is often carried out by any person would need a good system should be established what goals should be achieved in each implementation.

The purpose of education is to make a conscious human being critical for social transformation. (Fakih, 2002: 119). It means, growing a critical awareness of human so that responsive to the changes that occur in the environment, in the social, political, cultural, economic, education, and religion. Necessary to develop a critical awareness that can only be done by people in the real sense. If people really have come to realize the reality of himself and the world around him, it is not possible to have a critical awareness of society. Thus, education can be implemented properly and educational objectives will be achieved.

Furthermore, Fakih considers that the educator is a facilitator in an educational process. According to Jenny Rogers (in Fakih, 2001: 58) there are some things that should be owned by educators in order to carry out their duties to have a sensitive characters and careful to the educational process. What is meant is:

a. A pleasant personality, with the ability to show approval and what is understood to students.
b. Social skills, with the ability to create a dynamic group together and control it without harming students.
c. Able to design a way of facilitating that can generate, using the knowledge and skills of students themselves during the process. The ability to organize activities from fund raising to the preparation of the necessary logistics.
d. Careful in looking at personal matters of students and trying to find a solution.
e. Have a great interest in the subject or educational material and put the interest on the way of exact delivering and fun.
f. Flexibility in responding to the changing needs of students.
g. Sufficient understanding of the subject matter of education.

With a variety of criteria, is expected to run by every teachers in order to achieve quality learning process. In addition, it can bring the teachers as a facilitator who succeed in carrying out their duties as teachers Due to the success of the learning process is largely determined by teachers, we need a teacher who has competency.

Reality shows, that in the administration of education or learning basically never free from political interests, the perpetuation of socio-economic system as well as the existing power. The substance of education as a means to reproduce the structure of the system and unjust social systems such as class relations, gender relations, relations of racism, as well as other relations system. In education, such a view known as the theory of reproduction. (Fakih, 2001: 27).

As antithesis, materialized views from other groups who think and believe that education is the process of "production" critical awareness, such as growing class awareness, gender awareness, as well as other critical awareness. Education is a process of human liberation from various forms of dehumanization as class exploitation, gender domination, as well as other cultural hegemony and domination. Therefore, education is a means to produce the awareness in order to restore the humanity of human. In this connection, education contribute to raise critical awareness as a precondition of liberation.

The process of learning to raise critical awareness is done by placing the students as subjects and educational activity center. Thus, for each participant orientation of education is to live the vision and mission of their education. Moreover, when education is about to put the students as the subjects and monitors, then developing a critical awareness becomes much more important. Critical awareness is needed to toward the goal of social transformation. The purpose of social transformation is a process of creating a relationship which is fundamentally new and better. In this case also, the social transformation is regarded as one of the models or alternative forms of social change, which is the main objective of every social movement. (Fakih, 1996: 38).

In a critical perspective, the task of education is to perform critical reflection on the system and the dominant ideology which is prevailing in the society as well as challenging the system to think about alternative systems toward social transformation towards a just society. This task is manifested in the ability to create space so that it appears a critical attitude towards the system and the structure of social injustice, and the deconstruction of the dominant discourse and unjust towards more equitable social system.

4. CRITICAL STUDY: EDUCATIONAL PROBLEM IN THE POSTMODERNISM ERA

There are various problems of education in the present era. Pragmatic culture in education, as dealt with in the 'Introduction', will have implications for the pedagogical process. Furthermore, in this regard, according to Habermas (1971: 197-198), there are three categories namely technical knowledge, practical, and emancipatory. If the pragmatic culture which dominates education, technical-practical knowledge to be disseminated in the learning process. The learning process is emphasized in an effort to accumulate and have the knowledge. Rational will be born from the educational process as this is a rational technocratic/ instrumental greater emphasis on conformity and adaptation. The dissemination of knowledge is separated from the process of formation, and consequently eliminates educative processes which is very important, that fosters great curiosity, questioning, dialogue, discussion and others that can generate and build critical subjectivity. Furthermore, if critical subjectivity has awakened, then (1) the subject can distinguish between desires and needs; (2) The subject may differentiate between the real facts and the facts obtained in the media; and (3) the subject is able to understand the inner structure of reality (Nuryatno, 2008). If the educative process is not carried out, it will give birth to passive subjectivity, which is subject only adaptive and confirmative with the reality of life.

Modes of thought that would be born of a pedagogical process as described above is technocratic rationality, which has two main characters, namely conformity and uniformity. This form of rationality contributed to degrade the historical-critical awareness of students by shifting the idea of their development that is both moral and ethical with only emphasizes the development of self-technical-material. The rationality of technocratic emphasis on pragmatic interests, or what is called "what is", and do not pay attention to the interests that is idealistic-utopian, or also called "what should and can be". As a consequence, corporate values are more pragmatic and technically advanced while the values of moral-ethical marginalized (Giroux, 1993).

Furthermore, if the orientation of education is based on the ideology of idealism, then gained is not only knowledge of instrumental mastery, but instead the emancipatory knowledge as occurs in Habermasian. The main emphasis in the pedagogical process is how to understand, criticize, manufacture, and use science as a tool to understand the reality of life and change it. Pedagogical and educational process is directed to develop a critical awareness of students than just to master technical skills. As it is believed that the occurrence of oppression, domination, and exploitation is due to degradation of the critical faculties of human who deliver a critical awareness.

Critical awareness is critical thinking skills that it contains political and cultural dimensions. The ability to think critically is not just mean "thinking skills" that is non-political-cultural. Pedagogical process cannot be reduced its meaning, it just to help students acquire a high level of cognitive skills, without considering to what these thinking skills are developed (McLaren, 1998). This reductionist standpoint emphasizes how students to be successful in the competitive world of hard and challenging work. Academic success in this context is measured by the extent to which students succeed in the world of work and be a productive worker. In a critical educational perspective, the measure of success is emphasized on the extent to which students are able to become critical citizens, active and responsible.

In addition, education in Indonesia is still stuck on things that are in view as traditional pedagogy Freire called. (Freire, 2010). Transformation of critical awareness is still a difficult thing practiced in the field. Reality on the ground shows that the teacher's authority is still very dominant and become single actor. Pupils marginalized in the production of knowledge in school. Critical pedagogy is still limited to the debate and the discourse of education in Indonesia.

Consumption debate just be done a little bit of academics who are concerned and deepen the study of critical pedagogy. Supposedly, critical pedagogy is implemented by teachers in teaching.

With a critical awareness is expected to be able to direct the students to be thoughtful in speech and behavior. He speaks on the basis of careful research of social reality which is very diverse. The students also act based on a world view that is open to be able to critique the crisis in social life. He is able to look carefully at the root of the problem behind the crisis while providing solutions offer, how to handle the crisis to lead the social accelerate that is expected by the society. In the process of learning, communication and dialogue should occur with positioning the students as a subject in the process of forming knowledge.

Awareness of the importance of communication in the world of human life must be fostered by teachers in shaping the universal values of each of the participation of individuals in shaping a common consensus that co-opt the interests of every section of society. The function of education to form social agents in creating a better social situation and democratic, the teacher should direct the object of study of students that is cannot be separated from the reality of unequal social. Sensitivity to anomalies and social pathologies that occur in the reality of life must be inserted into the existing learning curriculum. *The hidden curriculum* is directing the students to have a sensitivity to the reality of the crisis, which does not reflect emancipation. The curriculum must accommodate the language of critique that investigates culture, inequality happens in the existing reality in the life of students. The curriculum must also contain an emancipatory interest to provide goals and objectives.

If it is observed deeper, the interests who are involved in the education system is still at the level of technical interest. This can be proven from how the system is run. In the process of learning, the teacher has not given an understanding of praxis, especially emancipatory. Actually, implied, Curriculum 2013 already invited to carry out the emancipatory learning, especially seen from the approach adopted is a scientific approach. The problem is that there is a fairly complex obstacles that cause not easy, even can be said to be difficult to implement the curriculum. Moreover, supported by government policy which pulling back to return to the Curriculum 2006 for schools of less than 3 semesters which run Curriculum 2013.

Technical-strategic logical should not be extended to educational institutions that is predicted into the front wall in maintaining social culture systems and values in society. In practical formation of knowledge, should not use the patron-client paradigm in learning. Teachers must position themselves as fellow subjects in the presence of their students in the form of knowledge that includes the interests of emancipation. It means that there must be a commitment to treat students as individual's potential participants in the discourse of knowledge formation. It is a commitment to recognize the equality, autonomy, and rationality potential of each students without any difference. In order to build awareness, it is necessary to build an open and dialogical learning that allows the ideal speech situation formed in the educational environment.

In the context of education environments, the ratio of Habermas communicative demanded the need to eliminate the tendency of technicist mastery in the living world in the educational environment and improve the communication process in the practices of pedagogy, for example through increasing the empowerment and freedom of critical students, ensuring that education encourages equality and democracy, developing autonomy and responsibility in children, developing a coordinative and collaborative learning process, carry out discussions in learning interactions, and run social education that becomes problems which socially is sensitive. (Keith Morrison, 2003: 391-392).

In his writing, *Human Universe* (1951), Olson stated that the world of Western culture, because of their ontological orientation that is blind to the authenticity and genuineness of the experience of human life. As a result, people are no longer able to experience and appreciate the richness of reality of life with all its own uniqueness (Bertens, 1995: 21). That there is a single reality monolithic, dogmatic and ideological. Instead, the anti-modernism expressing the rejection of the views of modern rationality that uphold the universality, transcendental subjects, the individual ego, and celebrate the life authenticity. The anti-modernism wants to try against the arrogance values and aesthetic of modern literature.

As Lyotard views that postmodernism is a place of various different theoretical perspectives, the postmodern science refine our sensitivity to different views, in addition it also strengthens our ability to tolerate the establishment who do not want to compare. It means that postmodernism rejects the idea and implies totalitarian and encourage our sensitivity to differences and strengthen tolerance to immeasurable reality (Suseno, 1999: 60). Postmodernism acknowledge the particularity, plurality and diversity. Thus, when particular, plural, and diversity is a necessity, the tolerance of necessity is the nature of the most appropriate choice.

Based on the description above, it can be explained that postmodernism does not agree and even reject uniformity logics, it is more appreciate diversity including their local wisdom. The thoughts of various education figures show the diversity of thinking about education. It must be respected and also appreciated that there is a diversity of thought so that education is not meant as a uniform logic, but otherwise, it is understood in a variety of patterns and colors.

5. CRITICAL PEDAGOGY AS EDUCATION MOVEMENT IN POSTMODERNISM ERA

Social change is currently running rapidly. Pragmatism is part of the process of massive change. Pragmatism in education is possible has implications for strengthening the practical-pragmatic values and the exclusion of idealist utopian values. This phenomenon will eventually lead to the world of education and community life becomes dry and poor of meaning. Everything is measured of material and something that is immaterial considered utopian and not functional. Meanwhile, the emptiness and the void soul begins when the human deify the material and ignore immaterial. Therefore, philosophical thinking should be maintained and developed through the medium of education. Philosophy of education can be used as a motor of social change towards a better and humane. Social change always give birth to conflicts of interest between the holding old traditions and values with the need to adapt the traditions and those values with the changes. Where the value needs to continue to be held as a reference for life and where the value should be converted into a problem of its own. The question is: Are we going to constantly follow the rhythm of social change or are we going to dictate the process of change?

Educational philosophy is the application of philosophical ideas into education issues. But the practices of education can contribute to the improvement of philosophical ideas. Because the education is related to the world of ideas and the world of practical activity, then the good ideas will have also good implications to the practices of education. Instead, practice good education will also have implications on the educational ideas. Educational philosophy is based on the thoughts of the philosopher of education and attempt to apply these thoughts in educational practice. It is accompanied by the belief that educational practice cannot be separated from the foundation underlying philosophy. So, education is not neutral.

Philosophy of education is not only a way to get and looking for ideas, but also a medium of learning how to use these ideas better. Philosophy of education can only become significant if teachers recognize the need to think clearly about what they are doing. Further see the relationship between what they are doing in the context of individual and wider social development. In this framework, the knowledge can be shared and critically analyzed to be further developed.

The teachers have to understand that the philosophy of education can provide something different in the insights and activities. They need to use philosophical ideas and thought patterns in order to make their activities could be more conscious, not just routine. This does not mean that teachers must accept the philosophy as it is, but they should still examine the philosophical context of education and social conditions. When conditions change, then the perspectives and insights also have to be re-examined. Philosophy of education should be seen in the dynamics of the other forces.

6. CLOSING

Education become the frontline in shaping the awareness the nation and its people. Because of public awareness and maturity will be formed through a process of education which is the social agent. Education gives birth the human learner to be able to become social agents.

In the perspective of critical education, educational orientation based on the ideology of idealism, the main emphasis in the pedagogical process is how to understand, criticize, manufacture, and use science as a tool to understand the reality of life and change it. Measures of success emphasized on how far students are able to become critical citizen, active and responsible.

In line with this thought, postmodernism as a period of thought, historical, and cultural rejected the totalitarian and implies thinking and encourage our sensitivity to differences and strengthen tolerance to immeasurable fact. Postmodernism recognizes the particularity, plurality and diversity, including their local wisdom. Education is not meant as a uniform logic, but understood with the variety of patterns and colors. The presence of postmodernism is a step to describe discourse and or critical-reactionism movement.

Reality shows, that in the administration of education or learning basically never free from political, economic and perpetuation of social systems as well as the existing power. The substance of education as a means to reproduce the structure of the system and unjust social systems such as class relations, gender relations, relations of racism, as well as other relations system. Therefore, education is a means to produce the awareness in order to restore the humanity of human. In this context, education acts to raise critical awareness as a precondition of liberation that is conducted by placing students as subjects and educational activity center.

Philosophical thinking should be maintained and developed through educational media. Philosophy of education can be used as a motor of social change towards a better and humane. The teachers have to understand that the philosophy of education can provide something different in the insights and activities in addition, it should also be understood that critical pedagogy is an educational movement that is grounded in the philosophy of education. The education movement built by the encouragement and strong principles that build students and teachers to develop awareness of freedom, recognize the otoritarinism tendencies and the relations of knowledge with power. Critical pedagogy, as a movement enabling a practical and constructive action for education be more democratic and humane. Critical pedagogy includes the relationship between teaching and learning. Which is a continuous process of what is called as *learning* and *relearning*, reflection and evaluation.

REFERENCE

Arif, Mukhrizal, dkk. 2014. *Pendidikan Posmodernisme*. *Telaah Kritis Pemikiran Tokoh Pendidikan*. Yogyakarta: Ar-Ruzz Media

Awuy, Tommy F., 1995. *Wacana Tragedi dan Dekonstruksi Kebudayaan*. Yogyakarta: Jentera Wacana Publika.

Baudrillard (1983). *Simulations*. New York: Semiotext.

Baudrillard (1983). *In the Shadow of the Silent Majorities*. New York: Semiotext(e)

Bertens, Hans, 1995. *The Idea of the Postmodern: A History*. London: Routledge

Fakih, Mansour. 2001. *Pendidikan Populer, Membangun Kesadaran Kritis*. Yogyakarta: Insist.

Fakih, Mansour. 2002. *Jalan Lain Manifesto Intelektual Organik*. Yogyakarta: Pustaka Pelajar.

Featherstone, Mike, 1994. *Consumer Culture and Postmodernism*. London: Sage Publication.

Freire, Paulo, dkk. 1999. *Pendidikan sebagai Praktik Pembebasan*. Jakarta: LP3ES

Giroux, Henry A. 1993. *Border Crossing: A Cultural Workers and the Politics of Education*. New York: Routledge.

Habermas, Jurgen. 1971. *Knowledge and Human Interest*. Terj. Jeremy J. Shapiro. Boston: Beacon Press.

Harvey, David, 1989. *The Condition of Posmodernity: An Enquiry into the Origins of Cultural Change*. Oxford: Basil Blackwell.

Heryanto, Ariel, 1996. "Bahasa dan Kuasa: Tatapan Postmodernisme", dalam Yudi Latif dan Idi Subandy Ibrahim (ed.) *Bahasa dan Kekuasaan: Politik Wacana di Panggung Politik Orde Baru.* Bandung: Mizan, hlm. 94-103.

Hidayat, Rakhmat. 2013. *Pedagogi Kritis. Sejarah, Perkembangan, dan Pemikiran.* Jakarta: Raja Grafindo Persada.

Jameson, Frederic, 1991. *Postmodernism, or the Cultural Logic of Late Capitalism*. Durham: Duke University Press.

Jameson, F. 1984. "Postmodernism: or The Cultural Logic of Late Capitalism", dalam *New Left Review*, hal. 146.

PRESENTER'S PAPERS

Jameson, F. 1993. "Postmodernism and Consumer Society", dalam Kaplan. E. Ann. (peny.). *Postmodernism Discontents. Theories, Practices.* London: Verso

Karim, Muhammad. 2009. *Pendidikan Kritis Transformatif*. Yogyakarta: Ar-Ruzz Media.

Lyotard, Jean-François (1993). *The Postmodern Condition: A Report on Knowledge*. Terj. Geoff Bennington dan Brian Massumi. Manchester: Manchester University Press

Mangunwijaya, YB. 2004. *Pendidikan Pemerdekaan.* Yogyakarta: Dinamika Edukasi Dasar

McLaren, Peter. 1998. *Life in School: An Introduction to Critical Pedagogy in the Foundation of Education.* Boston: Allyn and Bacon.

McRobbie, Angela. 2011. *Posmodernisme dan Budaya Pop*. Yogyakarta: Kreasi Wacana.

Morrison, Keith. 2003. "Jurgen Habermas" in Joy E. Palmer, (Ed). *50 Pemikir Pendidikan: dari Piaget sampai Masa Sekarang.* Terj. Farid Assifa. Yogyakarta: Jendela. 2003. Hal. 382-392

Nuryatno, M. Agus. 2008. *Mazhab Pendidikan Kritis.* Yogyakarta: Resist Book.

Nuryatno, M. Agus. 2014."Urgensi Filsafat Pendidikan dalam Pusaran Pragmatisme", in Arif, Mukhrizal, dkk. 2014. *Pendidikan Posmodernisme*. *Telaah Kritis Pemikiran Tokoh Pendidikan*. Yogyakarta: Ar-Ruzz Media hal. 11 – 16.

Palmer, Joy E. (Ed). 2003. *50 Pemikir Pendidikan: dari Piaget sampai Masa Sekarang.* Terj. Farid Assifa. Yogyakarta: Jendela.

Postman, Neil. 1995. *The End of Education. Redefining the Value of School*. New York: Alfred A. Knopf

Ritzer, George dan Douglas J. Goodman. 2010. *Teori Sosiologi Modern*. Alih Bahasa: Alimandan. Yogyakarta: Kencana.

Ritzer, George, 2012. *Teori Sosiologi. Dari Sosiologi Klasik sampai Perkembangan Terakhir Postmodern*. Alih Bahasa: Saut Pasaribu, Rh. Widada, Eka Adinugraha. Yogyakarta: Pustaka Pelajar.

Ritzer, George, 2012. *Teori Sosial Postmodern*. Yogyakarta: Kreasi Wacana bekerjasama dengan Juxtapose Research and Publication Study Club.

Rosenau, Pauline M., 1992. *Postmodernism and Social Sciences: Insight, Inroads, and Intrusion.* Princeton: Princeton University Press.

Rosyada, Dede. 2007. *Paradigma Pendidikan Demokratis. Sebuah Model Pelibatan Masyarakat dalam Penyelenggaraan Pendidikan.* Jakarta: Kencana

Sahal, Ahmad, 1994. "Kemudian di Manakah Emansipasi? Tentang Teori Kritis, Genealogi dan Dekonstruksi", dalam *Jurnal Kebudayaan Kalam Edisi 1*. Jakarta.

Samani, Muchlas. 2012. *Profesionalisasi Pendidikan*. Surabaya: UNESA University Press.

Sarup, Madan, 1993. *An Introductory Guide to Post-Structuralism and Postmodernism.* 2nd ed. Great Britain: Harvester Wheatsheaf.

Suseno, Frans Magnis. 1999. *Pemikiran Marx: Dari Sosialisme Utopis ke Perselisihan Revisionisme*. Jakarta: Gramedia.

Syah, Sirikit, dan Martadi. 2011. *Rekonstruksi Pendidikan. Kumpulan Pemikiran tentang Perlunya Merekonstruksi Pendidikan di Indonesia*. Surabaya: UNESA University Press.

Tilaar, H.A.R., Jimmy Paat dan Lody Paat (eds). 2011. *Pegagogi Kritis: Perkembangan, Substansi, dan Perkembangannya di Indonesia*. Jakarta: Rineka Cipta

Turner, Bryan S. 2012. *Teori Sosial, dari Klasik sampai Postmodern*. Yogyakarta: Pustaka Pelajar.

Author's Biodata

Dwi Retnani Srinarwati is a social science lecturer. She teaches at Faculty of Teacher Training and Education, University of PGRI Adi Buana Surabaya. At the moment, she is studying Doctorate Program in Social Sciences of Airlangga University, Faculty of Social and Politics Science. dwiretnani1964@yahoo.com

PRESENTER'S PAPERS

Approach to Mastery Learning of Basketball Shooting of Class X IPS-1 of SMA 17 AGUSTUS 1945 Surabaya

Eka Kurnia Darisman
University of Adibuana Surabaya
Dukuh Menanggal Street, Surabaya, Indonesia
eka_kurnia68@yahoo.com

Suharti
University of Adibuana Surabaya
Dukuh Menanggal Street, Surabaya, Indonesia
atikpko@gmail.com

Abstract

Basketball is a team sport in which players work together to bounce a ball down the length of a court and throw it through a hoop. To play basketball, the three techniques, i.e. passing and catching, dribbling, and shooting are required. The basic problem in under basket shoot for students of X IS-1 Class of SMA 17 Agustus 1945 Surabaya was that they practiced the inappropriate learning then the results of their under basket shoot did not meet the minimum passing requirement (known as KKM), i.e. 70% as expected by teacher. This research used Classroom Action Research to increase the students' shooting skills. The results showed that there was increasing ability of the students from time to time. the preliminary study, it was 17.9%, Cycle I 46.4% on 1st cycle, and 8.6% in 2nd cycle. It is seen from the number of students who completed the requirement also increased. There were five students in the preliminary study, 13 students in Cycle I, and 22 students in Cycle II. And 70% of KKM was accomplished as expected by teacher. So, based on the finding, it can be concluded that there is a correlation between Contextual Teaching and Learning (CTL) and basketball shooting ability of students of class X IS-1 of SMA 17 Agustus 1945 Surabaya.

Key word: under basket shoot, Classroom Action Research, Contextual Teaching and Learning

1.INTRODUCTION

Learning basketball in SMA 17 August 1945 Surabaya, with a variety of learning models. However, delivery of materials by teachers, can not always be conveyed properly. Based on the observation that researchers do in the field, there is still the fact that a bit contradictory to everything. There are many among them who have so mastered the technique - the basic techniques of the game of basketball, especially shooting. In fact, there are some students of which looks as if - it will just throw the ball, or throw blindly without being able to steer properly, as seen in X IS-1 SMA 17 August 1945 Surabaya. Only a few students who dominate the techniques of shooting well.

To master the basic techniques of basketball, especially shooting the good students in school have to diligently practice and educators using a more precise approach to their students. The approach to learning is very diverse and varied, and one of them is Contextual Teaching and Learning (CTL) that might be the right solution for educators to achieve mastery of student learning.

Referring to the formulation of the problem above, the purpose of this research is:

1. To determine the student activity with the implementation approach Contextual Teaching and Learning (CTL).
2. To determine mastery learning basketball shooting grades X IS-1 SMA 17 August 1945 Surabaya with approach Contextual Teaching and Learning (CTL).

Where research is SMA 17 August 1945 Surabaya, Jln Semolowaru No. 45 Surabaya. The research
was conducted in the first semester of 4 to 28 August, 2015. Subject of research is the class X IS-1 SMA August 17, 1945 Surabaya.

2. RESEARCH METHOD

PTK (Classroom Action Research) consists of four phases: planning, research, action and observation, reflection and revision (Arikunto, 2006: 99)

Phase 1: Planning Research (Planning)

At this stage the researchers explain the what, why, when, where, by whom, and how it was committed. In this draft the researchers to determine the point or focus of events that need special attention to be observed, then makes an observation instrument for researchers to record the fact that occur during these procedures.

Phase 2: Implementation Measures (Acting)

This stage is the implementation of the implementation or application of the contents of the planning, which is about a class act.

Phase 3: Observations (Observing)

This stage researchers to observe and record all the necessary things and occurred during the implementation of the action takes place.
Besides using the test instrument, the researchers also used the instrument of observation by Likert scale form. Pensekorannya criteria or categories are: the highest value and lowest 5 1. Score 5 if students can perform under basketball shoot very well, a score of 4 if the student can perform well under a basketball shoot, score 3 if the student can do under a basketball shoot well enough , score 2 if the student can do under a basketball shoot poorly, and a score of 1 if the student can do with less under a basketball shoot once. The maximum value of votes under basketball practice shoot in basketball is 25, and the lowest value of 5.

Phase 4: Reflection (Reflection)

Reflection is a review of the results of actions and observations. Reflection is performed to determine kelebuhan and shortcomings during learning activities take place, then the result of reflection, the researchers revised to make plans in the next round so that the weaknesses in the previous round does not happen again.

Research procedure

Consisting of three cycles, which include planning, action, observation and reflection.

Cycle 1

1. Planning (Planning)

At this stage do first is to define and plan things - things that will be needed in the research, among others

2. Actions / implementation (Acting)

At this stage, teaching and learning activities in the classroom by using an approach Contextual Teaching and Learning (CTL) with steps - steps as follows:

1) The teacher presents indicators

2) Teachers connect and associate the material that will be discussed with the students' prior knowledge

3) The teacher divides the students into learning groups, with each group consisting of 4-5 students.

4) The teacher gives the question of how the right moves at the time of shooting and discussed with friends in the group

5) Each - each group put forward the results of the discussion and explain to other groups so they can overlap to all groups agree and understand how to make the correct shooting.

6) Teachers provide pretest

Observation

Observer duty to observe the course of observing the teacher learning, attitudes and behavior of students during learning and then collect data on teacher observation activity and completeness of students in learning.

Reflection

Reflection is performed to determine the learning process that has been carried out and discuss the results in the form of activity data derived from observations for improvement in the implementation of the second cycle, and so on.

Research Instruments

This study uses the following research, namely:

1. The syllabus and RPP (Lesson Plan)
   Used as a guide in the learning process during the study.
2. Observation Sheet (Observation)
   Used by observers to observe the learning process conducted by researchers. Observation sheet form teacher and student activity observation sheet. Also use sheets Master Capability Assessment Tool (APKG).
3. Student Activity Sheet
   Covering three aspects of the assessment, the psychomotor aspect (the test results under a basketball shoot), cognitive (in the form of a question as stated in RPP), and affective (includes honesty, cooperation, respect, hard work, and confident).

4. Stopwatch

   Used to measure the time at the time of taking the test results under a basketball shoot.

3. CONCLUSION

Based on the results of research and discussion, it can be concluded as follows:

1. On the management of learning by teachers in implementing the approach Contextual Teaching and Learning (CTL) on the material underbasket shoot in class X IS-1 SMA 17 August 1945 Surabaya on two cycles have constraints which teachers are still experiencing difficulties in the implementation of the teaching and learning process due to several factors, including students are not familiar with the approach Contextual Teaching

and Learning (CTL). But in the second cycle teachers have been able to manage learning well.

2. From the results of research conducted on SMA 17 August 1945 Surabaya X IS-1 class. In the first cycle completeness of students reached only 46.4% of the total number of 28 students, while in the second cycle students who achieve mastery 71.4%. So these results in accordance with classical completeness 70%.
3. Activity of students during the application of the approach Contextual Teaching and Learning (CTL) where students enthusiastically every round has increased, which earlier in the first cycle of students tend to be passive and are not familiar with a given learning model.

4. SUGGESTIONS

1. Teachers should make the device a good test in advance as a basis in determining the model of learning and teaching materials package in accordance with the approach Contextual Teaching and Learning (CTL) making it easier for teachers to manage learning and students to learn.

2. In the use of the approach Contextual Teaching and Learning (CTL) this should be adjusted to the material to be delivered. Not all the material in its delivery can use this model.

3. On learning approach Contextual Teaching and Learning (CTL) teachers should give apersepsi and creative motivation to encourage students in the course.

5. REFERENCES

Abdillah, Abdul Haris (016464236). 2007. *Penerapan Model Pembelajaran CTL Pada Hasil Belajar Pendidikan Jasmani Pokok Bahasan Bola Voli Servis Bawah.* Surabaya: Skripsi Mahasiswa Universitas Negeri Surabaya.

Arikunto, Suharsimi. 2006. *Prosedur Penelitian Suatu Pendekatan Praktik (Edisi revisi VI).* 2006: PT Rineka Cipta

Hand Out Materi Sosialisasi KTSP Departemen Pendidikan Nasional 2009

Johnson, Elaine. B. 2009. *Contextual Teaching and Learning.* Bandung: MLC

Oliver, Jon. 2007. *Dasar – Dasar Bola Basket.* Bandung: PT Intan Sejati.

Sumiati, Asra, M.Ed. 2007. *Metode Pembelajaran*. Bandung: CV Wacana Prima

Verducci, Frank. M. 1980. *Measurement Concepts In Physical Education.* The C.V. Mosby Company: Missouri.

Wiriaatmadja, Rochiati. 2005. *Metode Penelitian Kelas.* Bandung: PT Remaja Rosdakarya.

Wissel, Hal. 1996. *Bola Basket.* Jakarta: PT Rajagrafindo Persada.

http://id.wikipedia.org/wiki/Bola_basket, 2008.

PRESENTER'S PAPERS

Author's Biodata

Eka Kurnia Darisman is a lecturer of Sport Coaching Education Department, University of Adi Buana Surabaya. He is "B License" for basketball coaching. He received his Master Degree in Surabaya State of University. His major interests cover sport coaching, sport teaching and sport sosiology. eka_kurnia68@yahoo.com.

Suharti is a lecturer of Sport Coaching Education Department, University of Adi Buana Surabaya. She is certified as a aerobic instructur on Indonesia. She received Master Degree in Surabaya State of University. Her major interests cover sport coaching, sport teaching, and gymnastic. atikpko@gmail.com.

Improving Global and Local Issues of Students' Essay through Written Corrective Feedback

Endah Yulia Rahayu
University of PGRI Adi Buana Surabaya
Indahr_99@yahoo.com

Abstract

Teaching writing is an arduous job for English teachers because appropriate teaching methods, observation, and assessment need careful planning. Teachers spend alot of time and energy to correct their students' writing as they believe corrective feedback can improve the global and local issues of students' writing. This study of 40 freshmen of English Department in University of PGRI Adibuana explored feedback related to types of errors in students' writing and types of written corrective feedback the researcher provided when she responded to students' writing. Furthermore, this study investigated teachers' concerns associated with providing corrective feedback. She responded to a questionnaire. The results was that she tended to respond to all types of errors and spent a great deal of time responding to students' writing, focusing on meaning. She reported different kinds of barriers such as time required to provide feedback, students' understanding of symbols, classroom management, etc. Mostly she concerned about the time required to respond to students' writing as providing feedback is boring. She used different types of written corrective feedback such as writing positive comments, displaying students' best work, feedback based on students' needs. The researcher recommended that providing feedback on students' writing based on their needs might be better than responding to all types of errors.

a. Introduction

A centry ago, teaching English as a second language, both teachers and students were concerned about producing accurate language. This idea was from Audiolingual Method where errors should be avoided. Therefore, teachers spent a great deal of time correcting students' writing errors. New writing trends appeared in the1970s that focused on the elements and process of writing. Zamel (1982), stated that The process approach focuses on the ideas which enable writers to explore and make discoveries about themselves, experiences and the world. On the other hand, the product approach does not focus on the writing itself but on the outcome writers intend to achieve.

Writing in second language has always been difficult for learners of English and today \ is a hot topic for SLA researchers. Ken and Eri (2006) mentioned that responding to students' errors is one of the most enduring and problematic tasks for teachers of writing. Teachers have to provide feedback to students' writing which is a social practice influenced by teachers' views of good writing and teaching (Shelley & Jill, 2010). They vary in their concerns regarding reasons for providing corrective feedback on writing. Although providing feedback has been seen as a demanding task, teachers expressed their reasons for responding to their student's writing errors. They indicated that providing comments on writing errors can improve global and local issues of students' writing. However, some teachers used writing comments as justification for the grades they assign. Other teachers thought that L2 learners appreciate teachers' comments on their writing and students strongly agree with their teachers that their errors needed to be corrected (Alan & Diane, 2007).

b. Local and Global Issue of Students Essay

Once the teacher gives feedback, students are often confused by what their teacher want them to concentrate on in their writing and in their revisions. (Hughes) They may think, for example, that correcting semicolon mistakes is as important as anticipating and addressing counterarguments or clarifying or strengthening the main point of their paper. The teachers' comments on their writing

often lead students to make only superficial revisions to words and sentences, overlooking larger conceptual, rhetorical, and structural revisions that would most improve a paper.

As a resul to when teachers design writing assignments,they have to talk with their students about their writing, develop evaluation criteria, offer advice about revisions, and comment on and evaluationfinal papers. Both teacher and students need to find ways to ommunicate clearly about different levels of revision and about priorities for their writing and revising.

Teachers can help signal priorities to differentiate between global and local writing oncerns. Thus, the assignments, comments and evaluation criteria can help students by focusing first on conceptual and structural level planning and revisions before grammatical and lexical level revisions by focusing on global writing concerns particular to that assignment so that teachers can help their students to strengthen their ideas, their analyses, and their arguments; and so that students have papers worth editing and polishing.

Next, teachers can turn their attention and our students to improving sentences, words, and punctuation. Global Writing Concerns in the writing assignment, in comments, in discussions with students, and in evaluation criteria, focus first on whole text issues such as ideas or content, focus, genre, argument, thesis, development, organization, clarity of purpose, awareness of audience.

c The Concept of Written Corrective Feedback

The researcher used different concepts to define "corrective feedback". Many terms are used to introduce correct feedback which are "negative evidence", "negative feedback", "error correction" and "corrective feedback" (Eva, 2012). Each term is defined to avoid possible confusion. Negative evidence originally comes from two types of input language learners exposed to when learning a second language which are negative and positive evidence. Positive evidence provides learners of the language with a model that reflects correct use of grammar in the target language. On the other hand, negative evidence informs learners about what is unacceptable in the second language (Long, 1996). Negative evidence involves two types which are direct and indirect evidence. The direct negative feedback refers to teachers' responses to errors for the purpose of attracting learners' attention to them. However, indirect negative feedback supplies the learners with signals that indicate unacceptable construction because of missing input (Chomsky, 1981).

Hence, negative corrective feedback can be explicit or implicit. Chaudron (1977) differentiated between error correction and corrective feedback. He pointed out that these two concepts should not be used interchangeably. He indicated that error correction can be seen as corrective moves aim to correct the non-target like forms. On the other hand, corrective feedback reflects the presence of an error to be repaired.

Types of feedback

There are many types of feedback. Researchers examined and compared between them and showed different results. Ferris (1997), identifies different feedback techniques including peer response, teacher-student conferences, audio taped commentary, email comments and comments written on students' drafts (Shelly & Jill, 2010).

Direct Versus Indirect Feedback

John, Stuart & Denise (2005), distinguished between direct and indirect feedback. They defined direct or explicit feedback as feedback that occurs when teachers identify errors and provide correct form. However, indirect feedback is a situation in which teachers indicate that errors have been made but do not provide corrections. So, diagnosing and correcting errors are students' responsibilities.

Coded versus Un Coded Feedback

In additions to direct and indirect feedback, the researchers compared between coded and un coded feedback. They pointed out that coded feedback is locating the exact location of an error and the type of error is indicated with a code. However, uncoded feedback refers to underlining, circling and placing errors. Students diagnose and correct errors in both coded and un coded feedback (John, Stuart & Denise, 2005).

Positive Versus Negative Feedback

Ferris and Robert (2001) explained one type of feedback which is commentary. In this type of feedback, teachers write their comments on their students' writing in the margin or at the end of the students' writing. This kind of feedback provides detailed information about meaningfulness of ideas and ways to improve writing. Hyland (2003) distinguished between two types of commentary feedback which are positive and negative feedback. He pointed that positive feedback is used to reward writers for their writing efforts. On the other hand, negative feedback is provided to criticize writing.

Electronic Feedback David (2009) explained computer mediated feedback. He indicated that interest in the use of software in which learners are exposed to different and many examples of the target form. The researcher indicated that this type of feedback has a limitation which is the availability of computer labs and the willingness of teachers to use them to develop writing skills.

d. Research Method

Researcher found different results when examining the effectiveness of providing corrective feedback on writing. Many studies proved that providing corrective feedback is significant. Fathman and Whalley (1990) examined the effect of feedback on grammatical accuracy. They found out that corrective feedback improved students' grammatical accuracy in writing.

The researcher divided students into four groups. Two groups received direct corrections on their errors in their essays. While the two other groups were given error codes. The results indicated that the groups who received error codes produced more accurate writing than groups who were given direct corrections. Furthermore, Jean (2003) pointed out that direct correction, underlining and coding led to more grammatical correct writing. Although many studies showed that providing corrective feedback is effective, few studies proved that error feedback is ineffective.

Most studies were conducted to find out students' perspectives regarding perceived feedback on their writing or on the strategies teachers use to correct students' errors. Kyounrok (2010) regarded that many contextual factors can affect the approaches of responding to students' writing errors and one of the factors is teachers. Teachers are concerned about correcting students' writing and they believe that corrective feedback will improve writing. Since teachers spend time and effort correcting and providing feedback on students' writing, it is worthwhile exploring these teachers' views on written feedback.

In Indonesia, teaching writing in universities, particularly in English department applys different systems in giving feedback. Amongst the writing lecturers in English Department of Adibuana also happens the same thing. Today It focuses on a specific student-centered model, a particular pedagogy and new teacher standards that specify particular expectations of teacher practice. The aim is to improve student performance to welcome global learning sistem in this MEA era. Finally teachers are required to use different ways to provide students with feedback like self assessment, peer assessment and teacher's assessment. Teachers spend a good deal time correcting students' writing. Furthermore, they should teach students skills needed to improve writing. Therefore, this study was designed to investigate English language teachers' perspectives and attitudes regarding writing corrective feedback to 40 freshmen of English Department of University of PGRI Adi Buana..

e. Discussion of Research Findings

The purpose of this research was to explore the students' perceptions about corrective feedback on students' writing of 40 freshmen of English Department of Adibuana Surabaya which focus on the traditional approach process of the correct form. The process approach focuses on how people write rather than what they write. So, responding to meaning and content errors on the students' essay. Furthermore, the idea of focusing on content and meaning is supported and emphasized in the nativism or innatist approach. It was mentioned in the literature review that Nativists believe that learners are active writers who generate thoughts and ideas. They also argue that teacher role is to foster students' creativity and guide them in the writing process. To correct content and meaning errors, Lyster and Ranya (1997) suggests that teachers can use a strategy called "clarification requests". This means that when English teachers read students' writing and find ambiguous sentences, they can indicate to their students that their sentences are not understandable and they should rewrite them to clarify their meanings.

This study found that a large number of students' essay respond to sentence structure errors (M=4.36, SD=.808). This could be related to language interference which means that teachers may worry that students may confuse between Indonesian and English structure when writing. It happens since there are many differences in Indonesian Structure and English structure. Most students misunderstand frequently written English form. For examples: The problems for Indonesian students lie on understanding the meaning of English Progressive in the first place, and interpreting Indonesian Progressive sentences into English. Other English constructions such as Simple Present, Simple Past, Present or Past Perfect Simple have no problem in translating into Indonesian. That is why it is important to solve the problem to avoid misunderstanding. Explaining aspectuality of English progressive, teaching culture differences between English and Indonesian, and investigating English progressive correspondences in Indonesian is important to be comprehend by Indonesian students. (Rahayu, 2015)

Furthermore, this study revealed that subject-verb agreement, pronouns, and articles are other types of errors English teachers provide feedback on. Additionally, this study showed that the students made spelling errors (M=3.77,SD=1.00). A qualitative study by Barbara (2011) on spelling errors showed that error quality increases with higher level spelling errors. Therefore, she suggested that students with low spelling score should be assessed based on their basic skills. Finally, although this study maintained that teachers provide written corrective feedback on all types of errors with high means, connectors errors had the lowest mean (M=3.57, SD=.974).

f. Conclusion and Finding

This study primarily aimed to explore how the students Global and local issues of the students essays regarding the written corrective feedback on writing including writing errors teachers provide feedback on, difficulties English teacher (reseacher) faced when responding to students' writing, and types and ways of feedbacks. The findings of this study revealed that the students responded to all types of errors with high means. While lecturer/researcher focused on meaning and content errors, connectors had the lowest mean. The results showed that writing positive comments give the most positive results to the students essay.

g. Recommendations for English teachers

Recommendations for English teachers and schools are suggested. First, the researcher recommends that providing feedback based on students' writing based on their needs might be better than responding to all types of errors. This can help teachers observe students' progress and support low achievers in writing gradually. Additionally, giving the same feedback to all students might make writing class boring for students who have already reached the required level in writing. Another suggestion is that researcher believes that the focus on meaning and content should be more than that on form and accuracy. This is because the researcher agrees that focusing

a lot on form and accuracy may slow students' writing fluency. Some students might feel frustrated when their teachers find lots of grammatical errors which might lead them to either stop writing or write short texts to avoid committing errors. A further recommendation suggested by the researcher is that students should be encouraged more to use self-assessment and peer assessment after writing. Using these types of assessment can allow learners recognize the importance of writing fluency and accuracy.

References

Hughes, B. (t.thn.). *Emphasizing the Right Thing at the Right Time:Differentiating Between Global and Local Concerns*. Dipetik 3 3, 2016, dari http://writing.wisc.edu/PDFs/uwmadison_wac_glocs_locs.pdf

Rahayu, A. U. (2015). Differences on Language Structure between English and Indonesian. *International Journal of Languages* , 257.

Alan, H. & Diane, B. (2007). *Writing scholars as teacher educators: Exploring writing teacher education. Journal of Second Language Writing*. 16(3), 125-218.

Chaudron, C. (1977). *A descriptive modal of discourse in the corrective treatment of learners' errors. Language Learning*, 27 (1), 29-46.

Eva, K. (2012). *Noticeability of corrective feedback, L2 development and learner beliefs.*

Fathman, A.K., Whalley, E. (1990). *Teacher response to student writing: Focus on form*

Ferris, D. & Robert, B. (2001). *Error feedback: How explicit does it need to be? Journal of Second Language Writing*, 10(3), 84-161.

Hyland, K. 2003. *Genre-based pedagogies: A social response to process. Journal ofSecond Language Writing*, 12: 17-29.

Jean, C. (2003). *The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. Journal of Second Language Writing*, 12, 261-296.

John, B. ,Staurt, Y. & Denise (2005). *The effect of different types of corrective feedback*

Ken, H. & Eri, A. (2006). *Teachers' perceptions of error: The effects of first Language and Experience.* System, 34 (2006), 509-519.

Kyoungrok, K. (2010). *Perceptions of KFL/ESL Teachers in North America Regarding Feedback on College Student Writing.*

Long, M. (1996). *The role of the linguistic environment in second language acquisition*.

W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook Of Language Acquisition: Vol. 2. Second Language Acquisition (pp. 413-468). New York: Academic Press.*

Lyster, R., & Ranta, L. (1997). *Corrective feedback and learner uptake: Negotiation of form in communicative classroom. Studies in Second Language Acquisition*, 19(1), 37-61.

Shelley, S. & Jill, M. (2010). *Assessing and providing feedback for student writing in Canadian classrooms. Assessing Writing,* 15 (2010), 86-99.

Zamel, V. (1982). *Writing: The process of discovering meaning. TESOL Quartery*, 16, 195-209.

Author's Biodata

Endah Yulia Rahayu is a lecturer of English Education Department, University of PGRI Adi Buana Surabaya. Indahr_99@yahoo.com

PRESENTER'S PAPERS

Developing Web-Based Direct Instruction for Students' Creative and Analytic Thinking Skills in Research Methodology Course

Endang Mastuti Rahayu
University of PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia
endangrahayu63@yahoo.com

Dyah Rochmawati
University of PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia
dyra.hadi@yahoo.com

Wahju Bandjaryani
University of PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia
wahjubanjaryani@yahoo.co.id

Abstract

The present paper describes the first stage of the overall Research and Development (R & D) of a web-based direct instruction to boost students' creative and analytic thinking skills in Research Methodology course in the English Language Education Department of University of PGRI Adi Buana Surabaya in the first semester of 2015-2016 academic year. The R & D followed the System Approach model by Dick and Carey (2001) known as ADDIE (Analyze, Design, Develop, Implementation, and Evaluation). The first stage was comprised of 'Analyze' and 'Design'. Two of the six classes accounting for 80 students were selected to participate in the research. The 'Analyze' stage undertaken was (1) needs assessment to identify goals, (2) analysis of learners and contexts, (3) writing performance activities, and (4) instructional analysis; whereas the 'Design' stage included (1) revising instruction and (2) developing assessment instruments. This process description for each stage would serve as the foundation and supporting points required for implementing the other stages, i.e. Develop, Implementation, and Evaluation.

Keywords: web-based direct instruction, creative and analytic thinking skills

1. INTRODUCTION

Generally speaking, Research Methodology course prepares students to design experiments, analyze data, evaluate results and report findings. To be more specific, in the course, students learn how to design and implement effective research experiments and programs by focusing on issues, developing hypotheses and crafting studies that test hypotheses effectively, fairly and completely. They tailor experiments, gather data, analyze results and report conclusions in both oral and written forms. In addition, they review previously published experiments to identify design, implementation and analytical errors and then propose solutions to correct the faults.

Also, students gain practical experience implementing methodologies, evaluating data and correlating material to education programs. They demonstrate mastery of qualitative, quantitative and mixed-methods in research. They also learn the importance of objective evaluation, examine various stakeholders' roles and discuss political and ethical issues when reporting results to parents, teachers and administrators (http://study.com)

As economic and technological changes shape the occupational outlook of today's students, schools have begun to embrace the need to instill "higher-order thinking" to prepare the 21st century workforce. No longer is it enough for graduates simply to know basic facts and skills.

To be successful, students must master decision-making, prioritizing, strategizing and collaborative problem solving. Therefore, teachers should strive for more and more demanding thinking from their students. Teachers explore specific techniques for fostering higher order thinking in their classroom (Brandt, 1993).

This fact can be found in Research Methodology course (Ni,A.Y. (n.d)). The course fosters higher-order thinking in students. "Higher-order" thinking skills means handling a situation that one has not encountered before and is generally recognized as the analysis, evaluation, and evaluation of Bloom's revised taxonomy. Based on this taxonomy, instructors can decide where and how to improve the planning of curriculum and the delivery of instruction (Krathwohl, 2002*)*.

One of the deliveries is by using a web-based direct instruction. It is a blended and interactive web-based learning experience including web-based instructor-led skill development sessions, self-paced podcasts and web modules, and interactive course work from personal or work computer (http://ssw.umich.edu). When implemented fully, it is unparalleled in its ability to improve student performance and enhance students' self-esteem (http://www.nifdi.org/).

Providing quality instruction working best has been a goal of researchers from the beginning of formal schooling. Over the last forty years data have accumulated showing that students who receive high quality instruction demonstrate more successful school learning than students who do not. At this time the most widely used measures of student learning are standardized tests of basic skills. When these outcome measures are used, direct or explicit instruction models most often produce the highest student scores and, therefore, should be considered a primary option instructors consider when designing instruction. Planning and implementing a long-term solution-oriented classroom management program is another effective classroom practice and one of the most effective means of increasing students' time-on-task or engaged time, an important predictor of students' academic achievement (Huitt et. al, 2009).

The present paper is intended to describe the first stage of the overall Research and Development (R & D) of a web-based direct instruction to boost students' creative and analytic thinking skills in Research Methodology course in the English Language Education Department of University of PGRI Adi Buana Surabaya in the first semester of 2015-2016 academic year. The R & D followed the System Approach model by Dick and Carey (2001) known as ADDIE (*Analyze, Develop, Design, Implementation,* and *Evaluation*). The first stage was comprised of *Analyze* and *Design*.

2. DEVELOPING A WEB-BASED DIRECT INStruction for TEACHING RESEARCH METHODOLOGY TO BOOST STUDENTS' HIGHER-ORDER THINKING

2.1 Web-Based Direct Instruction

In general, direct instruction models advocate that essential content should be exposed to students via an active presentation of information. Teachers should provide a clear organization of the presentation with a step-by-step progression from subtopic to subtopic based on task analyses (Huitt et. al, 2009).

Web-based technology has noticeably transformed the learning and teaching environment. It can be effective in potentially eliminating barriers while providing increased convenience, flexibility, currency of material, customized learning, and feedback over a traditional face-to-face experience. Student-to-instructor and student-to-student interactions are important elements in the design of a Web-based course. Online learning requires adjustments by instructors as well as students for successful interactions to occur. Online courses often substitute classroom interaction with discussion boards, synchronous chat, electronic bulletin boards, and e-mails. Interaction in an online environment promotes student-centered learning, encourages wider student participation, and produces more in-depth and reasoned discussions than a traditional classroom setting does.

The attributes of web-based direct instruction include: (a) pretesting or prompting of relevant knowledge, (b) more teacher-directed instruction (> 50%) and less seatwork (< 50%), (c) more student-teacher interaction, (d) the use of many examples, visual prompts, and demonstrations (to mediate between concrete and abstract concepts, and (e) a constant assessment of student understanding before, during and after the lesson (Huitt et. al, 2009).

The specific events of instruction advocated in a general model of direct or explicit instruction is a transactional model that emphasizes teacher/student interaction at each point in the lesson. This model proposes four categories of events of instruction: (a) presentation, (b) practice, (c) assessment and evaluation, and (d) monitoring and feedback. Presentation, practice, and assessment/evaluation are done in a somewhat linear fashion, with monitoring and feedback occurring throughout the lesson (Huitt et. al, 2009).

The Direct Instruction (DI) model produced the highest average performance of any program in all three dimensions. DI also works effectively and efficiently with students who come from average and above average income groups (Watkins, 1988). A critical feature of DI is its explicitness, reducing the guesswork required on the part of the student as to what is expected to demonstrate mastery. A second feature is that *all* students are expected to learn to a mastery level; a high degree of student success helps raise students' self-efficacy and, indirectly, improve the students' satisfaction with their schooling (Huitt et. al, 2009). The other features include "explicit frameworks and problem solving strategies, teaching through examples, attention to relevant curriculum details, effective teaching practices, and the provision of relevant background knowledge" (Gersten et al., 1999, p.89).

2.2 Teaching Research Methodology

Many undergraduate degree programs require students to develop a basic understanding of research methodology. The completion of an introductory course in research methods is a critical step for undergraduate students who will one day need to conduct their own original research. These courses are equally important for students who are not planning to conduct research in the future, because graduates still need to make informed decisions regarding research findings as part of their professional development. Consequently, research methods courses are a staple and essential requirement of many undergraduate programs in the social and natural sciences (Ball & Pelco, 2000).

To teach Research Methodology, instructors should structure a research-methods class so that students gain a practical knowledge of how research is done. Emphasis is placed on data collection, using statistical software, and writing up results. Included in this class are several assignments and exercises that, when combined, work to produce a scholarly empirical report. Students gain an appreciation of the fruits and frustrations involved in the research process, and learn to be more critical consumers of research projects (Aguado, n.d).

Teaching the course requires a practical, hands-on approach that encourages students to partake in the rewards of conducting their own empirical research. This is also to outline goals and objectives, and includes a list of assignments that culminate in a presentable work of original research. In this undergraduate, English language teaching research-methods class, students learn about the research process that is integral to all the English language teaching sciences. Further, this teaching method can easily be adapted to meet the needs of students (ibid).

The instructor must find a way of conveying to students the importance of asking an appropriate social-scientific question; learning how past researchers have addressed an issue; collecting data; and learning how to interpret cryptic statistical output. What follows is a brief outline of the steps taken to administer such a course, through a series of assignments, followed by a frank evaluation of each step and some reflections on what should be done differently in order to improve future experiences (ibid).

2.3 Students' Higher-Order Thinking

Higher order thinking (HOT) is thinking on a level that is higher than memorizing facts or telling something back to someone exactly the way it was told. It is thinking to higher levels than restating the facts and requires students to do something with the facts — understand them, infer from them, connect them to other facts and concepts, categorize them, manipulate them, put them together in new or novel ways, and apply them as we seek new solutions to new problems (Thomas & Thorne, 2009).

There are three kinds of higher order thinking: (a) analytical (for example, compare and contrast, evaluate, analyze, critique), (b) practical (for example, show how to use something, demonstrate how in the real world, utilize, apply, implement), and (c) creative (for example, invent, imagine, design, show how, what would happen if). Most students will benefit from ample opportunity to develop their creative tendencies and divergent thinking skills. It includes analytical, practical and creative thinking activities (ibid).

This changes students from passive recipients of information to active, productive, creative, generators of information. It is important, then for teachers to talk about and teach the components of the learning process: attention, memory, language, graphomotor, processing and organization, and higher order thinking (ibid).

3. METHOD

This study was a research and development (R & D). It aimed at developing a web-based direct instruction for a Research Methodology course at the English Education Department of University of PGRI Adi Buana Surabaya to enhance the students' analytic and creative thinking skills in the first semester of 2015-2016 academic year. It followed the System Approach model by Dick and Carey (2001) known as ADDIE (*Analyze, Design, Develop, Implementation*, and *Evaluation*). The first stage was comprised of *Analyze* and *Design*. Two of the six classes accounting for 80 students were selected to participate in the research. The *Analyze* stage undertaken was (a) needs assessment to identify goals, (b) analysis of learners and contexts, (c) writing performance activities, and (d) instructional analysis; whereas the *Design* stage included (a) developing instructional strategy, (b) developing the instructional materials and (c) developing assessment instruments.

4. RESULTS AND DISCUSSION

As previously mentioned, these R & D activities focused on analyzing and designing the web-based direct instruction. It consisted of the *Analyze* and *Develop* phases of the System Approach model by Dick and Carey (2001) known as ADDIE *(Analyze, Design, Develop, Implementation, and Evaluation).*

4a. The *Analyze* stage

The execution of the *Analyze* stage was described as follows. The implementation included (a) needs assessment to identify goals, (b) analysis of learners and contexts, (c) writing performance activities, and (d) instructional analysis.

Needs assessment is an activity utilized to plan effectively, identify priorities, make decisions and solve problems. It is conducted in advance of the design process to gather information about the potential students and the context in which they work. In this study, the needs assessments evaluated the course goals that the students identified through a questionnaire in order to facilitate entry into the web system. From the students' responses to the questionnaire, it revealed that what the students needed from the Research Methodology course was (a) short and long term needs, (b) materials, (c) media, resources, and facilities, (d) learning process, (e) evaluation.

The students responded that they would learn Research Methodology for a stronger foundation for their future, perform the research well, and publish it later in a peer-reviewed journal so that the research can be presented to the world. Having a good foundation of research at any level may help in pursuing a research career in the future. Their other responses indicated that the materials that they needed to learn included initiation of a research idea, thorough literature search, formulation of a research question, proper study design, possible source of funding, conduction of research, analysis of data obtained, proper interpretation of results and publication in a peer-reviewed journal. They responded that they wanted to be provided with library facilities and services, and computing facilities and equipment to conduct their research effectively. Other responses showed that the students were interested in doing higher-order thinking activities in

learning research methodology. For the evaluation, they agreed to have the three kinds of assessments: formative, process, and summative assessments.

The information from the needs assessment was helpful to the instructor in determining: (a) what major topics or content needs to be covered, stressed or supplemented, (b) what portion of curriculum involves learning tasks that the students had difficulty in learning and/or areas of content where the learner group already has expertise, (c) who some "experts" are within the learner group in specific areas of content, (d) preliminary identification of solution strategies, and (e) which learning tasks, therefore, needs to be designed, modified or redesigned.

In conducting the instructional strategy, the the present performance and the desired performance were identified. This provided information about what the students needed to learn in order to perform. Next was the identification of the steps the students had to be able to perform in order to accomplish the tasks that lead to the desired performance. They, in general, included: (a) describing the characteristics of scientific knowledge, (b) describing the general steps in the process of conducting a social scientific or educational study, (c) formulating problems and hypotheses, (d) building a literature review to determine what is known, (e) reviewing previous research, (f) assessing variable relationships, (g) conceptualizing, operationalizing, and measuring variables, (h) organizing, managing, and verifying data, (i) conclusion drawing (j) reporting the results.

The previous information as revealed in the results of the needs assessment was also helpful in analyzing the students and their contexts of learning for the development of instruction. The areas of instruction that were not appealing, motivating, interesting and relevant to learners were afterwards addressed. The students' needs, attitudes, current knowledge, and abilities, especially how these factors would relate to their achievement of learning objectives. It included motivation for learning, communication/social skills, and prior knowledge of the subject. This was drawn from the students themselves (in forms of surveys, interviews, feedback forms, casual communication). The environment in which the instruction would take place was considered as well. It included the classroom, the school and the community, and their support factors. These areas were again considered for revision of the current instruction or instructional materials/tasks. All of this information served as entry behaviour identification as it constitutes the general characteristics of the learners, including skills, experience, motivation levels, and basic demographics; which relate to the skills and topics that will be taught. It was also to identify the correct starting point of the instruction (Dick & Carey, 1999).

4b. The *Design* stage

This *Design* stage included (a) developing instructional strategy, (b) developing the instructional materials and (c) developing assessment instruments. To develop the instructional strategy, a blueprint of the learning activities was created. It helped transfer, develop, and reinforce the skills and knowledge formulated in the performance objectives. The sequence the items in the blueprint would provide the best learning environment.

The instructional materials developed included resource books for ideas, video and audio tapes, computer software, and visual aids, technology (such as LCD, slides, video and audio tape recorders, video cameras, and computers) that supports instruction/learning, newspapers, magazines, advertisements, and other types of printed material, activities for instruction/learning, and browsing the world wide web and search for useful materials.

In terms of evaluation, the main purpose of conducting evaluation of the Research Methodological learning was to discover the extent to which the goals and objectives of the learning has been met. It was also to determine different aspects of educational structure, process and outcomes. The development of evaluation in this study took several forms. They were: (1) the formative individual evaluation to provide feedback to an individual learner identifying areas and provides suggestions for improvement, (2) the formative program evaluation to provide information and suggestions for improving a curriculum and program's performance, (3) the **summative individual evaluation** to measure whether specific performance objectives were accomplished, certifying

competency or its lack in performance in a particular area, (4) the **summative program evaluation** to measure the success of a curriculum in achieving learner and process objectives. In addition, to ensure the learners meet the necessary prerequisites for performing the new skills, a pre-test was administered to the students.

From the previous discussion, that this R & D has accomplished the two phases, namely, 'Analyze' and 'Design' adherent to the ADDIE model by Dick and Carey (2001). The five phases—*Analysis, Design, Development, Implementation,* and *Evaluation*—represent a dynamic, flexible guideline for building effective training and performance support tools. In the ADDIE model, each step has an outcome that feeds into the subsequent step. In the above 'Analysis' phase, the instructional problem was clarified, the instructional goals and objectives were established and the learning environment and learner's existing knowledge and skills were also identified. In the 'Design' phase previously described, the learning objectives, assessment instruments, exercises, content, subject matter analysis, lesson planning and media selection were indicated. The 'Design' phase was systematic and specific since it is a logical, orderly method of identifying, developing and evaluating a set of planned strategies targeted for attaining the Research Methodology course goals and each element of the instructional design plan needs to be executed in the next phases. All would aid create a blueprint or prototype of the web-based direct instruction to be established in this R & D.

The next phases of the ADDIE model will be undertaken, namely, the '*Development, Implementation,* and *Evaluation* phases. The development phase is where the developers create and assemble the content assets that were created in the design phase. Programmers work to develop and/or integrate technologies. Testers perform debugging procedures. The project is reviewed and revised according to any feedback given. During the implementation phase, a procedure for training the facilitators and the learners is developed. The facilitators' training should cover the course curriculum, learning outcomes, method of delivery, and testing procedures. Preparation of the learners include training them on new tools (software or hardware), student registration. This is also the phase where the project manager ensures that the books, hands on equipment, tools, CD-ROMs and software are in place, and that the learning application or Web site is functional. The evaluation phase consists of two parts: formative and summative. Formative evaluation is present in each stage of the ADDIE process. Summative evaluation consists of tests designed for domain specific criterion-related referenced items and providing opportunities for feedback from the users (http://www.instructionaldesign.org/models/addie.html) .

5. CONCLUSION

Based on the previous discussion, some conclusions can be drawn. First, requiring undergraduate students to participate in group-based research projects throughout a semester is an excellent way to teach research methodology. Second, this approach incorporates recent pedagogical and technological innovations and students respond well to the challenges posed by such a class format. Third, this teaching format is more interesting and stimulating to teach than the traditional lecture-text format. These issues should receive an equally high priority to that of encouraging and training classroom teachers to deliver the highest quality instruction that it is possible to deliver. All focuses on education's bottom line: improved student performance.

6. ACKNOWLEDGEMENTS

The authors wish to convey their appreciation to The Community Service Office (LPPM) of University of PGRI Adi Buana Surabaya for the award of the short-term research grant which made this study possible.

REFERENCES

Aguado, N. A. (n.d). Teaching Research Methods: Learning by Doing. *Journal of Public Affairs Education*, 15 (2), 251–260.

Brandt., R. (1993). On Teaching For Understanding: A Conversation with Howard Gardner. *Educational Leadership*. April 1993: 50 (7), p. 4.

PRESENTER'S PAPERS

Dick, W. & Carey, L. (1990), *The Systematic Design of Instruction*, Third Edition, Harper Collins.

Dick, W., Carey, L. (2001). *The Systematic Design of Instruction*. Glenview, IL: Scott, Foresman, and Company.

Gersten, R., Taylor, R., & Graves, A. (1999). Direct instruction and diversity. In R. Stevens (Ed.) *Teaching in American schools* (pp. 81-102). Upper Sadler River, NJ: Merrill.

Huitt, W., Monetti, D., & Hummel, J. (2009). Designing direct instruction. Pre-publication version of chapter published in C. Reigeluth and A. Carr-Chellman, *Instructional-design theories and models: Volume III, Building a common knowledgebase* [73-97]. Mahwah, NJ: Lawrence Erlbaum Associates. Retrieved from http://www.edpsycinteractive.org/papers/designing-direct-instruction.pdf

Krathwohl, D. R. (2002). A Revision of Bloom's Taxonomy: An Overview. *THEORY INTO PRACTICE,* 41, (4), Autumn 2002, pp. 212-266.

National Institute for Direct Instruction. Implementing Direct Instruction Successfully: An Online Tutorial. Retrieved from http://www.nifdi.org/ on February 19th, 2016.

Ni, A. Y. (n.d) Comparing the effectiveness of classroom and online learning: Teaching Research Methods, *Journal of Public Affairs Education*, 19 (2), 199–215.

School of Social Work of University of Michigan. (2015). *Web-Based Certificate Program in Mixed Methods Research.* Retrieved from http://ssw.umich.edu on February 19th, 2016.

Thomas, A., and Thorne, G. (2009). How To Increase Higher Order Thinking. Metarie, LA: Center for Development and Learning. Retrieved Dec. 7, 2009, from http://www.cdl.org/resource-library/articles/HOT.php?type=subject&id=18

Watkins, C. L. (1988). Project Follow Through: A story of the identification and neglect of effective instruction. *Youth Policy*, *10*(7), 7-11.

Author's Biodata

Endang Mastuti Rahayu is an English Lecturer at the English Department of Faculty of Teacher Training and Education. Her major interests over Methodology, Curriculum & Instructional Material Development, Instructional Design, and Seminar in ELT.

Dyah Rochmawati is a faculty member of University of PGRI Adi Buana, Surabaya, Indonesia. In 2011, she gained her master degree in English Language and Literature Teaching from Surabaya State University Now she is a doctorate student of the English Language and Literature Teaching of Doctorate Program of Surabaya State University. Her research interests are teaching English in Indonesian EFL contexts, linguistics, and literature.

PRESENTER'S PAPERS

Wahju Bandjarjani is an English Lecturer at the English Department of Faculty of Teacher Training and Education. Her major interests over TEFL Methodology, Research Methodology, Curriculum & Instructional Material Development, Pronunciation Practice, and Applied Linguistics.

PRESENTER'S PAPERS

Right-Brain Dominance against the Results of the Elementary School Students Learn Math

Erlin Ladyawati
University PGRI Adi Buana of Surabaya, Fakultas Keguruan dan Ilmu Pendidikan
Jl.Ngagel Dadi III-B/37, Surabaya, Indonesian
erlin.evaluasi@gmail.com

Nur Fathonah
University PGRI Adi Buana of Surabaya, Fakultas Keguruan dan Ilmu Pendidikan
Jl.Ngagel Dadi III-B/37, Surabaya, Indonesian
nurunipa@gmail.com

Abstract

Math lessons today is still discourage and less tolerated by students, especially primary school students. This is because in mathematics dominated on reasoning, analysis, calculations that are more associated with left brain. So that learning can be mengfungsikan the left and right brain students, then needed an interactive learning process. Through interactive learning is expected of teachers can customize the functioning of both hemispheres of the brain. Learning mathematics by engaging both hemispheres of the brain are mainly the right brain is very needed in math lessons. There are some alternatives that can be used and developed by teachers of mathematics in learning mathematics involves right-brain, among others: use color, use props, imagination, and Mind Map. One of the selected learning is learning with thematic subjects of mathematics. The purpose of this research is to know the existence of the influence of the right-brain dominance against the results of the elementary school students learn math. The method used was the method of questionnaire and methods of test. The method of questionnaire used to the dominance of the brain and the method used to test the results of student learning. From the results of the data analysis obtainable that t count greater than t table i.e. 3.7 > 2. So at this time the research it can be concluded that there is a right-brain dominance against the influence of the results of learning to elementary school students.

Keywords: Domination Right-Brain, Study Product Of Mathematics, Learning With Thematic

1. INTRODUCTION

Math lessons to date still felt most students is a difficult and boring lessons. It is triggered by a form of learning mathematics that are not interactive. Learning activities are dominated by only counting, bernalar, analysis. This form of learning activities tend to be only mengaktif the role of the left brain. This means the ability of the brain have not been dioptimal since function right brain not yet fully participated actively. Whereas the ability of left brain only remembers or distorted the nature of short-term memory while the right brain has long-term memory memory. Therefore, if only the left brain dominant then there is a possibility of protégés in absorbing the lesson easily forgotten. Finally we realized that in order to be successful in teaching, teachers are operational in the sentence: "make students be learning". It is necessary to know the student more than the students get to know himself.

The human brain has the ability. It can be seen that the human brain has the capacity of satutriliun brain cells. According to research, the average human being uses less than 1 ability of his brain (Windura, 2008). What would happen if humans could use its brain ability 10? The tendency to use the left brain can be seen the phenomenon most often occur in the study was concerned with what was learned (what to learn), not how his studies (how to learn).

Brain

The brain has three basic parts: the stem or "reptile brain", brain limbic system or "mammals", and neocortex. According to Dr. Paul MacLean (Bobbi De Porter and Mike Hernacki: 2003) mentions the "triune brain" because it consists of three parts, each growing at different times in the history of our evolution. Each piece also has a specific neural structure and organize the tasks that must be done.

The three parts of the brain are also divided into parts of the right and left hemispheres. Now the two hemispheres of the brain is known as "right" and "left brain". The hemisphere against the two experiments have shown that each of the parts responsible for the ways of thinking, and each specializes in specific skills, although there are several interchanges and interaction between the two sides. The following illustrated significant differences between right brain and left brain.

Left Brain		Right Brain
The language of the Numbers The analysis of the Logic The order of the Count Detail ↓ SHORT TERM MEMORY		Creativity Conceptual The Art Of Music Color Pictures Dimensions Emotions Imagination ↓ LONG TERM MEMORY

Picture1 *Human Brain*

Right-Brain Dominance

Right-brain dominance is a function and the work of the more right-brain dominant compared to the left brain. The following general characteristics of right-brain dominant children:

1. It's too late to talk than a child her age
2. It's hard reading mainly read speech
3. The oral exam would rather than on written exam
4. The assignee could not limited by time (fast frantic and not complete).
5. Less like work on tasks that ruled but instead chose what he wanted.
6. Difficult to spell syllables
7. Hard working on math problems logikarumus-the formula is sometimes easierthe question of the story or need with an association or real examples.
8. Often looked up and look like a dreamy (terbengongday dreaming).
9. At the time thought the ball of her eye to twitch
10. Less like noted (because the process of chronicling hamper visualization)

The Results Of Learning Mathematics

Of learning, learning outcomes, and math, then it can be strung together a conclusion that the results of the study of mathematics is the benchmark or benchmark that determines the level of success of the students in the know and understand a subject matter of mathematics after experiencing a learning experience that can be measured through tests.

Helping Children Learn Mathematics With Right Brain.

Learning mathematics by engaging both hemispheres of the brain are mainly the right brain is very needed in math lessons. Through management of the brain is expected to be a fun math lessons for students. It is possible, because with melibat right brain, means in math lesson, the teacher will uses images, colors and imagination of students.

Here are some ways to activate the right brain so that the brain works right brain is more dominant than left:

1. Find an interest and started to teach anything through the interesting thing his interest.
2. If he wants to learn while twitch then allow it to do that.
3. Please explain to what we have to learn something so she can see the big picture and the goal eventually.
4. use props and illustrative examples to describe what are you describe for example the concept of add, subtract and divide.
5. Train speed for the visualization and the ability to record images in the following way.
   a. Basic visualization stage Exercises for example
   b. Imagine an activity undertaken as set out to the school, working on something at home etc, just like the process of hipnoteraphy.
   c. advanced stage visualization Exercises Recalling images.
   d. advanced visualization Exercise considering the numbers and their sequence.
   e. advanced visualization Exercise given the letters and their sequence.

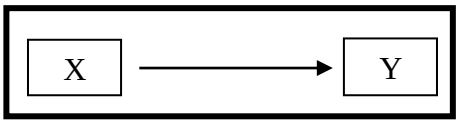
From the results of the study above, quite rightpresumably when the author connects the brain's way of working with the material. Then with this author takes the title: "right-brain Dominance Against the results of the elementary school students learn math".

The purpose of this research is to know the influence of the right-brain dominance against the results of the study of mathematics students. The hypothesis in this study was the action there is the influence of the right-brain dominance against the results of the elementary school students learn math.

2. RESEARCH METHODS

Type of research

This research is quantitative descriptive research. Descriptive research aimed at obtaining information from a research. In this case the author uses two variables namely variables (X) and (Y) variable. As for the design of this study is as follows.



Picture 2.Chart Design Research

Description:
X: right-brain dominance
Y: yield learning math

Stage of Research

In drawing up the draft of the research the author uses a quantitative approach that aims to let a more objective research, systematic, focused and more formal.Stages in the research are:

1. Preparation phase
2. Stage of implementation of the
3. Data analysis phase
4. Writing a research report

Locations and variables

This research was conducted in primary schools Country Kalisari II Surabaya which is located at JL. Taman Bhaskara number 517 Surabaya. The population of this research is the

entire 4th grade primary school student Affairs Kalisari II Surabaya. The number of class 4 there are two classes, namely Class 4A and 4B. While the subject of the research was selected one of the two classes.

Device Development Procedures

As discussed in chapter II of the model development in this study using 4-D model (Thiagarajan) modified. As for the stages of development of the device as follows:

Stage I. Definition (Define)

The purpose of this stage is to specify and define the terms of learning by way of performing the analysis of the objectives in limitations of the material to be developed. Activities in this phase include preliminary analyses of late, analysis students, analysis of materials, analysis tasks, and specification of indicators of learning.

Stage II. Design

The purpose of this phase is to design a learning device. Learning device designed include: syllabus, study implementation plan, the student activity sheet, and test the results of the study.. The results at this stage are called Draft I.

Stage III. Development

The purpose of the development stage is to produce a final draft of the revised learning device based on the input of experts and data obtained from the tests.

Engineering Data Collection

1. The method of question form
   Questionnaire on the research method serves to know the work of the cerebral hemispheres were dominant before the given instruction.
2. Test Method
   The method used to obtain test results.

Research Instrument

The authors of the instruments used in this study is:

a. Sheets of questionnaire
b. Test Results Sheet Study

Data Analysis Techniques

This section needs to be presented are the data used in the elaboration of the reasons the use of these methods. This step is very important for mengetahuimasalah who examined so that the results can be as-well. In this study uses the test-t with the formula:

$$t = \frac{\overline{X_1} - \overline{X_2}}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \qquad (1)$$

$$s_1^2 = \sqrt{\frac{\sum(X_1 - \overline{X_1})^2}{n_1 - 1}} \qquad (2)$$

$$s_2^2 = \sqrt{\frac{\sum(X_2 - \overline{X_2})^2}{n_2 - 1}} \qquad (3)$$

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}} \qquad (4)$$

Description:

t = the coefficient is sought
X_1 = the value of students with brain dominance right
X_2 = the value of students with left brain dominance
$\overline{X_1}$ = the average value of students with dominationright brain

$\overline{X_2}$ = the average value of students with domination left brain
s_1 = standard deviation (Byway of baku) students with right-brain dominance
s_2 = standard deviation (Byway of baku) students with left brain dominance
s = standard deviation (Byway raw) mix of students that came to dominate the right-brain-left brain
came to dominate with that
n_1 = the number of students with dominationright brain
n_2 = the number of students with dominationleft brain

Steps in testing

a. Prepare the data needed in the calculation of statistics
b. Determine an average for each brain dominance
c. Determine standard deviation (Byway of baku) for students who came to dominate the right brain and left brain came to dominate
d. Determine standard deviation (Byway raw) mix of students that came to dominate the right-brain-left-brain came to dominate with that
e. Calculate value t
f. Determine the hypothesis
g. H_0: $\mu_1 = \mu_2$ (There is no influence of the results of learning among students who came to dominate the right-brain-left-brain came to dominate with that)
h. H_1: $\mu_1 \neq \mu_2$ (There is no influence of the results of learning among students who came to dominate the right-brain-left-brain came to dominate with that)
i. determine the Significant Level α
Significant levels used in this study is 0.05 or 5
j. b. looking for acceptance and rejection criteria
k. Determine the testing criteria
H_0 is accepted if:

$$-t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} < t_{hit} < t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \quad (5)$$

H_0 is rejected if:

$$t_{hit} < -t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \quad (6)$$

Atau

$$t_{hit} > t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \quad (7)$$

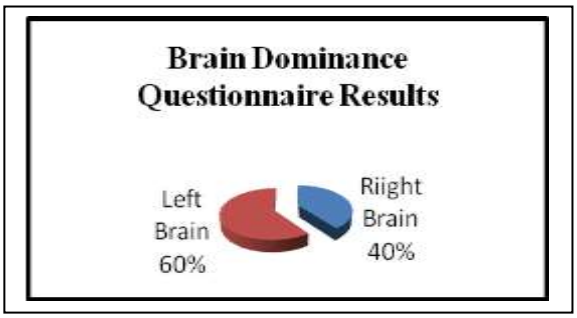
l. Calculate value t
m.draw conclusions
H_0 is accepted or rejected

3. RESULTS and DISCUSSION

This research consists of three stages, namely: preparation phase, the phase of implementation, and the data analysis stage. For the results achieved in this study is at the stage of implementation. Here the details of its implementation

1. Preparation phase
Activities already undertaken at this stage is:
   a. Review of literature-supporting literature relating to this research
   b. determine thesubjects, samples and populationresearch
   c. Develop a learning device
   d. Create research instrument
2. Perform validation against the book students and research instrument
Stages of implementation
Activities at thisstageis:

a. Give the now work against the domination of the cerebral hemispheres. The question form was given on 28 July 2015.



Picture 3.Now Work Against The Domination Of The Cerebral Hemispheres

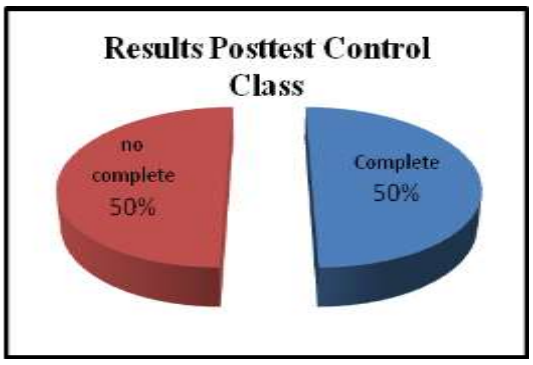
From the results of the now visible that the left hemisphere of the brain is more dominant in grade 4B as class experiments. The solutions offered are designing a device of learning especially in material fractions in the context of thematic learning so that the right brain is more dominant. Researchers focus on the right-brain dominance than the left brain at this time due to learning in order to make learning more meaningful and can be stored in long-term memory. As well as learning devices designed such that students more easily understand a book specifically on learning students designed more visualization and real objects that exist around the lives of students.

b. Implementing learning mathematics based on thematic material Fractions.
Learning mathematics carried out by as much as 6 times.

c. The granting of postes

After teaching and learning activities implemented by as much as 6 times, students are given a postest. Postest implemented on 30 August 2015. Postest given to know ketuntasan the results of student learning. Postest given at two classes, namely Class 4A as of the control class and class 4B as class experiments. The following list of results postest:

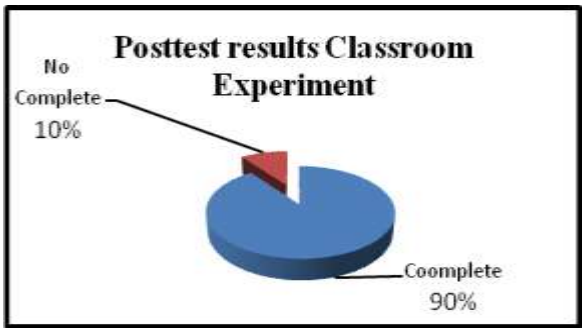
The following is presented in a pie chart as many as 15 students who complete and not complete as many as 15 students:



Picture4.The Results Of The Control Class Postest

PRESENTER'S PAPERS

The following are also presented the results of the experiment, prepared class postes 27 students who have not finished as much as 3 students. The following is presented in a pie chart:



Picture5The Results Of The Experimental Class Postest

1. The stage of Data analysis
   To prove the hypothesis that has been submitted, it will be performed using hypothesis testing statistics analysis especially test-t. After the data is collected, then the Congressional data tabulated as follows.
2. prepare the data needed in the calculation of staristik, then made to tabulate the following data.
3. Determine the average for each student
   a. students who came to dominate the right brain
   b. students who came to dominate the right brain

$$\overline{X_1} = \frac{\sum X_1}{n_1} = \frac{2468}{28} = 88 \qquad (8)$$

4. students who came to dominate the left brain

$$\overline{X_2} = \frac{\sum X_2}{n_2} = \frac{2428}{30} = 81 \qquad (9)$$

5. Determine the Byway to students that the dominance of the right brain and left brain dominance of students.
6. Students who came to dominate the right brain

$$s_1^2 = \sqrt{\frac{\sum(X_1-\overline{X_1})^2}{n_1-1}} = = \frac{1384}{28-1} = \frac{1384}{27} = 51 \qquad (10)$$

7. students who came to dominate the left brain

$$s_2^2 = \frac{\sum(X_2-\overline{X_2})^2}{n_2-1} = \frac{1470}{30-1} = \frac{1470}{29} = 51 \qquad (11)$$

8. Determine the combined raw Byway between right-brain dominance of students by students that left brain dominance

$$s = \sqrt{\frac{(n_1-1)s_1^2+(n_2-1)s_2^2}{n_1+n_2-2}} \qquad (11)$$

$$s = \sqrt{\frac{(28-1)51+(30-1)51}{28+30-2}} \qquad (12)$$

$$s = \sqrt{\frac{(27)51+(29)51}{56}} = \sqrt{\frac{1377+1479}{56}} = \sqrt{\frac{2856}{56}} = \sqrt{51} = 7 \qquad (13)$$

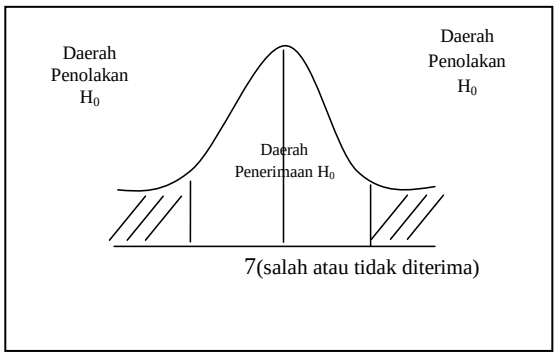
9. Calculate the value of t

$$t = \frac{\overline{X_1} - \overline{X_2}}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{88-81}{7\sqrt{\frac{1}{28} + \frac{1}{30}}} = \frac{7}{7\sqrt{\frac{29}{420}}} = \frac{7}{7\sqrt{\frac{1}{15}}} = \frac{7}{7\sqrt{0,07}} = \frac{1}{(0,26)} = 3,7 \qquad (14)$$

So, $t_{hit} = 3,7$

10. Test of Hypothesis
    a. Determine the value H_0 dan H_1
        1) H_0: $\mu_1 = \mu_2$ (There is no influence of the results of learning among students who came to dominate the right-brain-left-brain with that came to dominate in SDN Kalisari 2 Surabaya 4 class on the material fractions)
        2) H_1: $\mu_1 \neq \mu_2$ (There is the influence of learning outcomes among students who came to dominate the right-brain-left-brain with that came to dominate in SDN Kalisari 2 Surabaya 4 class on the material fractions)
    b. Determine significant levels
        A significant extent of selectable 5% or 0,05
        1) Find the value of $t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)}$
        2) $t_{(1-\frac{1}{2}0,05)(28+30-2)}$
        3) $t_{0,975*56}$
        4) Test Criteria
            a) H_0 accepted if:

$$-t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} < t_{hit} < t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \qquad (15)$$



            b) H_0 rejected if:

$$t_{hit} < -t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \text{ or } t_{hit} > t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)}$$

            orretrieved 3,7 > 2

$$t_{hit} < -t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \qquad (20)$$

            or

$$t_{hit} > t_{(1-\frac{1}{2}\alpha)(n_1+n_2-2)} \qquad (21)$$

    c. Determine the value of t

        From the calculation obtained thitttabel, this means that H0 is rejected and the H1 is accepted. Thus means there is the influence of the right-brain dominance against the results of learning math grade 4 SDN

Kalisari 2 Surabaya on material fractions. math grade 4 SDN Kalisari 2 Surabaya on material fractions.

Discussion

Analysis of the data can be retrieved by the existence of differences between the learning achievements of students who came to dominate the right brain and left brain came to dominate. The difference happens here we can look at the average value of achievement where the average value of student achievement that are right-brain dominance is better than the students who left brain dominance. From this can be interpreted as follows:

1. Students who have the right-brain dominance can answer the question of the appropriate postest ability while not as exemplified by the teacher but the answers and the way it is written is true.
2. Students who have left brain dominance answered the question with postest sort and the way it is written the same as exemplified by teachers, so they just berpatok on the way and could not find an alternate way to another.
3. Based on the hypothesis if count is greater than t t the table then there is the influence of the right-brain dominance against the results of the learning of mathematics. From analaisis data obtained t count is larger than the table i.e. 3.7 t 2.

From the foregoing it can be said that there is a right-brain dominance against the influence of the results of learning math grade 4 SDN Kalisari 2 Surabaya on material fractions.

3. CONCLUSION

Based on the opinion of experts the math and description-the description above it can be concluded that:

"There is the influence of the right-brain dominance against the results of a study of elementary school mathematics."

4. REFERENCES

Ahmadi, Abu dan Supriyono, Widodo. 1991. *Psikologi Belajar*. Jakarta: Rineka Cipta.

De Porter, Bobbi dan Mike Hernacki. 2003. *Quantum Learning: Membiasakan Belajar Nyaman dan Nyaman dan Menyenangkan* (terjemahan Alwiyah Abdurrahman). Bandung: Kaifa.

Gie, The Liang. 1999. *Filsafat Matematika*. Yogyakarta: Pusat Belajar Ilmu Berguna.

Hamalik, Oemar. 2002. *Proses Belajar Mengajar*. Jakarta: Bumi Aksara.

Hollands, Roy. 1995. *Kamus Matematika*. Jakarta: Erlangga.

Sardiman. 2006. *Interaksi dan Motivasi Belajar Mengajar*. Jakarta: Raja Grafindo Persada.

Slameto. 1995. *Belajar dan Faktor-Faktor yang Mempengaruhi*. Jakarta: Rineka Cipta.

Sudjana. 2005. *Metoda Statistika*. Bandung: Tarsito.

Sugandi, Ahmad. 2004. *Teori Pembelajaran. Semarang*: IKIP Semarang Press.

Suherman, Erman dan Winataputra. 2001. *Strategi Belajar Mengajar Matematika*. Jakarta: Depdikbud.

Sukardi. 2003. *Metodologi Penelitian Pendidikan*. Jakarta: PT Bumi Aksara.

Suyitno, Amin. 2004. *Dasar-Dasar dan Proses Pembelajaran Matematika I*. Tidak diterbitkan.

Syah, Muhibbin. 2006. *Psikolog Belajar*. Jakarta: PT Raja Grafindo Persada.

http://kumpul-motivasi. blogspot.com.Diakses tanggal 17 Agustus 2013 pukul 18.42

http://maryantoharjo. 99k.org. Diakses tanggal 17 Agustus 2013 pukul 13.40

PRESENTER'S PAPERS

Author's Biodata

Erlin Ladyawati, S.Pd., M.Pd.

I was [illegible]ril 1983. I graduated from SD Negeri Ketegan I Taman in 1995, [illegible] 1998, and SMA Negeri 15 in 2001. I got the Bachelor of Educ[illegible]005 and my Masteral Degree in Mathematics in 2008. I have been working in University of PGRI Adi Buana Surabaya since 2008 up to now. I have taught Teori Bolangan, Telaah Kurikulum Matematika Sekolah Menengah, and Matematika Diskrit. My experience in research is Hibah Dikti Nasional for the Dosen Pemula in 2013 entitled "Pembelajaran Tematik Untuk Menyeimbangkan Kerja Otak Kanan Dan Otak Kiri" as a chairman as well as IbM research in 2015 entitled "Dominasi Otak Kanan Terhadap Hasil Belajar Matematika Siswa Sekolah Dasar". For the IPTEK bebasis Masyarakat (IbM) in 2015 entitled "IbM Pos Paud Terpadu (PPT) Di Kelurahan Balas Klumprik Kecamatan Wiyung Kota Surabaya Melalui Media Pembelajaran Edukatif" as a member.

Nur Fathonah, S.Pd., M.Pd.

I was born in Surabaya on 03rd April 1968. I graduated from SD Al Fattah Surabaya in 1981, SMP Negeri I Taman in 1984, and SMA Negeri 9 in 1987. I got the Bachelor of Education in Mathematics in 1997 and my Masteral Degree in Study of Technology in 2011 in University of PGRI Adi Buana Surabaya. I have been working in University of PGRI Adi Buana Surabaya since 2005 up to now. I have taught Teknologi Pendidikan, Evaluasi Proses dan Hasil Pembelajaran Matematika, dan Geometri Lukis. My experience in research is Hibah Dikti Nasional for the early lecturers in 2015 entitled "Dominasi Otak Kanan Terhadap Hasil Belajar Matematika Siswa Sekolah Dasar". For the IPTEK bebasis Masyarakat (IbM) in 2015 entitled "IbM Pos Paud Terpadu (PPT) Di Kelurahan Balas Klumprik Kecamatan Wiyung Kota Surabaya Melalui Media Pembelajaran Edukatif" as a chairman.

PRESENTER'S PAPERS

Using Rubrics to Promote Students' Learning: A Literature Review

Erna Puji Astutik
Universitas PGRI Adi Buana Surabaya
Lamongan, Indonesia
ernamzduta@gmail.com

Hanim Faizah
Universitas PGRI Adi Buana Surabaya
Sidoarjo, Indonesia
hanim06b@gmail.com

Abstract

Assessment has an important role in teaching and learning in which teachers are able to evaluate students' performance in the classroom. Assessment can also be used to help students in their learning. By using assessment, they know the quality of their work in order to improve their performance. In developing a good assessment, teacher need rubrics as a tool to provide the students about what they are trying to gain. It is purposed to give students information and evaluation about their works, their progress, and their final products. The most important point of making rubrics is that both the teacher and the student need to understand what will be marked and how it will be marked. By using rubrics, students know what they have to achieve and they can evaluate their own works by self-assessment. They also can evaluate the other students' works by peer-assessment. In addition, rubrics can be used to provide useful feedback to improve the quality of students' works. This literature study will give the description of rubrics, some of the benefits in students' learning and some of the difficulties for teachers in constructing it.

Keywords*: assessment rubrics, promoting students' learning*

1. INTRODUCTION

In teaching and learning process, assessment is an important point for teachers to evaluatestudents' performance and also useful in helping students' learning. Huba and Freed (2000) outline the importance of using assessment to promote students' learning. To be a good learner, students need a clear sense what they are trying to gain and why it is important. Students need to know what constitutes good performance and also need ongoing information about the quality of their work in order to improve their performance. To provide all of those necessities, teachers can use rubrics as assessment tool. By using rubrics, teachers can provide all of that information to give shape to students to be a good learner. This paper will give the description of rubrics, some of the benefits in students' learning and some of the difficulties in constructing it.

2. DEFINITION OF RUBRICS

A rubric is 'a scoring tool that lists the criteria for a piece of work, or "what counts" (for example, purpose, organization, details, voice, and mechanics are often what count in a piece of writing); it also articulates gradations of quality for each criterion, from excellent to poor' (Goodrich, 1996, p. 14). It is used by educators as assessment tools that facilitate the process of evaluation and reporting of student achievement (Reddy, 2007) that means communicating expectations for an assignment, providing focused ongoing feedback, and grading final products (Andrade & Du, 2005; Reddy, 2007). A rubric is also applicable in all learning situations, oral and written assignments and individual and group performances (Groeber, 2007). It means that rubrics can be used for grading a large variety of assignments and tasks such as research papers, book critiques, discussion participation, laboratory reports, portfolios, oral presentations, and more that involve either individual or group work.

According to Popham(1997), rubric has three essential features, they are: evaluation criteria, quality definition and scoring strategy. ***Evaluation criteria****(as cited in Reddy, 2007)*are the important factor in designing rubrics that must be considered by teachers when determining the quality of a student's work. It also can be defined as a set of indicators or qualities required for a student in achieving the outcomes. The criteria may vary depending upon the achievement and skill involved. ***Quality Definitions***describedetailed information about qualitative differences of students' responses that will be judge (Popham, 1997). This means that the rubrics provide descriptions of what a student must do to demonstrate a skill or criteria in order to gain a particular level of achievement (for example poor, fair, good, excellent). If there are four different levels of quality or achievement are given to a certain task, the rubrics provide descriptions for each of those levels. For ***Scoring Strategy***of rubrics could be either holistic or analytic (Popham, 1997). For holistic strategy, requires the teacher to score the overall process or product as a whole, without judging the component parts separately (Nitko, as cited in Metler, 2001). An analytic strategy requires the teacher to grade each criterion separately that may or may not eventually be aggregated into form an overall score (Popham, 1997). The scoring column in rubric allows teacher to emphasis on the important criteria of the assignment that want to be measured by giving a various weight of each criterion (Groeber, 2007).

Thefollowing table is an example of rubric with analytic scoring strategy for research project (Mueller, n.d.):

Table 1: Research Rubric (Analytic Scoring Strategy)

Criteria	Weight	Poor 1	Good 2	Excellent 3
Number of Sources	x1	1-4	5-9	10-12
Historical Accuracy	x3	Lots of historical inaccuracies	Few inaccuracies	No apparent inaccuracies
Organization	x1	Cannot tell from which source information came	Can tell with difficulty where information came from	Can easily tell which sources info was drawn from
Bibliography	x1	Bibliography contains very little information	Bibliography contains most relevant information	All relevant information is included

From the above example, the *Evaluation Criteria* are listed in the left-hand column in the rubric (number of sources, historical accuracy, organization and bibliography). For the *Quality Definition*, there are descriptions of three performance levels for each criterion. For example, the project can contain lots of historical inaccuracies, few inaccuracies or no apparent inaccuracies. In the second column a *weight* is assigned for each criterion. Students can receive 1, 2 or 3 points for number of sources, organization and bibliography. However, historical accuracy is more important

in this teacher's mind so it is weighted three times (x3) that means students can receive 3, 6 or 9 points.

Another example(as cited in Mueller, n.d.) is the holistic form of the rubric that presented below.

Table 2: Research Rubric (Holistic Scoring Strategy)

3 - Excellent Researcher • included 10-12 sources • no apparent historical inaccuracies • can easily tell which sources information was drawn from • all relevant information is included
2 - Good Researcher • included 5-9 sources • few historical inaccuracies • can tell with difficulty where information came from • bibliography contains most relevant information
1 - Poor Researcher • included 1-4 sources • lots of historical inaccuracies • cannot tell from which source information came • bibliography contains very little information

From the holistic rubric above, 'number of sources' is considered along with 'historical accuracy' and the other criteria. It assesses students' performance across multiple criteria as a whole.

3. THE BENEFITS OF USING RUBRIC IN STUDENTS LEARNING

Rubrics have become very popular in education. According to Andrade (2005), rubrics are easy to use and to explain. They can make sense to people even at a glance; they are brief descriptions of certain task and understandable so that teachers like to use them to assess students' work (Andrade, 2000). Students are also helped in doing the assignment, they already known what should they do because rubrics provide the criteria that must be achieved by the students. Furthermore, rubrics help the teachers to move away from "teacher-centered" approach to "learner-centered" approach that helps students learn rather than looking only at teacher performance (Sparrow, 2004).

Learning is defined as "the lifelong process of transforming information and experience into knowledge, skills, behaviors, and attitudes" (Cobb, 2009). Reddy (2007) stated that rubrics support the theories of learning, which emphasize on students and teachers to look to assessment as a source of continuous feedback for improvement of learning process rather than as an evaluative process. In the following descriptions, this paper will describe specifically the benefit of using rubrics in the students learning.

a. Rubrics leading to the development of an attitude in students to 'give what teachers expect'

Rubrics are powerful tools for both teaching and assessment (Andrade, 2005). They allow teacher to clarify criteria in detail and can be useful in planning how to assist students in achieving excellence (McCauley, 2003). Parsell(2008) described that preparing a rubric enables better and more explicit definition of assessment requirements and expectations of the range of student achievement on particular assessment tasks. By making clear the teachers' expectations and showing students how to gain these expectations, rubrics help students to improve their performance.Rubrics might be provided to students before assignments are submitted, so that students know what the expectations for performance will be and what the teacher considers (Jackson & Larkin, 2002; McCauley, 2003). The expectations may be assigned by the teachers or may be determined through class discussions.

b. Rubrics provide guidance for students

By using rubrics, teacher can provide the guidelines for quality of students' work or performance (Wortham, 2005). It also provides students the information about what skills, knowledge and values are important for them to be learned (Institute for Law Teaching and Learning, n.d.). This avoids the problem of a student not doing well in assignments because they focused on a different task. By knowing the criteria that will be judged in rubrics, students will focus their efforts on them more effectively.

c. Rubrics enable students to assess their performance and others

Students can benefit trough creating and applying rubrics to self- and peer- assessment, they are become more involved in their learning and responsible for their work (Parsell, 2008). Students become more considerate in judging the quality of their own and others' work, enable to spot and solve problems in their own and one another's work (Andrade, 2005). Students can also use the rubric as a final checkpoint before submitting their assignment (Jackson & Larkin, 2002). They can judge and revise their own work before submitting an assignment.

d. Rubrics leading to the development of learning behaviors such as reflecting on feedback and revising performance

Rubrics can also be used to provide detailed feedback to students. Providing feedback to students using rubrics giving them a clearer idea of where they sit in and enable them to correct and improve their learning (Parsell, 2008). Research has shown that feedback can improve learning, especially when it gives specific information about the strengths and weaknesses of students' work (Black & Wiliam, as cited in Andrade, 2005). It can promote students to think how to revise and improve their performance based on the feedback given.

4. THEDIFFICULTIES IN CONSTRUCTING RUBRICS

Despite its benefits, designing and using rubrics are not without difficulty. One of the difficulties is that determining the correct set of criteria to define students' performance in rubrics can be complex. In the beginning, teachers may have difficulties to determine assessment or scoring criteria in creating rubrics. It is possible for them to focus only on the specific elements in a particular test or may too general and even inappropriate criteria for the rubrics. In designing holistic rubrics, the criteria can be too general and lack of specificity while for analytic rubric the teacher is forced to analyze the criteria of quality work more detail. Commonly, teachers tend to focus on the quantity of characteristics rather than the indicators of quality work (Wortham, 2005). Teachers need evaluative criteria that arrest the essential components of the skill being measured, not the particular display of that skill applied to a specific task (Popham, 1997). Using the correct language to express performance expectation in rubrics can also be difficult for teachers. They

have to use appropriate words in order to avoid ambiguousness. Some of words may be difficult for students to understand and may be interpreted differently by the teacher.

The rubrics developed need to be tested for appropriateness by determining if the rubrics measure (validity) and if it provides consistency in scoring (reliability) (Reddy, 2007). Validity and reliability are concerned with the consistency and accuracy of the teachers' judgments about students and their work (Payne, as cited in Andrade, 2005). Rubric must be associated with rational and suitable standards and with the curriculum being taught in order to be valid. It must pass a test of reliability by resulting in similar scores when used by different people. Another issue is the equity that must be addressed by checking to see if the ratings that students receive have too much or something to do with gender, race, ethnicity, or socioeconomic status (Andrade, 2005).

Development of rubrics can be time-consuming. They take time to develop, test, evaluate, and update. A certain rubric may be appropriate to assess and evaluate a certain task, so teacher has to design more rubrics for more assignments. Rubrics also might need to be continuously revised. In the beginning, teachers might use predetermined criteria for rubric design but during the time teachers need to consider with the criteria being used and try to modify them as needed to be useful and effective rubrics.

5. CONCLUSION

Rubrics have been used as a guide for many centuries (Hafner & Hafner, 2003). Nowadays, most of teachers use them in assessing and evaluating their students' performance. It is purposed to give students information and evaluation about their works, their progress, and their final products. The most important point of making rubrics is that both the teacher and the student need to understand what will be marked and how it will be marked. Students find the rubric to be a very helpful study tool. By using rubrics, students know what they have to achieve and they can evaluate their own works by self-assessment. They also can evaluate the other students' works by peer-assessment. In addition, rubrics can be used to provide useful feedback to improve the quality of students' works. Without the rubric, students cannot consider the reasons against their work and their claim. Thinking-centered rubrics seemed to help students think more deeply. For these reasons, teachers should consider developing rubrics in their classroom and try to overcome the difficulties. Such items as validity, reliability and equity need to be considered when designing a rubric.

REFERENCES

Andrade, H. G. (2000). Using rubrics to promote thinking and learning. *Educational Leadership, 57*(5). Retrieved from http://www.ascd.org/readingroom/edlead/0002/andrade.html

Andrade, H. G. (2005). Teaching with rubric: The good, the bad, and the ugly. *College Teaching, 53*(1), 27-31. doi:10.3200/CTCH.53.1.27-31

Andrade, H. G., & Du, Y. (2005). Student perspectives on rubric-referenced assessment. *Practical Assessment, Research & Evaluation, 10*(3). Retrieved from http://pareonline.net/pdf/v10n3.pdf

Cobb, J. (2009). *Mission of learning: A definition of learning*. Retrieved from http://www.missiontolearn.com/2009/05/definition-of-learning/

Goodrich, H. (1996). Understanding rubrics. *Educational Leadership, 54*(4), 14. Retrieved from http://proquest.umi.com.dbgw.lis.curtin.edu.au/pqdweb?did=10533927&Fmt=6&clientId=22212&RQT=309&VName=PQD

Groeber, J. F. (2007). *Designing and using rubrics for reading and language arts, K-6*. Thousand Oaks, California: Corwin Press.

PRESENTER'S PAPERS

Hafner, J., & Hafner, P. (2003). Quantitative analysis of the rubric as an assessment tool: Anempirical study of student peer-group rating. *International Journal of Science Education, 25*(12), 1509-1528. doi:10.1080/0950069022000038268

Huba, M., & Freed, J. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Boston: Allyn and Bacon.

Institute for Law Teaching and Learning. (n.d.). *Rubrics.* Retrieved from http://lawteaching.org/assessment/rubrics/index.php

Jackson, C. W., & Larkin, M. J. (2002). Rubric: Teaching students to use grading rubrics. *Teaching Exceptional Children, 35*(1), 40-45. Retrieved from http://proquest.umi.com.dbgw.lis.curtin.edu.au/

McCauley, R. (2003). Rubrics as assessment guide. *The SIGSCE Bulletin, 35*(4). Retrieved from http://dl.acm.org.dbgw.lis.curtin.edu.au/citation.cfm?doid=960492.960506

Metler, C. A. (2001). Designing scoring rubrics for your classroom. *Practical Assessment, Research & Evaluation*. Retrieved from http://pareonline.net/getvn.asp?v=7&n=25

Mueller, J. (n.d.). *Authentic assessment toolbox: Rubrics.* Retrieved from http://jfmueller.faculty.noctrl.edu/toolbox/rubrics.htm

Parsell, M. (2008). *Using assessment rubrics.* Retrieved from http://www.mq.edu.au/ltc/about_lt/assess_docs/use_assessment_rubrics.pdf

Popham, W. J. (1997). What's wrong- and what's right- with rubrics. *Educational Leadership, 55*(2), 72. Retrieved from http://proquest.umi.com.dbgw.lis.curtin.edu.au/

Reddy, Y. M. (2007). Effect of rubrics on enhancement of student learning. *Educate, 7*(1), 3-17. Retrieved from http://www.educatejournal.org/

Sparrow, S. M. (2004). *Describing the ball: Improve teaching by using rubrics-explicit grading criteria*. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1569041

Wortham, S. C. (2005). *Assessment in early chilhood education*. Upper Saddle River, N.J.: Pearson/Merrill/Prentice Hall.

Author's Biodata

Erna Puji Astutik is a lecturer in matematics education department of University of PGRI Adi Buana Surabaya. She was born in Lamongan on 29th of August 1986. She was graduated from Universitas Negeri Surabaya on 2008, where she received a Bachelor Degree in Mathematics. She is also a graduate of Curtin University, where she joined Dual Degree program of Master Degree in Mathematics Education between State Universitas of Surabaya and Curtin University, Western Australia. ernamzduta@gmail.com

Hanim Faizah is a lecturer in mathematics education departmen in University of PGRI Adi Buana Surabaya. Hanim was born in Sidoarjo May, 29th 1988. She was graduated from State Universityof Surabaya for Bachelor degree on 2010 and Master degree on 2014. hanim06b@gmail.com

PRESENTER'S PAPERS

Asean Economic Community in Global Economic Integration

FachrudyAsj'ari
fachrudy.asjari@yahoo.com
Universitas PGRI Adi Buana Surabaya

Widhayani Puri S.
Universitas PGRI Adi Buana Surabaya

Abstract

As an Asean Economic Community (AEC) went into effect on 31 Desember 2015, The Association of South East Asian Nations (ASEAN) has embraced an ambitious economic agenda. AEC is a massive move that change the regions from ten to one, to share market and benefits, to reduce barrier to trade and investment, to give investor more freely move in the region easily across border. AEC also points a simplified rules, greater access, and trading on a bigger stage. ASEAN has formed to be home for investment and partner in bussiness. AEC growth provides more possibilites to make finance to expand and make capital work for people. Supported by the best people,best practices, and all the ASEAN professionals, also influenced by both barriers and supporting factors, AEC keeps striving to meet the goals to make ASEAN to be integrated to global economic.

Keywords: ***AEC 2015, Asean Economic Community, global economic integration.***

INTRODUCTION

2015 will be the most ASEAN's time to run the ASEAN economic Community to meet the goals. Butbefore further cite about AEC goals, we should have an acknowledge about AEC itself. Firstly, it took a long-standing commitment by the ten member states of ASEAN to hasten the establishment of the AEC by 2015. Prof. Shaobang Kang called for this statement, that even Asia is one continent which has the most dynamic and the fastest developing economies in the world, Asia's integration is developing too slowly and stands at the lowest level in the world because of many factors affected.. Then in may 2010, The ATIGA (Trade in Goods Agreement) was forced to covers all aspects of trade in goods under a legal framework to realise the free flow of goods within the AEC, whether AFAS (The ASEAN Framework Agreement on Services) serves substantially eliminate restriction on trade in services among ASEAN member States in order to make it easier for servive suppliers to operate within the border of ASEAN. Furthermore, in March 2012, The ACIA (ASEAN Comperehensive Investment Agreement) came into effect to support a free, open, transparent, and integrated investment regime in line with the goals of the AEC. (AECBooklet; 2014). Then in 2015, ASEAN is poised to "seize the moment" to achieve the ASEAN Economic Community (AEC) goals which is to transform ASEAN into a region with free movement of goods, services, investment, skilled labor, and free flow of capital (Petri, Peter A., Plummer, Michael G., Zhai, Fan; 2010).

REVIEW OF THE LITERATURE

With a market over 600 million consumers and combined GDP of nearly US$ 3 trillion, the healthiest and most integrated regional organisation in Asia, ASEAN is vibrant

and growing to be a centre and platform to promote Asia's economic integration. This proved by the region's per capita income and economic structure. Their performance has been some what uneven, but strong an average; the region has grown at a 5% annual rate over the last decades, despite two major crisis which took down Wall streets's financial and led to global financial and economic crisis which hit the Asian economy even more seriously (Kang, Shaobang). It means, Growth was rapid before the Asian financial crisis and, after slowing in its aftermath, has begun to accelerate again (Petri, Peter A., Plummer, Michael G., Zhai, Fan; 2010). This legible situation could offering a future to its people of increasing prosperity and stability within AEC is one of the foundations of that future.AEC will be formed ASEAN as a single market and production base with the goal of making ASEAN more dynamic and competitive. Regional integration and connectivity are to be accelerated through facilitating the movement of skilled persons, capital and goods, lowering barrier to trade and strengthening the institutional mechanism of ASEAN.But AEC is a phase and process, people couldn't deal with it easily. There would be a phase and process of it that people must be engaged to gain the many available benefits (AECBooklet, 2014).

For our acknowledgement, there are four pillars to the AEC : 1) is Single market and production Base; 2) Competitive Economic Region; 3) Equitable Economic Development, and 4) ASEAN's integration into the Global Economy. Furthermore, we will provide the explanation for these four AEC's pillar.

1. **Single market and Production Base.**

   In the first pillar, there is five core elements in Single market and production base which is : free flow of goods; free flow of service; free flow of investment; free flow of capital; and free flow of skilled labor. Because of the finite space, here is the brief eluciditation of the elements. First elemen is free flow of goods which is related to tariff liberalization and other "hanging fruits" reforms. With the bulk of intra ASEAN trade now tariff-free, what remains are the more politically sensitive areas of reform, such as opening up economically sensitive sectors like agriculture, steel, and motor vehicle. Furthermore, At the element of free flow service, the sector is becoming increasingly important as a driver of growth in the region, both as a share of GDP, and of employement. But trade in services has seen less liberalization. Existing commitments under the AFAS (that been commited in 2012) and the economic blueprint are insufficient. But nevertheless, AFAS commitments have improved over time n now there significant GATS-plus elements that have been adopted. Next, at the third and fourth element, free flow of investments and capital . This is the element which try to remove barriers to trade in order to further promote foreign direct investment (FDI) in regional production networks by prioritizing investment facilitation and provision of national treatment among ASEAN partners. Fifth, is free flow of skilled labor which is attempts to liberalize skilled labor within ASEAN could be positive if it result in greater mobility of profesionals within the region, reducing skill gaps (Menon, J. and Cassandra M. Anna., 2015).

   Virtually, all ASEAN economies are open to trade and investment; The trade/GDP ratio is 131% for the region as a whole and exceeds 400% for Singapore. Over the last two decades, the region's exports and imports have shifted from natural-resource-intensive goods to electronics and other relatively sophisticated manufactures. Manufacturing exports account for almost three-fourths of total ASEAN exports, and machinery and transport equipment constitute almost half of

both exports and imports. Top ASEAN exports and imports include various advanced manufactures such as Thermionic valves and tubes, Petroleum products, etc. Succes in this sector reflects the region's integration into global production chains, which rely heavily on international exchanges of goods, capital, and expertise . Petri, Peter A., Plummer, Michael G., Zhai, Fan; 2010).

Through AEC, ASEAN is commited to supported those five core elements that would promote both regional domestic demand on the one hand and the competitiveness and attractiveness of this regionin the global market, by building an investment climate that is conducive for bussiness. (Urata, s & Okabe, M. 2009). Aside from individual country initiatives, the region agreed on an investment framework aimed at enticing investors and helping those who are doing bussiness in the region. To supported this move, ASEAN created the ACIA (ASEAN Comprehensive Investment Agreement), which contains commitments to liberalise and protect cross-border investment activities. Furthermore, ACIA embraces intenational best practices in the treatment of foreign investor and investment (AEC Booklet, 2014).

2. **Competitive Economic Region**.

There is two of the key components of the AEC's second pillar, are competition policy and intellectual property rights (IPR) protection, both of which aim to improve a country's bussiness environtment (Menon, J. and Cassandra M. Anna. 2015). In creating a competitive economic region, the AEC seeks to foster a culture of fair competition, including institutions and laws that underpin the effort. This includes protection for consumers region-wide and strong guarantees for intellectual property rights. Competition policy and law will play an increasingly important role as strong economies are founded upon healthy and effective competition. By creating a level playing field for bussinesses operating in region, competition policy and law encourages greater innovation, productivity and efficiency, bringing about benefits for bussinesses and consumers alike. ASEAN member state have been introduce competition policy and law by 2015. Various activities have also been educated general public on the importance of competition policy and how it could possibly affect them. A competitive economic region also require support for Physical infrastructure like highways, airports and rail links, power grids and gas pipeline. This is evidenced by roads and highways of the member states forming the ASEAN highway network design are being physically connected. As a substance, the priority of ASEAN highway network called**TTR (transit Transport Routes)** which is a vital infrastructure and logistics component which support trade facilitation, investment opportunities and tourism, have already been installed their road and numbering signs to enhance safety and provide greater comfort for road users. For **Air services**, all the agreements and protocols on the liberalisation of air service under the ASEAN Open skies policy for both cargo and passanger services have been concluded and implemented by most member states. This has substially enhanced air connectivity in the region with increased air capacity and created more opportunities for a greater number of people to fly to neighbouring countries. Another sector of ASEAN infra structure that is undergoing continous enhancement is **telecommunication**. Which in 2012, it regulation announced the intention to reduce international mobile roaming rates within ASEAN by their respective telecommunication providers (AEC key MasBooklet, 2014).

3. Equitable Economic Development

There are many reasons for the delay in Asia's economic integration. First, Asia's economic growth is unbalanced. According to the World Bank data, some countries, such as Japan, Singapore, South Korea, Kuwait, Qatar, United Arab Emirates, and Saudi Arabia are high income countries. Some countries, such as Malaysia, Lebanon, and Kazakhstan are medium-high income countries. Then some countries such as China, Indonesia, Phillippine, and Thailand are medium-low income countries (Kang, Shaobang). According to these conditions, ASEANas a key component of the AEC, through flagship projects under the strategic Action Plan for ASEAN SME development (2010-2015)attempted to enhance the competitiveness and expansion of small and medium enterprises. The ASEAN SME guidebook towards the AEC 2015 has been developed to enhance awareness of the financial facilities and market opportunities for SME's available in ASEAN Member states. New approaches have been developed so that benefits of the AEC are more evenly shared between all ASEAN member states, including the newer ASEAN member states (Cambodia, Lao PDR, Myanmar, and Vietnam) and the sub regions (such as the Brunei Darussalam, Indonesia, malaysia, Phillippines East ASEAN growth Area and the growth triangle such as Indonesia, malaysia, Thailand). Then, The ASEAN framework for equitable Economic Development (AFEED) was introduced in 2011. This framework is aimed to enable regional economic integration based on the principles of inclusive and sustainable growth, poverty alleviation, and narrowing the development gap within and between all ASEAN Member states (AECBooklet, 2014).

4. Integration into the Global Economy

With respect to 3 AEC's pillar described before, Integration into the Global Economy

is seems to be a spearhead of those all pillars. This pillar is one of the AEC's important success stories. As we known, ASEAN is well-positioned at the centre of global supply chain, and has develop strong trade links with the major regional economies, which has allowed for the creation of significant bussiness opportunities. At the same time, ASEAN has a potential to play important role in re-balancing the global economy, by promoting demand growth in the regional market (Urata, s & Okabe, M. 2010) .

Backwards, In 2010 Peter A been showed that ASEAN's intra-regional trade is still modest at one-fourth of the region's total trade, but it's share has risen by over 50 percent from 1990 tp 2007. Given that the region consists of small and medium-sized developing countries strong global production links. So, it is not suprising that most of its trade also involve extra-regional partners. But controlling for the region's size, intra-ASEAN trade is four times as high as it would be if the region's trade flows were randomly distributed across partner (this type of normalization is done by dividing the intra-regional trade shares by the shares of ASEAN trade in global trade). Evidently, production chains and specialization are targeting regional partnership. ASEAN markets are especially important for smaller member states, including Vietnam, Laos, and Brunei. Furthermore, Every ASEAN economy at that moment does at least one-fifth of its trade within the region while a quarter of a century ago only a few did that much. The region's trade pattern is essetially symmetric : the shares of ASEAN, the US and EU, China and Japan, and the rest of the world each account for about one-fourth of the overall ASEAN trade. The

continuing importance of trade with the rest of the world underscores the region's stake in global integration. A "Fortness ASEAN" would raise the cost of imports, undermine ASEAN's role in global production chains, and alienate important external partners. Thus, the AEC Blueprint is externally focused : one of its four pillars calls for building stronger global relationship**.**

DISCUSSION

In light of the many obstacles and challenges that remain, compounded by recent events that increase risk and uncertainty, creating a fully functional AEC by the end of 2015 seems nigh impossible. As such, it would be best to view 2015 as a milestone rather than a "must-do" target. (Menon, J. and Cassandra M. Anna. 2015). But as the AEC commitment engaged, ASEAN keep attemped to realize the global economy integration by doing negotiation with the Regional Comprehensive Economic Partnership (RCEP). The ASEAN-led agreement, expected to be concluded by the end of 2015, will allow ASEAN to achieve a modern, comprehensive, high quality, and mutually beneficial economic partnership agreement with its FTA partners. Combined GDP of about US$21.2 trillion, which is about 30% of global GDP, the RCEP also has the potential to transform the region into an integrated market of about 3.4 billion people (about 48% of the world's population). The RCEP expectation is to deliver tangible benefits to businesses through potential improvements in market access, trade facilitation, regulatory reform and more liberal rules of origin. (AECBooklet, 2014).

The study proved that while ASEAN start to run the phase of AEC, they has enjoyed the steady increase in foreign direct investment (FDI). An average growth of 14% since 2000, and in 2012, FDI flows to the region reached US$110.3 billion. Such strong FDI growth is a result of a multitude of factors, including the comperehensive ASEAN integration efforts that have made it cheaper, faster, and easier to trade in the region. Furthermore, this continues growth has attracted 54% of American companies to had an ASEAN strategy in place and looked forward to the full implementation of the AEC. As a continued integration, 84% executives surveyed expected profits increase in 2014. (AECBooklet, 2014).

As we step closer to the goals of AEC 2015, we fully expect bussiness interest in the AEC to continue to rise, as more as bussinesses benefit from such ASEAN integration efforts, and start to develop ASEAN strategies as part of their corporate policies. While the AEC process is well underway, the emergence of groups like the ASEAN Bussiness Club, sees to create a high level of a awareness of the AEC as a core priority. In addition, the largest consulting companies in the region have all jumped on the AEC bandwagon, helping to promote awareness of the AEC. Even universities in the region have begun establishing AEC centres and think tanks are commissioning studies on the impact of the AEC. Also many survey showed a growing number of ASEAN businesses now have an "ASEAN strategy" in mind.This is showed all the parties in a region collaborated to make economic global integration happen (AECBooklet, 2014).

References

AEC Key Massage Booklet. 2014. *Thingking Globally, Prospering Regionally – ASEAN Economic Community 2015*. Jakarta : ASEAN Secretariat. ISBN 978-602-7643-87-1

PRESENTER'S PAPERS

Petri, Peter A., Plummer, Michael G., Zhai, Fan. 2010. *The Economics of the ASEAN Economic Community*. www.brandeis.edu.

Kang, Shaobang. *ASEAN in Asia Economic Integration*. IDEAS Publication. www.lse.ac.uk

Urata, S. and Okabe, M. 2009. *Tracing The Progress Toward The ASEAN Economic Community*. ERIA Research Project Report No.3.

Menon, J. and Cassandra M. Anna. 2015. *Realizing An ASEAN Economic Community : Progress and Remaining Challenges*. ADB Economics Working Paper Series No.432. Philliphines. ISSN 2313-6537.

Author's Biodata

FachrudyAsj'ari, graduate of Psychology faculty (S1-Putra Bangsa University), Human Resource Management (S2-Putra Bangsa University), and economic graduate majority in Human Resource Management (S3-Airlangga University). Specialized in human resource management and teaching in University of PGRI Adi Buana Surabaya.

Widhayani Puri S.,graduate of communication majority (S1-UPN) and Human Resource Management (S2-Airlangga University). Specialized in human resource management and teaching in University of PGRI Adi Buana Surabaya.

Mobile Technology for Problem Solving Skills

FajarArianto
fajaraarianto@rocketmail.com
State University of Surabaya

Abstract

The ability tosolve problemsis veryimportantfor be expanded. Problem solvingbeginswiththe initial stateuntil it reachesthe destination. Mobile technology is amobile computingtechnologythat usesa portabledeviceover the wireless network. Mobile technology allows the learner to be able to move simultaneously physical, digital and communicative space.Mobile technologycanprovide continuityina variety of (the continuity of various)learning experiencesthat enablelearnerstomake connectionswithwhat they observe, collect, access and thinkfromtimeto time, place, and people. General, the technology technology is aimed to help students building their knowledge, in interpreting and organizing knowledge is an important way forward. Mobile technologysupportin developingproblem solvingskills.,mobile technology, theywillmake the process ofidentification, exploration, reconstruction, presentation, andreflectionnegotiations. The use ofmobile technologyin solving problemsoccurin theprocess ofthinking, self-regulation, andcritical thinking.

Key word: Problem solving, mobile technology, ICT,mindtools

1. INTRODUCE

Information and communication technology (ICT) has entered the mobile era. We can access information anywhere and anytime.Mobile is a mobile computing technology that uses a portable device over the wireless network.Mobile technology has the technology infrastructure for connectivity such as Wireless Application Protocol (WAP), Bluetooth, 3G, and General Packet Radio Service (GPRS) as well as information appliances such as mobile phones, PDAs, and laptop computers (Varshney and Vetter, 2000; Perry, 2001; .. Nahl, 2005 in Sheng, 2005).Now, almost everyone use mobile technology, such as smartphones, in life. Mobile technology allows teachers to be able to move simultaneously physical, digital and communicative space. This mobilitybeable individually, in pairs, in small groups or whole classes with students, mentors, experts, professionals, and others (Chan, 2006).

In the learning process, the students are expected to have the ability in problem solving. Problem-solving process, students conduct observations, collect data, interpretation of data, and concluded. The use of mobile technology can facilitate the needs of students in the troubleshooting process. This article is described the use of mobile technology in solving problems in learning activities

2. Mobile Technolgy

Mobile technology is not a communication device that triggered the new modalities in the interaction of teachers, but also the computer devices that are in their pockets, which is always with them (Prenski, 2005). The mobile technology are smartphones, laptops, tablet personal computers, ultra-compact computers, hybrid devices, etc (figure 1). Mobile technology serves to provide learning experiences in a social environment and informatics as well as support the unique interactions that are useful for learning (Ting, 2013). Mobile technology has the power to promote and encourage social interaction that are fundamental to learning and relate to others (Ching, Shuler, Lewis, and Levine, 2009; 25).`

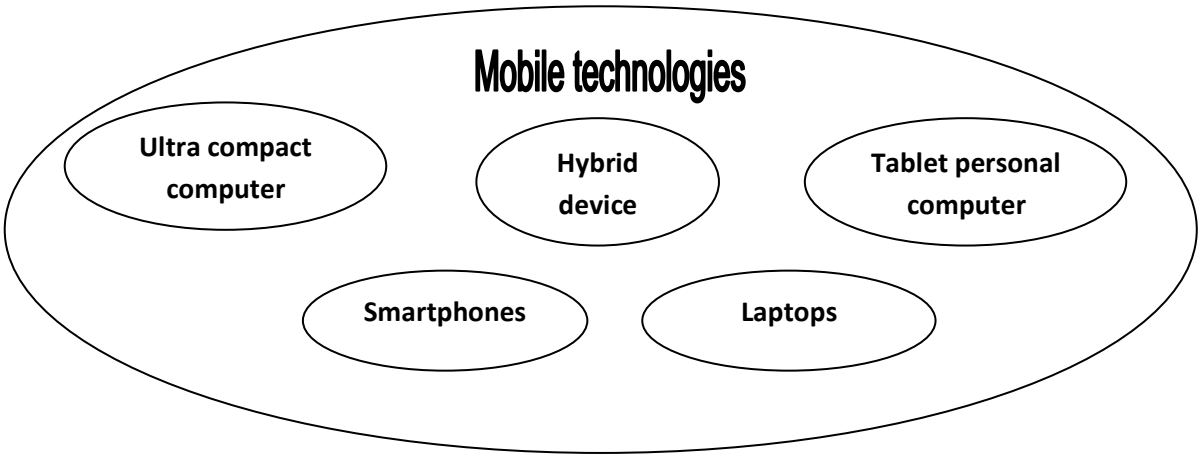


Figure 1.*Elements of experience in pedagogy* (Ahrens danZaščerinska, 2015; 40)

Mobile technology also can contextualize learning environment with interactive multimedia presentation capabilities such as video, audio, graphics, integrated media and two-way communication (Ally, 2004; Churchill &Hedberg, 2008; Green, Facer, Rudd, Dillon & Humphries, 2005; Traxler, 2007 inÖzdemir, 2010). Mobile technologycanprovide continuityina variety oflearning experiences thatenable teacherstomake connectionswithwhat they observe, collect, access andthinkingfromtimeto time, place, and people(Rogers, Yvonneand Sara Price, 2009). Considering those many advantages, mobile technology can be used in education.

The use of mobile technology in education will enrich the learning experience.In order for teachers and developers can use mobile technology well, Haghshenas et al (2015) provide some of the factors that must be considered:

- Context: Utilization of contextual information which may go against learner's privacy rights.
- Mobility: Being able to learn outside the classroom may cause learners to participate in activities what clash with the educators program or curriculum.
- Learning over Time: Useful tools are required for recording, organizing and obtaining learning experiences.
- Informality: Certain technologies may be abandoned if learners feel their social network is being compromised.
- Ownership: Learners wish to control personal technology which presents a dilemma when brought to the classroom.

Mobile technology as information and communication technology (ICT) has the capacity to transform the learning, teaching, and communication in educational settings. ICT applied in learning process. There are seven keys which ICTs are used in education:

a. Tool use, including word processing, spreadsheets and databases
b. Student collaborative research, involving student learners in groups in collect and analyze data using online technology
c. Information management, including searching, organising, managing and using information for teaching and learning
d. Teacher collaboration, such as sharing to teaching materials and activities
e. Outside communication, involving students working with others beyond the classroom through email, the internet or conferencing software
f. Product creation, focusing on the design of digital products such as animated images or website
g. Tutorial project, in which software is used to help student practice and refine skills. (Kozma, 2003 in Krause, 2010).

The use of ICT can support learning higher-level thinking (Taxonomy) and problem solving (Krause, 2010). Mobile-based learning environment can provide scaffolding WHEN and WHERE learners need it, whether in the classroom or in the field investigating (Martin, 2013)

2. PROBLEM SOLVING SKILL

Problem solving can be interpreted as laying, intentionally directing students, oriented activity in an effort to find a different solution to the problem that is authentic to completion through the interaction between fixers, tools and other resources(Kim and Hannafin, 2011).Students who show signs of having been doing problem solving process as follows.

1. Willing to spend the time to read, gather information and defining the problem.
2. Using a process, as well as a variety of tactics and heuristics to solve the problem..
3. Monitor the process of solving their problems and reflect on their effectiveness..
4. Emphasizing on accuracy rather than speed.
5. Write down the ideas and create charts / figures, when solving the problem.
6. Organizedandsystematic.
7. Flexible keeping its options open, to seethe situationfromvariousperspectives/viewpoints).
8. Drawing onknowledge ofthe subjectin questionandobjectivelyand criticallyassess the quality, accuracy, and precisionofknowledge
9. Willing to takerisksandovercomethe ambiguity, a welcome changeandmanaging stress.
10. Using acomprehensive approachthat emphasizesfundamentalthan tryingto combine different solutions (Mourtos, Okamoto & Rhee 2004).

The application of problem solving skills, according to Rooney, Poe, Drescher, and Frantz (1993), there are five principles to be followed by students and teachers. The fifth principle is

1. Students and teachers should identify the problem from the angle of students
2. Understand and agree with the real issue
3. Once the real problem must be identified, the teacher must change it according to his needs
4. The student, not the teacher, should solve the problem
5. Students should focus on how, not whether

Problem solving can be done either by the student, the thing to do is (1) the teacher should teach using heuristics that arise to solve the problem in general, (2) provide obvious analogy to assist in problem solving, and provide experience in a corresponding domain so it has its basis in an interesting analogy, (3) the exercise will has little effect, we ensure students use the knowledge when needed, (4) students should be encouraged to deal with the problem in an appropriate manner, and to ensure training on the problem can be stored in memory in later.

Problem solving using technology according to Kim dan Hannafin (2011) there are six stages, (1) *Identification*, (2) *Eksploration*, (3) *Reconstruction*, (4) *Presentation*, dan (5) *Reflection Negotiation*.

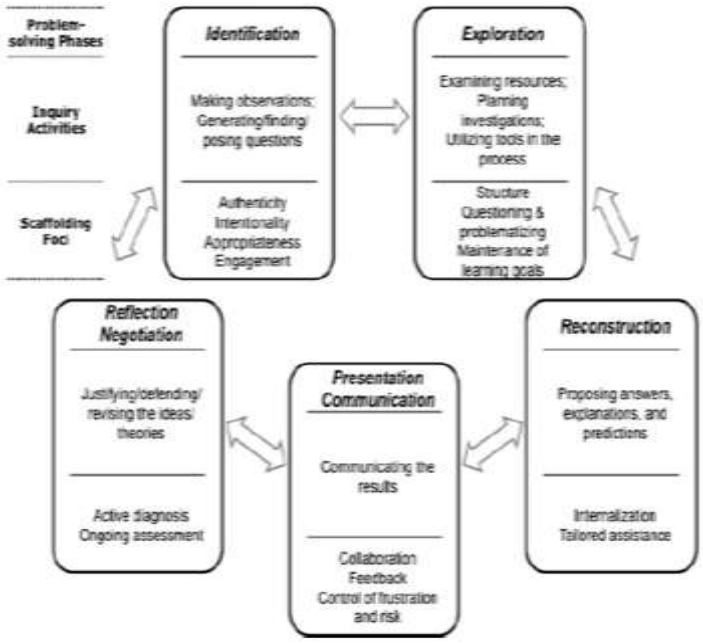


Figure 2: Problem solvingframeworkof inquiryin*technology-enhanced classrooms* (Kim and Hannafin, 2010)

3. CONCLUSION

Mobile technology is wireless and sensor devices (including mobile phones) which is intended to be worn, carried, or accessed by people during their daily activities (Kumar et al, 2013).Mobile technology supported by various kinds of software that are hypermedia, can facilitate student learning activities. Application of ICT in education in general, will be able to enhance students' skills in problem solving, because a child can use all the learning resources by means of browsing or sharing with friends.The troubleshooting process in various ways, will bring the students in the creative process associated with problem solving. The use of mobile technologies, such as smartphones, enables students to perform activities of creative using a variety of existing applications. The process of looking for and learning to use the device on the mobile technology, students will try to control their learning and seeking knowledge that is not known or understood.

The use of mobile technology to support mind tools in achieving education goals (Reece, 2003).The useof electronic devices and multimedia increase interest in learning and they can learn any time and any whereby using the mobility device (López, et. al, 2013). The use of mobile devices better learning outcomes than paper-based (Zuritadan Miguel, 2004).

REFERENCES

Ahrens, Andreas and Zaščerinska, Jeļena. (2015). A Comparative Study of Business and Engineering Students' Attitude to Mobile Technologies in Distance Learning.in dePablos, Patricia Ordóñez. *Assessing the Role of Mobile Technologies and Distance Learning in Higher Education.*IGI Global; USA

Ching, Dixie, Carly Shuler, Armanda Lewis, dan Michael H. Levine. 2009. Harnessing the Potential of Mobile Technologies for Children and Learning. *'Mobile Technology for Children Designing for Interaction and Learning'*. USA; Elsevier

Haghshenas, Maryam, RoghayehShahbazi, AbouzarSadeghzadeh and MojtabaNassiriyar.(2015). Mobile Wireless Technologies Application in Education. in dePablos, Patricia Ordóñez. *Assessing the Role of Mobile Technologies and Distance Learning in Higher Education.*IGI Global; USA

Kim, M. C., &Hannafin, M. J. 2011.Scaffolding 6th Graders' Problem Solving in Technology-Enhanced Science Classrooms: A Qualitative Case Study.*Instructional Science*, Vol. 39: pp. 255–282

PRESENTER'S PAPERS

Kim, M. C., &Hannafin, M. J. 2011.Scaffolding Problem Solving in Technology-Enhanced Learning Environments (TELEs): Bridging Research and Theory with Practice.*Computers & Education*: *An International Journal* Vol. 56.p 403–417

Krause, Kerri-Lee, Sandra Bochner,Sue Duchesne, Anne McMaugh. 2010. *Educational Psychology: for Learning & Teaching. 3td ed.* Cengage Learning; Autralia

Kumar,S.,Nilsen,W.J.,Abernethy,A.,Atienza,A.,Patrick,K.,Pavel,M.,etal.(2013). Mobile health technology evaluation: The mHealth evidence workshop. *American Journal of Preventive Medicine*, 45(2), 228–236

López , Álvaro Fernández, et.al.(2013). Mobile learning technology based on iOS devices to support students with special education needs. *Computers & Education 61.77–90*

Martin, FlorencedanJeffrey Ertzberger. 2013. Here and Now Mobile Learning: an Experimental Study on The Use of Mobile Technology. *Computers & Education: An International Journal*. Vol. 68. p. 76–85

Özdemir, Selçuk. (2010). Supporting Printed Books with Multimedia: a New Way to Use Mobile Technology for Learning. *British Journal of Educational Technology. Vol 41 No 6.p.* E135–E138

Reece, Gloria A., Charles H. Roberts, dan Hani Q. Khoury. (2003). *CMS as Mindtools for Enhancing Student Engagement in Advising and Assessment: Lessons Learned from Design of Math Advisor* dalam The Shape Knowledge. IEEE

Rogers, Yvonnedan Sara Price. (2009). How Mobile Technologies are Changing the Way Children Learn. *'Mobile Technology for Children Designing for Interaction and Learning'*. USA; Elsevier

Rooney, Elizabeth F., Elizabeth Poe, Deb Drescher, dan Steven C. Frantz. (1993).I Can Problem Solve: An Interpersonal Cognitive Problem-Solving Program. *Journal of School Psychology*.Vol. 31, 335-339.

Sheng, Hong, Fiona Fui-Hoon Nah, danKengSiau.(2005). Strategic implications of mobile technology: A case study using Value-Focused Thinking. *Journal of Strategic Information Systems*. Vol. 14, 269–290

Sheng, Hong, Fiona Fui-Hoon Nah, danKengSiau.(2005). Strategic implications of mobile technology: A case study using Value-Focused Thinking. *Journal of Strategic Information Systems*. Vol. 14, 269–290

Sheng, Hong, Fiona Fui-Hoon Nah, danKengSiau.(2005). Strategic implications of mobile technology: A case study using Value-Focused Thinking. *Journal of Strategic Information Systems*. Vol. 14, 269–290

Zurita, Gustavo dan Miguel Nussbaumw.(2004). A Constructivist Mobile Learning Environment Supported by a Wireless Handheld Network.*Journal of Computer Assisted Learning*. Vol. 20, p. 235–243

Author's Biodata

Fajar Arianto is a lecturer at the Department of Educational Technology, State University of Surabaya. He completed his college at Education Technology in Surabaya State Teacher Training Institute, and Degree at State University of Surabaya. now doing his doctoral studies at Instructional Technology,State University of Malang.

PRESENTER'S PAPERS

Implementation of Problem Solving Method and Discussion Method in the Improving of Learning Outcomes Student's Political History STKIP PGRI Sidoarjo Year of Academic 2014/2015

Franciscus Xaverius Wartoyo
Lecture History Education of STKIP PGRI Sidoarjo
yoyokwartoyo97@gmail.com

Abstract

On the approaches and methods used in teaching and their equipments are strategy and intrinsically the teaching strategies and methods are drawn from the discourse which is a component of the delivery of the teacher in charge of class. The purpose of this research is to investigate the use of learning methods between the method of discussion and problem-solving methods in enhancing the value of student results. The research method used descriptive statistical methods. A total of 30 students for each of the groups used different methods of learning, namely 30 students with problem-solving learning method, and another class with 30 students learning methods discussion. The reasearch found there were differences in the value of student learning outcomes based on problem-solving learning method and learning methods discussion. In addition, the method problems solving delivering output student learning outcomes, the student of political history is better than the method of discussion. It concluded that both methods can be used to improve the achievement of students in the course of political history, especially in the medieval, renaissance, imperialism, colonialism, capitalism, socialism and nationalism.

Keywords: ***problem-solving methods, the method of discussion, political history learning outcomes***

A. Background of Study

Increased competence and skills of lecturers, especially history education can be done through various efforts and approaches. Improving the quality of education needed to improve human resources have been arranged by the government seriously embarked by designing learning strategies to the fullest with the single goal to improve the quality of education in Indonesia. This is evident with increased development in the field of education is realized in the form of development of physical and non-physical means.

Development of physical infrastructure in the education sector among others, include the addition of classrooms, libraries, laboratories, practice facilities, and a center for the study of history and politics, so it helps students to analyze the events of political history. Development of education in the field of non-physical among others, include improving the quality of teachers, the arrangement pattern of learning management, and renewal in accordance with permendikbud No. 73 of 2013 concerning the framework of national qualifications Indonesia (KKNI), with the development of science and technology, improvement in education history, especially political history required analytical thinking, in particular the past, present, and future.

Subjects of political history as one of the many subjects compulsory education courses of history, a learning material that discusses the events of the past so that its implementation should use methods appropriate to the characteristics of the subjects, so the acquisition of student learning is not just memorize facts events alone but can understand and grasp the historical facts under the law kausalita. In connection with these problems, then the appropriate method of teaching history is a method of problem solving and discussion method.

On the approaches and methods used in teaching and teaching equipment is a strategy and intrinsically pengajran strategies and methods are drawn from the discourse which is a component of the delivery of the teacher in charge of class. In this regard Beauchan (1975; 19), illustrates that in addition to the curriculum, approaches and methods to determine the success of student learning.

Troubleshooting methods are methods that provide self-motivated students to want to think, analyze Suati issue, so as to find a solution. Moreover this method to build the capacity to see directional causality of a problem and in the end how the solution can be found. This method describes the ability of thinking which is supported by the opportunity to examine problems, collect data, analyze data, create hypotheses, and find the relationship factors that are missing from the data collected in order to be concluded as a result of the problem solving. If this method is applied correctly after from one school level, students become skilled at dealing with problems and trying to solve them as well as having a good knowledge of middle life as the provision of public life.

Discussion method according Soetomo (1993; 143-144), is a teaching method that involves educators where professors give problems or issues to students and provide an opportunity together to solve these problems with colleagues.

From some of the above opinion, when we formulated, the main objectives in the use of problem-solving methods and methods of these discussions is that the learners or students can learn how to think critically so that they can connect and develop the knowledge that has been owned and can classify this knowledge in the form change of attitude.

Based on the opinion and the description investigators concluded that the method of problem solving and discussion method is suitable when applied to learning in school because it has several advantages when compared with other methods. From the opinions of the above, when formulated, the main objectives in the use of problem-solving methods and methods of these discussions is that the learners or students can learn how to think critically so that they can connect and develop the knowledge that has been owned and can classify this knowledge in the form change of attitude.

Based on the description above, it can be stated that the selection of appropriate methods in the learning process and supported by their high learning ability in learning will affect the high or low achievement of students' achievement. To that made the formulation of the problem as follows:

1. Is there a difference between the method of solving the problem with the method of discussion on student learning outcomes?
2. Which method is better between method of solving the problem with the method of discussion based on the results of student learning?

B. Literature Review

Definition of learning is the interaction that occurs in the teaching and learning environment and changes in the not limited dikehidupan individuals. To produce individuals who can produce human resources capable of living in the global challenges of living in an era of competition which is getting stronger. The suit is directed at education for the development of science and technology is increasingly educated, of course, there is no other choice, but to learn.

Related to the above, the problem of education in Indonesia get a challenge because the problem is getting the spotlight with regard to the demands to produce quality resources according to the progress of science and technology and education.

According to Chaplin (1961; 32), learning is the acquisition of relatively sedentary behavior and the process of obtaining responses as a result of special latiahan and ppengalaman. (Isaac Muhibidin, 1985; 89).

Bouton in his book on the subject of children (1962: 14) argues that learning is a change that occurs in a person. This change as the interaction between himself and the environment so that needs can be met. Then they could easily adjust.

A person commits the act of learning so someone must want something, record something, do something and get something (Luck; 1960; 81) and muscal (1976; 81).

According to Gagne and Hanafi (1986; 14) study involves the interaction with the external environment and allegedly learned that happens when something changes modified the behavior of the change itself. This happens for a relatively long time in the life of the individual.

John Dewey (1859-1952) had a strong influence in outlook, formulated in his book "etymologically, The World Education Means Just a Process of Learning or Bringing up" (John Dewey, 1964; 10) suggests. That learning in education is a process for change. On the other hand that learned about as a process where learning is defined guidance as a process of change and the process of socialization of children (Soenadi Tjiptojuwono, 1981; 41). In the process will be the development of behavioral learning seems that the longer makain perfect.

C. Research Method

1. Design dan Type Research

   The research method used survey method by observing objects in such a way that is conditioned by a predetermined method of learning is learning by problem-solving methods and methods of discussion. Then conducted tests to compare the average student learning outcomes political history. In this study, researchers can manipulate the stimulus, treatment or other conditions, then observe the effect that result from the treatment or manipulation.

   The study design with descriptive statistical methods that compare the average of students' learning in the two groups based on the description of the percentages indicated by the average value of students who are taught by different methods, both in tables and graphs.

2. Data Analysis Technique

   In this study did not examine the effect of learning with the learning method, so it is not done parametric testing. In testing only describe the condition of student results based on the average value of the learning outcomes of students who performed with different learning methods, the method of problem solving and discussion method. Analysis of the data used Microsoft Excel program assistance in making the value of the average student, both in the form of data tabulation and graphics.

D. RESULTS AND DISCUSSION

1. Data Descriptions

   Learning strategies using the method of problem solving has a range between 136.51 up to 154.25 with the average score (mean) of 145.407. To get a visual picture can be seen in the frequency distribution of these learning strategies scores As stated in the histogram that are listed in the following figure:

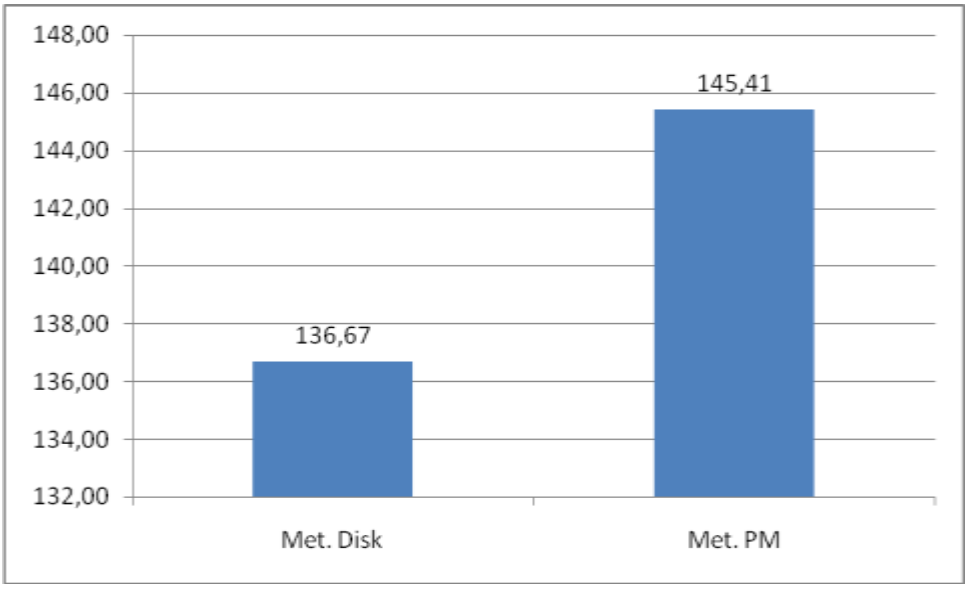


Figure 1

From the figure above, it appears that the average value based on the discussion method obtained a score of 136.67, while the method of problem solving earned a score of 145.41. Under these conditions imply that the better method of solving problems in delivering value learning outcomes of students of political history, regardless of other factors which may be decisive in addition to teaching methods that have been used in this study. That is, equalization of student understanding in the science of political history with troubleshooting methods will further enhance the value of the students, while the discussion quantitative methods is not better based on the results of their study.

Ability to see the cause and effect of a problem that is targeted to encourage students to find what's the solution. Developing the ability to think is one characteristic of these methods work, according Sriyono, where a student was given the opportunity to examine problems, collect data, make a hypothesis, looking for a relationship factors are missing from the data that has been collected and draw conclusions that are the result solution to problem. Suitability of learning with problem solving method with history course can be seen from the average value of student learning outcomes is 145.41. Besides the high value of the average student using this method can be caused because the student enjoys the course of history that is more directed at the application of which was to find something and then analyzed by a more difficult level psychic means solving problems performed by lecturer geared to the level of student ability, fishing student interest and pragmatic power (useful in everyday life).

E. CONCLUSION

Based on the research we have found as stated below:

1. There is a difference in the value of student learning outcomes based on problem-solving learning method with learning methods discussion.
2. The method of learning by solving problems in delivering output student learning outcomes, the student of political history is better than the method of discussion.

PRESENTER'S PAPERS

READING LIST

Arikunto, Suharsimi. 1991. Dasar-dasar Evaluasi Pendidikan. Jakarta: Bina Aksara.

_____. 1992. Prosedur Penelitian, Suatu pendekatan Praktik. Jakarta: Ghalia.

Arlina, Eka Yani. 1995. Kamus lengkap bahasa Indonesia. Surabaya: Tiga Dua.

Dadang Supardan, 2008, Pengantar Ilmu Sosial, Sebuah KajianPendekatan Struktural, Jakarta: Pt. Bumi Aksara.

Gunawan, Adi W. 2004. Genius Learning Strategy. Jakarta PT. Gramedia Pustaka Tama.

Hadi, Sutrisno. 1992. Statistik 3. Jogjakarta: Andi Offset.

Harjatmoko. 2003. Etika, Politik dan Kebudayaan. Jakarta: Kampar.

Kartodirdjo, Sartono, 1992, Pendekatan Ilmu Sosial dalam MetodologiSejarah, Jakarta: Penerbit PT. Gramedia Pustaka Utama.

Muslimin, Ibrahim. 2000. Pembelajaran Berdasarkan Masalah. Surabaya: UNESA.

Nur, Muhammad. 1999. Teori Belajar. Surabaya: University Press UNESA.

_____ . 1989. Didaktik Metodik. Jakarta : Gramedia.

Poerwanto, Ngalim. M. 1986. Psikologi Pendidikan. Bandung: PT. Remaja

Rahmad, Jalahudi. 1985. Teori Belajar. Jakarta : Gramedia

R, Ibrahim dan Nana Syaodih. 1996. Perencanaan Pengajaran. Jakarta: Bumi Aksara.

Ruseffendi. 1980. Psokologi Umum. Jakarta : Balai Pustaka

Surachmad, Winarno. 1984. Pengantar Interaksi Mengajar dan Belajar. Bandung : Tarsito.

Suseno, F.M. 2003. Etika Politik. Jakarta: Gramedia.

Soetomo. 1993. Dasar-dasar Interaksi Belajar Mengajar. Surabaya: Usaha Nasional

Author's Biodata

Franciscus Xaverius Wartoyo is Lecture History Education of STKIP PGRI Sidoarjo.

yoyokwartoyo97@gmail.com

Utilization of ICT for Education in Support of Globalization

Galih Rakacita Rachman
Gunadarma University
Jl. Margonda Raya No. 100, Depok, Indonesia
galihrakacita@staff.gunadarma.ac.id

Reni Diah Kusumawati
Gunadarma University
Jl. Margonda Raya No. 100, Depok, Indonesia
reni_dk@staff.gunadarma.ac.id

Abstract

Digital era characterized by increasing technological development. Information and communication technology (ICT) support people in providing facilities such as obtaining information and doing some works. ICT developments can trigger globalization in various fields. Students as a generation that is prepared to face global competition needs to be addressed to become the generation that is ready to face globalizations. Provision of lessons, theory, and practice is expected to support students for facing globalizations. Virtual class (V-class) is one of activities carried out by universities in teaching and learning activities in which lecturers provide materials and exercises on lecture materials to students through lecturer's site, then students can download materials and do exercises given by lecturers, students can also interact with lecturer at the site to discuss lecture materials that is not understood by students. The purpose research is to examine the success use of ICT for students in globalization era. The results indicate that students are capable with the applications of ICT-based program and students were able to take advantage of V-class in increasing GPA. The results showed that majority of students have been preparing themselves to face global competition with all the lessons and practices that they have received.

Keywords: E-Learning; Globalization; ICT; Virtual Class

1. INTRODUCTION

Technological developments also influence the strategy designed by an organization, the development of technology led to significant changes perceived in the business world as shown by Gil and Frasquet (2007). Processing of business information that previously was done manually, now turned into a computer-based information processing. The increasing of human intention to information and communication technology (ICT) showed that people always pay attention to every change in their environment. ICT encapsulates all aspects related to the machines (computers and telecommunications) and the techniques used to collect, storing, manipulating, deliver, and present a form of information.

Along with the above statement, in the era of globalization of business need to be prepared on people who are ready to compete. The conscious or unconscious, educational challenge ahead will be heavier in order to create people who are ready to face the globalization era. The presence of ICT in education can be interpreted in three paradigms, (1) ICT as a tool or product of technology that could be used in education, (2) ICT as content or as part of a material that can be used as contents in education, (3) ICT as a program applications or tools for the effective management and efficient education. Utilization of ICT in teaching and learning can motivate students in understanding the lecture material by using the internet technology (Soyemi et al., 2012).

V-class activities can help students to still be able to receive lecture materials online beyond a lecture that received by students in the classroom, so that students can still receive lecture material and still be able to interact with the lecturer to discuss the lecture material although teaching and learning is done through Internet media. V-class as well as E-learning is utilizing the Internet as a medium of learning. E-learning is a term used to describe online learning, web-based training and technology instruction (Oye et al., 2010).

In addition to the use of ICT in teaching and learning process, students also take advantage of ICT in their daily lives, seen on their familiarity with proprietary technology goods such as information technology-based laptops, MP3/MP4, digital cameras, smart phones, etc. Smart phones can help students in the learning process. Smart phones with Internet connection allows students to search a variety of information that can help students in doing assignments, and seeking information.

2. LITERATURE REVIEW

In education, in order to obtain optimum benefit from the technology, people must be able to keep moving and keep abreast ranging from information-centric view to transforming education through a new approach which will create a knowledge society, or even create a creative society (Resnick, 2002). Students as a generation prepared to face the era of globalization need to get attention, so that they can properly absorb every material and practices given in lectures. ICT makes it easy for every user, every person who is able to utilize ICT well be satisfied because ICT has helped simplify their work (Timmor and Rymon, 2007; Saura et al., 2009).

Electronic learning has three main functions, the function of supplements that are optional, complementary functions (complement), and substitution function in learning activities in the classroom (Siahaan, 2009). Judging from the characteristics of online learning, then learning with V-class systems is a substitution category. V-class in the category of substitute because learning activities is not only give the teaching material but also comprehensive, which is V-class able to accommodate the learning system which regulates the role of the lecturer and the student's role, the interaction between lecturer and students, evaluation and monitoring system of learning.

V-Class is another form of E-learning activities in the use of ICT, in which an educational institution can offer other forms of E-learning such courses or other activities related to learning which use Internet or other online networks (Lorrain, 2007). V-class refers to the use of ICTs to improve and or support learning in university. The rapid development of ICT is also provides very significant impact not only in education but also in various aspects. Processing information previously done manually, now being done by automation with the use of ICT. The use of technology and excessive investment can be risky, because of that it required the use of appropriate technologies in accordance with the requirements (Sethuraman and Parasuraman, 2005). Previous research states that the success of the implementation of ICT policies largely depends on the practices in ICTs, not only on technical issues (Bandarouk, 2006; Bandarouk and Ruël, 2008).

The success of teaching and learning activities in education will give a good affect for students, with the GPA as a reference point (Davidson, 2002). Results of research conducted previously stated that the use of E-learning can improve students' academic performance (GPA) (Rodgers, 2008).

Based on the explanation above, the purpose of this study was to determine the affect of the implementation of V-class to student's GPA.

3. METHODOLOGY

The main objective of this study is to confirm the affect of perceptions, attitudes, and the implementation of V-class in the teaching-learning process to the GPA. Research carried out on

students at the Gunadarma University. The number of questionnaires returned was 255 out of 300 distributed. Linear regression was used in this study to analyze the data that has been collected through questionnaires. The scale used is Likert scale 1-5.

11. ReSULT AND DISCUSSION

The validity of the test results show the value above 0.138 (table r), and has a validity value of 100% for all variables, which means that all the items contained questions on the questionnaire are valid for all variables as shown in Table 1.

Table 1. Validity Test Results

		N	%
Cases	Valid	255	100.0
	Excluded[a]	0	.0
	Total	255	100.0

Reliability test results that have been done for all the questions items have alpha value greater than 0.70, meaning that each of the questions used in the questionnaire has a good level of reliability, or in other words the data from the questionnaire can be trusted as shown in Table 2.

Table 2. Reliability Test Results

Reliability Statistics

Cronbach's Alpha	N of Items
.745	37

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6691.840	3	2230.613	251.484	.000[a]
	Residual	1240.097	251	4.941		
	Total	7931.937	254			

a. Predictors: (Constant), Implementation, Attitudes, Perception

b. Dependent Variable: GPA

Values in Table 3 shows that sig. is below 0.005, the value indicates that simultaneously variables of perceptions, attitudes, and the implementation of V-class affect on GPA student. The

result meant that a good perception of student for the V-class can create students have a positive attitude and support for V-class activities, so the purpose of V-class can be achieve which is still be able to give lecture materials to students using internet media.

Positive perceptions of students about the V-class, student attitudes that support V-class activities, and the implementation of V-class in accordance with the policies will help students to absorb knowledge and use of technology to support their education. The activities will be able to prepare students to be ready to face competition in the era of globalization, both science and technology. Students who support the V-class will be used to leverage technology in support of their education, not only teaching and learning activities in lectures but also to get information that could support their education, so it can help to increase the GPA of students. These results are consistent with previous research which stated that the use of E-learning will affect student GPA (Oye et al., 2012).

Results of the partial test (t test) for the variables of perception, attitude, and the implementation of V-class used in the study as presented in Table 4.

Table 4. Partial Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-3.990	1.066		-3.742	.000
	Perception Variable	.484	.053	.363	9.078	.000
	Attitude Variable	.094	.047	.076	1.982	.049
	Implementation Variable	.785	.044	.588	17.943	.000

a. Dependent Variable: GPA

Partial test results showed the value sig. of perceptions, attitudes, and the implementation of V-class are 0.000, 0.049, 0.000, these results mean that the perceptions, attitudes and implementation of V-class partially affect on GPA of students. Positive perceptions of students about the V-class can help students in teaching and learning activities, due to the positive perception means that students are willing to do the V-class activities so that they can have a positive impact also for increasing their GPA.

Good attitude of the students regarding the activities of V-class shows that students are willing to follow the development of the technology by access the V-class willing to support their education. The attitude of the students in support of the V-class is indicated by following all the rules that

have been established in the implementation of V-class, such as downloading lecture materials provided by the lecturers that administer the subject and did every exercise given by lecturers to test the students' ability in absorb the lecture material that has been given.

V-class implementation with the use of technology will be able to succeed in improving teaching and learning activities when supported by the students. The successful implementation of the V-class can be seen with the increase in the value of student GPA (Davidson, 2002). Results of previous studies stated that the increase in the GPA can be achieved through learning activities such as through online system such as E-learning (Rodgers, 2008; Oye et al., 2012). E-learning and V-class activities are an activity that supports the teaching and learning process by utilizing Internet technology to give lecture materials.

Results of determinant test for the variables of perception, attitude, and the implementation of V-class used in the study as presented in Table 5.

Table 5. Determinant Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.919[a]	.844	.842	2.223

a Predictors: (Constant), Perception, Attitudes, Implementation

b Dependent Variable: GPA

Based on the results in Table 5 stated that the value of R square is 0.844, which means that the contributions affect of perceptions, attitudes, and the implementation of V-class on GPA of students is 84.4%, and the rest influenced by other variables which not included in the study his.

4. CONCLUSION

The results showed that simultaneously the variables of perceptions, attitudes, and the implementation of V-class affect on student's GPA. Partially, variables of perceptions, attitudes, and the implementation of V-class affect on student's GPA. Contributing affect variables of perceptions, attitudes, and V-class implementation on student's GPA is to 84.4%, where the rest influenced by other variables not included in this study.

Results of this study are expected to provide input for university in the fullest advantage of technological developments to improve the quality of education. Developments in technology can help students gain knowledge in addition that provided through the V-class and also take an advantage of technology to obtain a variety of information that can support to improved science for students.

College as a student studying should also be able to follow the development of technology, so students do not fall behind in science and technology. High support from the university can assist students in the development of science and technology, to create students who are able to compete in the era of globalization.

ACKNOWLEDGEMENTS

The authors would like to thank to Gunadarma University for all the support in this research, for the improvement of teaching and learning at the campus environment. The author is also grateful to friends and people around us for the ideas, comments, and support, and we also thank to students as our respondents for fulfill the questionnaire used in this research.

REFERENCES

Bandarouk, T. (2006). Action-oriented Group Learning in The Implementation of Information System: Results from Three Cases Studies. *European Journal of Information Systems*, 15 (1), 42-53.

Bandarouk, T. and Ruël, H. (2008). HRM System for Successful Information Technology Implementation: Evidence from Three Case Studies. *European Management Journal*, 26, 153-165.

Davidson, Ronald. (2002). Relationship of Study Approach and Exam Performance. *Journal of Accounting Education*, Ed. 20, 29-44.

Gil, I., Cervera, A., and Frasquet, M. (2007). Empleo de TIC y Efectos Relacionales en La Cadena Logística. *Boletín Económico de ICE* 2914, 31-48.

Lorrain, M. (2007). Strategies to Engage Online Students and Reduce Attrition Rates. *The Journal of Educator Online* (Electronic Version), Retrieved December 2007.

Oye, N.D., A. Iahad, N., Madar, M.J., and Ab. Rahim, N. (2012). The Impact of E-Learning on Students Performance in Tertiary Institutions. *International Journal of Computer Network and Wireless Communications*, 2(2), 121-130.

Oye, N.D., Salleh, M., and Iahad, N.A. (2010). Holistic E-learning in Nigerian Higher Education Institutions. *Journal of Computing*, 2 (11), 20-26.

Resnick, M. (2002). Chapter 3: Rethinking Learning in The Digital Age. *The Global Information Technology Report* 2001-2002, 32-37.

Rodgers, T. (2008). Student Engagement in The E-learning Process and Impact on Their Grades. *International Journal of Cyber Society and Education*, 1(2), 143-156.

Saura, I., Contrí, G., and Molina, M. (2009). Information and Communication Technology in Retailing: A Cross-industry Comparison. *Journal of Retailing and Consumer Services*, 16, 232-238.

Sethuraman, R., and Parasuraman, A. (2005). Succeding in The Big Middle through Technology. *Journal of Retailing*, 81 (2), 107-111.

Siahaan, Sudirman. (2009). E-Learning (Pembelajaran Elektronik) sebagai Salah Satu Alternatif Kegiatan Pembelajaran. http://www.depdiknas.go.id.

PRESENTER'S PAPERS

Soyemi, J., Ogunyinka, O., and Soyemi, O.B. (2012). Integrating Sel-paced E-Learning with Conventional Classroom Learning in Nigeria Educational System. *Mediterranean Journal of Social Science*, 3(4), 127-133.

Timmor, Y., and Rymon, T. (2007). To Do or Not To Do: The Dilemma of Technology-based Service Improvement. *Journal of Services Marketing*, 21(2), 99-111.

Author's Biodata

Galih Rakacita Rachman is a lecturer of Information System Department, Gunadarma University. Pray hard and work smart is his motto, and his achievement in music make him get Master Degree scholarship at Gunadarma University majoring Business Information System, and graduated on 2011. Mr. Rachman's motto and his achievement prompted him to have some own business, and he also active in some youth organizations. He began focus and active in education sector by attending some National and International conferences. His main research topic is about entrepreneurship. galihrakacita@staff.gunadarma.ac.id

Reni Diah Kusumawati has educational background in Management for Bachelor Degree, Accounting Information System for Master Degree, and PhD Degree at Gunadarma University Jakarta-Indonesia. She is a staff of secretary at Gunadarma University. Her main research topic is about costumer behavior and marketing. Besides that, she is interest with research about information system and trying to combine information system and economic sciences. Ms. Kusumawati is a member of PIKIN organization, that's one of organization in Indonesia for computer user. reni_dk@staff.gunadarma.ac.id

PRESENTER'S PAPERS

The Influence of Promotion and Compensation on Job Satisfaction at Kandatel X PT Telkom Indonesia

Ganjar Garibaldi
STIE EKUITAS BANDUNG
gjr_grbd@yahoo.co.id

Abstract

The lack of clarity in promotion program and compensation inequities led to employee dissatisfaction. The object of the study were 30 employees of PT Telkom Kandatel X. This study used questionnaire as a data collector with census technique that covered the whole population in data retrieval. The research method was descriptive with measures of association. Processing of data was done by transforming the data into data retrieval using MSI (Method of Successive Intervals). The analysis technique used was the technique of multiple regression analysis to measure the effect of promotion and compensation on job satisfaction of the employees of PT Telkom Kandatel X. The results revealed that the promotion variables affected the job satisfaction with a coefficient of 0.495. The compensation had an impact on job satisfaction with a coefficient of 0.459. The conclusion was that the promotion and compensation had a significant positive effect on employee job satisfaction. Should the company increase promotion and compensation to improve employee job satisfaction. Increased promotion and compensation can be done by regular employees evaluation and implementing a competitively standard basic salary and attractive so that it can improve the employee job satisfaction.

Keywords: ***compensation, job satisfaction; promotion***

1. Introduction

Global business competition becomes increasingly complex challenges for all companies in achieving their stated objectives. Various companies in a variety of scales, participate in a demanding global business strategy adjustments, along with the right management style, according to the place where they will perform the operation. Referring to these conditions, companies themselves need to always conduct environmental scanning. Various factors in the environment that affect the company, either directly or indirectly, should be taken into account by the company, in order to be used in line with the company's goals.

Factor technology, especially communications technology is an indispensable media and support to win business competition today. Because through these communication media will get the resources information, which is useful in important decisions and accurately, to achieve company goals. In response to technological developments and competition in the information and communications industry today, in general a lot of companies in Indonesia competes in the world of communication by creating new innovations. Indonesian telecommunications development is increasing along with the development of technology and telecommunications companies comes with a variety of communications products that follow the latest technological developments.

PT Telekomunikasi Indonesia, or PT Telkom was company as well as telecommunication and information service provider and the largest telecommunications network in Indonesia. With increasingly fierce competition in the business, PT Telkom should be able to maintain the continuity of the company's activities in order to stay under control and be able to improve the competitiveness and the company's image in society. In order to create continuity and good image,

PT Telkom should be able to give satisfaction to its employees so that employees in the company's performance continues to increase.

The level of satisfaction of employees at PT Telkom needs to be noticed considering the changes in the business environment that will have an impact on changes in the duties and responsibilities of all employees. To increase employee satisfaction PT Telkom made several attempts including that through the provision of incentives, salary increases periodically, provision of the benefits, as well as their chances of a possible sale. Based on the opinion of observations some Kandatel Manager X PT. Telkom, discovered the phenomenon of dissatisfaction of employees at PT Telkom Kandatel X. Granting compensation in PT Telkom Kandatel X felt was unfair because of the compensation provided by the company are not in line with expectations and the workload, given pengkompensasian has been set from the central office, workload given by PT Telkom Kandatel X is considered less appropriate start. On the other hand, the company always requires employees to be able to provide optimum service that employees are less satisfied in completing the tasks given.

In addition to the issue of compensation, another factor which became one of the cause of employee dissatisfaction in PT Telkom Kandatel X is, lack of clarity of the promotion program. The Company already has specific criteria for an employee to be able to occupy an official position. But in fact, of some of the interviews that I did, several times a staffing management did by way of placement of the external unit of the company, which is of course contrary to the requirements of a term of at least 3 years in an environment of PT Telkom Kandatel X as required.

Table 1. The percentage of Employee Satisfaction in PT Telkom Kandatel X

No.	Job Satisfaction Aspect	Percentage
1.	Pekerjaan itu sendiri	86%
2.	Co-Workers	91,33%
3.	Suprvision	90,66%
4.	Pay	60,33%
5.	Promotion	47,33%

Source: Research Data Processing, 2015

Table 1 is an author of the research data to determine the factors that cause dissatisfaction in PT Telkom, especially in the Regional Office of Telkom (Kandatel) X. From the table above it can be seen that a factor compensation and promotion opportunities have a lower percentage. This shows that the satisfaction level of employees at PT Telkom is not optimal, so that it can be concluded that the employee is still not satisfied with the system of compensation and promotional opportunities that exist in PT Telkom so can cause employees to switch to another company that can give more satisfaction to the employee own.

Formulation of the problem

Based on the background described above, the issues to be studied are identified as follows: How does the promotion and compensation of employees of job satisfaction in PT Telkom Kandatel X, either partially or simultaneously.

Purpose and Objective

Purpose of this study is to find, process and present information and data to obtain clarity regarding the effect of promotions and compensation to employee satisfaction at PT Telkom Kandatel X. The objectives to be achieved in this study are: Determine the influence of Promotion and Compensation for Satisfaction employee at PT Telkom Kandatel X, either partially or simultaneously.

Literature Review

Promotion

Promotion is a stage where human resources are well rewarded for his efforts with a new position to get a higher position and strategic. With the promotion means no trust and recognition of the abilities and skills of employees concerned.

According to Raymond Noe & Hollenbeck (2015: 428) promotion is; advancement into positions with greater challenges, more responsibility, and more authority than the employee's previous job. According to Dessler (2015: 385) is the promotion of progress into positions with greater responsibilities. According to Mondy (2008: 177) sale is the transfer of a person to a position at a higher level in the organization. The term promotion is one word that is very uplifting in the field of human resource management. The author argues that the sale is a transfer position in the organization that magnifies the task, challenge authority, status, and the responsibilities and privileges.

There are three components that are the basis for promotion. According to Dessler (2009: 46) the fundamentals of the promotions are:

a. Seniority

Where positions based on length of service and experience that is owned by the employees. Usually, employees who have a working period of time will have more experience.

b. Competence

In this case the employees have the competencies given priority for promotion to higher office. competence in question is the ability in terms of practical implementation of work procedures, special techniques and disciplines of science, the ability to unify and harmonize the elements involved in the preparation of management policies and the ability to provide direct motivation.

c. The Combination of Seniority and Competence

This promotion is based on the duration of the service, which is owned formal diploma and class promotion test results.

Compensation

Compensation is an expense and costs for the company. The company expects these expenses and the cost of obtaining payment of compensation greater job performance of employees of these firms to get a guaranteed profit. The following will put forward some definitions compensation:

According to Dessler (2009: 46) Compensation of employees is all forms of payments or gifts given to employees arise from their work. Meanwhile, according to Mondy (2008: 4) The compensation is the total remuneration received by employees in lieu of their services. The compensation given by the company to the employees of various kinds. According to Dessler (2009: 46) compensation can be divided into two components as follows:

1. Direct payments (direct financial) in the form of salaries, wages, incentives, commissions and bonuses.

2. Payment indirectly (indirect financial) in the form of financial benefits such as insurance and vacation paid for by company.

In the implementation of compensation not be separated from the internal and external factors. This should be considered by the company to the implementation of the compensation can actually walk properly, causing a positive impact for the company.

Job satisfaction

Job satisfaction is an individual thing. Each individual will have a level of satisfaction varies according to the value system that applies to him. This is caused because of disagreements on the individual, the more aspects of the work in accordance with the wishes of the people, the higher the perceived level of satisfaction, and vice versa.

According to Robbins (2008: 107) Job satisfaction is as a positive feeling about the work of someone who is the result of an evaluation of its characteristics. Meanwhile, according to Gibson (2000) in Wibowo (2013: 501) express satisfaction with work is the attitude of the workers about their jobs. It is the result of their perception of the job.

A similar opinion was expressed by Robbins (2008: 110) that can affect job satisfaction are as follows:

1. ork it self
2. Co-workers
3. Supervision
4. Pay
5. Promotion

Employee dissatisfaction can be expressed in a number of ways. According to Robbins (2008: 111) 4 (four) the way employees in expressing their dissatisfaction among others, are as follows:

1. Exit
The behavior shown to leave the organization, including new positions and resigned.
2. Aspiration
Actively and constructively trying to improve conditions including suggested improvements, discuss the problem with your supervisor and some forms of trade union activity.
3. Loyalty
Remains optimistic passively waiting for improved conditions, including the defense of the organization when dealing with external criticism and trust the organization and management to do what is right.
4. Abandonment
Passively let the condition get worse, including absenteeism or tardiness continuous, lack of effort and an increasing number of errors.

There are many ways to measure employee satisfaction in an organization or a large corporation or a small company. According to Robbins (2008: 108) to measure employee satisfaction can be used several ways, including the following:

1. Single global rating, which is none other than to ask people to respond on a question such as: considering all things, how satisfied are you with your work. Respondents answered between highly statisfied and high dissatisfied.
2.Summation score. Identify the key elements in the work and asked the workers feelings about each element. Specific factors taken into account are: the nature of work, supervision, current wages, promotion opportunities and relationships with coworkers. This factor in the ranking on a scale that is standardized and added to create job satisfiction overall score.

Previous Research

Here are some previous studies that support the creation of this hypothesis.

Table 2. Previous Researches

No.	Writers	Variables
1	Fiadzin,C. (2012)	Compensation, Promotion, Job Satisfaction
2	Setiawan, O. (2013)	Compensation, Promotion, Job Satisfaction
3	Sutarjo,A. (2008)	Compensation, Promotion, Job Satisfaction
4	Muhammad Ehsan Malik *et al.*(2012).	Compensation, Promotion, Job Satisfaction

Conceptual Framework for Research
The hypotheses formulated in this study are as follows:

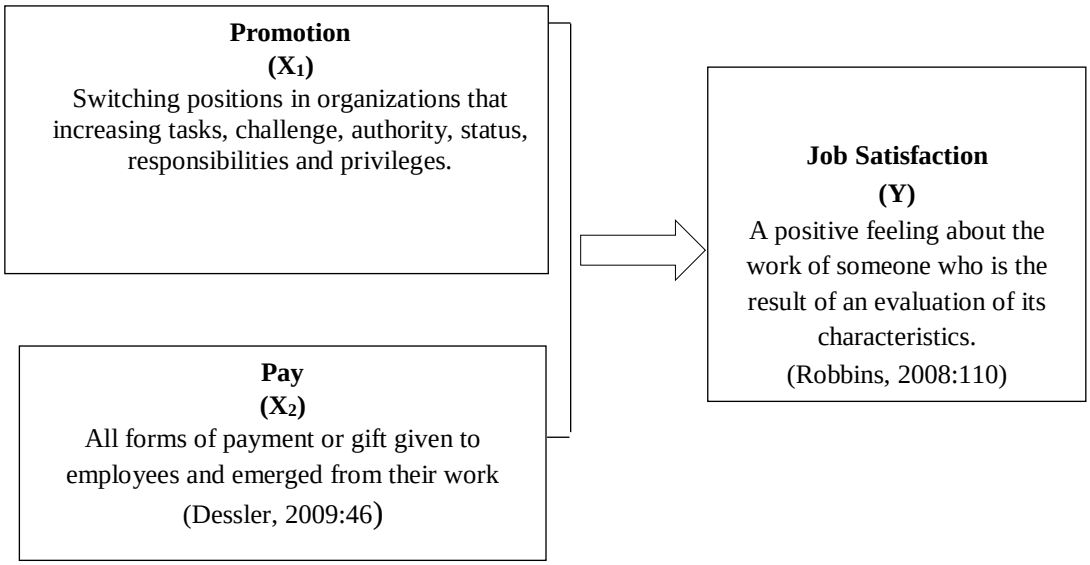


Figure 1. Conceptual Framework for Research

Research Hypothesis

In a simple hypothesis can be formulated that the definition is temporary answer to the formulation of the problem in a study, Sugiyono (2011: 64). Based on the information the authors formulate the hypothesis proposed in this study are:

1. Ho: Promotional have not positive effect on employee job satisfaction. Ha: Promotions positive effect on employee job satisfaction.
2. Ho: Compensation have not a positive influence on employee job satisfaction. Ha: Compensation positive effect on employee job satisfaction.
3. Ho: Promotion and Compensation have not positive effect on employee job satisfaction. Ha: Promotion and Compensation positive effect on employee job satisfaction.

Results and Discussion

This chapter discusses the description and analysis of data obtained from the primary data and secondary data. Primary data of this study is the result of a questionnaire distributed to employees of PT Telkom Kandatel X. The data is the main data which is supported by secondary data were obtained from the analysis of field observations and some literature sources to strengthen and deepen the analysis.

The research data is the number of scores obtained from respondents' answers to questions or statements about variable Promotion (X1), variable compensation (X2) and Job Satisfaction variable (Y). The results of the study will describe how the influence of promotions and compensation to job satisfaction in PT Telkom Kandatel X.

Multiple Regressions

Multiple regression was conducted to determine whether the promotion (X1) and compensation (X2) effect on job satisfaction (Y) it can be seen by using multiple linear regression analysis using computer software known as SPSS 20 (Statistical Program For Social Science). For more details will be outlined as follows:

Multiple linear equations to be formed are:

Y = a + b1x1 + b2X2 .... (1)

Based on calculations using SPSS data is then obtained by regression as follows:

Y = 5,910 + 0,495X1 + 0,495X2

Values a and b_i in the equation above can be interpreted as follows:

a = 5,910 5,910 Constant value is meaningless if the two independent variables promotion (X1) and compensation (X2) a constant value (zero), then job satisfaction (Y) will be worth 5,910.

b1 = 0,495 regression coefficient promotion (X1) worth 0,495 pales promotion (X1) increased by one unit and compensation (X2) is constant, then the job satisfaction (Y) will increase by 0,495

b2 = 0,495 compensation variable regression coefficient (X2) pales compensation (X2) increased by one unit and promotion variable (X1) is constant, then the job satisfaction (Y) will be increased by 0,495.

The regression coefficient berrnilai positive means of promotion and compensation positive influence on job satisfaction of employees at PT Telkom Kandatel X, the higher the level of promotion and compensation given the greater level of employee satisfaction.

Analysis Correlation Coefficient

Analysis of multiple correlation coefficient is used to find the strength of the relationship between the independent variable (X) and dependent variable (Y). In this study, correlation analysis is used to determine the extent of the relationship between the variables of promotion and compensation together on job satisfaction in PT Telkom Kandatel X.

Coefficient of Determination

Determiniasi coefficient (R2) is the square of the correlation coefficient (R) which is used to measure how far the ability of independent variables simultaneously to contribute to or influence on the dependent variable. Then calculating the coefficient of determination with the following formula:

$Kd = r^2 \times 100\%$..... (2)

Table 2. Results of Testing Correlation and Determination

Hypothesis	Pearson Correlation Analysis	Determination
Effect of Promotion and Compensation for job satisfaction.	0,758	0,575
Effect of Promotion on job satisfaction.	0,624	0,233
Effect of Compensation for job satisfaction .	0,686	0,341

Source: Data Processing Results SPSS 20, 2014

Based on the above table, it can be seen the correlation coefficient R of 0.758, which means a strong link between promotion and compensation on employee job satisfaction in PT Telkom Kandatel X, meaning that the higher the level of promotion and compensation for the increased level of employee satisfaction. the relationship between promotion (X1) with job satisfaction is 0.624 indicating a strong relationship means that the higher the level of promotion increasing employee satisfaction. While the relationship between compensation (X2) and job satisfaction is at 0.686 which belong to the strong relationship means that the higher the level of the compensation, the increased satisfaction of employees at PT Telkom Kandatel X.

With a value of R2 or determination of 0.575 or 57.5% showing that the promotion and compensation simultaneous influence on job satisfaction variables of 57.5% while the rest of 100% -57.5% = 42.5% is the influence of other variables researched as leadership, work environment, co-workers, the level of employment. Based on the calculations above, then promotion in PT Telkom Kandatel X contributing influence on job satisfaction of 23.3% and compensation contributed influence on job satisfaction 34.1%, so it can be seen that in PT Telkom Kandatel X greatest influence came from variable compensation (X2) is the percentage obtained was 34.1%.

Conclusions and Recommendations

Conclusion

Based on the analysis and discussion that has been raised previously about the effect of sale (X1) and compensation (X2) to job satisfaction (Y) in PT Telkom Kandatel X writer can give the following conclusion:

1. Promotion at PT Telkom Kandatel X has not run up, this could be caused due to PT Telkom Kandatel X not apply specific criteria to promote such employees based on responsibility, self-confidence, or the knowledge held by employees. This needs to be

considered by the attitude of the boss at the company so that employees get recognition at work and can improve employee job satisfaction.

2. Compensation is felt most employees at PT Telkom Kandatel X is the assignment of indirect compensation in the form of facilities for companies such as, parking lots, rest areas, and incentives provided by the company to its employees, it is in giving benefits may increase welfare of its employees, but the provision of compensation in the form of salary based on the employee's job responsibilities also important because it can improve employee job satisfaction.

3. In the PT Telkom Kandatel X majority of their employees like the job that is challenging and fun as well as work in accordance with the capability of being owned employee in completing the work. Satisfaction of employees at PT Telkom Kandatel X can be affected by promotion and compensation, promotion and compensation means have a strong relationship to improve employee job satisfaction, so the better administration of the promotion and compensation of employees will further increase employee job satisfaction.

Recomendations

Based on the conclusion of the study, the authors would recommend regarding the promotion and compensation to job satisfaction, among others:

1. The company should pay attention to promotion procedures to avoid mistakes that will ultimately hurt the company by evaluating employees on a regular basis, objective, and establish clear requirements and establishes the principle of the right man in the right job with such promotions granted to employees in accordance with its competence. It is effective to develop an employee's career, especially promotions that will ultimately increase job satisfaction.

2. The company should increase the compensation by applying a standard of basic salary competitive and attractive and allowances in accordance with the necessities of life, so that it can improve employee job satisfaction and employee loyalty to the company

3. The company should enhance the promotion and compensation by evaluating employees regularly and objectively and in awarding compensation the company should be able to apply the basic compensation and allowances granted in accordance with the needs of employees so that it can increase employee job satisfaction. For future studies should involve researchers variables and other indicators that can affect job satisfaction of employees at PT Telkom Kandatel X. Considering the contribution based on these results given the influence of promotions and compensation to employee job satisfaction is not maximized 55.5%.

Literature Review

Baron, R.A and Greenberg, J. (2010), *Behavior In Organization*: *Understanding and Managing Human Side of Work*, New Jersey: Prentice Hall.

Dessler, G. (2015), *Manajemen Sumber Daya Manusia*, Ed.14, Jakarta: Salemba Empat. .

Dessler, G. (2009), *Manajemen Sumber Daya Manusia*, Jilid 2, Ed.10, Jakarta: PT Indeks.

Handoko, T.H. (2008), *Manajemen Personalia dan Sumber Daya Manusia*, Yogyakarta: BPFE.

PRESENTER'S PAPERS

Luthans, F. (2007), *Organizational Behavior*, Ed.7, Singapore: McGraw Hill, Inc.
Mondy, R.W. (2008), *Manajemen Sumber Daya Manusia*, Jakarta: Erlangga.
Mathis, and Jackson. (2006), *Manajemen Sumber Daya Manusia*, Jakarta: Salemba Empat.
Noe et al, (2015), *Human Resources Management, Global Edition, Mc Graw Hill.*
Robbins, S and Coutler, M. (2007), *Manajemen* Jakarta: PT Indeks.
Robbins, S and Judge, T. (2015), *Perilaku Organisasi*, Ed 16, Jakarta: Salemba Empat.
Sugiyono. (2012), *Metode Penelitian Bisnis,* Bandung: Alfabeta.
Sugiyono. (2009). *Statistika Untuk Penelitian*, ed : 14. Bandung: Alfabeta.

Faidzin, C. (2012), Pengaruh Kompensasi dan Promosi Jabatan terhadap Kepuasan Kerja Karyawan, *Jurnal Studi Manajemen dan Organisasi*, Vol.1 No.2, hlm 1-14.
Malik, Ehsan. dan Munir, Y. (2012), The Impact of Pay and Promotion on Job Satisfaction: Evidence from Higher Education Institutes of Pakistan, *American Journal of Economics,* Vol. 3 hlm 6-9.
Oky, Setiawan. (2013), Pengaruh Kompensasi Finansial, Promosi, dan Lingkungan Kerja Fisik terhadap Kpeuasan Kerja Karyawan, Vol. 1 hlm 781-801.
Rakhman, A. (2013) Faktor-Faktor yang Mempengaruhi Kepuasan Kerja, *eJournal Administrative Reform,* Vol. 1 hlm 316-327.
Sutarjo, A. (2008). Pengaruh Budaya Organisasi, Sistem Kompensasi, dan Promosi terhadap Kpeuasan Kerja. Vol. 1 hlm 1-18.
Yaseen, A. (2012), Effect of Compensation Factors on Employee Satisfaction- A Study of Doctors Dissatisfaction in Punjab, *International Journal of Human Resource Studies,* Vol.3 hlm 142-157.

Author's Biodata

Ganjar Garibaldi SE., M Si. is a lecturer at STIE EKUITAS, Subject teach, as well as research, and community service, accomplishments are subjects relating to clump HRM and Organizational Behavior. Bachelor and science master level studies are completed at Padjadjaran University. His Models that have been made, namely; Garibaldi Winning Election model, and Garibaldi Motives Model.

Teachers' Experience in Implementing Cooperative Learning in the Classroom (Phenomenological Research at Junior High School Classes in Ponorogo)

Harjali
STAIN Ponorogo
Luc_ky_09@yahoo.co.id

Abstract

Cooperative learning has been widely adopted as one of the dominant instructional practices through the world to include in higher education classrooms and in professional training seminars. Cooperative learning continues to be one of the most researched topics in elementary and secondary education. This study aims to investigate the teachers' experience in implementing cooperative learning in teaching and learning process and its meaning. The research involved a qualitative phenomenological design that employed a purposeful sample of teachers at Junior High School Classrooms in Ponorogo. Data were collected via in dept interviews and participant observations. In analyzing the data, the writer evaluated the interview transcriptions and the observation field notes which were organized into relevant themes. Cooperative learning has positive effects on students and teachers. These positive effects impact the feelings of the students as well as the teachers. As the teacher and the students engage in the experience there is reciprocal teaching as well as reciprocal learning and all benefit. The students and teachers learn from those around them. The participants who had had minimal knowledge of cooperative learning realized that there was unique difference, teachers with a general and limited understanding of cooperative learning expressed problem in planning and control, whereas the teachers with a detailed understanding recognized the need for a delicate balance between teacher control and student autonomy.

Keywords: cooperative learning, junior high school, teachers' experience

To achieve the goal of academic success in the classroom, various instructional methods and strategies have been promoted as effective in the educational process. One such method is cooperative learning. Cooperative learning continues to be one of the most researched topics in elementary and secondary education (Johnson & Johnson, 2009; Slavin, 2009). In fact, Johnson and Johnson (2009) stated that some studies have been conducted highlighting cooperative learning's effectiveness as an instructional technique in a variety of elementary and secondary subject areas, with different students, and across various cultures (Johnson & Johnson, 2009; Slavin, 2009). Many instructional practices have been recommended during the past 60 years with the vast majority of them never being adopted or being dropped over time as fads (Johnson & Johnson, 2009: 365).

Cooperative learning has been widely adopted as one of the dominant instructional practices through the world (Johnson & Johnson, 2009: 365), to include in higher education classrooms and in professional training seminars. However, as Gall, Gall, and Borg (2003) point out, a gap often exists between what researchers know and what practitioners do, especially what practitioners feel comfortable doing or what they do well based on research evidence. Nowhere does this appear to be more clearly demonstrated than with cooperative learning (Sharan, 2010). Although it enjoys near paradigmatic status in education methods textbooks and although it has a strong empirical foundation (Slavin, 2009), cooperative learning nonetheless continues to be misused and under-utilized by teachers (Sharan, 2010).

Slavin (2009) has also highlighted the pitfalls and dangers of using cooperative learning without fully understanding its requirements as a teaching technique. He has been a strong

advocate of training teachers in the proper fundamentals of cooperative learning (highlighting the importance of roles, goals, and accountability) and of distinguishing cooperative learning from group work. Moreover, (Sharan, 2010) has pointed out, considerable variation exists in the success of cooperative learning depending on, among other things, cultural and institutional impediments, training and professional development, and teacher perceptions. For teachers and other educational professionals, then, the question has become not whether cooperative learning works but instead why do teachers continue to use, and how can it be implemented in ways that produce desirable and intended results ? To answer these questions, the current phenomenological qualitative study investigated teachers' experience toward the implementation of cooperative learning instructional strategies in classrooms.

Cooperative learning's usefulness in the classroom to achieve meaningful educational outcomes is well established (Johnson, & Stanne, 2000; Marzano, Pickering, & Pollock 2001, Slavin, 2006). The research indicates that cooperative learning is an effective instructional strategy supported by a wealth of empirical studies highlighting its effectiveness (Johnson, Johnson, & Stanne, 2000). What has not been widely studied, however, is the gap between research and practice: why cooperative learning is not used more often in the classroom (Kagan, 1999, 2009; Randall, 1999), given its elevated status and strong research support.

Kagan (1999) suggests that issues dealing with difficult clients, the student who refuses to work with others, the rejected student, the hostile student, and the shy student all affect the process. These issues, as well as teacher reluctance toward trying a new teaching method which some considerations (Randall, 1999: 29), may deter some from exploring the educational benefits of its use in their own classroom.

Even though cooperative learning is widely viewed as an effective method of teaching and has a solid empirical foundation, teachers may not use it as frequently because of the challenges faced. Kagan (2009) has described some of the issues such as time consumption, lesson preparation, noise levels in the classroom, individual grading, student absenteeism, difficult students, and gifted and special education student needs. These factors, along with the release of the teacher's control of the classroom (McManus, 2002), may cause unwanted stress on the part of the teacher. This stress may also present itself as teachers feel unsure of exactly how to implement specific cooperative learning structures (Walters, 2000). Educators understand and accept the necessity of meeting standards or showing the value of education. In defiance of what every educator has learned, there is a glaring absence of the most basic elements of an effective lesson: an essential, clearly defined learning objective followed by careful modeling or a clear sequence of steps, punctuated by efforts during the lesson to see how well students are paying attention or learning the material. This accounts for an alarming gap between what we know and what we do. (Schmoker, 2006: 16) This successful relationship between instructional strategy and clear objectives is evaluated by achievement testing. The repeated clarification that students are engaged in the learning process ensures that the goals and objectives are met.

The main conceptual theory that used throughout the research in cooperative learning is Bandura's (1986) social learning theory. The social learning theory, which closely resembles the social cognitive theory, and sometimes now referred to as social interdependence theory (Johnson & Johnson, 2009), was developed by Albert Bandura in his studies on adolescent aggression. Bandura was significantly influenced by the behavioral learning theories at the time, and many of his studies involved observational learning (as cited in Ormond, 1999). This is where Bandura termed the popular concept of reciprocal determinism. Reciprocal determinism indicates that a person's behavior can be conditioned by the environment through operant conditioning, but a person's behavior can also have an impact on the environment (Salkind & Rasmussen, 2008: 842).

Social learning focuses on the premise that individuals learn by observing others. These observations may be real, as presented on the news, or created as presented through television, movies, and other media sources (Bandura, 1986). These influences that are modeled to the individual have an impact on that individual's personality and may cause changes in thought and behavior. Either way, the individual's learning is altered based on the observational modeling (Slavin, 2006). The general principles of social learning are; (a) people can learn by observing the

behavior of others and the outcomes of those behaviors; (b) learning can occur without a change in behavior; and (c) cognition plays a role in learning (Ormrod, 1999: 1).

Another important concept within the tradition of social learning is modeling (Bandura, 1986). People and the environment reinforce modeling. Individuals pay attention to the model, they retain the information, they replicate the behavior, and they are motivated toward change, much like in the case of a physical education teacher demonstrating jumping jacks, and students imitate (Slavin, 2006: 154). This makes modeling a very powerful tool in social learning theory.

The second theory commonly used as a conceptual lens through which to explain cooperative learning is the socio-cultural theory developed by L. S. Vygotsky (1978) in his observations of children. Vygotsky strove to understand how human's social and mental activity is organized through culturally constructive artifacts (Lantolf, 2000: 1). In developing the framework for his theory, Vygotsky (1978) focused on a higher set of mental abilities and proposed four genetic domains within these higher functions: phylogenetic domain, socio-cultural domain, the ontogenetic domain, and the micro-genetic domain (Lantolf, 2000: 3). As it relates to cooperative learning, the socio-cultural learning theory focuses on the ontogenetic domain since this involves the exploration of memory and thinking (Lantolf, 2000, p. 3).

Vygotsky (1978) focused on self-talk and language as well. He coined the term scaffolding' to illustrate learning in a step-by-step process and the term reciprocal teaching,' which allows for teaching and learning to take place between students and teachers. In reciprocal learning, all members benefit from the experience. This mutual benefit has been cited as one of the main reasons why sociocultural theory is viewed as a conceptual framework for cooperative learning as students work in groups, learning from each other in a reciprocal way (Lantolf, 2000). Another major concept of Vygotsky (1978) was the zone of proximal development. He developed this term in such a way that it has come to mean the ability to learn and achieve when acting completely alone versus what can be accomplished when acting with support from someone else and or cultural artifacts (Lantolf, 2000: 17).

In the socio-cultural theory, individuals' interactions with each other and their environment do contribute to the learning process (Vygotsky, 1978). Collaborative learning in the social environment can be an exciting process because individuals collaborate on instructional material to develop optimum learning. In addressing the zone of proximal development, the scaffolding process in which students learn on their own and with the help of others is paramount to cooperative learning (Slavin, 2006). This peer related learning allows for cultural collaboration through differentiated means. Students become engaged in tasks at a greater level when working together and the combined outcome can be a socially beneficial experience for all. Because peers are usually operating within each others' zones of proximal development, they provide models for each other of slightly more advanced thinking (Slavin, 2006: 45).

The important component in instruction and student learning is ensuring that teachers focus on processes and procedures that facilitate effective learning from varied instructional strategies (Lowman, 1995; Schunk, 2004; Slavin, 2009). This instructional priority in the learning process is to make certain that each learner has maximum opportunity to benefit from high quality experiences (Haystead & Marzano, 2009). These high quality learning experiences promote the potential for greater learning and achievement test scores. Academic achievement is obtained by an assortment of instructional strategies effectively implemented by the teacher. One of the goals of effective instruction would include the use of different strategies in the classroom to help students achieve mastery in the most effective way while maximizing student engagement (Marzano, Pickering & Pollock, 2001; Schmoker, 2006).

The traditional teacher format is one of the most popular instructional methods still used today, and it has been shown to be effective (Slavin, 2009; Yerigan, 2008), especially when several well defined concepts need to be mastered in a short period of time (Gunter, Estes, & Schwab, 2003). Others claim that the lecture is less effective when the goal is for conceptual understanding or when exploration, discovery, and open-ended objectives are the objects of instruction (Slavin, 2009: 199). Although research has shown this kind of significant conceptual change to be achievable with direct instruction (Klahr & Nigam, 2004), others believe more

collaborative, social constructionist teaching methods to be superior (George, 2005; Tomlinson, 2003).

Jerald (2006: 4) notes that one instructional strategy may not serve all students' learning styles. Thoughtful teachers employ a variety of strategies to ensure that students develop basic skills and can apply those skills to complex tasks grounded in real-world challenges. These multiple instructional strategies allow all learners the opportunity to develop equally within the classroom environment. Teaching to a multicultural classroom population brings instructional challenges. Finding the right instructional strategies that engage the student learner in the process may encourage more effective learning.

In the process of evaluating instructional strategies informed by social learning and socio-cultural theory, a popular and widely held pedagogical philosophy is that instructors should incorporate differentiated instruction (George, 2005; Tomlinson, 2003), which according to the Association for Supervision and Curriculum Development, focuses on whom we teach, where we teach, and how we teach (2006). Teachers are finding it increasingly difficult to ignore the diversity of learners who populate their classrooms (Tomlinson & McTighe, 2006: 1). Culture, race, language, economics, gender, experience, motivation to achieve, disability, advanced ability, personal interests, learning preferences, and presence or absence of an adult support system are just some of the factors that students bring to school with them (Tomlinson & McTighe, 2006).

Differentiated instruction, as an application of social constructionist philosophies of teaching, offers a framework for addressing learner variance as a critical component of instructional planning (Hubner, 2010). Its role in the learning process is to make certain that each learner has maximum opportunity to benefit from high quality experiences. Tomlinson and others (see George, 2005) believe that utilizing different approaches as well as many other varied styles of instruction greatly enhances the learning environment (Tomlinson & McTighe, 2006).

METHOD

Researcher employed a qualitative phenomenological design which sought to explore the teachers' experience in implementing cooperative learning in the classroom. Qualitative research is defined as an approach to social science research that emphasizes collecting descriptive data in natural settings, uses inductive thinking, and emphasizes understanding the subject's point of view (Bogdan & Bilken: 274). Furthermore, concerning the qualitative research (Ary, Jacobs, Razavieh and Sorensen, 2006:31) state, qualitative researchers seek to understand a phenomenon by focusing on the total picture rather than breaking it down into variables. The goal is a holistic picture and depth of understanding, rather than a numeric analysis of data. This qualitative approach was chosen for this study as the nature of the research and analysis of the information reflects the questions identified.

The writer applied a phenomenological method for this study because phenomenology begins with the assumption that multiple realities are rooted in subjects' perspectives (Ary, Jacobs, Razavieh, & Sorensen, 2006: 33). This type of study is designed to describe and interpret an experience by determining the meaning of the experience as perceived by the people who have participated in it (Ary et al., 2006: 461). It is possible that each of the participants has a different perspective which provides essential data. The perspective of the participant is their reality of the situation. Each experience was viewed through the lens of the individual participant. The element that distinguishes phenomenology from other qualitative approaches is that the subjective experience is at the center of inquiry (Ary et. al., 2006: 461).

The instrument for collecting data were; interviews, participant observations, field notes, reflections, and information from different documents. A large part of the documentation was from interviews as the primary data collection tool along with observations that were compiled from the field notes. Interviews were scheduled and took place with 6 teachers. Each participant was aware of the questions before the interview to allow time for reflection. Each interview was tape recorded and transcribed afterward verbatim. Emphasis was placed on the teacher interviews to gain a perspective from the teacher's point of view on the use of the cooperative learning instructional strategies in the classrooms. These interviews were triangulated with the classroom

observations as the teachers were observed while they implemented the different cooperative learning instructional strategies in their classrooms. The tape recorded interviews were later transcribed verbatim and several member checks of the interviews as well as the observations followed to clarify responses. These member checks of the observations and the interviews provided the participants the ability to know exactly what was documented assuring them that only information concerning the study.

The data gotten through the interviews, observations, transcriptions, and field notes were filtered through these participants' experiences. Furthermore, when combining phenomenology with reductionism, defined by Sloane (1945: 217) as the attempt to explain a complex interrelated whole in terms of its simpler elements or parts or in terms of elements belonging to a lower level of phenomena, this study utilized both approaches to analyze and reduce information to emerging themes, drawing from the participants' interpretations of their world to see if this group of people shared a similar experience. In phenomenology, What is important to know is what people experience and how they interpret the world (Patton, 2002: 107). In analyzing the data, I evaluated the interview transcriptions and the observation field notes which were organized into relevant themes.

The writer conducted classroom observations as a triangulation strategy (Patton, 2002). This data triangulation allowed me to use both sources to compare and contrast the data from interviews with that from the observations the findings. Notations were made throughout the process and two column memo was effective during both the observations and the interviews (Creswell, 2007). The writer interpreted the information and the responses in order to analyze and accurately describe the perceptions of the teachers. Particular emphasis was given to the interpretation of the teacher's perspective in the learning process in regards to cooperative learning training and its use in the classroom.

The writer read the interviews and field notes, reviewing all relevant data. All data were reduced, typed, and organized accordingly. A reflective log was kept throughout the research process to document running thoughts and assessments. Findings from the interviews and observations were accumulated, documented and examined to determine any phenomenological base or frequency of the data (Bloomberg & Volpe, 2008; Creswell, 2009). All participant information was analyzed to determine if there were any significant findings in the teachers' experience in implementing cooperative learning strategies in the classroom. Emergent themes were documented and analyzed adapted from Moustakas (1994) are:1) Bracketing and phenomenological reduction; 2) Delineating units of meaning; 3) Clustering of units of meaning to form themes; 4) Summarizing each interview, validating it and where necessary modifying it; 5) Extracting general and unique themes from all the interviews and making a composite summary.

DISCUSSION

Implementation

When the 6 participants were asked to talk about their use of cooperative learning, all concurred that they had had positive experiences, both for the students and themselves. These included comments about the students getting to know each other better, accepting their group roles, learning to interact with each other, being willing to take some risks with their learning, and manage their time more effectively. The benefits the teachers perceived that they derived from using cooperative learning included that it helped them to better manage and structure their lessons and make them more challenging. The classroom tends to be a far happier and more enjoyable place for the students to be.

As consequence, when cooperative learning is well structured so that students understand how they are to work together to achieve their group's goal, students benefit socially and academically from their small-group experience (Johnson & Johnson, 2000; Slavin, 1996). They emphasized that cooperative learning can increase students' interest in learning and change their

attitudes toward learning too. Similar findings was noted by (Mentz, van der Walt and Goosen, 2008) It was distinguished that retention of material increased, students seemed to experience a greater sense of accomplishment, students enjoyed the structures, cooperation and sharing amongst students increased, students became more patient, others' opinions were respected more, student engagement dramatically increased, students took a greater ownership of their learning, communication skills were developed, and learning became fun according to the students. The participants also indicated that as the students became more engaged and the benefits were seen and felt throughout the classroom, it made the experience for the teachers a more positive experience as well in a reciprocal effect. As the cooperative learning structures became easier for the teachers to implement, the stress level decreased while the enjoyment of the experience increased.

Teachers' understanding

Teachers' cooperative learning knowledge affected the way they perceived and managed factors such as students' age and class size, student behavior, and teacher control and planning. Moreover, this study shows that the extent to which factors were perceived as barriers to cooperative learning, or issues that could be effectively managed by teachers, differed depending on the teacher's knowledge of cooperative learning features and function. On the one hand, participants who were classified as having detailed cooperative learning knowledge did not see the age of students as a barrier to effective implementation. Instead they demonstrated the ability to assign roles and tasks to students of ranging abilities. They saw student behavior as something that could be managed through teacher planning and facilitation and by relinquishing some control to allow for student input.

On the other hand, participants classified as having limited or general cooperative learning knowledge typically saw the students of junior high school as a barrier when attempting to implement cooperative learning. They also perceived potential problems with student discipline, staying on-task, and, in general, did not feel comfortable allowing students to make decisions or work independently. the participants who had had minimal knowledge of cooperative learning realized that there was unique difference between standard group work and actual cooperative learning as a result of the new cooperative learning gotten from trainings. Many of the participants in the study had indicated that in their past experiences they had utilized standard group work as a method of instruction. They also indicated that they had seen previous benefits of group work in their classrooms. However, in standard group work, assessment was a difficulty as well as the chaos that possibly ensued. After they joined the trainings, the participants indicated that learning how to assess individually through the cooperative learning techniques was beneficial knowledge. These positive impacts are also discussed in Johnson and Johnson (1992).

In addition, the dramatic difference between group work and actual cooperative learning revealed to the participants a more structured and productive interaction. Some of the participants indicated feelings of frustration on how to organize groups before they join the trainings, but adding the named cooperative learning structures brought clarity and meaning to the learning experience. The majority of the participants indicated that their students enjoy working in groups; however, the structures now gave definition and meaning to the process.

Teachers' problem

Problems might occur because teachers often did not have a clear understanding about how to establish effective cooperative groups, the research and theoretical perspectives that had informed this approach, and how they could translate this information into practical classrooms applications. Teachers with a general and limited understanding of cooperative learning expressed problem in planning and control, whereas the teachers with a detailed understanding recognized the need for a delicate balance between teacher control and student autonomy. To achieve the latter, it was acknowledged that careful teacher planning is required.

The problem in implementing the cooperative learning instructional strategies experienced by the participants were few. Some of these challenges are the participants indicated that there was extra time required in adding the cooperative learning structures to their lesson plans. Because the cooperative learning structures were new, more time was needed in assessing how the structure would fit into the lessons and curriculum. Also, the participants were not as comfortable at first using the structures across each curriculum and identified that they had more success in a specific subject area. Another challenge indicated by several of the participants was the loss of individual teacher control. This was the main reason why one of the participants was not comfortable using the cooperative learning structures.

Teachers' reluctance to embrace cooperative learning may also be due to the lack of time to learn about peer-mediated approaches, because of the challenge they perceive it might poses to their control of the learning process, the demands it places on classroom organization change, or the professional commitments that is required to sustain their efforts (Cohen et al. 2004). There was no doubt that getting cooperative learning up and running in a classroom requires a commitment to embedding the procedures into the curricula and in implementing, monitoring, and evaluating it. The teachers' role in implementing cooperative learning in the classroom provided a comprehensive overview of these issues. In many chapters there are clear guidelines and discussion about how cooperative learning practices can be embedded into classroom curricula.

CONCLUSION

The study has aimed at examining the teachers' experience in implementing cooperative learning at junior high school classrooms in Ponorogo. Research on cooperative learning methods in junior high school students supports the usefulness of those methods for improving student achievement at a variety of grade levels and in many subjects and for improving intergroup relations and the self-esteem of students. Cooperative learning, especially when groups are rewarded based on the individual learning of all group members, is an instructional approach that is congruent with the developmental needs of adolescents. It gives adolescents a degree of independence and authority within their groups, and it creates a situation in which the progress of each group member contributes to the success of his or her peers. This creates peer norms favoring academic excellence, a strong motivator for adolescents. Cooperative learning is not a panacea for all of the problems of adolescence, but it can provide a means of harnessing the peer-oriented energies of adolescents for pro-social rather than antisocial activities, and for this reason alone it should be an important part of every middle and high school teacher's repertoire.

Cooperative learning is a firmly established pedagogy that is present in both classroom and curricula. Many research literatures claims the implementation of cooperative learning in the classrooms results increased achievement, motivation, and social skills among students. Therefore, it is important for teachers and educators to understand the issues and tensions emerging from cooperative learning before trying to implement it in their own classrooms.

Moreover, our study shows that the extent to which factors were perceived as barriers to cooperative learning, or issues that could be effectively managed by teachers, differed depending on the teacher's knowledge of cooperative learning features and function. On the one hand, teachers who were classified as having detailed cooperative learning knowledge did not see the age of students as a barrier to effective implementation. Instead they demonstrated the ability to assign roles and tasks to students of ranging abilities. They saw student behavior as something that could be managed through teacher planning and facilitation and by relinquishing some control to allow for student input.

IMPLICATIONS

This study explores the teachers' experience in implementing cooperative learning at junior high school classrooms. Although there were several difficulties that the participants stated from their experiences, they perceived that the usage of cooperative learning was a good way. Most of the

participants indicated that more and more teachers like to use the structures in the future if the problems would be solved. Based on the findings, the study offers several implications for school administrators and educators.

For administrators. Thus, it may be beneficial for the school to accept different popular learning strategies such as cooperative learning, and give more attention to these instructional methods. It is important for the school administrators to provide some training sessions in cooperative learning instructional strategies and usage. Also, school administrators should organize workshops to encourage more experienced teachers to share their experiences and knowledge with other teachers. Second, the school need to consider offering small classroom size in order to allow for effective implementation of cooperative learning. Third, schools need to allocate funds to modern technology such as computers, to provide teachers and students more convenient environments to implement cooperative learning. Last, school administrators should have better communication with teachers in order to know about the teachers' concerns, and offer timely assistance as necessary

For educators. Educators should be aware of the current trend of teaching methods and open their minds to accept more beneficial and practical teaching instructions. Seconds, teachers should be willing to try new teaching instructions such as cooperative learning. Teachers should be learners and should work with colleagues to share innovative ideas about teaching and learning (e.g., cooperative learning approach). Moreover, the teacher's cooperation is important to enhance cooperative learning for students. It is essential that teachers establish goals of cooperation and interaction with other teachers. Providing feedback on each other's teaching can be helpful to improve the teaching performance.

Implications for future research. Along with the several limitations, several suggestions for the further study can be made. It would be better to include more participants from different grade or level of students and different place if possible.

REFERENCES

Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to Research in Education* (7th ed.). Belmonte, California: Thomson Wadsworth.

Bandura, A. (1986). *Social Foundations of Thought and Action:* A Social Cognitive Theory. Englewood Cliffs, NJ: Prentice Hall.

Bloomberg, L. D., & Volpe, M. (2008). *Completing Your Qualitative Dissertation:* A Roadmap from Beginning to end. Thousand Oaks, CA: Sage.

Bogdan, R. C., & Knopp-Biklen, S. (2007). *Qualitative Research for Education:* An Introduction to Theories and Methods. (5th ed.) Boston, MA: Allyn and Bacon.

Cohen, E. G., Brody, C. M., & Sapon-Shevin, M. (2004). *Teaching Cooperative Learning.* The Challenge for Teacher Education. Albany, NY: State University of New York Press.

Creswell, J. W. (2007). *Qualitative Inquiry & Research Design:* Choosing among Five Approaches. Thousand Oaks, CA: Sage.

Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed-method approaches (3r ed.). Thousand Oaks, CA: Sage.

Gall, M.D., Gall, S.P., & Borg, W.R. 2003. *Educational Research:* An introduction. Boston: Pearson Education, Inc.

George, P. S. (2005). *A Rationale for Differentiated Instruction in The Regular Classroom.* Theory into Practice, 44, 185-193.

Gunter, M. A., Estes, T. H., & Schwab, J. (2003). *Instruction:* A Model Approach (4thed.). Boston, MA: Allyn & Bacon.

PRESENTER'S PAPERS

Haystead, M. W., & Marzano, R.J. (2009). Meta-analytic synthesis of studies conducted at Marzano research laboratory on instructional strategies. Retrieved from http://www.marzanoresearch.com/documents/instructional_strategies_report_9_2_09. pdf 123

Hubner, T.A. (2010). What research says about...Differentiated Instruction. *Educational Leadership,* 67(5), 79-81.

Jerald, C. D. (2006). 'Teach to The Test'? Just Say No. *Learning Point Issue Brief,* 7 1-6.

Johnson, D. W., & Johnson, R. T. (1992). Implementing Cooperative Learning. *Contemporary Education*, 63(3), 173-180.

Johnson, D. W., & Johnson, R. T. (2009). An Educational Success Story: Social Interdependence Theory and Cooperative Learning. *Educational Researcher,* 38(5), 365-379.

Johnson, D. W., Johnson, R. T., & Stanne, M.B. (2000). *Cooperative Learning Methods*: A Meta-analysis. University of Minnesota. Retrieved from http://www. Table learning. com/uploads/File/EXHIBIT-B.pdf 124

Kagan, S. & Kagan, M. (2009). *Kagan Cooperative Learning.* San Clemente, CA: Kagan Publishing.

Klahr, D., & Nigam, M. (2004). The Equivalence of Learning Paths in Early Science Instruction: Effects of direct instruction and discovery learning. *Psychological Science,* 15(10), 661-667.

Lantolf, J. P. (2000). *Introducing Socio-cultural Theory.* Oxford: Oxford University Press.

Lowman, J. (1995). *Mastering The Techniques of Teaching*. (2nd ed.). San Francisco, CA: Jossey-Bass. 126

Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom Instruction That Works*. Alexandria, VA: Association for Supervision and Curriculum Development.

McManus, D.A. (2002). Changing a Course from Lecture Format to Cooperative Learning. *Paideia: Undergraduate Education at the University of Washington*, 4(1), 12-16.

Mentz, E., van der Walt, J. L., & Goosen, L. (2008). *The Effects of Incorporating*

Moustakas Clark E. 1994. *Phenomenological Research Methods.*USA: Sage Publications.

Ormrod, J E. (1999). Human learning (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.

Patton, M.C. (2002). *Qualitative Research & Evaluation Methods* (3d ed.). Thousand Oaks, CA: Sage Publications, Inc.

Randall, V. (1999). Cooperative Learning: Abused and Overused? *The Educational Digest*, 65(2),29-32.

Salkind, N. J, & Rasmussen, K. (2008). *Encyclopedia of Educational Psychology* (Vols. 1-2). Thousand Oaks, CA: Sage Publications Inc. 129

Schmoker, M. (2006). *Results Now.* Alexandria, VA: Association for Supervision and Curriculum Development.

Schunk, D. H. (2004). *Learning Theories:* An Educational Perspective (4th ed.). Upper Saddle River, NJ: Pearson.

Sharan, Y. (2010). Cooperative Learning for Academic and Social Gains: Valued Pedagogy, Problematic Practice. *European Journal of Education,* 45(2), 300-313.

Slavin, R. E. (1996). Research for The Future. Research on Cooperative Learning and Achievement: What We Know, What We Need to Know. *Contemporary Educational Psychology,* 21, 43-69.

Slavin, R. E. (2006). *Educational Psychology Theory and Practice* (8th ed.). Boston, MA: Pearson Education, Inc.

Slavin, R. E. (2009). Educational psychology: *Theory and Practice* (9th ed.). Upper Saddle River, NJ: Pearson.

Slavin, R. E., (2006). Cooperative Learning. *Encyclopedia of Human Development* (Vol. 1). Sage Publications, Thousand Oaks, CA.

Sloane, E. H. (1945). Reductionism. Psychological Review, 52(4), 214-223.

Tomlinson, C. A. & McTighe, J. (2006). *Integrating Differentiated Instruction & Understanding by Design.* Alexandria, VA: ASCD.

Tomlinson, C. A. (2003). Deciding to Teach Them All. *Educational Leadership,* 61(2), 6-11.

PRESENTER'S PAPERS

Vygotsky, L. S. (1978). *Mind in society: The Development of Higher Psychological Processes*. Cole, M., John-Steiner, V., Scribner, S., & Souberman, E. (Eds.). Cambridge, Massachusetts: Harvard University Press.

Walters, L. S. (2000). Putting Cooperative Learning to The Test. *Harvard Educational Letter*, 16(3). Retrieved from http://www.leadandlearn.com/sites/default/files/articles/cooplearning.pdf

Yerigan, T. (2008). Getting Active inTthe Classroom. *Journal of College Teaching & Learning*, 5(6), 19-24.

Author's Biodata

Harjali is a lecture of Education Department, State Islamic College of Ponorogo. His major subject is Instructional Technology and qualitative research. He received his Doctor Degree at State University of Malang on instructional technology. He also certified as master trainer on PAKEM and Academic Supervision. Email luc_ky09@yahoo.co.id

PRESENTER'S PAPERS

Local Culture, Career Counseling, and Students' Career Maturity

Hartono
Lecturer of the Guidance and Counseling Departement
University of PGRI Adi Buana Surabaya
E-mail: hartono140@yahoo.com

Abstract

In the process of education, students' career maturity is constructed as an important aspect, to be achieved as a form of success in their development. This study outlines the local culture that is framed as a strategy of changing the behavior of students through career counseling services to increase the maturity of his career. Students' individual behavior can be shaped by local culture in which they are located, at school, in the family, or in a particular community. The local culture which contains the values, norms, customs, and traditions that have been maintained throughout the life can be constructed by the guidance and counseling teacher or school counselor adequately as strategy or technique of changing the behavior of students through career counseling services. This will be obtained expediency useful in helping students to achieve success in career development. Career success in the educational process in the formal education materialized in career maturity that is a maturity level of the students in the act and act intelligently in making career decisions in accordance with their interests, talents, intelligence, personality characteristics, and ideals.

Keywords: ***local culture, career counseling and career maturity.***

1. Introduction

Maturity career is an important phenomenon in the process of career development of students, requiring the intervention of professional counselors in the form of career counseling services based on local culture as a strategy for changing the behavior of students. Results of research Hasan (2006), Patton and Creed (2001) recommends that the maturity of a person's career is an important variable that affects the development of his career. Career maturity is the level of maturity in attitude and action to take career decisions intelligently in accordance with the potential and interest (Hasan, 2006). Decisions are based on the individual's career potential and a strong interest, may obtain success in achieving the desired career which is manifested in the ability to achieve a career field, achievement in running his chosen career, and was able to develop his career as an important part in social life.

Culture is an important aspect in the lives of individuals that influence behavior. Humans live in a society with a culture that is an indigo-values, traditions, and habits that framed attitudes and behavior. Students as social beings, attitudes and behavior is influenced by the culture in which they reside, in families, at school and in the community. The diversity of culture was born and developed for the purpose of human life. According to Tylor in Berry, Poortinga, and Seegal quoted Hartono (2008) culture as the totality of knowledge, art, morals, norms, customs, and capabilities that influence individual behavior through the interaction process that continues over time (Triandis, 1994; Super and Harkness, 1997) in his life. In the interaction process, lasting internalization of cultural values that the inclusion of culture into a unique human beings in accordance with the cultural complexity.

The local culture is a culture that was born and developed in certain environments such as school environment, family and other community settings. Local culture includes the values, norms, morals, traditions and customs are maintained over time in a place, a particular region, so it can be positioned as an important aspect in the process of changing individual behavior. In the environment of the school has maintained the values, norms/rules, morals, traditions, and habits

that can be constructed as a career counseling strategies to improve students' career maturity. According Crites quoted Patton and Creed (2001) career maturity as a study center in an effort to understand the progress of individual career development in accordance with the tasks of career development. The description and the opinion above, indicates that the student career maturity as an important aspect in the process of career development to achieve the level of maturity in thinking, acting, and acting creatively productive, so that they are capable of acting as an individual who contributes to the global competition.

2. Formal Education Role in Students' Career Development

Development of a career is an important phenomenon in modern society (Arulmani, 2015), at least based on three grounds, namely (1) a career in the context of occupations or professions has become a community-wide needs, no human being as a member of society who do not need work or profession; (2) the progress of a job or profession contribute significantly to the fulfillment and well-being of humans as members of society; and (3) a person's success in developing a career affect their social position in the gobal community life. Career development of students is the student's mastery level in carrying out development tasks relating to the preparation to achieve success in choosing a career field that you want (Hartono, 2015a). An example: when students are able to study in a good performance at the level of primary and secondary education to higher education and be able to obtain a job or profession field desired, it can be said to be successful in career development.

To help students to succeed in career development, required formal education process is adequate as an educational institution careers (Hyuncheol, 2015) is a model of formal education at the primary level, secondary and higher education are able to create an academic culture that is conducive to motivate student learning, so students or students can learn optimally in an effort to develop their potential in a field of work or profession that you want (Mistery of Education, Culture, Sports, Science and Technology, 2011 and 2015). To realize the desired conditions, the development of curriculum based on the needs of the market that supported the professionalism of teachers, adequate educational facilities (laboratories, workshops, classrooms, and the library as a source of learning with information technology network).

Career development of students need the support of the education implementation of formal quality, character, supported professional organizations, and based on market needs. Formal education as forming the competence of students in various fields of work or profession. Different types of formal education will shape students' competencies in various types and occupations or professions in public life. The role of formal education in the career development of students can be explained by Super's of Career Maturity (Sharf, 2013) that education in schools and colleges aims to establish competence of attitudes towards career development which include career planning and exploration career, competence of knowledge and skills to career development includes decision-making of career and information world of work. So it is clear that formal education plays a role in fostering and shaping the career development of students according to the students' potential.

3. Career counseling and Local Culture

In the context of education, career counseling is provided by the professional help and counseling guidance teachers or school counselors to students, so that they are able to achieve maximum career development. Typically career development of students being focused guidance and counseling teacher or school counselor, as one form of facilitating the school to students. At school the students need adequate career counseling services by constructing the local culture as a strategy for changing the behavior of students. According Triandis (1994), Super & Harkness (1997) and Hartono (2008) cultural influence changes in attitudes and behavior of individuals through the process of interaction that takes place continuously in the life of society. In this condition, the prevalent when local cultural elements in the form of values, norms, morals, customs, and beliefs of a framed as one of the strategies of career counseling, in order to promote

innovation in the development of the theory of counseling is very beneficial for the wider community and students in particular.

The career counseling using the local cultural construction as a strategy of changing the behavior of students must meet criteria: (1) as a means of self-help means gradually after the students are given career counseling services, he is expected to help him in solving career problems; (2) construction of local culture contain the values, norms, morals, customs and beliefs are maintained in a community; (3) can be held individually or in groups; (4) of teaching by guidance and counseling teacher or school counselor who graduate training; and (5) have a manual or guide book of career counseling. Career counseling process with the local culture construction as strategy or a technique of changing the behavior of students is done through the following steps.

Counseling of groups. In group counseling, teachers of guidance and counseling or school counselors perform these steps: (1) *The establishment of the group* is to establish a group, involving members of the group and gave the name of the group, teacher of guidance and counseling or school counselor who serves as the group leader invites members of the group to formalize the agreed name of the group; (2) *Establish a good relationship* (rapport) with each other ways to introduce ourselves, carried out by guidance and counseling teachers or school counselors as well as all members of the group, as well as playing a game or sing along; (3) *Establish group norms* which rule or order of group counseling, conducted by discussing the draft rule or order prepared by the guidance and counseling teacher or school counselor, in order to obtain an agreement with members of the group; (4) *Identify the problems the client* is done with the teacher of guidance and counseling or school counselor provides the opportunity for each member of the group to express their grievances and problems career facing or other problems that disturb him, then conducted discussions to create a common agreement on priority issues group members discussed in group counseling; (5) *To formulate the purpose of group counseling,* conducted by way of guidance and counseling teacher or school counselor explained to members of the group on goal-based group counseling career problems students or clients; (6) *Selecting and implementing a strategy* which is a strategy of counseling based of local culture constructed by guidance and counseling teacher or school counselor as a technique of changing the behavior of students; (7) *Do of assessment,* namely of guidance and counseling teachers or school counselors hold discussions with members of the group to measure changes in the behavior of members of the group, if there is a change of behavior as evidenced by each member of the group was able to gradually overcome the problem of his career; and (8) *To follow-up,* at this stage the teacher of guidance and counseling or school counselor to follow up the results of the assessment, if the purpose of group counseling is reached, then the group counseling be terminated, if the objective of the counseling group has not been or is not reached, it is necessary to step namely the transfer of referrals to other specialists with the consent of the student as a client.

Counseling of individuals. In individual counseling of guidance and counseling teachers or school counselors perform the following steps: (1) *Meeting with the client,* in this initial meeting of guidance and counseling teachers or school counselors receive what their clients with a sincere and promote empathy; (2) *Establish a good relationship* (rapport), which is done by the teacher of guidance and counseling or school counselor introduce themselves to clients and vice versa clients also introduce ourselves, counselor explains to the client about the objectives, principles and process of career counseling, so that the client believes that the career counseling as a good solution to solve the problem; (3) *Identify the problem client,* guidance and counseling teachers or school counselors identify problems related to the client's career; (4) *To formulate career counseling purposes,* based on the client's problem, guidance and counseling teacher or school counselor explains to the client about the goals to be achieved as a success criterion career counseling; (5) *Selecting and implementing strategies* that career counseling strategies based local culture constructed by guidance and counseling teachers or school counselors as counselees behavior modification techniques; (6) *Conduct an assessment* to determine the success of career counseling, career counseling whether the goal can be achieved or not; and (7) *Conduct follow-up,* based on the assessment determines whether career counseling may be terminated because the goal is accomplished or do career counseling referrals for the purpose can not be achieved. Client

referrals to relevant experts, commonly done if the objective of career counseling formulated in four phases above can not be achieved. Referral programs carried out on the basis of considerations, namely (1) the client's problems outside the authority of guidance and counseling teacher or school counselor, (2) there is cooperation with an expert or profession into the referral, and (3) approved by the client.

4. Students' Career Maturity and Construction of Local Culture as Career Counseling Strategy

Hasan (2006) defines the concept of career maturity is the ability to make decisions about career choice in accordance with the potential, opportunities, and desires. Super in Shart (2013) states that the maturity of his career focused on the individual's ability to overcome the problems of developmental tasks of his career. According to Hartono (2015b) students who reach the level of maturity of a good career shown on the fulfillment of characteristics: (1) is able to self-knowledge, (2) is able to careers-knowledge, (3) has a career goal that ideal but realistic, and (4) be able to do career choice. Selection of student careers do well if he is able to take decisions on career areas that are considered good and are supported by their own potential and the values of the career of the students, so the choice is the best result and believed to be true (Hartono, 2012).

Career maturity of students is an important issue that needs to be studied in depth, so the authors conducted a study involving variable of career maturity of students on the grounds that (1) if the student has a good career maturity, he will be able to make the selection right career; (2) career choice is an important aspect in the life of society, because careers are measured from aspects of the job or profession into a global community needs to prosper; (3) the ability of the students in choosing a career can be studied by constructing the local culture as a strategy for changing behavior of students; and (4) the guidance and counseling teacher or school counselor can provide career counseling to students adequately, after training of models of the career counseling of local culture based. On the basis of these four reasons, it is understood that the career maturity of students can and should be improved through intensive career counseling services as one of the core activities under the guidance and counseling program in schools.

Construction of local culture as a strategy for career counseling or as a technique of changing a student's behavior is a form of innovation in the development of the theory of counseling in Indonesia. Human behavior is influenced by culture, before the baby is born (still inside the mother's womb) parents are already doing culture-based activities such as pray (Dik, 2015) that after the baby is born into a dutiful son to religion, to parents, family as well as the nation. After the baby is born in the world, she was educated by her parents in the manner prescribed by the family culture. At the age of 4-5 years old children learn in early childhood education programs, at 6-12 year old children learn in elementary school, at the age of 13-15 years children learn in junior high school, at the age of 16-18 years children learn in high school, at the age of 19-23 years children learn in universities. It is obvious that, the child's behavior is shaped by local culture namely family culture, the culture of schools and colleges.

Culture has certain characteristics, for example a global of western culture is more individuality, intellect, rationality, and materiality, while the eastern culture tends to be a collectivity, emotionality, intuitive, which is influenced by family values, social norms, and religious or spiritual beliefs (Mohamad Surya, 2015; Dik, 2015). The cultural diversity makes different influences on character building of students, as the student's character shaped by the culture in which it is located. Based on these descriptions, it can be concluded that the local culture is constructed as a strategy for career counseling will be colored by the richness of the local culture. Teacher of guidance and counseling or school counselor can manage the culture of the school as a local culture to make the process of change in student behavior in the service of career counseling, so that students can achieve of career development of the good one is manifested in increased ability to understand oneself (self-knowledge), understand the environment in a career (career-knowledge), and independence in decision-making careers to choose a career field that is desired and supported by her potential.

5. Conclusions and Recommendations

Career maturity of students as an important aspect in the development of his career that could be improved through career counseling services by using local culture as a strategy or technique of changing a student's behavior towards the expected direction, namely its ability to intelligently in self-knowledge, career-knowledge, and independent in career choice that is desired, according to her potential. Guidance and counseling teacher or school counselor will be able to provide career counseling services based on local culture after their training of the career counseling model program based of local culture developed by the authors. The career counseling model based on local culture can be held individually or in groups to perform its phases correctly and consistently to achieve the desired objectives.

To achieve these objectives, the author recommends that (1) the development of student careers need to get serious attention from the teacher of guidance and counseling or school counselors and parents of students, as this will determine the future of students as a potential cadre of nation building is typically prepared intelligently in order to have global competitiveness; (2) development strategy of career counseling based local culture should be done with the involvement of guidance and counseling teachers or school counselors through quality research, in order to obtain better results and can be implemented in schools in different cultures; and (3) training of local culture-based career counseling held on an ongoing basis to the guidance and counseling teacher or school counselor by using methods and media interest.

References

Arulmani, G. (2015). *A Livelihoods Approach to Career Guidance in Asia*. Tsukuba: IAEVG International Conference September 18-21, 2015 in Japan.

Dik, B. (2015). *Calling, Spirituality, and Religion in Career Development.* Tsukuba: IAEVG International Conference September 18-21, 2015 in Japan.

Hartono. (2008). Pilihan karier dalam perspektif budaya dan implikasinya pada bimbingan karier di sekolah. *Jurnal Psikologi Pendidikan dan Bimbingan Faultas Ilmu Pendidikan Universitas Negeri Surabaya*, 9(1), 123—130.

Hartono. (2012). The correlation between self-knowledge aspect and career-knowledge aspect with the patterns intensity of career choice on senior high school students. *Proceedings ISGC, September 8-9th, 2012.* Yogyakarta: Study Program of Guidance and Counseling Educational Psychology and Guidance, Faculty of Education, Yogyakarta State University.

Hartono. (2015a). The career development in childhood to support the nation's competitiveness in global era. *Proceedings of 6th International Conference on Educational Technology of Adi Buana, 9 May 2015 Surabaya Indonesia.* Surabaya: University of PGRI Adi Buana.

Hartono. (2015b). *Pengembangan Model Konseling Karier Berbasis Budaya Lokal untuk Meningkatkan Kematangan dan Perencanaan Karier Siswa SMA (Proposal Penelitian Hibah Bersaing).* Surabaya: Universitas PGRI Adi Buana.

Hasan, B. (2006). Career maturity of indian adolescents as a function of self-concept, vocational aspiration and gender. *Journal of the Indian Academy of Applied Psychology*, 32(2), 127—134.

Hyuncheol, K. (2015). *Career Educational in Korea.* Tsukuba: IAEVG International Conference September 18-21, 2015 in Japan.

Kosugi, R. (2015). *Career Guidance Policy for the NEETs and Freeters in the Lost-Generation.* Tsukuba: IAEVG International Conference September 18-21, 2015 in Japan.

Ministry of Education, Culture, Sports, Science and Technology. (2011). *Creating Carer Education.* Japan: Guidance and Counseling Research Center, National Institute for Educational Policy Research.

Ministry of Education, Culture, Sports, Science and Technology. (2015). *Career Education Enhances Students' Motivation to Learn.* Japan: Guidance and Counseling Research Center, National Institute for Educational Policy Research.

Mohamad Surya. (2015). *Toward a Hybrid Model of Career Education and Guidance Based on Western and Eastern (ASIA) Culture Perpective: Indonesia Context.* Tsukuba: IAEVG International Conference September 18-21, 2015 in Japan.

Patton, W., and Creed, P.A. (2001). Developmental issues in career maturity and career decision status. *The Career Development Quarterly,* 49, 336—351.

Sharf, R.S. (2013). *Appling Career Development the Theory to Counseling, Sixth Edition.* United States: Brooks/Cole.

Super, C., and Harkness, S. (1997). Human development in culture across the life span. *Handbook of Cross-Cultural Psychology: Basic Processes and Human Development,* 2, 69—106.

Triandis, H.C. (1994). *Cultur and Social Behavior.* New York: McGraw-Hill, Inc.

Author's Biodata

Hartono is a doctor of guidance and counseling, graduate of the Malang State University in 2009. He was born in Lamongan on September 12, 1961. Since 1986 until now, Hartono worked as a lecturer in the Department of Guidance and Counseling Faculty of Teaching and Education University of PGRI Adi Buana Surabaya. Hartono is currently believed to be the Vice-Rector of the University of PGRI Adi Buana Surabaya. Correspondence via E-mail: hartono140yahoo.com

PRESENTER'S PAPERS

Violent Conflict between *Pencaksilat* Group Members Viewed from Sociology Paradigm: A Leadership Study Harwanto

Harwanto
University of PGRI Adi Buana Surabaya
harwanto81@yahoo.com

Abstract

Actualization of violent conflict is seen as a social phenomenon to express itself in aggressive behavior. However, this behavior is basically a process of social learning to practice the skills, traits, values, attitudes, norms and knowledge associated with the role in the sport. This research was a form of case study which focused on the reality of the social phenomenon of violent conflict on members of Pencak silat (the Indonesian martial arts) organizations. Cases of violent conflict were examined through qualitative methods, so that the study of the problems and the application of research methods were to be argumentative choice. Reality was the data source described and analyzed in order to establish a proposition. The proposition built was that strong solidarity would build groups of ingroup-outgroup through routine activities that were functional and dysfunctional. The functional properties would strengthen the solidarity of the group members. They would lead to dysfunctional attitudes while deglorifying members. The inference that violent conflict happening was influenced by the attitude of the leadership that put the prestige of the organization. Based on the findings, the value of understanding the teachings of Pencak Silat is not maximized and the transformation of Pencak Silat as a cultural value to the sport is not complete.

Keywords: *violent conflict, members of Pencak Silat, paradigm of sociology of sport and leadership*

A. The background

Success of an organization organize anpencaksilat depending from the attitude of the leader, how to lead, styles lead and the integrity of the leader in the instill values and norms to the formation of the character of its members during the process of running the wheel of life organization. It means that the leadership is the ability of a leader in the influence of other subordinate and its members to achieve a common goal in both organizations or institutional institutions.

Following the formulation of the definition of leadership according to the experts; Fiedler (1967), said that the leadership is basically the pattern of the relationship between the individuals who use the authority and its effects on the groups of people to work together to achieve the goal. John Pfiffner, leadership is the ability to coordinate and motivate individuals and groups to achieve in travel. Davis (1977), defines the leadership is the ability to invite other people reach the purpose of which is determined by the enthusiasm. Ott (1996), the leadership is defined as the process of inter-personal relationship in which a person affect the attitude, trust and especially the behavior of other people. While Locke et.al. (1991), defines the leadership is the process of persuading others to take a step toward a target with five definitions are, has an overview from a different perspective the relationship pattern, the ability to coordinate and motivate people the ability to invite, persuaded and influenced the others.

If the angle is associated with problems in research actually theoretically contrary to what happens in the field. Remember the various cases that appears more likely on a conflict between the group members organize an organization. While in the more theoretical studies advancing on the values of the positive changes such as build togetherness, interweaves the harmonization of membership and trying to improve productivity. While the conflict in an organization would not be avoided and will always be present during the process of life and its development, as is the case of the violent conflict that happened in the organization in the branches of the sport.

Marx, 1956.mentioned that, "...without conflict, no progress; screened is the law is iscilivization has followed the present day", without conflict, no development; that is the law on the civilisations until now. It means that the conflict has functional value, if viewed as a form of competition and are able to manage with good to become a change. But the conflict is also uterine if memerkuat hostility (hostile 26), appears the attitude of disappointment (deprivation), instill a sense of revenge on the experience the past conflict (vengeance) until accumulation happening a sense of hatred that continues to deliberately created the protracted conflict.

The conflict referred to in this research more empties on the form of competition between groups by members of the organization that is not responsible. As the statement from some informers who said that the conflict was triggered by persons members that is not responsible. A person who is not responsible means that some of the members who has been a breach of the terms that are not required by the organization. While the source of the conflict is often done by community groups from members of each organization that deliberately created as a form of personal problems.

The case of the violent conflict that has lasted for this leaves a deep-seated concern, especially for the general public. The conflict is often lead to violent actions to involve the masses, not even a little loss felt by various parties, including the community that is not involved the conflict becomes the target of 'mid of the masses.

Such condition seemed as something natural and seems to have become the culture for them. Considered as a culture because the case occurred continue to repeatedly, this indicates a certain community groups that deliberately created conflict, although contrary to the purpose of the organization.Empirically the actualisation of violent conflict is seen as a social phenomenon to me.

B. The basis of the theory

1. The theory of the leadership

a. The theory of leadership qualities (Trait Theory)

Scientific analysis of leadership journeyed from focusing the leader itself. In the development of this theory get the influence of the flow behavior of psychology thinkers who was of the opinion that the nature of the leadership qualities are not

entirely born, but also can be achieved through education and experience. Attributes - attributes among others ; physical characteristics, mental and personality

b. The theory of the leadership of the behavior and the situation

Based on research, the behavior of a leader who bases this theory has a tendency toward two things :

First called verbs namely the tendency of leaders that describes the relationship familiar with subordinate. Examples of symptoms that are present in this such as: defend their subordinates, to provide feedback to the subordinate and prepared bekonsultasi with subordinate.

The two called initiation struksur namely the tendency of a leader who gives limitations to subordinate. The example can be seen, subordinate to get the instructions in the implementation of tasks, when, how the work done and the results of what will be achieved.So based on this theory, a leader is how a leader who has a high attention to the subordinate and against a high result also.

Then also arises the theory of leadership situations where a leader must be a sophisticated diagnostic is good and must be flexible in accordance with the development and the level of maturity of the subordinate.

c. Most important humanistic theory

This theory more emphasize on the principle of humanity. Humanistic theory is usually characterized by the existence of an atmosphere of mutual respect and the existence of freedom. Most important humanistic theory with pioneers Argryris, Blake and Mouton, RensisLikert, and Douglas McGregor. The theory is generally argued that the nature of man is the "motivated organism". The organization has the structure and specific control system.

The function of leadership is to modify the organization to the individual free to realize the potential of the motivation in to meet their needs and at the same time in line with the direction of the group. When borne, in theory most important humanistic, there are three main variables, namely;

1). the appropriate leadership and looking at the conscience of the members with all hope, the needs and the ability of him,

2). the organization that arranged with good to remain relevant to the interests of members in addition to the interests of the organization as a whole, and

3). the interaction of the familiar and the harmonious relationship between the direction of with members to raise the unity and live in peace together. Blanchard, DreaZigarmi, and even stated that the leadership is not something that you do to others, but something that you do together with others (Blanchard &Zigarmi, 2001).

2. The essence of social conflict

Coser, 1967.as quoted Oberschall, 1978. define social conflict as the following "Social conflict is a struggle over values or jump to status, power, and scarce resources, in this is done by the aims of the conflict groups acres not only to gain the desired values, but also to neutralise, injure, or eliminate rivals". The concept of the mentioned that social conflict is the struggle against the values or the statement on the status of the power and resources are limited, where the efforts of a group of the conflict is not only add value to the desire but also neutralize, hurt or eliminate the rival. As in the case of conflicts that occur during this more tend to each other to show the struggle in staying status values organize an organization.

In the realistic conflict theory (this conflict), Sheriff said that the conflict caused by the interests of memerebutkan groups various sources (resources such as the economy and the power that is limited or scarce. Because the source is limited, then to memerolehnya must compete so that no one of the parties to the winners and the other parties who defeated. Very

may occur as a result violence between them.of the competition which is win lose orientation, ultimately culminated in the behavior of

3. Social Function Theory in Sports

Martial arts as a sport memunyai role to run social institutions, including the running of cooperation (cooperation), competition (competitive), conflict (conflict) and adjustments (accomodation). Some instruments of social institutions that often arise internal and external conflicts, but to put forward the transformation of the conflict, which is a process of tackling the various problems in the conflict, the sources of conflict and the consequence of negative conflict. As a social institution contain the potential to perform multiple functions, ie emotional social function, the function of socialization, integrative function, the function of the political and social mobility functions, all of which is referred to as the instrumental function of sport stem from participation in sports activities. So it can be made modifications to the social function of sport illustrations as follows:

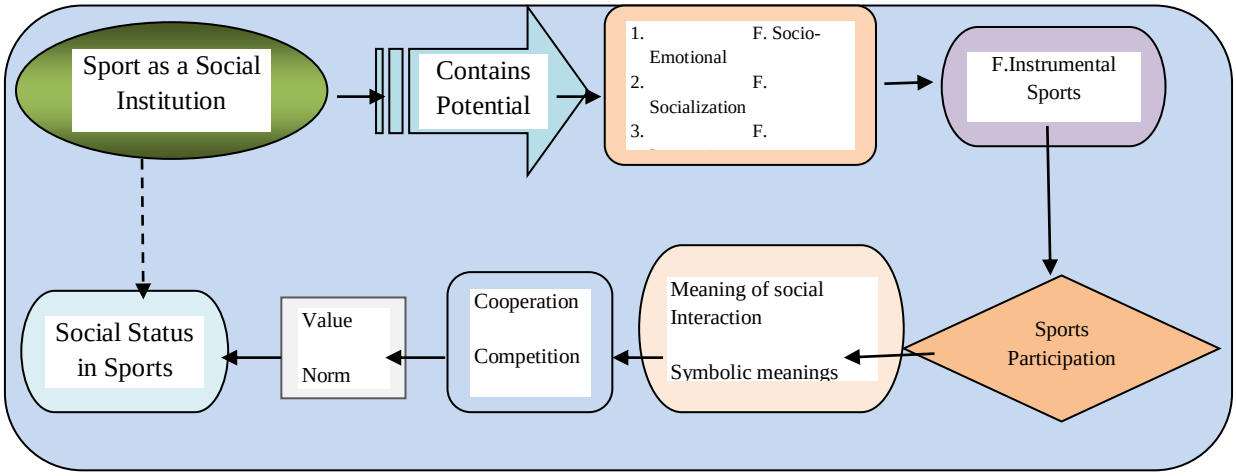


Figure 2.4 The social function of sport in participation activities. Sources modification of Nixon and Stevenson in Lutan, R. (1999) Harwanto,2010

Martial arts as a sport in wadahi by IPSI would mobilize members and organization development can not be separated from the instrumental function. It is based on participation in sport Pencaksilat activities that still have to be supported by a social significance. As Luthan view, which develops further R. framework and starting point of participation in physical activity and sport are appointed by the meanings such as the meaning of social interaction, the symbolic meaning, and the meaning of expressive (self-declaration). These meanings function as an instrument of socialization in sporting activities. Therefore, exercise is an important medium to get a change of attitude and build social status.

C. Research Method

1. The approach and the type of Research

is a form of case study focused on the social phenomenon of violent conflict that often occurs on the members of the group of the organization especially organize an pencaksilat. The case of violent conflict is examined through qualitative methods approach, so that the

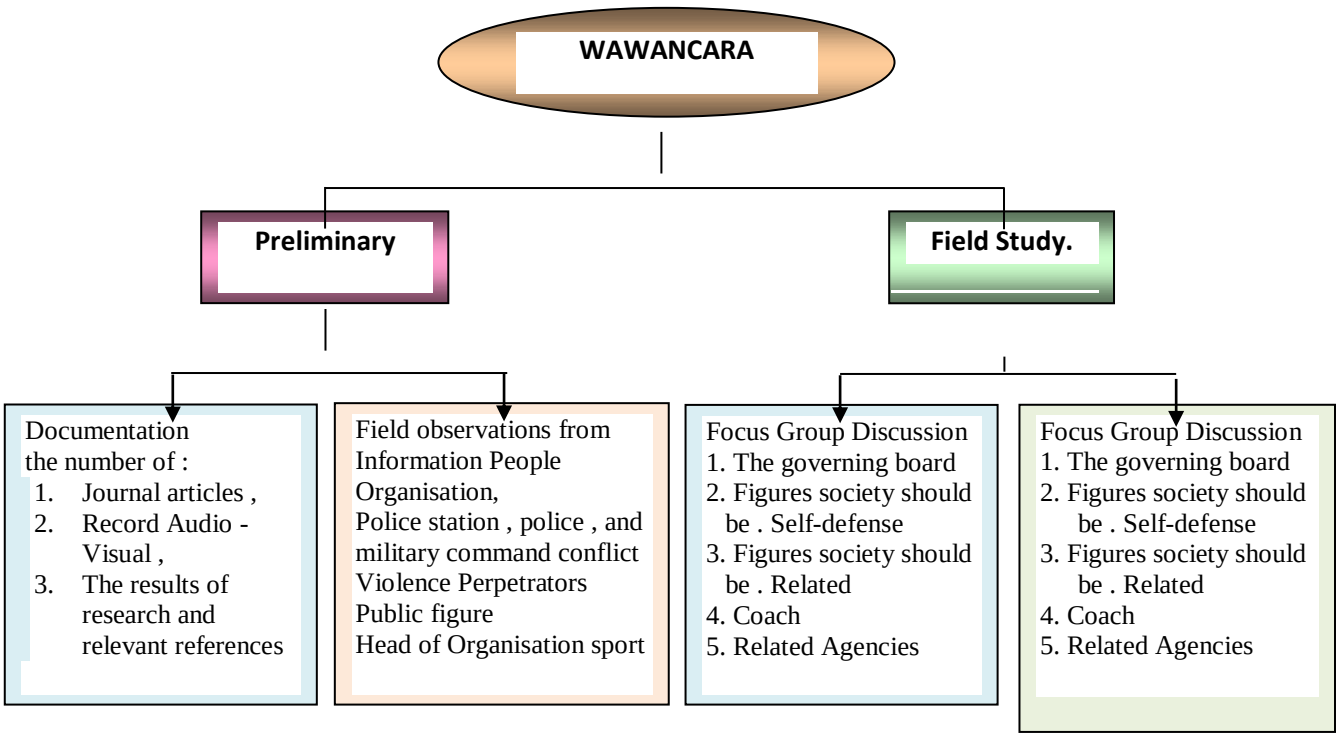
study of the problems and the implementation of the research method is a choice that argumentatif.

Qualitative research is intended to develop knowledge through the understanding and the discovery (meaning and discovery), so that in the process of data mining research in the field is done by logic inductive coupling and dialectical. This is done as a control in the framework of identifying and limiting the problem (identification and limit the problem) who examined.

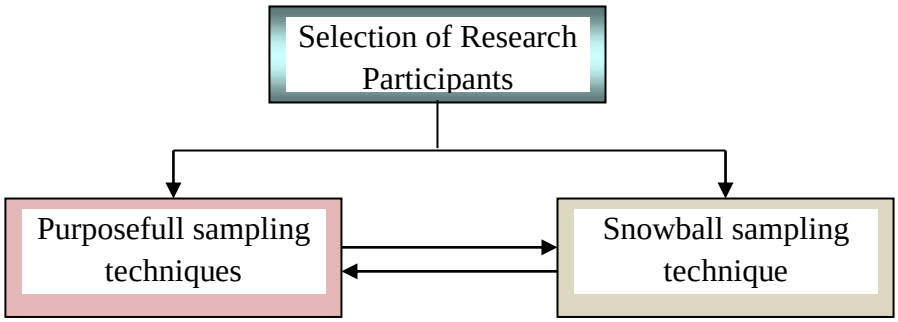
With through the approach is expected to memeroleh concepts and methods a holistic approach in analysis with the goal of staying the integrity or wholeness from the object. The integrity is faktualisasi data empirically, the role of objectivity researchers in memerlakukan informers both members of the organization, data analysis which is done through the stages reduce data reduction), displays/explore data (display data), and select/ determine research data (drawing conclusion/verification).

D. Stages Research Case Study

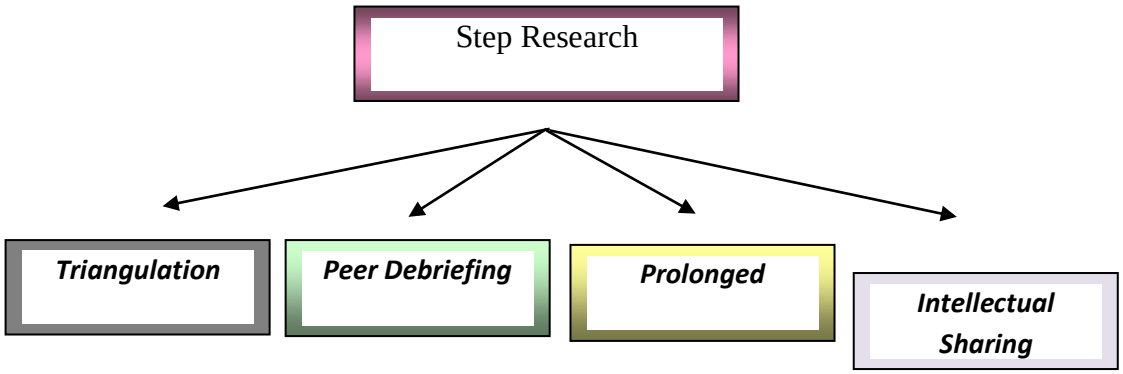
1. Method of collecting data



2. Selection of Participants



3. Unit Analysis



(Patton,1990 in Maksum, 2007)

E. CONCLUSIONS AND PROPOSITION

1. The Conclusions

Based on the results of the discussion of the data analysis and research findings in the field, then according to the formulation of the problem can be summarized as follows that violent conflict during this happens because influenced by the pattern of leadership that is still advancing on the value of the prestige of the organization. This is based on the findings of the understanding of the value of the teachings of pencaksilat by students/member who is not yet a maximum and the transformation of the value of pencaksilat as a culture to the sports branch that is not completely. The understanding of the value of the teachings will Ketidakmaksimalan raises an excessive behavior, while excessive behavior tend to build restrictions group (ingroup-outgroup) if supported by a strong group solidarity, so that this will cause the attitude deglorification. Deglorification attitude is a feeling is proud to be a member of an organization that has a big name, as well as take refuge and protection in it because the feel get support from solidarity group.

While the understanding of the value of the teaching that has not been the maximum marked with several indicators of the behavior as follows:

a. The existence of the attitude of fanaticism members on the value of the brotherhood in the symbol of the organization as a form of interpretation of the value of excessive.
b. The activity of conflicts that occur continuously, is assault and lead to violent actions.
c. the emergence of diskursif attitude on other groups as a form of dissatisfaction from the experience of the previous conflict.
d. The emergence of community groups that deliberately created and fishing conflictual atmosphere, always be provocative and makin moderate at every opportunity and opportunity.
e. The limitations of group (ingroup-outgroup) which was built by a strong sense of solidarity and tend to behave aggressive and destructive.

While ketidaktuntasan cultural value transfer to the sports branch based on the emergence of the attitude of solidarity group members of the organization which very strong. The strength of the solidarity of the group will have an effect on the emergence of deglorifikasi attitude. This attitude is likely to perform excessive actions that lead to provocative actions and discursive. Members of the excessive actions and lack of sanctions law firm from the direction of the organization, then will tend to create a violent conflict repeatedly, continuously and the prolonged.

2. Such a Proposition

Based on the following conclusions, so it can be built as follows: proposition

a.That will build a strong solidarity group ingroup-outgroup (Me the TerateWinongo yours),
b. The strong solidarity built through the routine activities (SuroanAgung& continued brotherhood),
c. Social solidarity built is functional and uterine. The nature of practical abilities strengthen
d. group solidarity while dysfunctionalcause the attitude deglorification members.
e. This deglorification attitude used by some members to personal interest so expandareas of conflict and continue to the prolonged.
f. The violent conflict that is continuously also caused by not optimal understanding the value of the teachings of pencaksilat and not completecultural transformation into branches sports.
g. Not complete cultural transformation into branches exercise cause organizations to organize an pencaksilat more closely with the community organization
h. Many community organizations this clenched with political, economic and social
   1) Politically, community organizations to be the source of the power of
   2) Economically, community organizations to be the source of income
   3) Socially, they build social solidarity for staying existence
i. The success of an organization is determined by the pattern of leadership and character leader.

F. ADVICE

Based on the conclusions and propositions are built, then there are some things that need to suggest that:

1. In terms of organization, management system development organizations need both in the structuring of administrative management and conflict management.
   a. Administrative management at least managing the system in the organization, which is based on the firmness of the rules and regulations set by the center, such as the impunity of the organization, restrictions expressly about the age of a prospective member, the training process is proportional, the provisions of coaches are professional, pattern coaching more systematic maximization of the construction value of the teachings of all SH's and develop a harmonious relationship to other martial arts as well as government organizations, as well as emphasizing the quality of the development of doctrine toward achievement sports.

b. While dealing with conflict management, ie how to address the conflict that has been going on for this to be a motivation for change. The changes referred to include improving the quality of the resources of members, namely through increasing the ability of mastering martial towards sporting achievement and understanding of the value of the teachings of all SH-an order to build a good moral character.

2. Academically, the case of conflict between groups pencaksilat martial arts organizations in Madiunhave value of interdisciplinary studies, so it is necessary to follow up on next research about:
   a. Assessment history pencaksilat martial fraternity Faithful Heart intact and original character, considering the organization has evolved into several streams organizations in Indonesia,
   b. Assessment of violent conflict between group memberspencaksilat martial arts organization in Madiun in a historical perspective and cultural Madiun,
   c. Assessment of violent conflict between groups martial martial arts organizations as the realm of legal certainty,
   d. Assessment of pencaksilat martial arts organizations as a political force cargo interests,
   e. Assessment of pencaksilat martial arts organizations as economic capital investment space.

G. RECOMMENDATIONS BASED THINKING RESULTS

Based on these results, the researchers recommend some concept of thought according to research facts as follows:

1. In terms of organization
   a. that in the framework to minimize prolonged conflict, should be head of the organization in the role of mobilization can be a figure and a symbol of peace by maximizing understanding fraternity symbol correctly, charismatic, simple and memayuhayuningbawana which seeks to preserve the peace in the world of martial arts and martial arts.
   b. thinking that needs to agree to return to the destination primary cause of true science Faithful Heart, which aims to build good moral character, as a figure of behavior in society, and to understand the values of Faithful Heart correctly, ie as a member of the organization:
      1). understand the existence himself (understand jejeringkapribaden),
      2). understand the presence of others (understand jejeringngaurip),
      3). understand the existence of God (understood punjeringmanembah),
      4). understand the path to death (ngertidununge starch)
   c. that need to be agreed to end a conflict that had occurred to make as a starting point to make a positive change towards the achievement of the sport.
   d. that need to be built together to address each member that they violate the provisions, which have been agreed to provide legal certainty administrative sanction from each organization.
   e. that the agenda of social activities need to be made by the City and County involving all parties martial martial arts organizations in Florida who are members of the IPSI, as a form of regular silahturrahmi event, the form of togetherness, as well as control functions, evaluation and dissemination to members.
   f. that needs to be done in a professional coach training and certified within the framework of improving the ability of the martial arts and sports achievements. It aims to build solidarity through activities conducted on a competitive basis.

BIBLIOGRAPHY

BartosdanWehr, 2003.Using Conflict Theory. New York : Cambridge University Press

PRESENTER'S PAPERS

Bolton, R., (2000), *People Skills*: *How to assert yourself listen to others, andresolve conflict*. Australia: Simon & Schuster.

Coser, L. 1967.*The Functions of Social Conflict*. Il. Free Press, Glencoe, dariwww.2.pfeiffer.edu/-iridiner/courses/Oser 1 HTML diaksespada 22-12-2008

Dahrendorf, R. 1959. *Class and Class Conflict in Industrial Society*. California: Standford University Press.

De Knop, Paul 1996. *Sport for All*. Dalam Current Issues of Sport Sciences Schoondorf: Vrelag Karl Herman

DuBrin, A.J., 1984. *Foundations of Organizational Behavior An Applied Perspective*. London: Prentice-Hall International, Inc.

Edelmann, R. J., (1993), *Interpersonal Conflicts at Work.* London: BPS (The British Psychological Society).

Galtung, J. 1990. *The Violence of Culture. Journal of Peace Research*, vol.27. No. 3.IqYo, pp.291-305, diaksesdi http://www.jstor.org/about/terms.html.

Galtung, Johan. 1975. *Violence, Peace, and Peace Research*. Copenhagen: christianEjlers.

George Simmel, 1903. *The sociology of Conflict* : I (American Journal of Sociology.

Gibson, J. L., Invancevich, J. M., dan Donnelly, Jr. J. H., (1996), *Organisasi:Perilaku, Strukturdan Proses.* (Edisikedelapan), AlihBahasa: NunukArdiani, Jakarta: BinarupaAksara.

Giulinotti, R., Bonney, N, & Hepworth, M. 1994. *Foothball, Violence, and Social Indentity.* New York: Routledge.

Greenhalgh, L., 1999. "*MenanganiKonflik*". DalamA.DaleTimpe, (Ed.), *MemimpinManusia*. AlihbahasaolehSofyanCikmat. Jakarta: PT.Gramedia.

Hendrikks, W., 1992.*BagaimanaMengelolaKonflik*. Diterjemahkanoleh: ArifSantoso. Jakarta: BumiAksara.

Hewstone, M. & Cairns, E., 2006.*Social Psychology and Intergroup conflict.*Available in http://www.ripon.Edu/ academics/ psychology.Hewstone.Htm.

Maksum, A, 2007. *Konflik Kekerasan antar Kelompok Perguruan Pencak Silat. Studi kasus di Daerah madiun.*Penelitian fundammental

Marx, K. & Engels, F., 2000. *Manifesto of the Communist Party*.Diakses 12 April 2009 http://www.marxists.org/archive/marx/work/1848/communist-anifesto/ch01.htm.

Nalapraya, E.M., 1989. *Sejarah Perkembangan Pencak Silat di Indonesia*. Surabaya: Seminar Sehari Pencak Silat Indonesia menuju Era Organisasi Profesional.

Nasution., (1988) *MetodeNaturalistikKualitatif*, Bandung. Tarsito

Poloma, M.,1994, *Sosiologi Kontemporer*, Jakarta: PT Raja Grafindo Persada & Yayasan Solidaritas Gadjah Mada.

Pruitt, Dean G., and Hee Kim, Sung, 2004. *Social Conflict*: Escalation, Stalemate, and Stattlement (3 rd Edition). New York: McGraw-Hill

Randall, C., 1975, *Conflict Sociology: Toward and Explanatory Science*, Academic Press.

Rule, James B. 1988.*Theories of Civil Violence*. London: University of California Press.

Sugiyono., (2004) *MemahamiPenelitianKualitatif*. (Cetakanke 4), Bandung.Penerbit CV. Alfabeta

Susan, N., 2009. *SosiologiKonflik. Isu-IsuKonflikKontemporer*: edisi 1 Cetakan ke-1 Jakarta: KencanaPrenada Media group.

Weiss, D. H., (1993), *Conflict Resolution*. New York: American Management Association.

Winardi(2007), *ManajemenKonflik* (*KonflikPerubahan dan Pengembangan*), Bandung, Mandar Maju.

PRESENTER'S PAPERS

Author's Biodata

Harwanto is a lecturer in Sports and Coaching, Education Department of University of PGRI Adi Buana Surabaya.

PRESENTER'S PAPERS

Effect of Using of Pictures and Real Objects as Media and Learning Motivation against Mathematics Learning Outcomes of 7th Grade Junior High School Students

Ibut Priono Leksono
University of PGRI Adi Buana
Surabaya, Indonesia
ibutpriono@gmail.com

Dyan Anggraini
Junior High School (SMP) Negeri 1 Tulungagung,
East Java-Indonesia
Dyan9989@yahoo.co.id

Abstract

Learning is a blend of two activities: teaching and learning. Implementation of the learning process has been a tendency to treat the student as an object, the teacher serves as the ultimate authority of science and indoctriner, subject-oriented and centralized manager. The practice of learning, moreover, isolates students from their real lives that exists outside the school. It is also less relevant between what is taught in schools with the needs of the job, too concentrated on intellectual development that is not in line with the development of the individual as a unified whole and personality.This research has the goal to be achieved, namely: (1) to determine differences in Mathematics learning outcomes of the 7th grade students who was taught using the pictures and realias, (2) to determine the differences in mathematics learning outcomes between the 7th grade students who had high and low learning motivation, and (3) to determine the effect of the interaction of using pictures, real objects and the original motivation of the students of 7th on their learning outcomes of mathematics. It was an experimental research. The data were analyzed by analysis of variance F test with two lanes, with the sample used was a total of 76 7th grade students of SMP Negeri 1 Tulungagung. The results of the research are: 1) There was a difference in the students' mathematics learning outcomes after using pictures and real objects, (2) There was a difference in the mathematics learning outcomes of between the students whose motivation was low and those whose motivation was high (3) There was an interaction effect of using pictures and real objects and motivation to learn on the results of students' mathematics learning.

Keywords: Pictures, Original Media, Learning Motivation Against

INTRODUCTION

A. Background

The learning process will be associated with the components of education, teachers, students, materials and so forth. In the process of learning the paradigm of teaching in Indonesia is characterized, among others, teachers active while learners passive, learning centered on the teacher, the teacher transfer knowledge into the minds of students, understanding students tend to be instrumental, learning mechanistic, learners are silent physically and full concentration of attention to what is being taught by the teacher.

These conditions provide negative implications for students in the activities of the subjects of mathematics that learning mathematics is nothing more than remembering then forget about facts and concepts. Learning math has been more inspired by an absolute view. The views are absolutely looking at mathematics as a product or something ready-made. Learners are treated as objects of study so that teachers more *"feeding"* students with concepts or mathematical procedures.

In order to solve the problems faced by students and teachers, certainly needed a synergy between students, teachers and institutions. Teachers can design learning implementation as needed or use of instructional media. The use of media or tools recognized by many educational practitioners greatly assist the learning process activities both inside and outside the classroom, especially helpful in improving student learning outcomes. The use of media is one of the bridges so that students are able to think of things that the concrete to the abstract about mathematics. However, in implementation are not many teachers who use it, even use the lecture method (lecture method) monotonous still quite popular among teachers in the learning process.

Basically the use of the media is often overlooked due to limited media-related learning opportunities and skills of teachers in designing learning media itself. The use of the media were seen as being very effective, supported by the ability of teachers to combine learning model that is effective as well, not just talk, gives the material but more emphasis on learning that engages students to be able to interact well, interacting with friends (other students) even with teachers. Thus, the use of media images and original objects will have a positive impact for the student, where the student's pace will grow well. Where the use of media images and original objects students will be asked to describe, express opinion on what is shown by the teacher.

B. Problem Formulation

Based on the background of the issues mentioned above, the purpose of this study: 1) To determine differences in learning outcomes of students in the subjects of mathematics among students of class VII are taught using media images, 2). To determine the results of student learning mathematics courses at the seventh grade students who have the motivation to learn between high and low learning motivation, and 3). To determine the effect of the interaction media use images, media objects original and motivation to learn the results of students' of 7th grade student learning outcomes mathematics courses.

RESEARCH METHODS

The draft study, using experimental design methods to provide different treatment in the two groups were homogeneous samples. Where there will be two groups: a control group and an experimental group. One sample group was treated in the form of the use of media images and the other group was treated media original object.

Description Population and Sampling, in this study were students of 7th Grade Junior High School (SMP) Negeri 1 Tulungagung with the number of 13 classes.

Sample Research, In this study would have by random sample will be two classes in the seventh grade students of Junior High School (SMP) Negeri 1 Tulungagung.

Data collection techniques, Data collection methods used were: 1) Methods Questionnaire, and 2). test methods

Data analysis technique. Analysis of the data used in this research is to use the technique of analysis of variance of two paths.

DISCUSSION

Application of Image and Media Objects Media First, Improved student learning outcomes mathematics courses can be said as evidenced by the significant ***t test*** with significance value below 0.05, so the difference in student learning outcomes mathematics courses obtained by the students in the two classes is meaningful *(not negligible difference).*

Based on the calculation, *the value of F is obtained F count larger than F table, it means the use of media applied learning in the classroom in this study had a class that implements the distinction between media images and media original object.*

Variance Analysis Test Results 2 Factor

Tests of Between-Subjects Effects

Dependent Variable: Hasil Belajar

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	519.990[a]	3	173.330	7.071	.000
Intercept	455288.828	1	455288.828	18573.829	.000
Faktor_A	146.818	1	146.818	5.990	.017
Faktor_B	176.382	1	176.382	7.196	.009
Faktor_A * Faktor_B	120.737	1	120.737	4.926	.030
Error	1764.892	72	24.512		
Total	489165.000	76			
Corrected Total	2284.882	75			

a. R Squared = .228 (Adjusted R Squared = .195)

The result of this calculation indicates that the hypothesis can be accepted, There is a difference in student learning outcomes as mathematics in grade VII between the taught using media images and original media objects in Junior High School (SMP) Negeri 1 Tulungagung. Differences in student learning mathematics courses Students with high motivation and low motivation

Based on t test calculations obtained that t is greater t table so that it can be explained that the results of student learning math student subjects was significantly different between the have motivation to learn high and low learning motivation.

Based on the calculation of variance analysis two factors obtained value (*factor of motivation to learn)* count greater Ftabel, meaning There are differences in learning outcomes math class VII between the have motivation to learn is high and which has a low learning motivation in Junior High School (SMP) Negeri 1 Tulungagung in the academic 2014/ 2015 years.

Based on the above can be explained that the second hypothesis can be accepted, meaning There is a difference in student learning outcomes mathematics courses at the seventh grade students who have the motivation to learn between high and low learning motivation in 7th Grade Junior High School (SMP) Negeri 1 Tulungagung.

Influence of Media Learning and Motivation

Based on *two-factor analysis* of variance values obtained $F_{(AB)}$ count > F table, with singificans level of less than 0.05 (5%) so that it can be explained that the effect of interaction There are media images, media objects and the original motivation of the students of 7th Grade student learning outcomes mathematics lesson at Junior High School (SMP) Negeri 1 Tulungagung, Indonesian in the 2014/ 2015 academic years.

Based on the research results can be explained that an increase in student learning outcomes in mathematics courses each use good learning by using media images or by using native media objects. Students are taught using media images have better learning outcomes than students taught using the original media object. In addition, high learning motivation also indicated mostly owned by students taught by using media images in the media, while the original objects between students who have high motivation and low was dominated by students with high learning motivation.

Based on the above can be explained that the third hypothesis can be accepted, ie There is an interaction effect of media use images, media objects and the original motivation of the students of

7th Grade learning outcomes mathematics courses at Junior High School (SMP) Negeri 1 Tulungagung in the 2014/ 2015 academic years.

CONCLUSION

Based on the results of research and discussion conducted above, some conclusions can be drawn as follows. 1). There is a difference in student learning outcomes as mathematics in 7th Grade between the taught using media images and media original objects in Junior High School (SMP) Negeri 1 Tulungagung, as indicated by the average results of student learning mathematics courses students in the application of image media than the media real thing, where media images have better results than media class that implements the real thing. And the value of t is greater t table, 2). There is a difference in student learning outcomes as mathematics in 7th Grade between the have motivation to learn the high and low learning motivation in Junior High School (SMP) Negeri 1 Tulungagung, where students with high motivation have student learning outcomes subjects better math than students with student have low motivation. In addition, a significant difference is indicated by the value t is greater t table and 3). No interaction effects of media use images, media objects and the original motivation of the students of 7th Grade student learning outcomes mathematics courses at Junior High School (SMP) Negeri 1 Tulungagung the 2014/ 2015 academic years, which demonstrated that students taught using media images on students with high learning motivation has student learning outcomes subjects better math than students who are taught using the original media object, both the students who have learning motivation high and low. In addition, it also demonstrated the value of F count larger than F table.

REFERENCES.

Bambang dan Lina, 2013. *Metode Penelitian Kuantitatif (Teori dan aplikasinya*): Jakarta.

Djamarah, Syaiful Bahri dan Zain, Aswan. 2006. *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta.

Dwiyogo, Wasis. 2013. *Media Pembelajaran.* Malang: Wineka Media: Program Studi Teknologi Pembelajaran Pascasarjana Universitas Negeri Malang.

Hamalik, Oemar. 2010. *Proses Belajar Mengajar*. Jakarta: PT Bumi Aksara.

Hudojo, H. 2001. *Mengajar Belajar Matematika*. Jakarta: Depdikbud

Josefina Arce 1, George M. Bodner 2, Kelly Hutchinson2. 2014. *A Study of the Impact of Inquiry-Based Professional Development Experiences on the Beliefs of Intermediate Science Teachers about "Best Practices" for Classroom Teaching*. International Journal of Education in Mathematics, Science and Technology (IJEMST). Volume 2, Number 2, April 2014, Page 85-95

Munadi, Yudhi. 2008. *Media Pembelajaran (Sebuah Pendekatan Baru).* Gaung Persada Press. Jakarta

Sagala, Syaiful. 2010. *Konsep dan Makna Pembelajaran.* Bandung; Alfabeta

Sanjaya, Wina. 2014. *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana.

Sriwidayati. 2009. *"Meningkatkan Motivasi Belajar Siswa Pada Pokok bahasan Operasi Penjumlahan Bilangan Bulat dengan Memanfaatkan Media Kelereng dan Cincin pada Siswa Kelas VII.5 SMPN 4 Samarinda"*. PTK.

Sudjana, Nana dan Rivai, Ahmad. 2010. *Media Pengajaran.* Bandung: Sinar Baru Algesinda.

Sugiyono. 2008. *Metode Penelitian Kuantitatif dan R&D.* Bandung. Alfabeta

Sundayana, Rostina. 2014. *Media Dan Alat Peraga Dalam Pembelajaran Matematika*. Bandung: ALFABETA.

Supriyono, Agus. 2009. *Cooperative Learning Teori dan Aplikasi Paikem*. Yogyakarta. Pustaka Pelajar

Usman, Uzer, Mohammad. 2006. *Menjadi Guru Profesional.* Bandung Remaja Rosdakarya.

Widayat. 2004. *Metode Penelitian Pemasaran, Aplikasi Software SPSS*. Edisi Pertama. Penerbit UMM Press. Malang.

Winarsunu, Tulus. 2002. *Statistik dalam Penelitian Psikologi dan Pendidikan.* Malang: UMM Press

PRESENTER'S PAPERS

Winkel, WS. 2007. *Psikologi Pendidikan dan Evaluasi Belajar*. Jakarta: Gramedia

Author's Biodata

Ibut Priono Leksono, was born in the village Becirongengor, Wonoayu sub-district, Sidoarjo regency, East Java, on Wednesday, May 14th, 1958. Education S-1 (Drs) in Ambon Pattimura University Teaching Faculty of Education Department of Mathematics and graduated in 1985. Post-graduate S-2 degree (M.Pd) Instructional Technology Department pursued in Malang Teachers' Training College graduated in 1991. He passed in S3 level education (Dr.) in Instructional Technology Studies Program at the State University of Malang (2014).

Employment history, (1) has been teaching at the high school Persit Kartika Chandra Kirana Ambon in 1981-1986, (2) a lecturer of Mathematics Education at the Faculty of Education University of Pattimura Ambon in 1986-2004, and (3) a lecturer Kopertis Region 7 East Java seconded Adi Buana University PGRI Surabaya since 2004 - now

Dyan Anggraini was born on August 9th, 1973 in Tulungagung.
Surabaya State Teacher Training Institute 1992 undergraduate mathematics education program graduated in 1997.
In 2013 was given the opportunity to continue his studies at the Graduate University Degree Adibuana PGRI Surabaya Education Technology study program Mathematics concentration graduating in 2015.
Since 2012 received a teaching assignment in Junior High School (SMP) Negeri 1 Tulungagung-now.

PRESENTER'S PAPERS

Study on the Postmodernism Novel *Pulang* by Leila Chudori

Indayani
University of PGRI Adi Buana Surabaya
Jalan Ngagel Dadi III-B/37 Surabaya, Indonesia
indayani16a@gmail.com

Abstract

This study aimed to describe the postmodernism contained in the work of Leila S. Chudori's Pulang (Coming Home) novel. The study reviewed the novel because of the novel deals with postmodernism covering habitus, arena, and capital. Habitus is a habit or ordinances carriage. While the power of the realm is the arena in which there are efforts to the struggle for resources (capital) and also in order to obtain access to certain close to the power hierarchy. This research used a novel by Leila S. Chudori entitled 'Pulang' as the research object using the postmodernism theory. The method used in this research was descriptive qualitative. Data were collected in the form of words, phrases, sentences that mention habitus, arena, and capital in the novel. The data collection was done by reading the source data. The results of this study were in the form of habitus, domain, and capital as reflected in the novel. This can be clarified by the practice that is habitus multiplied by capital plus domains (arena) or interactions between habitus, arena, and capital to produce a social practice.

Keywords: postmodernism, habitus, arena, capital

1. INTRODUCTION

Literary works can be found in any language and where reality is created. The literary works present a variety of information and directs individual to patterns of social behaviour. Besides giving insight, literature is also a creative activity. The term "postmodernism" was first used by artists in the late 19th century and early 20th century to refer to the new movement to rid itself of the old order. Postmodern is a concept to think on their modernism. Modernism upholds rationality. Modern times have been considered ended and continued with the next era that is postmodern.

This research used a novel entitled *Pulang* by Leila S. Chudori as a research object using the postmodernism theory. Novel *Pulang* is a family drama, friendship, love and betrayal background with three historical events: Indonesia on 30 September 1965, France in May 1968 and Indonesia in May 1998. The main story centres on a character named Dimas Suryo, a political exile, who had directed the student movement raging in Paris until finally Dimas was prevented to return to Indonesia after the 30 September 1965 outbreak.

This study aimed to reveal a postmodern novel found in the work of Leila S. Chudori entitled *Pulang*. As previously mentioned, the novel was interesting to be investigated from the perspectives of postmodernism in terms of habitus, arena, and capital. The formulation of the problem in this research is as follows (1) How does the habitus in Leila S. Chudori's *Pulang* novel? (2) How does arena in *Pulang* novel by Leila S. Chudori work? and (3) How does capital in the novel *Pulang* by Leila S. Chudori ? The purpose of this research was to describe habitus in *Pulang* novel by Leila S. Chudori, to describe the arena in *Pulang* novel by Leila S. Chudori, and to describe the capital in *Pulang* novel by Leila S. Chudori.

.

2. LITERATURE REVIEW

2.1 Postmodernism

The term "postmodernism" was first used by artists in the late 19th century and early the 20th century to refer to the new movement to rid itself of the old order. This term quickly spread to other disciplines. In 1975, Charles Jenks wrote *The Language of Post Modern Architecture*.

In this narrow field, he formulated the key elements in the atmosphere of postmodern: simplification modernist, minimalist and universal. As early as 1925 Bertrand Russell expressed the view that once people became used to the idea of relativity, it would forever change their way of thinking. They would abandon a belief in absolutes and begin to regard all concepts as relative. Various styles and times are deliberately confusing, even ironically. The architects no longer believe in the dominant styles. They are no longer in their own time, but apparently stepped past them and looked at all the previous styles that can all be accessed. Also in the 1970s the continental postmodern philosophers became popular in the U.S. and this term boomed and was popularly used. But what is "after" (post) and what is "modern"? All "after" which we hear is partly determined by what came before, they depend on and react to earlier movements (O'Donnell, 2009:8). *Postmodernity* is the state or condition of being postmodern. Logically *post*modernism literally means "after modernity. It refers to the incipient or actual dissolution of those social forms associated with modernity (Sarup, 1993). We cannot understand postmodernism without first looking into modernism. Modernism derived from previous movements, which create a new invention or rediscover old knowledge. To understand postmodernism, we must retrace their ancestors through history and see to what postmodernism is.

The term postmodernism is also often discovered in various phenomena of reality of contemporary society such as society of post-industry (Hidayat, 2012:45). The importance of postmodernism includes in the basic ideas as a "philosophy", "rationality" and "epistemology" (Sugiharto, 1996:17). The study of postmodernism acknowledges again the position and authority of philosophy, rationality and truth.

2.2. **Field Theory of Literature by Pierre Bourdieu**

2.2.1 Habitus

The French sociologist Pierre Bourdieu approaches power within the context of a comprehensive 'theory of society'. Bourdieu's approach is useful in analysing power in development and social change. Bourdieu's habitus concept is intended as an alternative to the solutions offered by subjectivism (consciousness, subject, etc.) (Bourdieu, 2015:15). The concept of habitus presents a theoretical intention to get out of the philosophy of consciousness without throwing an agent in essence, as a practical operator for constructing objects.

Fashri (2014:93) states that the concept of habitus is a key concept in Bourdieu's theoretical synthesis. Habitus is the product of social structure and habitus itself is generative structures and social practices that produce social structures. The word comes from the Latin habitus "habitual" which means habits, appearance, demeanour or ordinances. The concept is not a concept created by habitus of Bourdieu, but comes from philosophy. Habitus is created and reproduced unconsciously (Bourdieu 1984: 170). Habitus can be formulated as an internalized social structure which is realized. In other words, habitus is the result of personal experiences on social values, structured and long lasting, settling in the mind and becoming a perspective or mindset.

Habitus can be broken into two aspects: the habitus of the individual through experience and socialization and collective habitus as a collective phenomenon/specific class. In addition, the basic driving habitus into action and thought is produced as a result of interaction between individuals in a specific social environment (Fashri, 2014:102). It can be said that the individual habitus is a perspective of individuals, while the collective habitus deals with the group's views that involves every individual within the collective.

2.2.2 Arena

Another concept that is important in Bourdieu's theory is the idea of 'fields', which are the various social and institutional arenas in which people express and reproduce their dispositions, and where they compete for the distribution of different kinds of capital (Gaventa 2003: 6).The sphere is an arena in which there are attempts for powers to struggle for resources (capital) and also in order to obtain specific access near power hierarchy (Fashri, 2014:106). Furthermore, Bourdieu (2015:213) defines social arena as a separate universe which has its own laws' func-tionality.

It can be said that the arena is a social space that refers to the overall conception of the social world. Each domain has a structure and powers itself, and is placed in a larger sphere that also has the power, its own structures and so on. It can be said that the practice is multiplied habitus, capital, and arena. Interaction between habitus, capital arena may generate a social practice.

2.2.3 Capital

A third important concept introduced by Bourdieu is that of 'capital', which he extends beyond the notion of material assets to capital that may be social, cultural or symbolic (Bourdieu, 1986). Fashri (2014:108) states that the term capital contains important characteristics accumulated through investment. Capital can be given to others through inheritance and provide benefits in accordance with the opportunity owned by the owner to operate its placement. Capital can be classified into four types: first, the economic capital including production tools, materials, and money, second, the cultural capital constituting the overall intellectual qualifications that can be produced through formal education and family heritage, such as the ability to present itself in public, possession of cultural objects of great value, specific knowledge and expertise of educational outcomes, and the certificate (a degree).

Power is no longer held, except it is confidential screened for the dregs of power equal to the secret itself (Baudrillard, 2013:60). Bourdieu asserts that the fields are different giving different values of power, on the types of capital or resources. "Capital" is defined as a resource or quality possessed by the individual or social position who has influence or social value. There are many forms of economic capitals (wealth), cultural capital (knowledge), symbolic capital (degrees, prestige) and social capital (social relationships).

It could be argued that the capital should be in the realm or sphere arena in order to have a power that has meaning. Relations of habitus, domain/arena, and (directly link to) capital aims to reveal social practices. Habitus serves as a guide and sphere of action and classification as capital operations. The sphere is always surrounded by an objective power relations based on the type of capital coupled with habitus.

3. RESEARCH METHOD

In researching the postmodern novel entitled *Pulang* (Coming Home), a qualitative descriptive method was employed. The object of this study was Leila S. Chudori's novel *Pulang* (Coming Home). The data in this study were in the forms of intangible words, phrases, sentences contained in the novel. Source of data in this study was the work of Leila S.Chudori (novel) entitled *Pulang* (Coming Home) The novel depicts habitus, arena, and capital. In this study, the data were collection through qualitative descriptive method. After the data were collected, it continued for the data analysis by using descriptive qualitative method for the elements in question.

4. FINDING AND ANALYSIS

4.1. Habitus in *Pulang* novel by Leila S. Chudori

Habitus is the result of personal experiences on social values, structured and long lasting, settles in the mind and becomes a perspective or mindset or also referred to as habits, appearance, demeanour or ordinances. Habitus is the basis driving action and thought as a result of interaction between individuals in a specific social environment. Habitus in *Pulang* novel was in the ideology of the post-1965 families.

In the novel there is a political strategy in the form of struggle openly by doing demonstrations and unfurled banners. It is contained in the following quotation:

> *I know. Our men must be in the the field supporting the students'joint movement. Salemba must be filled with a crowd and banners covering Central Jakarta. Right now, the banners are questioning the economic issues, declining the increasing prices of electricity and fuel oil. We heard that the government, in this case, President Soeharto was very much confident to raise oil prices though the situation was very critical. He must have thought that the year of 1998 was the same as the year of 1967 and 1968 when he was just crowned and raised the oil prices. I'm sure this issue will change into the change of*

the Cabinet and the special session. (Chudori, 2015:299).

It can be said that the struggle waged by the students from various campuses in Salemba, staging demonstrations to reject the price increase, the rise in prices of electricity and fuel oil.

4.2 Arena in *Pulang* novel by Leila S. Chudori

The sphere is an arena in which there are attempts for powers to struggle for resources (capital) and also in order to obtain access to certain close to the power hierarchy. Arena in *Pulang* novel was the events, in particular the events of 1965. In the novel *Pulang* it was also the president who utilized power by forming a cabinet that was comprised of cronies and his own daughters. It is reflected in the following excerpt:

> *Risjaf just turned on CNN TV channel presenting the few seconds of news on President Soeharto who had been elected as President of the Republic of Indonesia for the seventh time. But in fact what was interesting was the news on the students' activism and Indonesian media who began to criticize the new cabinet formed by the President and it consisted of his own cronies and daughters. (Chudori, 2015:50).*

Genesis reports that President Suharto was elected again AS the President of Indonesia for the seventh time that triggered demonstrations by students and Indonesian media to harness his presidential power.

Partai Komunis Indonesia or PKI (The Indonesian Communist Party) attempted its coupe on 30 September 1965 by kidnapping and murder of the generals who became military officers in Indonesia. It is contained in the following quotation:

> *...we heard from the Chair of Committee, Jose Xomenez about the 30 September attempted coupe. We then got stunned. We had never thought that such an evil and wicked tragedy. I often asked Brother Nug to repeat what he had heard from Ximenez. The generals had been kidnapped, tortured then killed*? (Chudori, 2015:69).

In addition, members of the communist party, family party or a perceived communist were intensively hunted. It is contained in the following quote:

> *From day to day, even every three hours, we heard a variety of ever-changing unpleasant news. The members of the communist party, their families or those who assumed to be communist sympathizer or a potential Communist because of holding Communist views were extremely hunted for murder. They were not only caught but massively executed throughout Indonesia. The news emerged like the splashes of blood*. (Chudori, 2015:72).

Thus, not only arrests, but also massive execution to members, families, or sympathizers of the communist party was pervasive in Indonesia.

Arena in *Pulang* novel is physical violence committed by the government forces to the ruling party to be involved directly with the PKI, the ruler through the interrogator to the families and relatives to be involved in PKI. It is contained in a quote:

> *But Kenanga had grown to be an adolescent. She understood that her father was being hunted and put into a prison there... One of the interrogators politely told her to clean up one of the rooms in that building. I had no choice but agreed and later I found out that her job was clean up the spotted blood on the floor of the torture room. She even found a stingray whip with dry blood. A few days before, she ran across some men stumbled in lines to move out to another room*. (Chudori, 2015:245).

Physical violence in the novel *Pulang* includes kidnapping, torture, rape, and murder committed by the army rulers.

4.3 Capital in *Pulang* novel by Leila S. Chudori

Capital in *Pulang* novel is when the main character was abroad. In this novel there is a political strategy in the form of tacit struggle conducted by the chief editor of Nusantara News, namely, Hananto, and Nugroho. And they have done underground by increasing the frequency of correspondence with the figures of the communist adherents abroad, namely Andres Pascal Allende. It is contained in the following quote:

> *Along the way Brother Hananto told me how he and Brother Nug had increased the number of frequency in corresponding with the important men around Andreas Pascal Allende.* (Chudori, 2015:35).

In *Pulang* novel, Dimas was so relieved when he was abroad that far from her mother because her mother was accompanied by Aji and Retno. This is evident in the following quote:

> *I'm so thankful that Aji and Retno, Aji's wife who is beautiful in the heart….* Chudori, 2015:70).

Dimas was living outside his country because the country was aggressively hunting PKI members, their relatives or who were just close to the PKI since the outbreak of the September 30 burst and Dimas was included the search list.

Moreover, he was strong and intellectual. This is evident from the sister of a political exile who communicated with her brother who hounded the government for being involved in PKI. It is contained in the following quote:

> *He knows, I don't care about the danger and want so badly to come back to Jakarta or Solo, though it means that I can possibly get busted. That's why Aji has tries hard to sent messages by wire. How dare he is to send such messages when his country is facing a badly critical situation.* (Chudori, 2015:71).

It can be said that the strength of the sister of a political exile who communicates with her brother who has been hounded by the government for being involved in PKI.

The gratitude that appears as a manifestation of the joy of self-figures. This can be seen in the following quote:

> *On May 21st, when President Soeharto delivered his resignation speech, we were all screaming. The "Tanah Air' restaurant seem to explode by our very loud screams*..... (Chudori, 2013:443).

It can be said that the excitement of the people who are in the restaurant and hear about President Soeharto's resignation speech.This is good news for Dimas and his friends because now it means they have the chance to return to Indonesia.

5. **CONCLUSION**

From the previous discussion it can be concluded that the application of the postmodern in Leila S. Chudori's *Pulang* novel are habitus, field (arena), and capital. This can be clarified by the practice of habitus multiplied by capital plus field (arena) or interactions between habitus, arena (field), and capital to produce a social practice. Habitus is the result of personal experiences on social values, structured and long lasting. It settles in the mind and becomes a perspective or mindset or also referred to as habits, appearance, demeanour or ordinances. Habitus is the basis driving action and thought as a result of interaction between individuals in a specific social environment. Habitus in *Pulang* novel can be discovered in the key figures contained in the ideology of the post-1965 family. The realm of the power is arena in which there is the attempt to struggle for resources (capital) in order to obtain access to certain close to the power hierarchy. Arena in *Pulang* novel the events of 1965; while capital in *Pulang* novel is when the main character was abroad. Thus the Interaction between habitus, arena, and capital produces a social practice.

REFERENCES

Bourdieu, P. (1984). Distinction: A Social Critique of the Judgement of Taste. London, Routledge.

Baudrillard, J. Diterjemahkan oleh Jimmy Firdaus. (2013). *Lupakan Postmodernisme: Kritik atas Pemikiran Foucalt dan Autokritik Baudrillard*. Bantul: Kreasi Wacana.

Bordieu, P. Diterjemahkan oleh Yudi Santosa. (2015). *Arena Produksi Kultural: Sebuah Kajian Sosiologi Budaya*. Bantul: Kreasi Wacana.

Chudori, L. S. (2015). *Sebuah Novel: Pulang*. Jakarta: Gramedia.

Gaventa, J. (2003). Power after Lukes: a review of the literature, Brighton: Institute of Development Studies.

PRESENTER'S PAPERS

Fashri, F. (2014). *Pierre Bourdieu: Menyingkap Kuasa Simbol*. Jalasutra: Yogyakarta.
Hidayat, M. A. (2012). *Menggugat Modernisme: Mengenali Rentang Pemikiran Postmodernisme Jean Baudrillard*. Yogyakarta: Jalasutra.
O'Donnell, K. (2009). *Postmodernisme*. Yogyakarta: Kanisius.
Sugiharto, I. (1996). *Postmodernisme: Tantangan bagi Filsafat*. Yogyakarta: Kanisius.
Sarup, M. (1993) *An Introductory Guide to Post-Structuralism and Postmodernism*. Atlanta: University of Georgia Press.

Author's Biodata

Indayani is a lecturer of Education Language and Literature at the University of Adi Buana Indonesia Surabaya. She taught courses in appreciation of literature and literary studies. Now she is taking classes S3 Education Language and Literature at the State University of Surabaya. indayani16a@gmail.com

Revitalization in Character Education Prevention of Corruption since Early Behavior

Irnawati
University of PGRI Adi Buana Surabaya
md.irnaa@gmail.com

Wawan Gunawan
University of PGRI Adi Buana Surabaya
Wawang605@gmail.com

Abstract

Character is the value or characteristic that is inherent in a person. Then it can be interpreted that character education value-based education, education which reflects the characteristic, manners, behavior, and education to develop the potential of a person. The purpose of character education in this case is reorganize behavior, manners and the potential for someone to be able to prevent early with corruption. Corruption is an extraordinary crime and a major enemy of the Indonesian people. By doing corruption, then indirectly may impoverish the moral as well as the country's wealth. This research method is the study of literature. The results of the study were (1) can revitalize character education among students and (2) improve the prevention of corruption behavior from an early age through character education. Based on the results of this study can be put forward suggestions, namely: (1) the Indonesian government, especially KEMENRISTEKDIKTI to more frequent training character education reserved for representatives of the campus, (2) prevention of corruption needs to be done starting from yourself (under penalty when making a mistake or crime), and (3) to revitalize or restructure the character education in Indonesia, is expected to preventively able to build one's personal to be aware and think that the act of corruption is a reprehensible act and the harm to self, family, community and nation.

Keywords: revitalization, character education, prevention, corruption

INTRODUCTION

Education has an important role in the advancement of themselves and the nation. Education is a process of learning someone from things that are not known to lead to the things that make a person knows. Education is synonymous with subjects or courses taken by a student. But now as the days are growing rapidly and requires a variety of things, the characters are vital need of every person. Characters is necessary because the character is a value or characteristic that is inherent in a person. Character means temperament, character, disposition (Echols, 2005). Characters are the values of human behavior associated with the Almighty God, ourselves, our fellow human beings, the environment, and nationality embodied in thoughts, attitudes, feelings, words and actions based on religious norms, the law of karma, culture and customs (Fitri, 2012).

Culture and customs in Indonesia since the first own character. But now slowly and surely faded with flows of more advanced age. Luxury-paced lifestyle makes a person forget the identity. As of this moment of such corruption is not unlike ants that come out of hiding. In this case because a person's true character is gone. The conscience is closed with a willingness to be achieved to justify everything. In essence, everything is not too late repaired actively promote re-education of character in this beloved country. According Lickona (1992) good character as the life of right conduct-right conduct in relation to other persons and in relation to oneself. That good character that knows a good thing, there is a desire for good and do well anyway.

That is required for the rejuvenation of character education to make someone prevent such acts of corruption early this great nation so that more and more famous with good culture and are not renowned for its corruption. With a person's character education will be able to become accustomed to thinking in advance, customs heart in feeling, and acting with good habits (Lickona, 1992).

This above is consistent and in accordance with Law No. 20 Year 2003 on National Education System, Article 3, namely: National education serves to develop the ability and character development and civilization of the nation's dignity in the context of the intellectual life of the nation, is aimed at developing students' potentials in order to become a man of faith and fear of God Almighty, noble, healthy, knowledgeable, skilled, creative, independent, and become citizens of a democratic and responsible .The rejuvenation of the character education is the right thing and not too late, because the current generation is what the next few years will lead this nation and towards the common goal as mandated by the Constitution of the Republic of Indonesia which is to promote the general welfare, educating the nation and participate in the establishment of world order based on freedom , lasting peace and social justice.

METHOD

This research method is the study of literature. Form study the literature review that supports writing. Basic materials research study of literature can be divided into two groups (Soekanto et al, 2012), as follows: (1) material/primary sources, the material library containing new scientific knowledge or the current or a new understanding of the facts known or about an idea (the idea). Materials/disposal of the primer include: (a) the book, (b) working paper conferences, workshops, seminars, symposia and so on, (c) the report of a study, (d) technical reports, (e) magazine, (f) dissertation and thesis, and (g) patents. And (2) materials/secondary sources that library materials that contain information about the primary material. Materials/secondary sources of this include the following: (a) the abstract, (b) the index, (c) bibliography, (d) issuance of government, and (e) other reference materials.

DISCUSSION

Revitalization in education becomes important and necessary, because the revitalization of education in essence is empowerment that contains universal values that have positive implications for the quality of education in the future (Divine, 2012). Era ASEAN economic community or the capital now, the center of education are confronted with an issue that completely follow the changes of globalization. The flow of communication and information more significant progress, requires education to attempt enhance its role in the growth potential of creativity, skill and personality of the students, especially the three basic components that are the foundation of the learning process in school institutions (Divine, 2012).

The rejuvenation or revitalization of character education is needed in the education world that always demands going technological progress but still not leaving the character inherent in the culture of Indonesia beloved. Understanding revitalization is a process, a way, vital act of something (Chulsum et al, 2006 & Tim Reality, 2008). According to Indonesian dictionary, the definition of revitalization is a process, a way, act revive or revitalize. Revitalization of education will run optimally, if the orientation and the educational significance based moral values (moral values) (Divine, 2012).

In improving the quality of education, human resources are needed for the existence of education is aimed at generating broad-minded generation, potentially, tough, intelligent and noble personality (Divine, 2012). According to Kusuma (2004), character education is a continuous dynamic development ability in man to hold the internalization of values resulting in a disposition of active, stable within the individual. The process of character education is a planned attempt in earnest to establish a person's behavior such as by the exemplary behavior of teachers, lecturers, speech, delivering the material, tolerance and so (Zubaedi, 2013).

According to Adler (1962) in his philosophy of education, education is the process with all our human abilities (talent and interest) that can be influenced by habituation and refined with good habits through means that are artistically created and used by anyone for the sake of helping others and themselves achieve real education. Educational process clearly is an attempt to guide, nurture and direct the potential of human life that attempts basic capability forming his guiding principles becomes more mature. Therefore, education is operationally contains two aspects, namely maintaining or improving and growing aspect or fostering. Both aspects are very closely associated with basic human ability to develop all the existing potential to be more optimal. The potential development in turn will produce quality human resources for the sake of the future development of the nation (Divine, 2012). Good human resources and dignified indirectly formed through character education is taught in the environment of the school as well as college environment and provides an understanding of the importance of character in every respect.

The importance of character or potential development in rejuvenation and reactivate character education will be able to produce quality human resources to have a behavior which is based on moral values (moral values) to abstain them against corruption. Corruption is an extraordinary crime (extra ordinary crime) and is a great enemy of the Indonesian people. By doing corruption, then indirectly may impoverish the moral as well as the country's wealth.

According to Transparency International, corruption is the behavior of public officials, both politician/politicians as well as civil servants, which is not fair and not legal to enrich themselves or enrich those close to him, by abusing public power entrusted to them (Wibowo, 2013). Corruption Eradication Commission that defines corruption as the abuse of power that causes all the losses to the state and therefore considered a criminal offense (Wibowo, 2013). By definition the Commission, abuse of authority in the form: bribery, embezzlement in office, acts of extortion, cheating, and conflict of interest in procurement.

Misuse can be done by anyone, not least among the student or students, then to reactivate their character education can provide knowledge of the importance of honesty and behave anti to all matters relating to corruption early on. Revive the character education from an early age to prevent corrupt behavior is in line with Law Number 31 of 1999 on Corruption Eradication, Article 41, paragraph 1, "the public can play a role and help the prevention and eradication of corruption".

Importance of early aware of the dangers of corruption and the huge impact that will be caused by these actions, then all elements of the Indonesia needs to reactivate character education. Musdah (2013) says "Speaking of the nation, what the character is the most important because it determines the survival of people in a country, because it is also a good nation will always take seriously the problem of 'characters' in education".

Education is a true character education that not only rely on and hone intellectual intelligence purely, but also to build character-based citizens' human values and national values, which is based on PANCASILA as the state ideology. Character education is a process of self-development with full awareness as a dignified human being. The purpose of education: "Education is the point at the which we Decide Whether we love the world enough to assume responsibility for it and by the same token save it from that ruin which, except for renewal, except for the coming of the new and the young, would be Inevitable. And education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to Reviews their own devices, nor to strike from their hands reviews their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world "(Noble, 2013). Arendt statement that gives meaning when education is able to give birth to the students who love themselves, others, and the environment, and they are aware that these three are one inseparable unit. In line with Arendt, through rejuvenate or reactivate the current character education is the right thing, if not today be encouraged back, then when.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Education is the most important base in the advancement of the nation. Education contains aspects of maintaining or improving and growing aspect or fostering. With reactivate character education will be able to produce quality human resources by having a behavior which is based on moral values (moral values) to abstain them against corruption and able to develop its duties and responsibilities towards qualified personal.

Suggestion

Based on the results of this study can be put forward suggestions, namely: (1) the Indonesian government, especially KEMENRISTEKDIKTI to more frequent training character education reserved for representatives of the campus, (2) prevention of corruption needs to be done starting from yourself (under penalty when making a mistake or crime), and (3) to revitalize or restructure the character education in Indonesia, is expected to preventively able to build one's personal to be aware and think that the act of corruption is a reprehensible act and the harm to self, family, community and nation.

REFERENCES

Agus Zaenul Fitri. 2012. *Reinventing Human Character: Pendidikan Karakter Berbasis Nilai& Etika di Sekolah*. Jogjakarta: Ar-Ruzz Media. Hlm. 20-21.

Agus Wibowo. 2013. *Pendidikan Anti Korupsi di Sekolah: Strategi Internalisasi Pendidikan Antikorupsi di Sekolah*. Yogyakarta: Pustaka Pelajar. Hlm. 21-22.

Doni Kusuma. 2004. *Pendidikan Karakter*. Jakarta: Grasindo. Hlm. 104.

John Echols. 2005. *Kamus Populer*. Jakarta: Rineke Cipta Media. Hlm. 37.

Lickona, T. 1992. *Educating for Character: How our Schools can Teach Respect and Responsibility*. New York: Bantam Books. Hlm. 50-51.

Mortimoe J. Adler. 1962. *Philosophy of Education*, Chicago: University of Chicago Press. Hlm 209.

Muhammad Takdir Ilahi. 2012. *Revitalisasi Pendidikan Berbasis Moral*, Jogjakarta: Ar-Ruzz Media. Hlm 178.

Siti Musdah Mulia dan Ira D.Aini. 2013. *Karakter Manusia Indonesia: Butir-butir Pendidikan Karakter untuk Generasi Muda*. Bandung: Nuansa Cendekia. Hlm. 19.

Tim Penyusun Kamus Pusat Bahasa. 2005. *Kamus Besar Bahasa Indonesia*. Jakarta: Balai Pustaka.

Tim Reality. 2008. *Kamus Terbaru Bahasa Indonesia*. Surabaya: Reality Publisher. Hlm. 555.

Umi Chulsum dan Windy Novia. 2006. *Kamus Besar Bahasa Indonesia*. Surabaya: Kashiko. Hlm. 580.

Undang-Undang Nomor 31 Tahun 1999 tentang Pemberantasan Tindak Pidana Korupsi.

Zubaedi. *Desain Pendidikan Karakter: Konsepsi dan Aplikasinya dalam Lembaga Pendidikan* 2013.Jakarta: Kencana Prenada Media Group. Hlm. 19.

PRESENTER'S PAPERS

Author's Biodata

Irnawati is lecturer Pancasila and Citizenship Education, at the University of Surabaya Adi Buana. Received a Master of Law degree at Brawijaya University. Taught courses related to discipline, including Islamic law, PIH and Criminal Law and Criminology.

Wawan Gunawan is a permanent lecturer of postgraduate UNIPA Surabaya. Born in Lampung April 4, 1984. Graduated S1 English Language and Learning Technology in Surabaya UNIPA. Many writing in National and International journals and frequently attend seminars both as speaker and as a member.

PRESENTER'S PAPERS

The Role of Music in Improving Children's Self-Confidence

Isabella Hasiana
University of PGRI Adi Buana Surabaya
icha1916@yahoo.co.id

Aniek Wirastania
University of PGRI Adi Buana Surabaya
aniek.bk04@gmail.com

Abstract

Self-confidence is an important thing in the lives of children, especially related to their social life in the future. The confidence within a child helps show the potential that ultimately led to success in the future. If the child does not have self-confidence, he or she will have a feeling of fear when interacting with the environment outside the family. Various causes and backgrounds can influence people to become less confident. They are family conditions, environmental and social interaction, and physical limitations. Confidence is defined as behavior that makes individuals have a positive and realistic view of themselves and their surroundings. Increasing the child's confidence can basically be done using a variety of methods. One of them is by using music. Music is believed to help the child have a high self confidence. Musical therapy may provide stimulation to the brains of children. The present paper highlights the roles of music in enhancing children's self confidence.

Keywords: *child, self confidence, music*

Preface

Self-confidence is one of the important aspects of the personality of the individual self. If people do not have confidence, it can cause problems later in the day. This is because, with the confidence that is owned, making the individual capable of actualizing all the potential in him. The confidence of an individual will increase as the ability and competency of the individual increases. Improving the ability of individuals can occur by providing pembelajarn that can be developed. One medium that can be used to boost confidence is through the medium of music. Music is believed to have the power to improve a person's mind so that later can boost one's confidence.

Contents

All parents expect their child achieve success. Success can not be achieved easily. A child should be able to meet the factors for ensuring success. Factors supporting the success of the course must be nurtured from an early age. One of them is confidence.

According to Willis (in Ghufron and Risnawita, 2010: 34), confidence is the belief in a person that he is able to overcome a problem with the situation best and can provide something nice for someone else. This is similar to the one delivered by Lauster (in Ghufron and Risnawita, 2010: 34), that confidence is related to the ability to do something good. When an individual has self-confidence, he was not influenced by others and may act according to the will, excited, optimistic and quite tolerant and responsible. However, when a person has excessive self-confidence, it is not a positive trait even make a person become less cautious and will do whatever they own that can cause conflict with others (Lauster in Ghufron and Risnawita, 2010: 35).

According Lauster (in Ghufron and Risnawita, 2010: 35), people who have the confidence that positive as follows, (1). Having faith that she could seriously be what it is doing; (2). Having an optimistic attitude that always holds good in the face of all things about himself and his abilities; (3). Having detachment where he always looked at the problem with the truth is something that should be personal and not according to the truth; (4). Individuals who have the confidence that the

positive has to bear the responsibility for everything that has been the consequence, and (5). Has a rational and realistic attitude to the use of thought that can be accepted by reasonable and in accordance with reality.

Confidence is influenced by several aspects, namely (1) Self-Concept. According to Anthony (in Ghufron and Risnawita, 2010: 37) the formation of the individual self confidence begins with the development of self-concept were obtained in the interaction in a group where the results of interactions that occur in the group will produce a self-concept; (2). Pride. A positive self concept will also form a positive self-esteem as well. Self-esteem is the assessment of yourself; (3). Experience. The experience can be a factor in the emergence of self-confidence but the opposite can also be a factor in the declining trust someone. From past experience, it is important to develop a healthy personality (Anthony in Ghufron and Risnawita, 2010: 37); (4).

This does not mean that inividu are capable and competent to do everything alone, but confidence only refers to their feeling confident capable and has the competence and believes that he can because it is supported by the experience, the actual potential, achievements and realistic expectations of self.

Factors Affecting Confidence

Factors that affect a person's self-confidence, as follows (Hakim, 2012: 121):

1. Family environment. Family circumstances constitutes the environment first and foremost in the life of every human being .. If someone is in a good family environment, confidence can grow and develop properly. But on the contrary if one were in a less stimulating environment and facilities for individuals to develop self-confidence then the individual will lose the learning process.
2. Formal Education. Schools can be regarded as a second environment for children. School gives children space to express his confidence against their peers.
3. Non-formal education. The confidence will become increasingly more powerful and develop optimally if the individual has an excess capacity or that makes others feel amazed. Such capabilities can be obtained through non-formal education for example by attending English language courses, following the music course, and others.

Music

Music is something fun, nature give joy, rhythm (rhythm), melody, timbre, (tone color) specific to help the body and mind work together (fauzi, 2006). This is in line with the opinion of Sari (2004) which states can give a sense of music that is entertaining, foster an atmosphere of fun and pleasure at someone, so that the music not only to influence the thinking intellect alone but also of emotional intelligence. Music has the power to cure disease and improve one's mind. When applied to become a music therapy, music can enhance, restore and maintain physical, mental, emotional, social and spiritual. This is due to the music has some advantages, namely because the music is pleasant, soothing, relaxing, structured, and universal. Music gives a great influence to the human mind and body. When listening to music, the human body will give direct effect.

Basic Elements of Music

Music can influence the human life. According to Halimah (2013) music has the basic elements of which are as follows; a) Domestic tone is a tone sequence which is prepared in stages; b) The rhythm of a regular flow of motion tone accents karen emergence regular basis; c) bars is a sign to indicate the number of beats in the bars; d) The melody is a series of tones based on the difference between high and low response or rise and fall of tone; e) The expression as to the nature or the soul of a song; f) Signs dynamics are hard changes faint sound of a song.

Benefits of Music

Music is a good organizer in shaping the body and mind so that they can work well together. when listening to music an individual will get the benefits. The benefits that can be obtained from the music is: 1) to give repetitions reinforce learning; 2) gave the rhythmic beats that membentu

coordination; 3) giving patterns lead to anticipate what will happen next; 4) gave the words that unite the language and reading skills; 5) gave an interesting melody hearts and attention with encouraging. Meanwhile, according to Fauzi (2006) music gives a strong influence in; 1) help the baby's brain development; 2) help the development of language; 3) as a bridge to learn to read; 4) provide a device for mentally to solve problems; 5) improve cognitive skills and behavior; 6) foster self-confidence.

The Role of Music as a Medium to Improve The Child's Confidence

Everyone wants to have a good self-confidence while undergoing various activities. It is not easy to be able to have confidence or mental strength, especially if the individual is experiencing feelings of anxiety, excessive fear, is nervous and prone to mental stress.

When an individual has a personality that is confident and always optimistic this condition will certainly be very helpful in the development of personality. Good personality, would be ready for whatever predicament faced and resolved. But, unfortunately, not everyone has a natural talent for these properties, some people have to get out of the course, as well as follow certain activities.

Increased confidence is one of them could do with music. Application of music into a music therapy is done because ssesuatu are universal and can be accepted by all individuals. In addition to music can improve, restore, and maintain physical, mental, emotional, social and spiritual. This is due to the music has some advantages, namely because the music is pleasant, soothing, relaxing, structured, and universal. For example, when we listen to the strains of music (though without the song), we will immediately feel the effect of the music. there is music that makes us happy, sad, compassionate, feel lonely, spirit, reminiscent of the past, and others.

Music has the basic elements of scales, rhythms, time signatures, melody, expression, as well as the dynamics of the mark. Seven basic elements of music have come together to produce a tone. Every note that is created from elements of music will present the dynamics of the music. The dynamics of the music up and down the next will give a different effect to the mind and body. Likewise with confidence. Music can be used to improve the confidence of course, music that makes the individual become more motivated to do something. Music can influence the human life. This is in accordance with the opinion of Fauzi (2006) which states that music can give effect to help the baby's brain development, helping the development of language and a bridge for learning to read, giving the device for mentally to solve problems, improve cognitive skills and behavior; foster self-confidence.

The power of music in improving self-esteem can also be seen from the function of music that serves as the best organizer in shaping the body and mind to be able to work together well. According to Sari (2004) when a child listening to music then direct the child was doing repetitions for reinforcement learning, giving beats rhythmically to help coordinate, giving patterns in a guidance to anticipate a condition that will happen, giving the words that unite language and reading skills, as well as providing a sense of excitement and happiness that eventually can maximize learning outcomes and may enhance the ability of children. Increased capacity in the child directly also will be able to increase her confidence.

Conclusion

Music can influence the human life. Music is a good organizer in shaping the body and mind so that they can work well together. when listening to music an individual will get the benefits. Increased confidence is one of them could have done with music The power of music to improve self-esteem can also be seen from the function of music that serves as the best organizer in shaping the body and mind to be able to work together well. When a child listening to music then direct the child was doing repetitions for reinforcement learning, giving beats rhythmically to help coordinate, giving patterns in a guidance to anticipate a condition that will happen, giving the words that unite the language and reading skills, as well as gives a feeling of pleasure and happiness that eventually can maximize learning outcomes and may enhance the ability of children. Increased capacity in the child directly also will be able to increase her confidence.

Reference

Hakim, Arief Rahman. (2012). *Bagaimana Nasib Pendidikan Indonesia* [Online]. Tersedia:http://majalahgontor.co.id/index.php?option=com_content&view:=article&id=351:mau-dibawa-kemana-pendidikan-kita&catid=40:laporan&Itemid=103 [5 Januari 2012]

Halimah. (2013). *Elemen-Elemen Dasar Musik* [Online]. Tersedia: disusuhalimah777.blogspot.co.id/2013/02/elemen-unsur-unsur-musik.html Elemen-unsur musik [27 Februari 2013]

Fauzi, D. A. 2006. Pengaruh Musik Bagi Kecerdasan Bayi. Jakarta, Harmoni.

Ghufron dan Risnawita. 2010. Teori-Teori Psikologi. Ar-Ruzz Media Group. Jogjakarta

Sari, N. R. 2005. *Musik dan Kecerdasan Otak Bayi*. Jakarta, KH. Kharisma Buka Aksara.

Author's Biodata

Isabella Hasiana is a lecturer of Early Childhood Education, University of Adi Buana Surabaya. She received his Master Degree under Airlangga University. Her major interests children developmental. Email: icha1916@yahoo.co.id

Aniek Wirastania is a lecturer of Guidance and Counseling Department, University of Adi Buana Surabaya. She received his Master Degree under UPI Bandung Indonesia. Her major interests cover teaching rehabilitation counseling and counseling program for children.. Email: aniek.bk04@gmail.com

PRESENTER'S PAPERS

Curriculum Models of Education Teachers Based on Indonesian Qualifications Framework (KKNI)

J. Priyanto Widodo
STKIP PGRI Sidoarjo
Jl. Kemiri, Sidoarjo, East Java, Indonesia
priwidodo@gmail.com.

Abstract

This article reviews the curriculum models of teacher education based on the Indonesian Qualifications Framework (KKNI) as product regulations relating to the duty of higher education institutions educators. Educational Institutions of Educators (LPTK) as the producer of prospective teachers with a set of knowledge and skills that can answer the challenges of the future needs. The role and tasks of the future teachers is very heavy and complex in the face of changing times and technology. The role and tasks of the future teachers are extremely heavy and dynamic because there will be a new phenomenon in the economic life of society and the needs of education in Indonesia. Economic phenomena that tend to be materialistic and capitalistic society tends to generate independent individualistic. Learners do not have to and just learn from the teacher resource, but can also easily learn resources obtained from the advances in communications technology which are more economical. To that end, both public and private LPTK need to reformat the system and educational curriculum.

Key words: curriculum models, education, teachers, professional, KKNI

INDONESIAN QUALIFICATION FRAMEWORK

Indonesian Qualification Framework (called as KKNI) is a legal product in the field of education which was developed based on President Decree No.8, 2012. Issued before the establishment of Law No.12, 2012 on higher education, KKNI became a powerful regulation which become a trending topic in the social media of higher education institutions.

KKNI is a qualification framework which classifies Indonesian human resources, comparing and integrating education sector with the sector of training and experience in a scheme recognizing work skills adjusted to structures in various sectors. KKNI is the realization of the quality and identity of Indonesia in relation to its national education system, the national work training system, and the national assesment system of learning outcomes, which are used to produce high quality and productive human resources for the national program of the 2045 Golden Indonesia.

President Decree No.8, 2012 mentions that KKNI consists of 9 levels/classifications of productive Indonesian human resources. The description of qualification in each level considers the learning outcomes, produced by formal and non-formal education processes, as well as experience in conducting quality work processes. The description is also suited to the development of knowledge, technology, art, and sectors supporting the economy and welfare of the nation, such as farming, health, law, and other related aspects.

Learning outcomes also include aspects building the nation identity as reflected in Pancasila, the 1945 Constitution, and *Bhinneka Tunggal Ika* – which enacts the implementation of the fifth principle of *Pancasila* (the nation five principles) and law; they are committed to recognizing and respecting the diverse religions, ethnicities, cultures, languages, and arts in Indonesia.

KKNI is used as a neutral reference in the process of recognizing learning outcomes obtained from various education systems/processes in the National Education System and work

competencies obtained from experience or trainings. KKNI can be used as a reference for stakeholders related to and concerned about the development of human resources in their workplaces and the community.

The formal education sector in higher education can employ KKNI as a reference to plan learning processes which aim to produce graduates whose knowledge and skills meet the qualification standard in the KKNI and the career level. Therefore, KKNI is intended to (1) determine the qualification of learning outcomes obtained from formal and non-formal education, as well as work experience; (2) determine the recognition scheme or learning outcomes obtained from formal and non-formal education, as well as work experience; (3) recognize the qualification of learning outcomes obtained from formal and non-formal education, as well as work experience; (4) develop the recognition system and method of the qualification of human resources from other countries who work in Indonesia.

For the future and long-term objective/planning of Indonesia, the implementation of KKNI will: (1) increase the number of qualified human resources with international competitiveness so that the improvement of accesibility of Indonesian human resources to national and international work opportunities can be ensured; (2) increase the contribution of learning outcomes obtained from formal and non-formal education, as well as work experience in the national economic growth; (3) increase academic mobility to achieve mutual understanding, solidarity, and networking of higher education institutions in various countries; (4) increase the recognition of other countries in regional and international levels without putting aside the characterictics and identity of Indonesia.

TEACHERS' FUTURE CHALLENGES

The roles and responsibilities of teachers in the future are complex and dynamic due to the phenomena in the economy and education in Indonesia. The economic phenomenon which tends to be materialistic and capitalistic will generate an individualistically independent society. Students do not have to learn from teachers; they can also learn from other sources of information through the communication technology. The world has become 'a global village' in which individuals are no longer limited by physical barriers. Since 2015 in the ASEAN Community, commodities and workers from other countries have been able to enter Indonesia. The next period will allow neighbouring countries in Asia and Pacific (AFTA) to enter the country. Are our teachers able to prepare themselves and their students to face the global competition?

In his book 'the future', Al Gore mentioned that in the 21st century, there will be geopolitical and economic shifts, from the west to the east. Jacques described that "China is more a cultural-state rather than a nation state" and South Korea as imitating the strategy of Japan in its resistance against America which had bombed Hirosima and Nagasaki; Al Gore used this as evidence that Asian countries, including Indonesia, will control the world.

In terms of population and geographical area, Indonesia has been predicted to be one of developed countries. In 2014 (the golden Indonesia), it will have a demographic bonus; 50% of Indonesian people will be in the productive afe with per capita income of US $5000. Therefore, Indonesia will belong to the high-income group. One of the keys is the ability of teachers to drive students' potential in order to find/build their identity with nationalism and culture as well as confidence as a big nation.

TEACHERS AS ORGANIC INTELLECTUALS

Antonio Gramsci mentioned teachers as organic intellectuals having a particular strength in educating humans through the evolution process. Teachers as '*pamong*' (java*)* have important roles as drivers and facilitators of students' learning and potential. Teachers has a responsibility to create democratic citizens through evolution, not revolution. The ability of students will develop gradually and intensively through examples and guidance of teachers. The task of future teachers is as a *pamong* – that is a living example for students, democratic and skilful. Therefore, a civil society will be created, in which citizens are virtous, skillful, and have a feeling of responsibility

toward the nation. The future Indonesian teachers are organic intellectuals, not bureaucrats or bureaucratic labours. The main responsibility of the teachers is to educate students and free them from indoctrination, so that a knowledge based society can be created. The main task of teachers is not a political task influenced by politics and political power.

TEACHERS AND CURRICULUM

Since the Indonesian independence, curriculum changes has occured 11 times; yet, the changes do not seem to improve the quality of education and teachers. Ideally, curriculum changes should be done based on the bottom-up principle, not top-down. In education, curriculum changes should be done through stages and trial involving samples or small-to-big groups; a curriculum can be applied nationally if it has been tested/evaluated, which requires a long period of time. Yet, improving the quality of teachers through three-day trainings seems impossible to do, particularly when the trainings are not accompanied with evaluations. Teachers are the key of the succesful implementation of a curriculum.

REFORMATION OF LPTK

Education institutions for educators (LPTK) which have a task to generate teachers need to change their curriculum and education system. Based on the current regulation, the teaching profession cannot be dominated by those having bachelor of education, it should include those having general bachelors (non-education). The 'old' curriculum of PTK has been recognized as having weaknesses in creating teachers. The input and output standards are not based on outcomes needed by users of graduates. Even most private LPTK do not have an input standard. Under the National Law No.14, 2005 on teachers and lecturers, LPTK experience a booming; yet, the number of LPTK students will decrease.

In the Indonesian Qualification Framework (KKNI), the curriculum of teacher education is no longer on level six, but on level seven. It is equal to doctors, judges, accountants, etc. Regulations dealing with professional teacher education (PPG) should be limited; LPTK require creative alternatives and solutions which need to be diversified in the system.

H.A.R Tilaar mentioned that LPTK should do reformation in order to produce creative and innovative Indonesians for the process of collaborative learning. The curriculum of LPTK should be able to produce teachers who are: (1) nasionalists, (2) having knowledge, (3) *pamong* able to develop thinking capacity and ethics, and (4) professional.

THE TEACHER EDUCATION CURRICULUM MODEL BASED ON KKNI AND PPG

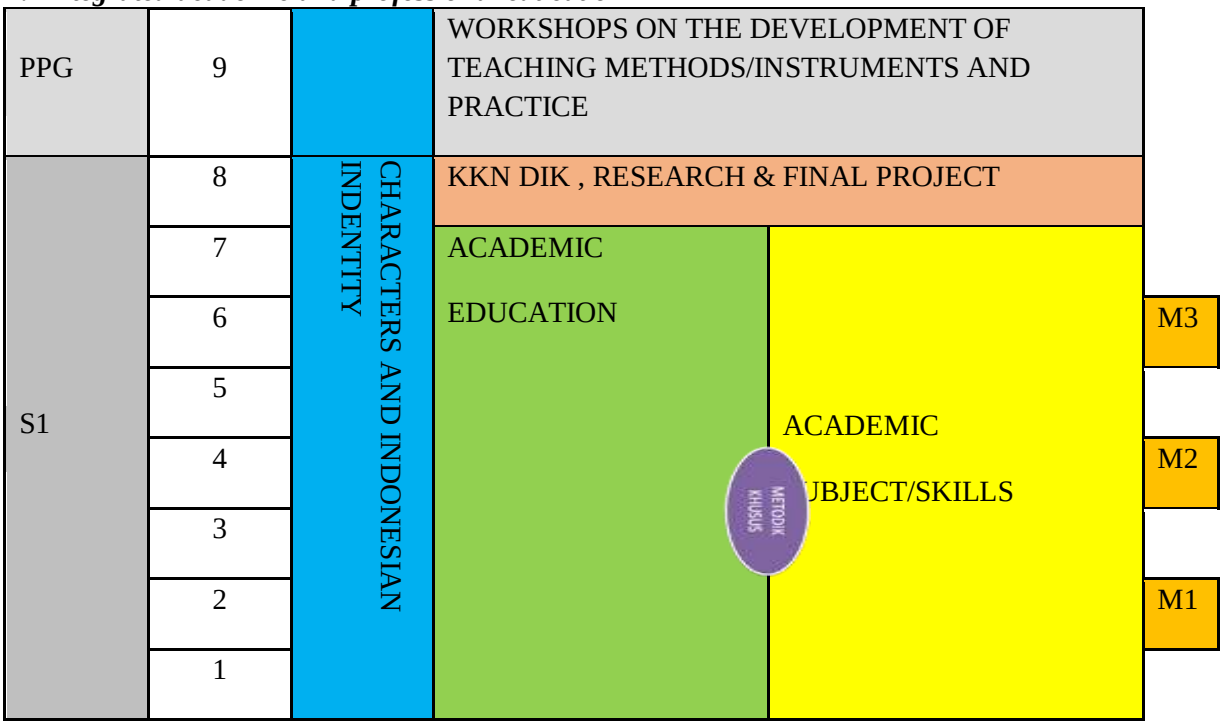
According to the guidebook of the directorate of educators and education staffs, directorate generale of the Indonesian Ministry of Education, teacher professional education requires two stages: (1) teacher academic education, and (2) teacher professional education (after bachelor, certification of teachers). The development of LPTK curriculum is done based on the following principles: (1) First, the integrity of academic and professional education; the academic education of teachers should be inseparable from the professional education. The integration should include the recruitment, the education process, and graduation. This is an important principle as the Education Minister Decree No.8, 2009 on the pre-teaching teacher professional education does not regulate the academic education. (2) Second, the relationship of teaching and learning; this principle suggests that the way teachers teach students should be based on an understanding of the way students learn in their environment. Therefore, theories, methods, and teaching strategies given to teachers should consider such an aspect. The way teachers know and respond to the behaviours of students is important as this will construct the nature of teaching and learning (Loughram, 2010).

Therefore, the structure of curriculum of academic education for future teachers should emphasize on the early exposure, giving early experience to the future teachers through internship. With regard to this context, pedagogy should be understood as a concept which is related to two learning aspects: (1) what students learn and the way they learn, (b) how teachers learn the way to learn and construct their professionalism, (3) the coherence of curriculum content; this includes unity, connectedness, and relevance.

The coherence of curriculum contents of teacher education indicates that there is a close relationship of content knowledge, general pedagogical knowledge, content specific pedagogical knowledge, curricular knowledge, assessment and evaluation, knowledge of educational context, and information and communication technology. The coherence of contents can produce learning results suiting the learning outcomes which have been formulated in the education program.

Besides the internal coherence, the curriculum for teacher education should consider the relationship of contents, which have been mentioned previously. The following curriculum models can be developed/employed in LPTK.

1. Integrated academic and professional education

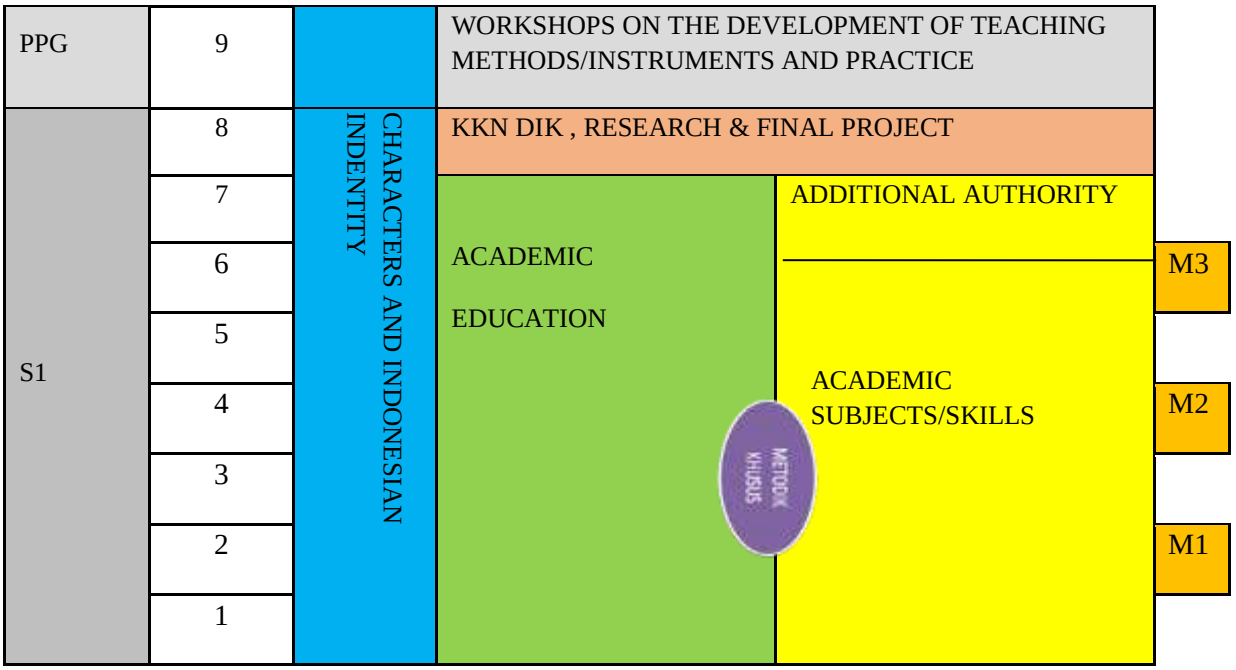


In this model, the LPTK curriculum is integrating the academic education program in 8 semesters and professional teacher education in which there are workshops for the development of teaching methods/instruments and practices of micro-macro teaching, followed with one semester field practice for PGSD and PGAUD (elementary school and pre-school teachers).

For three semesters (2, 4 and 6), internship program is done to give future teachers early exposure to schools. In semester 9, PPG is done, consisting of the development of subject specific pedagogy and practices (PPL) for class teachers.

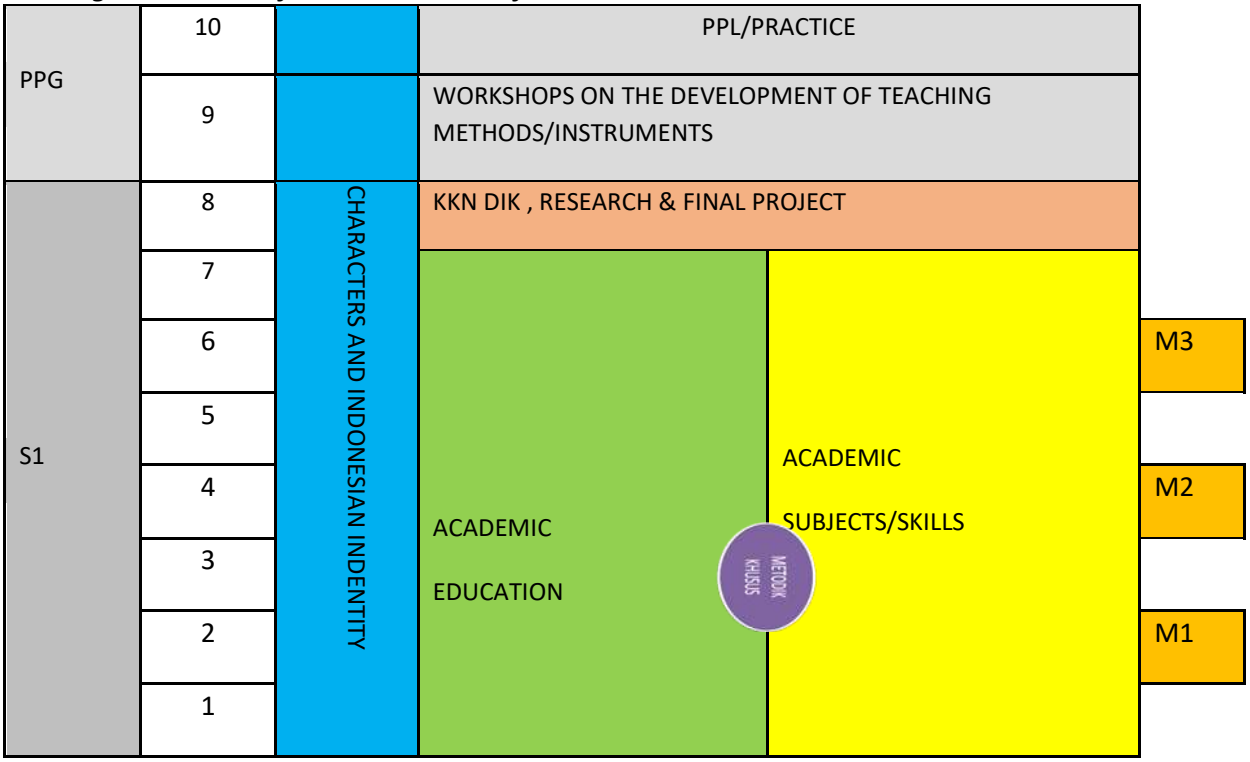
PRESENTER'S PAPERS

2. Integrated Model of Academic Education with Additional Authority and Professional Education



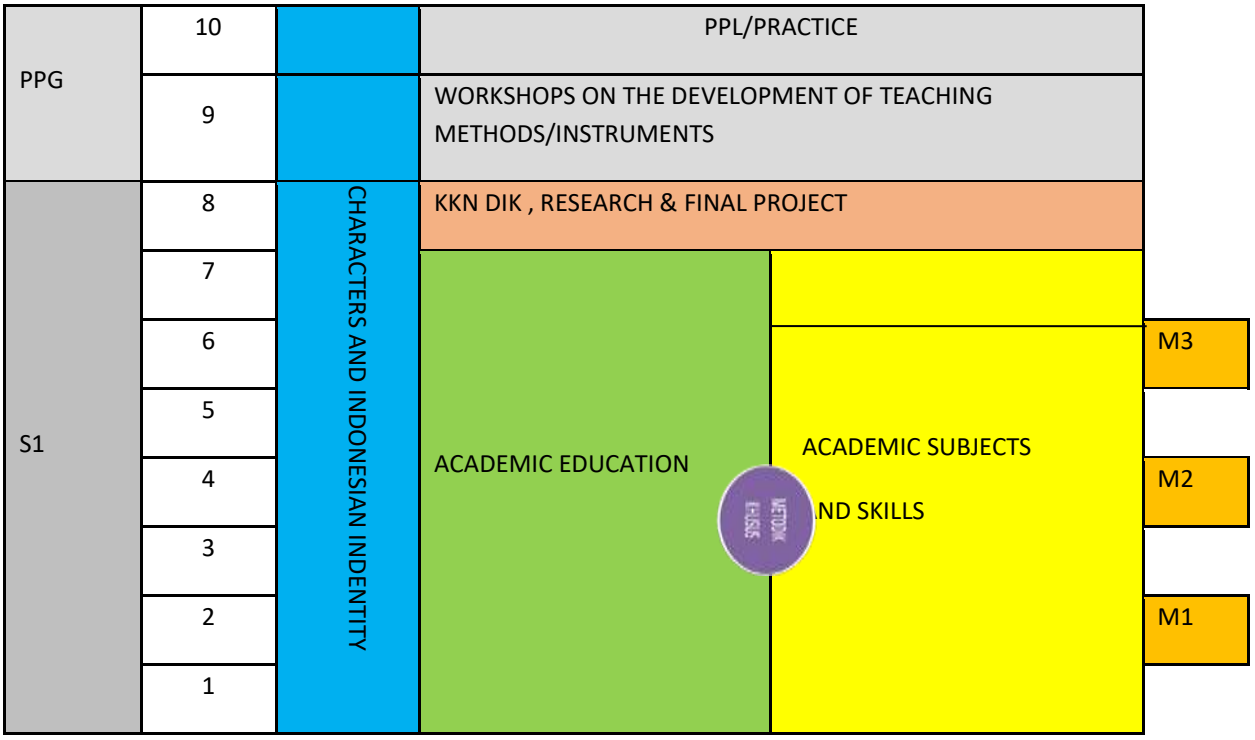
In this model, the curriculum is integrated in academic education within 8 semesters, including the main competence and additional authority/competence with teacher professional education, in which there are SSP and PPL for one semester for future class teachers. The internship is done for three semester for early exposure. The additional competence/authority is only for related subjects. In semester 9, PPG is conducted, consisting of SSP and PPL for future class teachers.

3. Integrated Model of Academic and Professional Education – Two Semester



In this model, LPTK curriculum is implemented by integrating the academic education in 8 semesters and professional education in which there are SSP and PPL workshops for 2 semester for future subject teachers. In semester 2, 4, and 6, internship is done for early exposure. In semester 9, PPF is implemented, consisting of SSP and PPL in semester 10 for future subject teachers.

4. Integrated Model of Academic Education with Additonal Authority and Professional Education – Two Semesters



In this mosel, LPTK curriculum is implemented by integrating academic education program in eight semesters for the main and additional authorities with teacher professional education in which there are SSP and PPL for two semesters for future subject teachers. The internship is done for three semesters for early exposure to schools. The additional authority program, 24 sks, is done in semester 7, which is limited to related subjects. The SSP is based on strong subject specific knowledge (SSK), in terms of materials, concepts, and way of thinking supporting the subjests (Decree of the Indonesian Ministry of Education, No. 16, 2007), meeting the KKNI line 1 and 3 implemented through workshops.

5. Layered Model of Academic Education and Two Semester Professional Education

PPG	10		PPL/PRACTICE		
	9		WORKSHOPS ON THE DEVELOPMENT OF TEACHING METHODS/INSTRUMENTS		
S1	8	CHARACTERS AND INDONESIAN INDENTITY	FINAL PROJECT		
	7		PROPOSAL SEMINAR, RESEARCH, AND KKN-DIK		
	6		ACADEMIC EDUCATION	ACADEMIC SUBJECT AND SKILLS	M3
	5				
	4				M2
	3				
	2				M1
	1				

This model employes layered LPTK, meaning that the academic program isseparated from the PPG. The academic program is implemented for 8 semesters, covering elements mentioned in the above table. PPG is done for 2 semesters. The total program consists of 10 semesters.

6. Layered Model with PPG SM-3T

This model is claimed to be the most ideal model, preparing professional teachers through systematic stages, started with academic education. Through a tight recruitment process, future teachers meet the requirements to teach in 3T areas (front, outside, and left). After teaching in the 3T areas, they take the teacher professional education program.

7. Integrated Collaborative Model of Academic Education and Professional Education – Two Semesters

This model is an integrated collaborative model, combining academic education and professional education, which is academic programs whose subjects/study programs are not provided by LPTK. The academic program is implemented for 8 semesters in non-LPTK higher education institutions, followed by matriculation program for improving academic competence in LPTK. The curriculum elements consist of character and Indonesian identity, subject academic, KKN/practice element, final thesis/project, and assessment of the final thesis/project, followed by improvements of academic education and specific methodics. The PPG program is implemented for 2 semesters. The internship is done for 3 semesters as early exposure for future teachers.

CONCLUSIONS

To produce professional teachers in order to prepare for the 2045 Golden Indonesia, an appropriate professional teacher education model is required. The Indonesian Qualification Framework (KKNI) has classified the teacher education on level seven as professional education. A new generation of teachers is expected to emerge, which could generate professional teachers and teachers-researchers with adequate knowledge; they could become role models for students in maintaining the national cultural values, making students more creative, innovative, and having the Indonesian identity.

REFERENCES

Al Gore. (2013). *The Future*. Random House, New York.

Kementerian Pendidikan dan Kebudayaan RI. (2013). *Menyiapkan Guru Masa Depan* Jakarta: Kemendikbud.

Kementerian Pendidikan dan Kebudayaan RI. (2013). *KKNI (Kerangka Kualifikasi Nasional Indonesia*. Jakarta: Kemendikbud.

Peraturan Menteri Pendidikan dan Kebudayaan RI Nomor 73 Tahun 2013 Tentang Penerapan Kerangka Kualifikasi Nasional Indonesia (KKNI) Bidang Pendidikan Tinggi.

Peraturan Presiden RI Nomor 8 Tahun 2012 Tentang *Kerangka Kualifikasi Nasional Indonesia (KKNI)*.

Tilaar, H.A.R. (2014). Guru Masa Depan: Mempersiapkan Generasi Emas 2045. Disajikan dalamKonvensi Pendidikan Nasional PGRI, 19 Februari 2014.

Undang-Undang Republik Indonesia Nomor 12 Tahun 2012 Tentang Pendidikan Tinggi.

Author's Biodata

J. Priyanto Widodo is lecturer of STKIP PGRI Sidoarjo. He is alumnus master degree of UNIPA Surabaya and received his doctoral degree under BPPS Scholarship Scheme in State University of Malang in Instructional Technology. His major interests cover Research Methodology and Teaching Learnig. His email addres: priwidodo@gmail.com.

PRESENTER'S PAPERS

Online Instructional Strategy with Different Goals Orientation on University Students' Higher Order Thinking Skills

Kasmudin Mustapa
Program Studi Pendidikan Kimia Jurusan P.MIPA
FKIP Universitas Tadulako (UNTAD).
Jalan Soekarno Hatta. KM 9. Tondo. Palu-Sulawesi Tengah
email : mumutep@gmail.com atau kasmudin78mustapa@gmail.com

Abstract

The rapid development of communication and computer technology brings a great impact on human life including education. The use of technology in every learning process has become a need, particularly in higher education level to produce a better learning process. This situation makes a vast contribution to the learning paradigm shift from teacher-centered learning into a student-centered learning. The implementation of online instructional strategies is expected to enable students to overcome their learning problems, to encourage students' self-confidence and to perform their own independent learning. In this sense, students' characteristics such as their goal orientation and online instructional strategies will be one of the factors of the successful implementation of the improvement of higher order thinking skills in basic chemistry courses. The aims of this study were to examine the difference among students' higher order thinking skills using different goal orientation of learning and using goal orientation of performance. This study employed a quasi-experimental research design. The subjects were students of chemistry education (MIPA) at University of Tadulako Palu,Central Sulawesi, The instrument used in this study consisted of a written test, questionnaires, observation sheets, and interview and before employing the instruments. The data were analyzed using ANOVA (Analysis of Variance). The research findings showed that there are differences among students' higher order thinking skills taught using instructional goal orientation and performance goal orientation in basic Chemistry courses, with a probability value of goal orientation was 0.029 (<α 0.05), and the average of instructional goal orientation is 43.55 higher than average of performance goal orientation which is 40.62,

Keywords: online, goal orientation, higherorder thinking skills

Teknologi komunikasi dan komputer, membawa dampak yang sangat pesat dalam kehidupan manusia, termasuk dalam dunia pendidikan. Definisi *e-learning*, dapat dipandang dari sisi teknologi yang digunakan dan dari sisi proses berlangsungnya pembelajaran. *E-learning* dapat pula dipandang sebagai suatu jenis belajar mengajar yang memungkinkan tersampaikannya bahan ajar ke siswa dengan menggunakan media internet, intranet atau media jaringan komputer lain (Hartley, 2002). Perkembangan lebih jauh menunjukkan, pembelajaran *online* atau *e-learning*, mampu menampung banyak peserta, dan tidak terikat pada tempat dan waktu serta keterlibatan aktif pembelajar yang lebih diutamakan.Hasil kajian interaksi pembelajaran *online* mahasiswa, memberikan kontribusi yang sangat besar dalam menggeser paradigma pembelajaran dari pembelajaran berpusat pada guru *(teacher centered learning)* menjadi pembelajaran berpusat pada siswa *(student centered learning)*, interaksi dipahami sebagai elemen dasar dalam lingkungan belajar (Juwah, 2006). Interaksi juga dapat digeneralisasikan untuk mencerminkan berbagai macam proses hubungan timbal balik, apakah secara interpersonal atau intrapersonal (Hirumi 2006, Mayes 2006). Beberapa hasil penelitian dalam pembelajaran *online* tentang interaksi siswa dengan lingkungan belajarnya, menunjukkan siswa yang merasa terisolir dengan lingkungan belajarnya, akan mengalami kesulitan dalam memperoleh pengalaman belajarnya (Wanstreet, 2006). Sebaliknya, pengalaman belajar yang diperkaya dengan berbagai macam sarana interaksi

antara siswa dengan lingkungan belajar, akan sangat membantu siswa dalam melakukan sintesis, evaluasi serta penerapan ilmu pengetahuan yang diterimanya (Willey, 2006). Akan tetapi kemampuan mensintesis, mengevaluasi dan menerapkan ilmu pengetahuan yang dimiliki oleh pembelajar sangat mungkin ditentukan pula dengan beberapa faktor lain diantaranya model, metode, pendekatan dan strategi pembelajaran, dan sejumlah faktor yang juga mempengaruhi hasil pembelajaran (Eggen & Kauchak. 2012). Salah satu faktor tersebut adalah kondisi pembelajaran. Kondisi pembelajaran didefinisikan sebagai faktor yang mempengaruhi efek metode dalam meningkatkan hasil pembelajaran termasuk didalamnya proses berinteraksi. Reigeluth & Merril, 1979 (dalam Degeng 2013), menyatakan bahwa variabel kondisi pembelajaran dikelompokkan menjadi tiga kelompok, yaitu: (1) tujuan dan karakteristik bidang studi, (2) kendala dan karakteristik bidang studi, dan (3) karakteristik pebelajar.Karakteristik pebelajar adalah aspek-aspek atau kualitas perseorangan pebelajar, seperti bakat, minat, motivasi, orientasi tujuan, intelegensi, gaya kognitif, hasil belajar yang telah di miliki, dan lain-lain. Interrelasi variabel-variabel pembelajaran (metode, kondisi, dan hasil pembelajaran) akan melahirkan teori pembelajaran tertentu. Reigeluth (dalam Degeng 2013), mengemukakan bahwa "*principles and theories of instructional design may be stated in either a descriptive or prescriptive form*". Salah satu karakteristik pebelajaran yang belum banyak di kenal oleh pengajar adalah orientasi tujuan, sehingga jarang di ekspos dalam tulisan ilmiah.

Subjek dari penelitian ini merupakan mahasiswa yang mempunyai karakteristik masa peralihan dari dunia SMA (belajar menerima) ke perguruan tinggi (belajar berfikir), sehingga untuk bisa memahami dan mengetahui kondisi belajar yang dimiliki maka penting untuk dilakukan penelitian tentang orientasi tujuan yang dimiliki oleh pebelajar. Apakah orientasi tujuannya mengacu pada keinginan untuk memahami ilmu kimia atau hanya digunakan sebagai batu loncatan dan sekedar menyatakan diri sebagai seorang mahasiswa pada program studi pilihannya. Hal ini disebabkan karena orientasi tujuan menjelaskan mengapa mahasiswa terlibat dalam berbagai aktivitas belajar. Individu yang memiliki keyakinan bahwa kecerdasan dapat berkembang akan cenderung untuk berorientasi ke arah untuk mengembangkan kecerdasan tersebut (orientasi tujuan belajar) (Ardhana, 1990). Sebagaimana dikatakan oleh Nicholls (dalam Schunk *et al*. 2008) bahwa orientasi tujuan setiap individu pebelajar berkaitan dengan keyakinan mereka tentang penyebab keberhasilan dan akan menjadi standar umum penilaian keberhasilan. Sementara Dweck(dalam Schunk *et al*, 2008) mengatakan bahwa orientasi tujuan merupakan sifat dasar intelegensi yang didefenisikan sebagai persepsi para pebelajar tentang kemampuan dan intelegensi yang berubah dari waktu ke waktu.

Salah satu bidang studi IPA adalah kimia yang mempunyai peran yang sangat esensial dalam perkembangan sains dan teknologi. Hal ini sesuai dengan pendapat, Pratomo & Widjajanti (2005) yang menyatakan bahwa sebagai bagian dari IPA, kimia merupakan ilmu dasar yang mendukung perkembangan ilmu pengetahuan dan teknologi. Ilmu kimia mencakup materi yang beraneka ragam dan yang meliputi fakta, konsep, aturan, hukum, prinsip, teori dan soal-soal (Kean & Middlecamp. 1985 dalam Mustapa, 2009). Berkaitan dengan hal tersebut maka Mustapa (2009), mengemukakan tujuan pengajaran kimia yaitu untuk memperoleh pemahaman yang tahan lama perihal berbagai fakta, kemampuan berfikir, kemampuan mengenal dan memecahkan masalah, memiliki ketrampilan dalam menggunakan alat-alat dan bahan-bahan laboratorium, serta mempunyai sikap ilmiah yang dapat ditampilkan dalam kenyataan sehari-hari. Ilmu kimia merupakan bagian dari ilmu pengetahuan alam (IPA) yang tidak mudah untuk didefenisikan karena luasnya bidang yang dikaji (Effendy, 2002). Ilmu kimia tidak sekedar memecahkan soal-soal, namun juga mempelajari deskripsi fakta kimia, peristilahan khusus dan aturan-aturan kimia, hingga pada konsep yang lebih tinggi. Bagi sebagian besar mahasiswa, ilmu kimia merupakan salah satu materi yang sulit. Kean & Middlecamp (dalam Mustapa, 2009) mengungkapkan bahwa tingkat kesulitan dalam mempelajari kimia disebabkan oleh karakteristik ilmu kimia itu sendiri, yaitu: (1) sebagian besar konsep kimia bersifat abstrak; (2) ilmu kimia merupakan penyederhanaan dari keadaaan sebelumnya; (3) materi kimia sifatnya berurutan dan berkembang cepat; (4) ilmu kimia tidak hanya sekedar memecahkan soal-soal; (5) bahan yang harus dipelajari dalam kimia sangat banyak. Chittleborough *et al*, (2002) melaporkan dalam sebuah penelitian bahwa kimia

termasuk pelajaran yang sulit. Sebagian besar konsep dari ilmu kimia mempunyai sifat abstraksi yang tinggi karena ilmu kimia adalah ilmu pengetahuan submikroskopis (Wu *et al*, 2001). Sifat abstrak inilah yang menyebabkan konsepsi ilmu kimia sulit di konstruksi atau dikonstruksi secara keliru oleh pebelajar (miskonsepsi) sehingga dibutuhkan kemampuan menganalisis (C4), mensintesis (C5) dan mengevaluasi (C6) setiap masalah. Hakekat ilmu kimia merupakan produk, proses dan melahirkan sikap ilmiah. Kondisi ini mencerminkan lahirnya kemampuan pemecahan masalah kimia merupakan salah satu kemampuan berfikir tingkat tinggi. Kemampuan berfikir tingkat tinggi akan terjadi ketika seseorang mengaitkan informasi baru dengan informasi yang sudah ada tersimpan di dalam ingatannya dan akan menghubungkannya atau menata ulang serta mengembangkan informasi tersebut untuk mencapai suatu tujuan ataupun menemukan penyelesaian dari suatu keadaan yang sulit dipecahkan (Shadiq, 2007). Jika kemampuan berfikir tingkat rendah pebelajar baik maka kemampuan berfikir tingkat tingginya juga akan semakin baik atau sebaliknya. Sehingga korelasi antara tingkat berfikir rendah dan tinggi dapat menunjukan seberapa jauh pebelajar memahami konsep dalam ilmu kimia. Menurut Arends (2004), sebagai berikut: "*Concept are the basic building blocks for thinking and communication"*. Prinsip-prinsip pembelajaran harus berangkat dari prinsip-prinsip orang belajar. Degeng (2000) mengemukakan bahwa pengemasan pembelajaran dewasa ini sering berdasarkan asumsi-asumsi yang tidak sejalan dengan hakikat belajar, hakikat orang yang belajar, dan hakikat orang yang mengajar. Paradigma pencetusan informasi yang hanya melibatkan kemampuan berfikir tingkat rendah mendorong pebelajar pada belajar hafalan (*rote style learning*). Smaldino *et al*, (2004) menyatakan "*...rote learning leads to inert knowledge we know something but never apply it to real life".* Woolfolk (2008), menyatakan pebelajar yang memiliki keterampilan berfikir tingkat tinggi (*higher order thinking skills*) mampu membedakan antara fakta dan opini, mengidentifikasi informasi yang relevan, memecahkan masalah, dan mampu menyimpulkan informasi yang telah dianalisisnya.

Limbac & Waugh (2011), mengatakan bahwa keberhasilan pelaksanaan proses pengembangan keterampilan berpikir tingkat tinggi saat ini membutuhkan pertimbangan bijaksana teknik instruksional dan komitmen untuk lingkungan aktif yang berpusat pada pebelajar. Kondisi ini memungkinkan untuk melibatkan para pebelajar dalam kelompok besar dengan pola interaksi *online* sehingga semua bisa teratasi dalam perspektif penyelesaian masalah/pertanyaan, adanya keterampilan berfikir tingkat tinggi (*higher order thinking skills*) akan membuat seseorang (pebelajar) mampu memandang sesuatu (peristiwa, benda, fakta) secara lebih cermat sehingga mampu menentukan sikap terhadap peristiwa tersebut dengan keputusan yang akan diambil didasarkan pada pertimbangan yang matang. Penelitian tentang sikap mahasiswa dalam partisipasi pada diskusi interaktif melalui web, atau interaksi secara *online* telah dilaksanakan, antara lain oleh Williams & Pury (2002), Wilson & Stacey (2004), Sharma *et al*, (2005), Thorpe (2008), dan juga dalam pembelajaran secara koperatif (Neo, 2004), melaporkan bahwa pembelajaran interaktif secara *online* dapat meningkatkan partisipasi mahasiswa dan juga meningkatkan kemampuan pemecahan masalah. Menurut Osbome & Wittrock (dalam Mustapa, 2009) bahwa siswa sebelum mendapatkan materi pelajaran sekolah, telah memiliki konsepsi atau gagasan-gagasan tentang peristiwa-peristiwa alamiah, namun kebanyakan konsepsi tersebut masih bersifat sebagai pengetahuan sehari-hari yang belum menunjukan pengetahuan ilmiah. Hal ini dapat berlaku pula pada dunia mahasiswa yang memasuki dunia perguruan tinggi pada mata kuliah kimia dasar. Matakuliah Kimia Dasar merupakan matakuliah yang wajib diikuti oleh mahasiswa kimia, sebab matakuliah ini merupakan prasyarat bagi matakuliah bidang studi kimia pada semester-semester selanjutnya (Mustapa, 2009). Proses pembelajaran secara *online* diharapkan dapat memaksimalkan proses diskusi dengan karakteristik kajian materi kimia yang sifatnya prosedural, simbolik dan narasi, serta didukung pula dengan berbagai sumber bacaan ataupun informasi melalui *website* untuk dapat mendorong tingkat keinginan dalam menganalisis, mengsintesis dan mengevaluasi setiap kajian materi kimia yang ada dengan berbagai desain pembelajaran baik melalui video, animasi maupun powerpoin.

Berdasarkan uraian di atas, maka tujuan penelitian yang ingin di capai adalah: Untuk menguji perbedaan kemampuan berfikir tingkat tinggi mahasiswa yang mempunyai orientasi tujuan belajar dan orientasi tujuan penampilan pada mata kuliah kimia dasar.

Metode

Penelitian ini menggunakan pendekatan kuantitatif (quantitative research), jenis rancangan penelitian yang digunakan adalah Q*uasi experiment* (eksperimen semu). Rancangan eksperimen menggunakan *pretest- posttest nonequivalent control group-design*, versi faktorial 2 x 2 yang di analisis dengan teknik Anova. (Tuckman, 1999; Salkind, 2006;Setyosari, 2012). Variabel yang digunakan dalam penelitian ini sebagai berikut: variabel bebas adalah strategi pembelajaran *online* dan ekspositori, variabel moderator adalah orientasi tujuan dalam belajar dan penampilan, dan variabel terikat adalah kemampuan berfikir tingkat tinggi (*higher order thinking ability/*HOTA). Subjek penelitian adalah mahasiswa pendidikan kimiaFKIP Universitas Tadulako yang berjumlah 57 orang kelas eksperimen dan 55 orang orang kelas kontrol. Instrumen yang digunakan dalam penelitian ini terdiri dari: (1) lembar tes tertulis mengukur kemampuan berfikir tingkat tinggi (*higher order thinking ability/*HOTA) (Anderson & Krathwohl, (2001); (2) lembar angket mengukur kecondongan mahasiswa yang berorientasi tujuan, baik orientasi tujuan belajar maupun orientasi tujuan penampilan. Angket ini mengadaptasi instrumen *goal orientation* dari Swartz (2002),serta Paula & Salamah (2003).Hasil deksriptif kemampuan berfikir tingkat tinggi (*higher order thinking ability/*HOTA)dihitung persentasenya. Lewy *et al*,(2009). Proses untuk menentukan klasifikasi orientasi tujuan mahasiswa (belajar atau penampilan) dilakukan dengan menentukan median data angket orientasi tujuan pada setiap kelompok perlakuan.

Hasil

Pengujian Hipotesis Penelitian

Pengujian hipotesis data penelitian dianalisis dengan analisis varian dua jalur 2 x 2. Hasil analisis dengan variabel bebas strategi pembelajaran dan orientasi tujuan, serta variabel terikat kemampuan berpikir tingkat tinggi mahasiswa, disajikan pada tabel 4.2 berikut ini.

Tabel 4.2 Hasil Analisis Varian Dua Jalur 2 x 2

Dependent Variabel: Kemampuan Berpikir Tingkat Tinggi					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1507.715[a]	3	502.572	7.941	.000
Intercept	197925.965	1	197925.965	3.1273	.000
Strategi (X1)	990.285	1	990.285	15.648	.000
Orientasi Tujuan/OT(X2)	492.375	1	492.375	7.780	.006
Strategi (X1)* OT (X2)	53.870	1	53.870	.851	.358
Error	6834.880	108	63.286		
Total	208468.219	112			
Corrected Total	8342.595	111			
a. R Squared = .155 (Adjusted R Squared = .132)					

Descriptive Statistics

Tabel 4.3 Statistik Deskriptif Analisis Varian Dua Jalur

Dependent Variabel: kemampuan Berfikir Tingkat Tinggi				
Strategi Pembelajaran	Orientasi Tujuan	Mean	Std. Deviation	N
Online	Belajar	46.49	7.754	30
	Penampilan	43.68	8.457	27
	Total	45.16	8.145	57
Ekspositori	Belajar	41.92	7.879	29
	Penampilan	36.33	7.730	26
	Total	39.28	8.232	55
Total	Belajar	44.24	8.083	59
	Penampilan	40.07	8.845	53
	Total	42.27	8.669	112

Berdasarkan tabel 4.2 di ketahui nilai probabilitas orientasi tujuan yaitu 0.006 (<α 0,05), sehingga hipotesis nol (Ho) di tolak dan menerima hipotesis alternatif (H1). Hal ini menunjukan "terdapat perbedaan kemampuan berpikir tingkat tinggi mahasiswa yang mempunyai orientasi tujuan belajar dan orientasi tujuan penampilan pada mata kuliah kimia dasar", maka tabel 4.3 diketahui rerata orientasi tujuan belajar 44,24 dan rerata orientasi tujuan penampilan 40,07. Rerata orientasi tujuan belajar lebih tinggi dibandingkan rerata orientasi tujuan penampilan.

Pembahasan

Berdasarkan tabel 4.2 dapat di ketahui nilai probabilitas orientasi tujuan yaitu 0.006 (<α 0,05), sehingga hipotesis nol di tolak dan menerima hipotesis alternatif. Hal ini menunjukan bahwa "terdapat perbedaan kemampuan berpikir tingkat tinggi mahasiswa yang mempunyai orientasi tujuan belajar dan orientasi tujuan penampilan pada mata kuliah kimia dasar", sehingga dari tabel 4.3 dapat di ketahui bahwa rerata orientasi tujuan belajar adalah 44,24 dan rerata orientasi tujuan penampilan adalah 40,07. Rerata orientasi tujuan belajar lebih tinggi dibandingkan rerata orientasi tujuan penampilan, sehingga dapat dikatakan bahwa orientasi tujuan belajar memberikan pengaruh yang lebih baik terhadap kemampuan berpikir tingkat tinggi mahasiswa dibandingkan orientasi tujuan penampilan.

Keberhasilan seorang pebelajar dalam pembelajaran tidak hanya di lihat dari satu aspek, sebab memungkinkan ada berbagai faktor yang menjadi penyebab seorang pebelajar mengalami kegagalan dalam belajarnya. Selain faktor strategi pembelajaran, ada sejumlah faktor yang juga mempengaruhi hasil pembelajaran. Salah satu faktor tersebut adalah kondisi pembelajaran. Kondisi pembelajaran salah satunya yaitu karakteristik pebelajar seperti orientasi tujuan. Sebab orientasi tujuan berkaitan dengan proses kognitif seseorang yang menjelaskan mengapa pebelajar terlibat dalam berbagai aktivitas belajar (Song & Grabowski. 2006). Sebagaimana dikemukakan oleh Schunk *et al*, (2008), bahwa teori orientasi tujuan mengemukakan ada dua orientasi umum yang dapat diadaptasi oleh para murid dalam mencapai tugas akademis mereka: yaitu orientasi penguasaan yang berfokus pada pemelajaran dan penguasaan konten pelajaran, dan orientasi kinerja yang berfokus pada menunjukan kemampuan, mendapatkan nilai akademis yang baik atau penghargaan, atau mengungguli peserta lainnya. Banyak peneliti yang telah menyelidiki hubungan antara orientasi tujuan belajar dan penampilan dengan *outcome* seperti tingkat pencarian informasi, keterlibatan kognitif, belajar secara mandiri, ketekunan, dan penampilan. Sebagian besar telah sepakat bahwa secara umum *outcome* belajar yang dapat menyesuaikan diri dihubungkan dengan orientasi tujuan belajar, sebaliknya *outcome* belajar yang kurang dapat menyesuaikan diri

dihubungkan dengan orientasi tujuan penampilan (Ames; Dweck & Leggett; Harackiewicz, Baron & Elliot; Linnenbrink & Pintrich; Pintrich & Schunk, dalam Song & Grabowski. 2006).

Hasil penelitian Song & Grabowski (2006), menggambarkan motivasi intrinsik, komponen pemecahan masalah, dan korelasi di antara variabel-variabel berhubungan dengan orientasi tujuan belajar, temuan mereka diantaranya adalah siswa dalam konteks orientasi belajar secara signifikan memiliki skor motivasi intrinsik yang lebih tinggi daripada dalam konteks orientasi penampilan, dalam hal kemampuan pemecahan masalah, rerata skor kelompok heterogen lebih tinggi daripada kelompok homogen, khususnya dalam memonitor dan mengevaluasi solusi, dan hasil menunjukkan korelasi positif antar orientasi tujuan dan pemecahan masalah di antara variabel-variabel yang berhubungan dengan orientasi tujuan belajar (*learning goal orientation*). Penggunaan tugas yang menantang, bermakna, dan berhubungan dengan dunia nyata lebih memungkinkan untuk menuju kepada tujuan belajar daripada tugas-tugas lainnya (Ames, 1992; Blumenfeld, 1992; Meece, 1991 dalam Slavin, 2000). Hasil temuan ini diperkuat juga dengan hasil wawancara pada beberapa perwakilan responden dan ditemukan bahwa individu yang berorientasi belajar lebih memungkinkan untuk mencari situasi menantang dan melihat kemampuan sebagai sesuatu yang dapat ditentukan dan di bawah kontrol mereka. Mereka cenderung menggunakan diri mereka sendiri dan penampilan mereka yang lalu sebagai acuan untuk mengukur sukses mereka, menentang penyandaran diri pada perbandingan sosial, dan mereaksi secara positif pengalaman yang gagal. Kegagalan dilihat sebagai kesempatan untuk menuju kemajuan. Individu yang berorientasi penampilan, di sisi lain menaruh perhatian pada perolehan positif atau menghindari evaluasi negatif penampilan mereka, dan berorientasi kemasyarakatan. Mereka mereaksi negatif kegagalan karena mereka melihat kemampuan sebagai sesuatu yang konstan dan kegagalan adalah bukti kelemahan kemampuan mereka. Biasanya pada situasi dimana kemampuan dirasakan rendah, individu-individu berorientasi penampilan lebih memungkinkan untuk meninggalkan kesempatan meningkatkan tingkat kemampuan.

Kesimpulan

Berdasarkan hasil penelitian disimpulkan bahwa; terdapat perbedaan kemampuan berpikir tingkat tinggi mahasiswa yang mempunyai orientasi tujuan belajar dan orientasi tujuan penampilan pada mata kuliah kimia dasar.

Daftar Rujukan

Anderson. T & Krathwohl, D.R. 2001. *A Taxonomy for Learning Teaching and Assesing A Revision of Bloom's Taxonomy of Education Objectivies.* New York: Addision Wesley Longman, Inc.

Ardhana, W. 1990. *Atribusi terhadap Sebab-Sebab Keberhasilan dan Kegagalan serta Kaitannya dengan Motivasi untuk Berprestasi*. Pidato pengukuhan guru besar. Malang: IKIP Malang.

Arends, I. R. 2008. *Learning To Teach.* Seventh Edition: New York. McGraw Hill Companies, Inc.

Chittleborough, G.D., Treagust, D.F & Mocerino, M. 2002. Constraints to the Development of First Year University Chemistry Students' Mental Models of Chemical Phenomena. *Teaching and Learning Forum 2002: Focusing on theStudent.* Curtin University of Technology:(www.ecu.edu.au /conferences /tlf/2002/pub/does/Chittleborough.pdf, (diakses 19 Desember 2015).

Degeng, I N. S. 2013. *Ilmu Pembelajaran :Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian*. Bandung: Aras Media.

Degeng, I N. S. 2000. *Paradigma Baru Pendidikan Memasuki Era Demokratisasi Belajar.* Makalah disajikan dalam seminar dan diskusi panel nasional teknologi pembelajaran, UM, 7 Oktober 2000.

Effendy. 2002. Upaya untuk Mengatasi Kesalahan Konsep dalam Pengajaran Kimia dengan Menggunakan Strategi Konflik Kognitif. *Media Komunikasi Kimia*, 6 (2), 1-22.

PRESENTER'S PAPERS

Eggen, P & Kauchak, D. 2012. *Strategic and Models for Teaching Content and Thinking Skills, Sixth Edition* (Eds): Boston. Perason Education, Inc.

Hartley, D. 2002 . Global Influences on Teacher Education in Scotland, *Journal of Education for Teaching International Research and Pedagogy*. 28(3):51-56.

Hirumi. A. 2006. Analysing and Designing E-Learning Interactions. Dalam C. Juwah (Ed.), *Interactions in online education: Implications for theory and practice* (pp. 46-71). New York: Routledge.

Juwah, C. 2006. *Interaction in Online Education*. New York: Routledge.

Kerlinger, F.N & Lee, H.B. 2000. *Foundation of Behavioral Research.* 4th Edition. New York: Holt, Rinehart and Winston.

Lewy. Zulkardi & Aisyah. 2009. Pengembangan Soal Untuk Mengukur Kemampuan Berpikir Tingkat Tinggi. *Jurnal Pendidikan Matematika Universitas Sriwijaya Palembang.* 3 (2) 1-28.

Limbach. B & Waugh.W. 2009. Developing Higher Level Thinking. *Journal of Instructional Pedagogies*: Chadron State College.

Mayes, T. 2006. Theoretical perspectives on interactivity in e-learning. In C. Juwah (Ed.), *Interactions in online education: Implications for theory and practice* (pp. 9-26). New York: Routledge.

Mustapa.K.2009. *Efektivitas Pembelajaran Problem Posing Dalam Meningkatkan Hasil Belajar dan Motivasi Mahasiswa Kimia Universitas Tadulako.* Tesis tidak diterbitkan. Malang: Pascasarjana Universitas Negeri Malang.

Neo. M. 2004. Cooperative learning on the web: A group based, student centred learning experience in the Malaysian classroom. *Australian Journal of Education Technology.* 20 (2), 171-190.

Paula, S.A.W & Salamah, W. 2003. Pengaruh Kepribadian terhadap Self-Efficacy dan Proses Penentuan Tujuan (Goal Setting) dalam Rangka Memprediksi Kinerja Individu pada Mahasiswa di Wilayah Daerah Istimewa Yogyakarta:.*Jurnal Bisnis dan Manajemen.* 3 (1) 1-17.

Pratomo, H & Widjajanti, E. 2005. Perwujudan Pelaksanaan Pendidikan Kimia Untuk Semua. *Majalah Ilmiah Cakrawala Pendidikan*. 1 (1) 95-104.

Salkind, N. J. 2006. *Exploring Research*. Sixth Edition. New Jersey: Pearson Education, Inc.

Schunk, D.H., Pintrich, P.R & Meece. J.L. 2008. *Motivation in Education: Theory, Research, and Applications,* Third Edition. Upper Saddle River, New Jersey: Pearson Education, Inc.

Setyosari, P. 2012. *Metode Penelitian Pendidikan dan Pengembangan*. Edisi Kedua. Jakarta: Kencana Prenada Media Group.

Shadiq, F. 2007. *Bagaimana Cara Matematika Meningkatkan Kemampuan Berpikir Tingkat Tinggi Para Siswa,* (Online\(http://fadjarp3g. wordpress. com/2007,08 23 bagaimana–cara–matematika– meningkatkan – kemampuan – berpikir–tingkat–tinggi–para-siswa, (diakses 25 Desember 2015).

Sharma, M.D., Khachan, J., Chan, B & O'Byrne, J. 2005. An investigation of the effectiveness of electronic classroom communication system in large lecture class. *Australasian Journal of Educational Technology.* 21 (2), 137-154.

Slavin, R. E. 2000. *Educational Psychology: Theory and Practice*. Boston: Allyn and Bacon.

Smaldino, S. E., Russell, J.D., Heinich. R & Molenda, M. 2007. *Instructional Technology and Media for Learning.* 8th ed. Englewood Cliffs, N.J.: Prentice Hall. Canada.

Song, H. D & Grabowski, B. L. 2006. Stimulating intrinsic motivation for problem solving using goal-oriented contexts and peer group composition. *Educational Technology Research & Development Journal*, 54 (5):445-466.

Swartz, D. E. 2002.*Goal Orientation and Training Transfer Initation and Maintance*.Tesis.Virginia:Virginia Polytechinic Institute & State University.

Thorpe, M. 2008. Effective online Interaction: Mapping course design to bridge from research to practice. *Australasian Journal of Educational Technology,* 24 (1), 57-72.

PRESENTER'S PAPERS

Tuckman, B.W. 1999. *Conducting Education Research*, Fifth Edition.Orlando: Harcourt Brace College Publishers.

Wanstreet, C.E. 2006. Interaction in Online Learning Environments. *Quarteley of Distance Education.* 7 (4), 399-411.

Willey, D. 2006. *Scalability and Sociability in Online Learning Environment*. New York: Lawrance Elabum Assosicites.

Williams, S & Pury, C. 2002. Student Attitudes Toward and Participation in Electronic Discussions, *International Journal of Educational Technology.* 3 (1), 15 pages.

Wilson, G & Stacey, E. 2004. Online interaction impacts on learning: Teaching the teachers to teach online. *Australasian Journal of Educational Technology.* 20 (1), 33-48.

Woolfolk, A. 2008 *Educational Psychology Active Learning Edition* 10th ed. Pearson Education, Inc.

Wu, K.K., Krajcik. J.S & Soloway, E. 2001. Promoting Understanding of Chemical Representations: Students' Use of a Visualization Tool in The Classroom. *Journal of Research in Science Teaching,* 38 (7): 821-842.

Author's Biodata

Kasmudin Mustapa, adalahDosen pada Program Studi Pendidikan Kimia, Jurusan P.MIPA Fakultas Keguruan dan Ilmu Pendidikan Universitas Tadulako, Palu-Sulawesi Tengah. Pendidikan Doktor (S3) pada Bidang Teknologi Pembelajaran Universitas Negeri Malang (UM). Spesialis bidang Teknologi Pembelajaran Kimia.
mumutep@gmail.com atau kasmudin78mustapa@gmail.com

PRESENTER'S PAPERS

The Effect of ARCS Model of Instructional Strategy Implemented (Attention, Relevance, Confidence, Satisfaction) on the Use of Google Classroom Media in Terms of the Effective Learning of Biology at Charis High School-Malang

Lidia Susanti
STIPAK-Malang
e-mail: Lydia.wijaya777@gmail.com

Abstract

The 21st education necessitates refinement and change in terms of many perspectives that keep up with the development of the age to empower the learners. The development of knowledge and technology invariably demands the appropriate adjustment to the changes resulted through the carrying out of various innovation in all aspects including education. Singh (1991) argued that globalization is inevitable, and education has a far reaching effect on socioeconomic, cultural aspect and character. It provides a direction in those areas that changes are to be made in the learning and students are better equipped to deal with the globalization. Effective learning basically hinges on the capability of teachers in engineering learning experiences for students to accomplish the desired outcomes which they have established or the government program set forth. Students frequently consider Biology lesson unpleasant because it deals with rote memory and conceptual building. This research was intended to test the ARCS model of instructional strategy and the use of Google classroom media in terms of the effective learning of Biology for the tenth and eleventh students at Charis High School of Malang. The research design employed Non-equivalent Control Group Design, with the tenth and eleventh students of Science department numbering 51 in all as the object of research. The ARCS model and Google classroom media served as the independent variables. The hypothesis was tested using SPSS 20.0 with significance level of 5%. Based on the data analysis, the result of the research was summed up as follows: (1) the use of ARCS model of instructional strategy displayed an effect on the learning conducted. (2) the use of Google classroom media showed an effect on the effective learning. (3) there was an interaction between the group of students using the ARCS model of instructional strategy and Google classroom media in terms of the learning of Biology at Charis High School of Malang

Keywords: ARCS model of instructional strategy, Google classroom media, effective learning

A. Background

Entering the 21st century, there are many perspectives which require refinement and changes to be made in terms of education to keep up with the demands of the age and empower learners. The development of technology and science always demands human adjustment to create innovation in all aspects of life including education. Singh (1991) argued that globalization is inevitable and socioeconomic, cultural condition and characters are largely influenced by education which gives a direction to all areas. All these facts taken into account, changes are to be made in terms of the learning process that students are better equipped to face the globalization. It is necessary that teachers pay close attention to teaching-learning process, class management, the mastery of subject matter indispensable to providing relevant, meaningful and factual learning experience that with the combined use of technology students are enabled to develop skills and knowledge and rise into the challenges of globalization.

It is a faulty assumption that teachers who show a good mastery of their subject matter will be considered able to teach well since affording excellent learning experiences takes more than just comprehension of good concept. It requires class management, ability to use the technology and motivate students that students may feel accepted and at home in the class. Kyriacou (2009) found that the accomplishment of the objectives of the instruction has to do with three things, understanding the content, mastering the delivery strategy, and developing the ability to manage the class. Those three things are the requisites of teaching. Content is necessary for teachers to guide students toward the acquisition of correct and beneficial knowledge. Delivery strategy facilitates the learning process. Hence, teachers need to select and vary their teaching strategies alongside the use of technology to cater to the needs of students as they understand the lessons well. Class management is essential to contribute to students' feeling comfortable and excited about learning.

Students are frequently confronted with the difficulty of understanding a lesson whenever the learning process does not work out to meet their needs in which teachers are inclined toward a method to which they have been exposed and used as opposed to students' ways of learning. As a result, students need to stay in after school for the reteaching of the same lessons. The effective learning does not occur in the classroom, so to. In order to bring about satisfying results process of learning in the classroom entails three things such as effectiveness, effeciency, and appeal. The outcome of learning comes in a proportion with the learning process. The more effective the process is, the better the result is. The learning outcome has to be measurable that students can evaluate their efforts in terms of the marks and experiences they have gotten.

Learning does not occur when teachers downplay the importance of learning process and fail to plan ahead the materials to be mastered, instructional strategies engineered to achieve the objectives, understand the students' characteristics, and utilize the technology. Students consequently lack interest in the lesson being taught and their curiosity gets stifled. Weinstein & Mayer in Schunk (2008) argued that various instructional strategies when applied would help students develop interest in completing their assignments, being focused on the important things, being able to organize the materials and maintaining psychological environment for productive learning.

The essence of effective learning lies in the teachers' ability to engineer learning experiences toward the accomplishment of the desired result of education which the government and teachers establish. Shambaugh & Magliaro (2006) affirmed that the learning process nowadays included at least five components namely, (1) organizing knowledge in memory, (2) solving problems, (3) developing learners, (4) learning how to learn, and (5) living and learning in the world. The abovementioned explanation indicates that learning in school should equip and empower students for the sake of their future instead of being grade-oriented.

The research finding of Malik (2010) concurred that students learning science in traditional context showed barely satisfying results because the emphasis was placed more on the concept mastery, not on the learning of how the science concept benefitted life. As a result, the students'interest was affected. When the learning process did not take place effectively, maximum result will not be achieved.

Education should be focused on the holistic learning where all areas of students' lives are addressed that it gives a meaning to the learning they do. Their cognitive knowledge automatically increases, skills are much developed and more importantly, their character (affective aspect) grows as expected according to their culture and beliefs.

The learning process will extend far into the students' later development when they are internally motivated. According to Santrock (2004) motivation is a process which drives, directs and gives rises to determintation meaning that a motivated behavior will be energized, directed and lasting. Motivation is a catalyst to students' learning process that results in their being life- long learners.

Several researches indicate that motivation influences the effectiveness of learning such as the research of Broussard (2002), Kristian (1995), Sutini (2000), and Hafid (2007) who found that students motivated for high achievement would demonstrate better accomplishment than those

unmotivated. The research which Djaali (2000) conducted revealed that the extent of students' learning performance depends largely on their achieving motivation. Whereas, Gray's research finding in Winardi (2002) revealed that students with high achieving motivation would make efforts to get most out of their learning. The above mentioned researches pointed out that motivation is due teachers' attention. As motivation is essential to students' learning performance teachers may do their part in instilling in them. .

ARCS model of motivational design comprises attention, relevance, confidence, and satisfaction. Keller (1983) developed ARCS model of motivational design into a systematic and comprehensive approach to increase student's interest in the learning process. Taking the strength of ARCS model of motivational design into account, teachers need to try and implement it in the class.

Developing technology serves as one of delivery strategies teachers can use in terms of learning process. Teachers have been frequently using Powerpoint and video in the learning. Yet, the question arises as to the extent of instruction students are able to retain the instruction presented in the video and PowerPoint when they are at home or after few days elapse.

One of the solutions to the retention problem is the use of google classroom that helps students review as often as possible visually and be engaged in the interactive learning. Google Classrom is free productivity tools available to anyone Google designed Classroom with the help of teachers and students. It was created to give teachers more time to teach and students more time to learn (google.com/edu/classroom. 2014). Google Classroom can be used for blended learning strategy where face to face interaction occurs while independent learning is set up for students' easy access outside the "physical classroom" that makes possible frequent reviewing and revisiting.

The learning process problems, the strength of ARCS model of motivational design, and the availability of Google Classroom for organized independent and collaborative learning at home make the researcher interested in delving into effective learning process by focusing on the application of ARCS model of motivational design and the use of Google Classroom. The objective is to enable students to learn comfortably, independently to achieve their best result.

B. Discussion

1. ARCS Motivational design

a. Motivation in learning

Santrock (2004) argued that motivation is a major component of psychological principles of learned center. Furthermore, motivation serves as an important aspect of teaching and learning. Students who do not possess the motivation will not try their hardest to learn. Students who are highly motivated enjoy going to schools and love the learning process. Motivation is a process of providing encouragement, direction toward perseverance meaning that motivated behavior is characterized with industriousness, focus and endurance

Teachers serve as facilitators and motivators in learning. The research conducted by McClelland in Suprijono (2011) revealed that the achievement motivation contributes up to 64% to the learning achievement. The results showed that there was a significant correlation between motivation and learning.

Degeng (2008) argued that motivational management is a very important part in the students' interaction with learning. Learning often fails because subject matter loses its appeal and becomes a mere collection of meaningless facts, concepts, procedures or principles. Motivational variables can be used to increase student's motivation in learning a particular field of study.

Motivation and Learning are two things that are closely related. Learning is considered a relativelly permanent change in behavior occuring as a result of the reinforcement (motivation) given based on specific objectives. This correlation increases the importance of learning motivation. Learning motivation encompasses internal and external encouragement to the learners who are learning to change their behavior. Motivation to learn constitutes a process that creates an

interest in learning, gives direction, and boosts perseverance. This means that motivated behavior is energetic, purposeful andlong-lasting.(Suprijono,2009).

Learning motivation indicators according to Uno (2007) can be classified as follows: 1) passion and desire to succeed. 2) the encouragement and learning needs, 3) hopes and ideals of the future, 4) the award in learning, 5) the desire of interest in learning, 6) the existence of a conducive learning environment that allows students to study well ".

Motivational learning strategy can be selected on the basis of various perspectives. In the perspective of behavioral external rewards or punishments are important in determining the motivation of learners. Incentive is a positive or negative event or stimuli that can motivate the behavior of learners. Those in favor of the use of incentives emphasize that incentives can augment interest or pleasure in learning and redirect attention properly (Santrock, 2004) In a humanistic perspective, motivation leads students to develop the personality and use their freedom to choose their own fate. This perspective concurs Abraham Maslow's that certain basic needs must be satisfied before meeting higher needs. Self-actualization is the highest outcome worth special attention. Self-actualization is the motivation to fully develop our potential as human beings (Santrock, 2004)

According to the cognitive perspective students' way of thinking will direct the motivation. The internal motivation in this respect is very important. Cognitive perspectives recommend that learners be given more opportunity and responsibility for the outcome they accomplish. People who have the competence motivation will be able to face their environment effectively and to process information efficiently (Suprijono, 2011)

b. ARCS Motivation

The ARCS model of motivational design originally resulted from several years of research and applications in the areas of motivation at the end of the 1970s. A lot of researches on motivation were centered the theory that linked the various accomplishment with the students' different capabilities. Many instructional design models are focused on instructions that will only be effective when the learner wants to learn. Fewer articles were written on methods to make instruction more interesting.

Keller (1979, 1983) developed the ARCS model of motivational design. This model provides a systematic and comprehensive approach to improve the appeal of the instruction in order to motivate students. ARCS model of motivational design is not a model which can be done independently. It is a model designed to complement the instructional design instead. The model is based on the premise that changes in the learning environment and teaching activities can influence the motivation of individuals that may indicate the individual's perception of value and expectation of success (Medsker and Holdsworth, 2001).

ARCS Learning Model is one form of learning model development with a humanistic approach. Its major emphasis is on the increase of learning motivation. The ways to achieve the learning objectives are set forth after learners enjoy, feel motivated to learn, and are willing to participate in the study. Keller suggests four components of ARCS for all types of instructional designs because they are related to the theory of the value of hope. He implied that the attention and relevance help illustrate the value of learning while confidence and satisfaction bring hopes for successful studies (Medsker and Holdsworth, 2001).

Some evidences supporting the statement above are found in the research conducted by Gluck and Small (1994) in Medsker and Holdsworth (2001) which determined the existing relationship between 35 instructional attribute terminologies and four conditions of Keller's Motivation. They found that there are several relationships between certain attributes (strategies) and each condition of ARCS that adult learners felt there was a linkage between the instruction and each condition thereof. They found attention and relevance (value factor) distinguished from the confidence and satisfaction (hope for success).

Small, Dodge and Jiang (1996) in Medsker and Holdsworth (2001) used ARCS model to classify teaching episodes students considered as interesting and boring. They found that attention and relevance are the most effective strategies to stimulate students' interest and reduce boredom..

c. Components ARCS Motivation.
ARCS Model is a motivational condition comprising attention, relevance, confidence, and satisfaction.
1. Attention
According to Warsito (2008), attention will boost curiosity. The curiosity is aroused by something new, unique, odd, and so on. Strategies to stimulate the interest of learners are as follows:
a. Using a variety of learning strategies (lectures, group discussions, role playing, simulations, case studies, demonstrations and so forth)
b. Using the medium of learning
c. Using examples of real events in explaining a concept

d. Using questioning techniques to engage the learner.
Medsker and Holdsworth (2001) argued that attention consisted in efforts to obtain and maintain learner's interest. Getting attention is often quite easy.
Yet, the challenge is how to maintain this level of attention or interest throughout the instruction.

Suprijono (2009) argues that attention is the ability to focus on mental resources. One important skill in paying attention is selecting. Paying attention is selective because of the limited brain capacity. Paying attention is an important process in encoding which is the process of storing information into memory. Helping learners to pay attention can be done in the following ways: 1) minimizing distractions. 2) using cues or clues that there is something important worth noticing. 3) providing instructional comments. 4) making learning interesting. 5) using interesting media and technology in the learning. 6) active and fun learning. 7) the need to pay attention to individual differences in terms of the learner's various attention span.

2. Relevance
Warsita (2008) argued that the relevance revealed the relationship between learning material and learners' various needs and conditions. Strategies to develop and improve the relevance are as follows:

a. Explain the goals to be achieved
b. Explain the benefits of the knowledge and skills learned and their application
c. Give examples, exercises or tests in accordance with the conditions of learners.

Medsker and Holdsworth (2001) found that the relevance refers to the values and meanings learners have to achieve the learning objectives (i.e. why do I have to study this?). Keller suggests goal orientation, the alignment of interest, and familiarity:
1. Goal Orientation. How can I meet my students 'needs? Goal oriented teachers understand what students desired
2. Motive Matching. How can I match learning styles? Matching students' motive is done by combining learning styles and interests of students.
3. Familiarity. How can I tie the instruction to the learner's experiences? Connecting instruction to experiences of students by presenting the material using a common language and concepts related to students' experiences. Suprijono (2009) argued that the relevance was a condition that connected the subject matter and the needs and conditions of learners.
3. Confidence
Feeling capable is essential to have positive relationship with the environment. Strategies to improve students' confidence in learning are by: 1) increasing students' expectancy for success

through students' increasingly successful experiences engineered. One of the ways to do this is by developing a wide range of learning activities from easy to difficult level; 2) dividing learning activities into small chunks that students are not required to master a huge concept all at once; 3) increasing students 'expectations for success by conveying the exam objectives and passing criteria at the beginning of the school year; 4) raising expectations for success by using a strategy that is easy for students to control themselves; 5) using verbal praise; 6) providing immediate feedback (Warsito, 2008)

Medsker and Holdsworth (2001) argued that confidence was associated with the experience and motivation of the learners and depended in part on their expectations for success. Confidence in learning can be improved by using several strategies: 1) Learning requirements. How can I ensure the learners know what is expected to succeed? Providing a clear goal. 2) Success opportunities. How can I provide meaningful opportunities for success? Provide multiple levels of achievement which gives learners the opportunity to define their personal goals and an opportunity to try to achieve success. 3) Personal responsibility. How can I ensure the learners know that their SUCCESSES are based on their Efforts and abilities? Provide feedback that supports the idea that success in learning depends on effort and ability instead of external factors. Surpijono (2009) stated that confidence constituted self- efficacy in which one believes the ability to perform a task is a prerequisite for success.

4. Satisfaction

Students' satisfaction comes from the achievement of their goal. Furthermore, Medsker and Holdsworth (2001) stated that the required 1) Intrinsic reinforcement. How can I provide meaningful opportunities to practice skills students learned? Provide an opportunity to use skills in real life. 2) Extrinsic reward. How will I provide reinforcement? Provide feedback such as verbal reinforcement. 3) Equity. How can I help the learner have a positive feeling about accomplishment? In this case it calls for consistently maintained standards and consequences for the achievement of the task.

Warsito (2008) argued that satisfaction comes from an effort to conduct learning activities which suit students' interests, characteristics and needs that result in their satisfaction. Learning essentially includes a social aspect. Therefore, group work is important in which every student has the same opportunity while having different role to play.

d. Implementation of ARCS model of motivation design in learning

Warsito (2008) argued that the application of the theory of learnings in these learning activities related to: a) the effective ways to transfer knowledge; b) the principles of creating exciting, challenging and fun learnings; c) how to build interest and attention (attention) learners; d) how to develop relevance (relevance) in learning; e) how to instill confidence in learners; f) ways to enhance learners' satisfaction in learning; and g) how to make a report on the analysis of students'needs for learning. The four categories of ARCS form the basis of a model in giving motivation. How do I use it? There are four easy ways related to model of instructional design: 1) conducting audience analysis to determine attention, relevance, confidence, satisfaction of the students so that the weak students can be empowered. 2) developing motivational purposes, namely based on the analysis of the audience; 3) selecting appropriate strategies; 4) designing evaluation mechanisms to directly or indirectly assess students' persistence, intensity, effort, emotion and attitude which can be modified if necessary based on the results of the evaluation (Medsker and Holdsworth, 2001)

If someone has motivation he will find it easier to solve a problem facing him. He even thinks that the problem is a stepping stone to success. Success in achieving objectives impacts on satisfaction. In fact, learning is a process to achieve success. In this regard, learning motivation is indispensably crucial in encouraging learners to achieve success. The importance of success in learning will encourage teachers to develop motivational strategies particularly in terms of the achievement of the satisfaction. What teachers can do are as follows: 1) use verbal praise and

feedback and shun discouraging comments. 2) provide the learners opportunities to practice the materials students learned immediately. 3) ask students who have mastered the material or skills help their friends who are still struggling . 4) comparing learners' achievements before and after mastering the knowledge (Suprijono, 2009).

Component	Strategy	Design
Attention	Perceptual aurosal	Using surprising and interesting events that have happened recently
	Inquiry arousal	Arousing curiosity and thirst for knowledge
	Variability	Using various methods and media, humors and games
Relevance	Familiarity	Using language, example and concept in accordance with students' experiences
	Goal orientation	Giving instruction focused on the clear purposes and objectives
	Motive watching	Employing learning strategies that meet with students' learning style and interest.
Confidence	Learning requirements	Having learning criteria pembelajaran, and clear assessment
	Success opportunities	Giving opportunities to succeed, organizing the learning materials with appropriate range of difficulties.
	Personal responsibility	Giving feedbacks to enhance responsibility
Satisfaction	Intrinsic reinforcement	Giving students opportunities to apply their skills
	Extrinsic Reward	Giving verbal praises and other words of encouragement to improve students' pride and self-actualization
	Equity	Maintaining the standard and consequence consistently

Table 1. ARCS Strategies and Design (Modified ARCS Medsker & Holdsworth, 2001)

2. Media Google Classroom

Google Classroom is a web-based media accessible to all people for free. Google designed classroom with the help of teachers and students. It was created to give teachers more time to teach and students more time to learn (google.com/edu/classroom. 2014). Google Classroom can be used as an instructional strategy known as blended learning which makes possible face-to-face learning process and independent learning at home for students' frequent reviewing of material that has been taught.

The implementation of blended learning using the technology shifts the learning from the physically confined learning to unrestricted access through internet that students have uninhibited freedom in pursuing their desire for learning. This represents the integration of the constructivist model of learning which allows students to work on their individual aspiration. Traditional classroom will develop into classrooms using technology in order to provide information, collect assignments, and set up classes online that students can study at home or anywhere and produces interactive learning (Shimamoto, 2012).

According google.com/edu/classroom (2014) Google Classroom will help teachers teach and students to learn. Google classroom offers far more advantages than traditional learning:

Google designed Classroom with the help of teachers and students. It was created to give teachers more time to teach and students more time to learn. With Classroom, teachers will be able to:

• Create and collect assignments: Classroom weaves together Google Docs, Drive and Gmail to help teachers create and collect assignments paperlessly. They can quickly see who has or hasn't completed the work, and provide direct, real-time feedback to individual students.

• Improve class communications: Teachers can make announcements, ask questions and comment with students in real time—improving communication inside and outside of class.

• Stay organized: Classroom automatically creates Drive folders for each assignment and for each student. Students can easily see what's due on their Assignments page.

Gambar 2.1 Desain Google Classroom

3. Relevant Research Finding and Results

Newby (1991) in Medsker and Holdsworth (2001) used the ARCS model as a framework to categorize motivational strategies used by elementary school teachers. He found a positive relationship between the extent of strategic relevance and students' behavior while working on assignment. Meanwhile, the relationship turned out to be negative for satisfaction strategy. This shows that it is important to keep strategies in balance and that "more is not always the better" is quite true.

Research Thankachan & Franklin (2013) used the Google Apps i.e. Virtual Globe which provides multiple opportunities for teachers to help students understand the materials and bridge the gap between students and teachers. It also makes learning more interactive than when it relies on textbook as the only source. The result of the study revealed that Google Earth media supports students' learning and increase the level of interactivity and students' experiences.

The relationship between ARCS model of motivational design and the use Google of App investigated by Shimamoto (2012) revealed that students engaged in the learning using ARCS model of motivational design showed great improvement in all aspects. Classes that use the technology will get students involved in the learning process as students are allowed to freely pursue what they are interested in that results in interactive and effective learning experiences. Most importantly, this learning context, the teacher must have good knowledge and skills in using technology to meet the students' needs that online learning can be realized.

Figure 2.2. Benefits of Google Classroom, Learning takes place at any place, at any time

C. Conclusion

ARCS model of motivation design (Attention, Relevance, Confidence, Satisfaction) embraces a humanistic approach to learning. This design provides a systematic and comprehensive syntax to enhance the appeal of learning which motivates the students, in hope that they can enjoy learning and be motivated to keep on learning independently. The use of technology such as the google classroom will afford students opportunities to learn independently and teachers have sufficient time to prepare the material. Traditional classroom will develop into technology –utilized classrooms where time does not restrict students' learning and students' freedom to learn through frequent revisiting of the learned materials is greater. The learning which caters to students' various needs will lead to the increased life-long leaning motivation and through the use of technology students are enabled to learn without time - constraint toward students' cognitive growth and sustained learning through maintained curiosity.

BIBLIOGRAPHY

Astleitner, Hermann & Lintner, Peter (2004). **The Effects of ARCS-Strategies on Self-Regulated Learning with Instructional Texts**. e-Journal of Instructional Science and Technology, 7 (1).

Colakoglu, OM & Akdemir, Omur (2010). **MOTIVATIONAL MEASURE OF THE INSTRUCTION COMPARED: Instruction Based on the ARCS Motivation Theory V.S. Traditional Instruction in Blended Courses.** *Turkish Online Journal of Distance Education-TOJDE, 11 (2).*

Damanhoori, FM, Nursakirah, ZN, Mustaffa (2012). **E-mentoring System Development using ARCS Motivational Strategies.** International Journal of Smart Home, 6 (3).

Degeng, INS. (2008). **Teori Pembelajaran I: Taksonomi Variabel**. Program Magister Managemen Pendidikan Universitas Terbuka.

Djiwandono, WE, Sri (2002). **Psikologi Pendidikan**. Jakarta: Grasindo

EdTech Team (2015). **Everything Teachers Need To Know About Google Classroom.** Educational Technology and Mobile Learning

google.com/edu/classroom disadur tanggal 30 Des 2015. **Google for Education** (2014). Google Inc.

Jacobsen, DA, Eaggen, P, Kauchak, D (2008) **Methods for Teaching: Promoting Student Learning in K-12 Classroom**. New Jersey: Pearson Education

Keller, JM (2006). **What Is Motivational Design?** Florida State University. Encyclopedia article

Kikuchi, H (2006). **Motivational factors affecting online learning by Japanese MBA students.** *Australasian Journal of Education* 22 (3), 398-415

Kyriacou, C (2009). **Effective Teaching-Theory and Practice**. United Kingdom: Nelson Thornes Ltd

PRESENTER'S PAPERS

Santrock, JW (2004). **Educational Psychology, 2nd Editon**. McGraw-Hill Company
Schunk, DH, Pintrich, PR, Meece, JL (2008). **Motivation in Education: Theory, Resarch, and Application**. Pearson Education Inc. Upper Saddle River, New Jersey.
Shellnut, BJ (1996). **John Keller A Motivating Influence in the Field of Instructional Systems Design**. Wayne State University.
Singh, R, Raja (1991). **Education for The Twenty First Century: Asia Pasific Perspectives**. Bangkok: UNESCO
Shimamoto, D (2012). **Implementing a Flipped Classroom: An Instructional Module**. Department of Educational Technology University of Hawaii Manoa Honolulu, Hawaii
Slavin, RR (2005). **Cooperative learning: theory, research, and practice**. Pearson Education Inc. Allyn and Bacon : 34-36
Slavin, RR (2006). **Educational Psychology: Theory and Practice**. Pearson Education Inc. Allyn and Bacon : 110 – 149
Sowash, JR (2014). **Google Education Trainer-Google Classroom**. Profesional Blog: The Electric EducatorGoogle Profile
Uno, HB (2007). **Teori Motivasi dan Pengukurannya: Analisis di Bidang Pendidikan**. Jakarta. Bumi Aksara
Thankachan, B and Franklin, T (2013). **Impact of Google Earth on Student Learning.** International Journal of Humanities and Social Science, 3 (21)
Warsito, B (2008). **Teknologi Pembelajaran: Landasan & Aplikasinya.** Jakarta. Penerbit Rineka Cipta.

Life Résumé

Born in Malang on August 30, 1972, Lidia Susanti is a second child of three children born in the marriage life of Willy Wijaya dan Prof. Dr. Yuliani Djuniarti, MS. She went to Sekolah Dasar Dianamin-Malang for elementary education and SMPK Mardiwiyata-Malang for Junior High School education and Taman Harapan-Malang for Senior High School education. She took 3 year diploma courses at University of Brawijaya majoring in agriculture graduated in 1995. She continued her education at Widya Gama University for bachelor degree in agriculture in 1996. In 1999 she gained master degree in agricultural technology in 2001 earned a doctorate degree in educational technology from State Univeristy of Malang in 2014. She began teaching Biologi at SMP Taman Harapan in 1998. After earning master degree, she became a lecturer at Cipta Wacana University. In 2005 she began teaching at Charis High School and has served as Vice Principal Curriculum until now. In 2010 she taught college students at Sekolah Tinggi Pendidikan Agama Kristen-Malang until now.

PRESENTER'S PAPERS

Developing the Task to Solve Students' Trigonometry Problem in Mechanical Vocational Senior High Schools Based on the Differences in Mathematics Competence and Their Cognitive Style

Liknin Nugraheni
Fkip, Unipa Surabaya
Surabaya, East Java, Indonesia
nugraheni.liknin@gmail.com

Sri Rahayu
Fkip, Unipa Surabaya
Surabaya, East Java, Indonesia
mamot92@gmail.com

Abstract

Vocational senior high schools will have been cooperating by the year of 2020. They must adjust to the competencies of each region to achieve 60% of vocational high school and 40% of senior high school ratio. However,the fact shows that they have not met the required competencies since only 49% of vocational and 51% of senior high school ratio have been earned. The number of senior high schools will be minimized but vocational high school will be increased due to the consideration of the internal challenges in the year of 2020, in which the Indonesian population will overflow so that it needs efforts to use human resources especially those of productive age to be useful nor being burden for the national development. Thus, the way to achieve this aim is to transform human resources who have the competence and skills through education (rule of government, number 70 in 2013). The design of this research is developmental research, which develop task to solve trigonometry problem. The model of teaching and learning sets developed in this research relates to modified 4-D models, consisting of ; to define,design, and develop.

Keywords*: students' tasks on Trigonometry problems, development, Mathematical competence, cognitive style*

1. INTRODUCTION

Establishing Vacational senior high school will continue untill the year of 2020 which is adjusted to the competency of each region to achieve 60% of vocational high school and 40% of senior high school ratio. However,the fact shows that 49% of vocational and 51% of senior high school, meaning that it doesn't met the ratio. The number of Senior high schools will be minimized but vocational high school will be increased due to the consideration of the internal challenges in the year of 2020, in which the Indonesian population will overflow so that it needs efforts to use human resources especialy in productive age to be usefull nor being burden for development. Thus, The way to achieve this aim is to transform human resources who have the competence and skills through education (rule of government, number 70 in 2013).

Through development of vocational senior high school, it is recommended that its curriculum, which has been set in the regulation of government No. 70, in the year of 2013, in 2013 curriculum in 2013, where mathematics is one of the compulsory subjects taught from tenth to twelfth class in all skill fields, such as; (1) technology and engineering, (2) information and communication technology, (3) health, (4) agribusiness and agro technology, (5) fishery and marine, (6) business and management, (7) tourism, (8) visual art and craft, (9) the performing arts.

One of the purposesof teachingmathematicswritten inthe curriculum is asa means ofstructuring students' reasoningability.By studyingmathematics, students are expected to give reasonandthink logically, analytically, critically, creatively, andcan work together. Additionally, theattachment of minister's national education regulation No.22,2006in the standards ofthe contentson 23May 2006(*Depdiknas*, 2006:346) states that the purposeof learningmathematicsinvocational senior high schoolisthatvocational studentscan: (1) understand the concept ofmathematics, (2) use their reasoning ability, (3) solvethe problem, (4) communicateideas, and(5) have an attitude to appreciate the usefulness ofmathematicsin life.

Furthermore, by learningmathematics, students are expected tosolveall problemsorissues facingbothproblems associatedwithmathematicsitself andanyother subjectsorusemathematical conceptsrelating toeveryday lifein the work fieldwhich is suitablewiththeir talents and interests.

Based on interviews with several teachers and students in mechanical vocational senior high school, the information obtained was that students were not concerned with mathematics subjects compared with other subjects in their department. Besides that, the students consider that mathematics is less relevant to their practical field. This is due to a lack of understanding mathematics fully and deeply, when applying mathematical concepts to solve mathematical problems that match their interests and skills contained in each vocational fields, those made the students get trouble. In addition, mathematics books and worksheets, provided by either government or market for mechanical vocational senior high school students still uses general mathematical problems, but not the mathematical problems associated with expertise and interest in mechanical vocational high school.

Based on those problems, itis importantfor the studentsof mechanical vocational senior high schoolboth with fielddependent or fieldindependentcognitivestyletounderstand the mathematicsfully and deeplyin order to solvemathematical problemsboth in the fieldof mathematicsitself and its applicationin the subjectsof their specializationin accordancewith their expertiseusing aproblem-solving taskthatraised the issue ofmathematical problemsrelating todaily lifeor theirexpertisewiththeir talents and interests.

From the preliminary study conducted by researchers in SMK Krian 1 Sidoarjo at Mechanical department obtained the information that was only about 30% of students were able to complete the task well or could understand mathematical concepts fully and deeply in applying these concepts to solve the mechanical tasks using the concept of trigonometry, while the remaining 70% were still not able to complete the task well or had difficulty in understanding and applying mathematical concepts in particular the subject of trigonometry. The information obtained from the students about their difficulty to understand the concepts of trigonometry is due to thier teachers who assign tasks is general and does not deal directly with the mechanical problem. Teachers should assign the task of solving trigonometry problems associated with machining so that there is an apparent relationship between trigonometry and machining.

Base on the phenomenon, the purpose of this research is to develop the task to solve students' trigonometry problem in mechanical vocational senior high school based on the differences in mathematics competence and their cognitive style.

2. RESEARCH METHODOLOGY

The design of this research is developmental research, which develop task to solve trigonometry problem for mechanical vocational high school based on their mathematical skill and cognitive style.

The model of teaching and learning sets developed in this research relates to modified 4-D models, consisting of ; to define,design, and develop.

3. FINDINGS AND DISCUSSION

Results from this study shows that the problem solving of trigonometry in mechanical vocational high school based on their differences in mathematical skill and cognitive style, in which the developmental process is started from defining five steps that include front-end

analysis, students analysis, task analysis, and determine the objectives. Stage two is the design phase starting from selecting media that is adapted to characteristics of trigonometry materials and vocational senior high school students, while the next step is selecting format to structure the task of solving problems related to vocational students. The final activities in this stage is designing the task of solving trigonometrybased their differences in skillandcognitive style.

The last stage in this research is a developmental stage, which aims to generate tasks to solve trigonometry problem based differences in skill and cognitive style. Activities in this stage are expert validation, simulation and test of legibility, and field testing. After the drafting process was validated by 4 validators, 2 lecturers of dissertation advisor, 1 (one) mathematics teacher of Mechanical department in SMKKrian 1, 1 peer of writer who is expert in the field of trigonometry. The problem-task assessment was conducted by using *check mark* in the appropriate fields with assessment scores on the attachment. Based on the results of the assessment of validator, it can be concluded that the problem solving of trigonometry developed are good and can be used with minimal revision. The next step is to revise the results of the validation of the validator, followed by simulation and legibility test in class X-1 TPM 5 SMK KrianSidoarjo. Based on the observations, there are many things in simulation activities that need to be corrected relating to the writing of sentence, and the explanation of sentence meaning in the problem solving of trigonometry.

The task of problem-solving (draft 1) was validated by expert and revised, and will produce task of problem-solving (draft II). After that, draft II which is based on result of simulation and legibility test (draft III) tested in the class of X-TPM 5 SMK Krian 1 Sidoarjo. The result makes the researcher sea the students' profile and meta-cognitive in solving trigonometry problem respectively.

4. CONCLUSIONS AND SUGGESTIONS

From the described objectivesandresults,it can be concludedthat thedevelopment ofproblem-solving task of trigonometrybased thedifferences in skillandcognitive styleusing modified four-D models, including: the stage ofdefining(define), design (design), and development(develop) and without deployment phase (disseminate). After conducting theexpert validation, simulationand legibility test, field test, then analyzed. It indicates the necessaryto doa fewrevisions. The revisedtask ofsolvingtrigonometryproblemscan be seen in Appendix

To improve students' understanding to solve task of trigonometry in mathematics due to the lack of mathematics books, especially for mechanical vocational senior high school either provided by government or market, it is needed to develop problem-solving task of trigonometry in topics or other materials then trigonometry materials.

5. DAFTAR PUSTAKA

Arikunto, S. 2006. *ProsedurPenelitian*. SuatuPendekatanPraktik. Jakarta: RinekaCipta.

Arends, R. I. 2001. *Learning to Teach*. Fifth Edition. Singapore: McGraw-Hill Companies, Inc.

Asputro ,Puji. 2008. *MemahamiDasar-dasarTeknikMesinuntukKelas X*. Surakarta :CahayaMentari

Blackey, 1990, *Metacognition-edutechwiki*. http://www.Metacognition/edutecwiki:htm.

Becker J.P. & Shimada, S. 1997. *The Open-Endded Approach*. A. New Proposal For Teaching Mathematics, Reston, NCTM.

Branca, N.A., 1980. *Problem Solving as Goal, Process, and Basic Skill*. NCTM. Virginia.

Bruning, R.H. Schraw, G.J., Running R.R. 1995. *Cognitive Psychology and Instruction, Second Edition*, New Yersey, Prentice Hall.

PRESENTER'S PAPERS

BSNP, Depdiknas. 2006. *Standar Isi Mata Pelajaran Matematika*. Draf.

Butts, Thomas. 1980. *Possing Problem Property, Problem Solving in School Mathematics,* Reston, NCTM.

Cooney, T.J., Davis, E.J.,Henderson, K.B. 1975. *Dynamics of Teaching Secondary School Mathematics*, Boston, Houghton Mifflin Company.

Depdikbud. 2014. *Permendikbud Nomor 70 Tahun 2013 Tentang Sekolah Menengah Kejuruan*. Jakarta : 2014

Depdikbud. 2014. *Permendikbud Nomor 104 Tahun 2014 Tentang penilaian Hasil Belajar*. Jakarta : Depdikbud.

Depdiknas (2006). *PermendiknasNomor 22 Tahun 2006 Tentangstandart Isi SekolahMenengahKejuruan*. Jakarta :Depdiknas.

Desoete,Anemi. 2001. *Off-Line Metacognition in ChildhrenWith Mathematics Learning Disabilities*. Facultiet Psychologies Pedagogiche, Witenschappen, Universitieit-Gen.

Desoete, Anemi. 2007. *Evaluating and Improving the Mathematics Teaching-Learning Process Through Metacognition, Electronic Journal Of Research in Educational Psychology*, N. 13 Vol 5. ISSN. 1696-2095.

DirektoratJenderalMenegemenPendidikanDasardanMenengahDirektoratPendidikanSekolahMenengahKejuruan. 2008. *TeknisPenyusunanKurikulum Tingkat SatuanPendidikandanSilabusSekolahMenengahKejuruan*. Jakarta :DepartemenPendidikanNasional.

Erskine, Dana L. 2009. *Effect of Prompted Reflection and Metacognition Skill Intruction on University Freshmen's use of Metacognition*, Brigham Young University.

Fisher, R. 1998. Thinking about thingking: *Developing Metacognition in children*, http://www.teaching thinking.net/roberb-fisher-thingking about thingking.html.

Flavell, J.H. 1979. *Metacognition and cognitive Monitoring, A New area of Cognitive-Developmental Inquiry*, American Psychologist.

Fraenkel, J. R., Wallen, N. E. 2003. *How to Design and Evaluate Research in Education.* Fifth Edition. Boston: Mc Graw Hill.

Gama, C. A., 2004. *Intregrating Metacognition Instruction in Interactive Learning Environment*, D. Phil Dissertation, University of Sussex.

Hacker, DJ. 1988. *Definitions and Empirical Foundations*. In DJ Hacker, J. Dunlosky& AC Graesser (Eds) Metacognition in Educational Theory and Practice.

Heylihen, F., and Joslyn C.,1993, Metacognitive Strategies, http://www./thinking cognitive and memory/metacognitive.html.

Gunarsah, Singgih D. 1990. *DasardanTeoriPerkembanganAnak,*PenerbitPBK :GunungMulia.

Hudoyo, Herman. 1988. *MengajardanBelajarMatematika*, depdikbud. Jakarta : P2LPTK.

Johnson., Rising. 1972. *Guidelines for Teaching Mathematics*. Boston: Wadsworth Publishing Company.

Jonassen, D.H. 2004. *Learning for Teaching Mathematics.* Boston, Wadsworth Publishing Company.

Kartono, Kartini. 2006. *PsikologiWanitaJilid I: wanitasebagaiGadisRemajadanWanitaDewasa*, Bandung, Penerbit Bandar Maju.

Kayashima, Michiko &Inaba, Akiko. 2003. *The Model of Metacognitive Skill and How to Facilitate Development of the Skill*, International Conference on Computers in Education, Japan, Tamagawa and Osaka University.

Kemendikbud. 2014. *Buku Guru Matematika SMA/SMK Kelas X (EdisiRevisi)*. Jakarta :Kemendikbud.

Kemendikbud. 2014. *Buku Guru Matematika SMA/SMK Kelas XI (EdisiRevisi)*. Jakarta :Kemendikbud.

PRESENTER'S PAPERS

Kemendikbud. 2014. *Buku Guru Matematika SMA/SMK Kelas XII (EdisiRevisi)*. Jakarta :Kemendikbud.

Kemendikbud. 2014. *BukuSiswaMatematika SMA/SMK Kelas X (EdisiRevisi)*. Jakarta :Kemendikbud.

Kemendikbud. 2014. *BukuSiswaMatematika SMA/SMK Kelas XI (EdisiRevisi)*. Jakarta :Kemendikbud.

Kemendikbud. 2014. *BukuSiswaMatematika SMA/SMK Kelas XII (EdisiRevisi)*. Jakarta :Kemendikbud.

Kemendikbud. 2014. *PanduanPelatihan Guru Matematika SMA/SMK dalamPenerapanKurikulum 2013*. Jakarta :Kemendikbud.

Kirkley, J. 2003. *Principle for Teaching Problem Solving*, Technical Paper, Plato Learning Inc.

Krulik, S. & Rudnick, J.A. 1995. *The New Sourcebook for Teaching Reasoning and Problem solving in elementary School*, Needham Heights, Allyn &Bacon.

Lee., M., and Baylor, A. L. 2006. *Designing Metacognitive Maps For Web-Based Learning*, USA, Florida State University.

Livingston, Jennifer A. 1997. *Metacognition: An Overv*iew. Available: http://www.gse.buffalo.edu/fas/shuell/cep564/metacog.htm.

Nur, M. danwikandari. P.R. 2000.,*PengajaranBerpusatKepadaSiswadanPendekatanKonstruktivisdalamPengajaran*. Surabaya: PusatstudiMatematikadan IPA Sekolah. UNESA Surabaya.

Nurdin. 2004. *ProfilPenggunaanStrategiKognitifdanPengecekkan-diridalamMemahamiMateridanPemecahanMasalahaMatematikaSiswaKelas XI IPA SMA Negeri 3 Makassar*. LaporanPenelitianSurvei. Surabaya: PPs Unesa Surabaya.

Matlin, M.W. 1998. *Cognitive*, Philadelphia, Harcourt Brace College Publisher.

Moleong, L. J. 2007. *Metodologi Penelitian Kualitatif*. Edisi Revisi. Bandung: Remaja Rosdakarya.

Oehlmann, R., Edwards., P. &Sleeman, D. 1995. *Intropection Planning: Representing Metacognitive*, AAAI Spring Symposium on Representating Mental States And Mechanism.

O'Neil, Jr. H. F. & Brown, R.S. 1997. *Differential Effects of Quastion Format in Math Assessment on Metacognition and Affects*. Los Angelos.

Panaoura, A., and Philippou, G. 2001. *Young Pupils' Metacognition abilities in Mathematics in Relation to working Memory and Processing Efficiency*, Departemen of Education, University of Ciprus.

Panaoura, A., and Philippou, G., 2004. *The Measurement of Young Pupils' Metacognition Ability in Mathematics*

Pierce, W. 2003. *Metacognition : Study Strategies, Monitoring, and Motivation*, Text version of Workshop Presented November 17, 2004, at Princes George's Community College.

Polya, G. 1973. *How to Solve It*. Second Edition. Princeton: University Press Princeton.

Rodney, L. C., Brigitte G. V., Barry N. B. 2001. An Assessment Model for a Design Approach to Technological Problem Solving. *JournalTechnology an Education. Vol 12. No 2*.

Ruseffendi, E. T. 1988. *Pengantar Kepada membantu Guru Mengembangkan Kompetensinya Dalam Pengajaran Matematika Untuk Meningkatkan CBSA*. Bandung: Tarsito.

Schoenfeld, A., H., 1985. *Mathematical Problem Solving*, New York, Academi Press. Inc.

Santrock, John W. 2007. *PsikologiPendidikan*. Jakarta :KencanaPredana Media Grup.

Slavin, R. E. 2000. *Educational Psychology, Theory and Practice*. Sixth Edition. Boston: Allyn and Bacon.

PRESENTER'S PAPERS

Slavin, R. E. 2009. *Educational Psychology, Theory and Practice*. Ninth Edition. Boston: Allyn and Bacon.

Soedjadi, R. 2000. *Kiat Pendidikan Matematika Di Indonesia*. Konstatasi Keadaan Masa Kini Menuju Harapan Masa Depan. Jakarta: Direktorat Jenderal Pendidikan Tinggi, Departemen pendidikan Nasional.

Soedjadi, R. 2007. *Masalah Kontekstual Sebagai Batu Sendi Matematika Sekolah*. Surabaya: Pusat Sains Dan Matematika Sekolah UNESA.

Solso, Robert L., 1991. *KognitivePsikology*, Allyn and Bacon. University of Nevada.

Solso, Robert L., Maclin Otto H.., & Maclin M. Kimberly. 2008. *Kognitive Psychology*(AlihBahasa : Mikael RahardiantodanKristiantoBatuadji), Jakarta : PenerbitErlangga.

Sugiyono. 2006. *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Cetakan Kesatu. Bandung: Alfabeta.

Sunarti , Erna. 2006. *MemahamiMatematika SMK untukkelas X*. Bandung :Armico.

Swadener, M. 1985. *Teaching Problem Solving in Mathematics*, Colorado, University of Colorado.

Thiagarajan, S. Semmel, DS. Semmel, MI. 1974. *Instructional Development for Training Teachers of Exceptional Children.* A Sourcebook. Minneapolis, Minnesota: The Central for Innovation in Teaching the Handicapped.

Tobias, s. & Everson, H, T, 1998. *Reseach on Assessments of Metacognitive Knowledge Monitoring. Paper Presented at a Symposium on "Metacognition: Educational Reseach Association, San Diego CA. www.fordham.edu/gse/faculty/tobias/SSSR.html.*

Winkel, 1996. *Psikologi Pengajaran*. EdisiRevisi, Jakarta: Grasindo.

Woolfolk, Anita E. *Educational Psychology*. Sixth Edition. Boston: Allyn and Bacon.

Author's Biodata

LikninNugraheni is a lecturer of Mathematics Education Department, University of AdiBuana Surabaya. She received Master Degree from University State of Surabaya.Email: nugraheni.liknin@gmail.com

Sri Rahayu is a lecturer of Mathematics Education Department, University of AdiBuana Surabaya. She received Master Degree from University State of Surabaya.Email: mamot92@gmail.com

PRESENTER'S PAPERS

Growing Through Critical Thinking Skills to Ask

[1)]*LydiaLiaPrayitno*[2)]*IdaSulistyawati*[3)]*Imas Srinana Wardani*
[1)]lydia.liaprayitno5@gmail.com[2)]Ida_pgsd@yahoo.com[3)]*imassrinanawardani@rocketmail.com*
Universitas PGRI AdiBuana Surabaya

Abstract

Skills in asking questions constitute one measure to determine the level of students' understanding of the concept after the implementation of learning. The interesting questioning skills that teachers do to students are to train students' critical thinking. This can be seen in the learning process of the aspects to measure students' critical thinking in learning, namely: aspects of observing and drawing conclusions, comparing two different objects, the ability to ask and express opinions, discuss and analyze the story, co-operation in the game. These fifth aspects can be observed in year-one students in five schools in Bulak districts. They are SDN Sukolilo #250, SDN Kedung Cowek I #253, SDN Kedung Cowek II, SDN Complex Kenjeran II #506, and SDN #248. This research was descriptive qualitative research assigning the first year of primary school students in the district area of Bulak.

Keywords: *critical thinking, questioning skills*

Preliminary

2013 curriculum opene and opportunity to cultivatethe curiosity students naturally. This willhelp students to develop the ability to ask and seek answers based on evidenceand develop a scientific way of thinking. Through questioning activity, students will learn to communicate ideas and provider elevant responses to a problem raised. Questioning hasan important role one fforts to build knowledge for learning. The betterand directed the questions to ask during learning, it is increasingly provides opportunities for students to either build new knowledge.

Asking skills questions is one measurement to determine the level of students understanding of the concept after the implementation of learning. Activities that can be done to improve the skills of asking questions in a way that exposes students to problems in everyday life. Students are given the opportunity touse reason andmind to solve problems. From the questions asked can be seen the extent to which the student can use his thinking and the extent of its understanding. With Q & Abetween students and students and students and teachers will encourage students to create a critical spirit than eventually the question will teach students to think critically. Critical spiritin students will encourage students to question what they hear and examine their own thinking to see inconsistenciesorerr or soflogic.

In general the questions given to students is to aro use the interest and curiosity of the students to a problem, to focus students in to a problem, learn to think critically, and to measure and test student learning out comes. According Hassoubah, 2007, in the world of education, the students should not be treatedasa foam without being given the opportunity to ask, assessment or investigation, and treated disrespectfully. Respect is the moral concepts that exist in a person. To be respected, students must learn to think critically and practice.

One of the efforts that teachers can do to train critical thinking in class early is through the provision of questions. Through questions, teachers can inspire students to improve and develop the realm of attitudes, skills and knowledge. By the time the teacher asked, at the same time he guide dor guide the students to learn well. When the teachers to answer students questions when the same instant heen courages students to become good listeners and learners. Activities ask, teachers widely opportunities for students to ask questions about what has been seen, listened to, read, or seen. Teachers should guide students to be able to ask questions about observations of the object on the concrete to the abstract. From a number of questions, developed the curiosity of students. Getting trained in asking, curiosity can be developed.

PRESENTER'S PAPERS

Good criteria questions

Asking was a learning process and one of skills that teachers should had. Good asking criteria, which should be submitted to the student teacher

1. Short and clear
2. Inspire answers
3. Hadfocus
4. Characteristically probing or diverging
5. Characteristically validatif or strengthening
6. Giving students the opportunity tore-think
7. Stimulatein creased demands cognitive abilities
8. Stimulate the process of interaction

Asking skills function

Asking skills functionin the learning process:

1. arousecuriosity, interest, and the students' attention on a theme or topicof study.
2. encourageandinspire students to actively learn and develop questionsof and for it self.
3. Diagnose students' learning difficulties and expressed the draft to find a solution.
4. Structuringt ask sand provide the opportunity for students to show theattitudes, skills, and understanding of the substance of learning is given.
5. arousestudents' skills in speaking, asking questions, and giving the questions and give answers logical, systematic, and use language that is good and true.
6. encourage student participation in discussions, arguing, developing thinking skills, and draw conclusions.

Research methods

The research was qualitative descriptive study, with the subject of grade 1 students whoper for medin the districts of Bulak (SDN Sukolilo 250, SDN Kedung Cowek I No.253, SDN Kedung Cowek II, SDN Complex Kenjeran II/506, and SDN 248). Researchersas the main instrument, assisted with the question sheet instruments, interview guides, field notes, tape recorders,and camcorders.

The process of data analysis in this study conducted by the steps: (1) all data available from various sources, from the results of problem solving in writing, interviews, and observations that have been written in the notes field, (2) perform data reduction, (3) develop in the subsequentun its of the categorized (4) examining the validity of the data, (5) analysis of interesting things, and(6) the interpretation of data /conclusions.

Discussion

Based on the results of analysis show that the learning process that occurs in the first grade students, has achieved development and bring those aspects which would have been filled with elementary age students beginning classes or grade one (7 years). These aspects are used as the measurement accuracy and the achievement of critical thinking. The five aspects namely; 1) the values of religion and morals, 2) physically in the form of gross motor and fine motor skills; 3) cognitive, namely in the form of general knowledge and science and get to know the size of shapes, colors and patterns; 4) The language in the form of receiving language and express language; 5) able to control emotions

PRESENTER'S PAPERS

These aspects are found from the results of research in the learning process that supports critical thinking skills.

	Aspek	Pencapaian
	Religious values and moral	1. Getting to know the religious affiliation 2. Respect other people's religion 3. Distinguishing good and bad behavior 4. Understand the main behavior (honest, helper, polite, respectful, etc.)
	Physics. a. Rough motoric	1. To coordinate the movement of hand-foot-chief in command mimicking pats spirit 2. Skillful use of right and left hands 3. Conducting personal hygiene (care of himself without help)
	b. Fine motor skills	1. Using stationery correctly 2. Drawing - write neatly 3. Sticking with the right image
3	Kognitif a. General knowledge and science	1. Classify objects by function 2. Shows explorative activity and probing 3. Look for alternatives in solving problems encountered in an activity 4. Prepare the planning of activities to be carried out together with friends (planning activities to be carried out) 5. Shows initiative and creativity in choosing the theme of the game 6. Find / identify the missing part of an article 7. Solving simple problems in everyday life 8. Understand the difference between the two as to distinguish between the causes of floods and droughts
	b. Getting to know the size, shape, color, and pattern	1. Understand the concepts of size (big - small, long - short); 2. Start following the pattern of applause; 3. Know the concept a lot and a little.
4	Language a. receive Language	1. Understand the story 2. Understand simple commands, such as pointing hand prior to answering the question or ask questions 3. Begin to understand the two commands are given together 4. Understanding the rules in a game
	a. reveal Language	1. Answering the more complex questions (to answer questions about information / information, uses and can answer the questions of what, why, where, how, how, etc.) 2. Mention groups of images that have the same function (mention berbagaik sounds / voices

		particular, classify the various images that have the same sound) 3. Communicate orally, vocabulary, and recognize symbols in preparation for reading, and writing. 4. Develop a simple sentence in the complete structure 5. It has more words to express ideas on others. 6. Continuing some stories / fairy tales that have been played
5	To control emotions	1. Be cooperative with your friends 2. Demonstrate tolerance 3. Starting to show a tolerant attitude so that it can work in groups; 4. Know the etiquette and manners in accordance with the local social and cultural values 5. Understand the rules and discipline 6. Demonstrate empathy 7. Have a persistent attitude (not easily give up) 8. Proud against the work itself 9. Recognize the benefits of others 10. Reacting to the things that are not considered true 11. Start the expression me-sorry when making mistakes

Results Analysis Critical Thinking profile

1. Observe and draw conclusions

Observe and draw conclusions in the aspect of observing and drawing conclusions we can see in No. 3 aspects, namely cognitive (general knowledge and science) achievement visible at no. 1 to 8, namely:

a. Classify objects by function
b. Shows explorative activity and probing
c. Look for alternatives in solving problems encountered in an activity
d. Prepare the planning of activities to be carried out together with friends (planning activities to be carried out)
e. Shows initiative and creativity in choosing the theme of the game
f. Find / identify the missing part of an article
g. Solving simple problems in everyday life
h. Understand the difference between the two as to distinguish between the causes of floods and droughts.

There is also the aspect of No. 4, which is the language, category a. Receive language and express language. When students view two pictures mounted on the board, the teacher asks students what picture on the board, Visible students sensitive/responsive to the environment, they optimize the use of the senses, then verbalize comments in mind, students can answer questions the teacher, from observing the images the students can answer that the picture is a picture of the heavy rains and flooding, and the image is a drawing to two dry rice field. In fact, no one asked, but why pack farmer sitting in the fields, isn't he sad. Why students can answer the teacher's question, because of the tendency of primary school age children learning has three characteristics,

namely concrete, integrative, and hierarchical (Majid, 2014). Discipline here is given a picture that can be seen, then the factual events that are more meaningful.

Students have been able to classify objects by function, is shown in the time students are given a picture of the objects that are related to floods and droughts, students are able to differentiate and put the image in accordance with user commands. Once the activity is completed the student is able to communicate the results of their work in front of his friends, with verbal language. Open questions that the teacher can help students to discover and question objects that are not understood. students can find things that are not in accordance with its knowledge or experience

According Hassoubah (2007) By observing will make it easier for someone to think critically. The ability to recognize the advantages and disadvantages or pros and cons of something is part of critical thinking. Make a tentative conclusion to a problem, then given the criticisms and suggestions of others would lead one to think of alternative

2. Comparing two different objects

Posted at No. 3 aspects, namely cognitive either category a. General knowledge and science, as well as the category b. The concept of shapes, colors, sizes and patterns when comparing two different objects, children learn to analyze and categorize similarities and differences of the object being observed, seen at the time they are shown floods and droughts, they can distinguish similarities and differences. according L.M. Sartolli, (1989) in Zaleha, size and criteria for someone to say critical thinking Facing the challenge upon challenge with reasons, provide examples and arguments that are different from existing, locate and describe the relationship between problems or other relevant experience.

3. The ability to ask and express opinion

There is also the aspect of No. 4, which is the language, category a. Receive language and express language. The question that quality does not have a specific answer, meaning there is no right or wrong answer or not there is only one correct answer. Students are required to search for an answer that makes them much thought. Students are given the opportunity to ask questions and be given, and given enough time to seek answers of these questions. characteristics of critical thinking by Ennis in Mardiana (2007: 61) is: Finding the obvious question of all questions, find excuses, trying to getinformed well.

4. Discuss and analyze the story

There is the aspect no. 4, which is the language. category reveals b. It looks at the language reveals the time students were asked to retell the story that has students listen to or at the time the teacher read the children's language. Then the students were asked their opinions about the content of the story, the characters and the situation and the students were able to link the story to the events in real life. Why was there a flood? Can we throw litter? Why? To develop critical thinking skills, give their opinions and listen to the opinions of others is important. Engaging in discussions to develop critical thinking skills. In the discussion there was an exchange of opinions, dare to risk, surprise, spontaneity and dissent and challenges so they can evaluate and consider the opinions of those who ultimately seek another opinion or combine one opinion with another opinion.

5. Cooperation in the game

When we look at no1 aspects, namely the values of religion and the game, no second aspect, which is about the physical both gross motor and fine motor skills, and aspects of the no. 5, which is able to control emotions During the discussion of students, teachers give students the opportunity to work with his friends, and teachers to stimulate students to dare to express ideas and ideas, as well as exploring the creativity of students. It looks at a group of students created and rendered images, and paste it in front, and then present it in front of students, then the teacher asked another group to give an assessment, so that students learn to hold his manner. Critical

thinking skills can help students make the right decision based on the effort of careful, systematic, logical and consider different viewpoints. With critical thinking, students used to have personality traits, attitudes, values and good character. Educating children to think critically will help the child to actively build up a defense against the onslaught of information around.

Conclusion

Based on the analysis and discussion of the results of this study concluded, at the elementary school students of class I in Bulak district region namely, SDN Sukolilo 250, SDN Kedung Cowek I # 253, SDN Kedung Cowek II, SDN Complex Kenjeran II/506, and 248 with the SDN Kenjeran questioning techniques seen students' critical thinking skills. This is evident from the aspects to measure students' critical thinking in learning, namely: 1) aspect Viewing and draw conclusions, 2) Comparing two different objects, 3) The ability to ask and express opinions, 4) Discussing and analyzing stories, 5) cooperation in the game. All five of these aspects can be observed in year one students in five school districts have Bulak. What this means is that the critical thinking skills exist in all people, but will not appear by it self, needs to be an effort to develop in the learning process, one of which is the basic ability of teachers, namely questioning skills.

Daftar Pustaka

Adriana, Sofia Ira, 2007. *Penerapan Teori Belajar IPA dan Penalaran Siswa Sekolah Dasar*
Arikunto,Suharsimi.2006. *Prosedur Penelitian*. Jakarta: Penerbit Rineka Cipta.
Fisher, Alex. 2009. *Berpikir Kritis.*Jakarta: Erlangga
Hassoubah,ZalehaIzhab.2007.*Mengasah Pikiran Kreatif dan Kritis.*Bandung: Nuansa
Langrehr, John. 2008 . *Learn to Think*. New York: USA and Canada
Majid,Abdul.2014. *Pembelajaran Tematik Terpadu*.Bandung:Rosda
Moleong, Lexy J. 2010. *Metodologi Penelitian Kualitatif.* Bandung: Rosdakarya
Slavin,RobertE. 2011.*Psikologi Pendidikan jilid(1)*.Jakarta:Indeks
Slavin,RobertE.2011.*Psikologi Pendidikan ji lid(2)*.Jakarta:Indeks
Sugiyono. 2009. *Memahami Penelitian Kualitatif.* Bandung:Alfabeta
Sunarto.2001.*Metodologi Penelitian Ilmu-ilmu Sosial dan Pendidikan.* Surabaya: UNESAUniversityPress.
Suparno, Paul. 2001. *Teori Perkembangan Kognitif Jean Piaget*. Yogyakarta: Kanisius
Tim Dosen IPA.2006. *Pembelajaran IPA di Sekolah Dasar*.JawaBarat:Ciamis
USAID. 2014. *Pembelajaran Literasi Kelas Awal di LPTK*. Word Education

Author's Biodata

Lydia Lia Prayitno is teaching at the Primary School Teacher Education Department of University of PGRI Adi Buana Surabaya. lydia.liaprayitno5@gmail.com

Ida Sulistyawati is is teaching at the Primary School Teacher Education Department of University of PGRI Adi Buana Surabaya. Ida_pgsd@yahoo.com

Imas Srinana Wardani is is teaching at the Primary School Teacher Education Department of University of PGRI Adi Buana Surabaya.
imassrinanawardani@rocketmail.com

PRESENTER'S PAPERS

Development of Interactive Audio Module to Identify Part of Plant Roots and Their Functions for the Fourth-Grade Students with Visual Impairment

Lutfi Isni Badiah
Universitas of PGRI Adi Buana Surabaya,
lutfiisnibadiah@gmail.com

Abstract

Along with the development of information technology, learning at school has been using information technology such as by using an audio module to help students with visual impairment. Based on the preliminary research findings, audio module in special need school is still limited. Audio module for students with visual impairment is therefore needed. This study aimed to describe the steps of the development process, to describe development product, and to describe the feasibility of an interactive audio module to identify the parts of roots and their function. Methods of the data collection used were Likert scale and interview. Product validation was performed by two validators, they were content expert and media expert. This research used a model development by Borg and Gall (1983) to the fifth steps. The study produced interactive audio module to identify the parts of roots and their functions which lasted 20 minutes 30 seconds. The results of the validation of content experts indicated a score of 3.85; instructional media expert got score of 3.6, and interview with students got score of 3.63. Based on the results, it can be concluded that the interactive audio module to identify the parts of roots and their functions deserves as a reference that can be used by student with visual impairment in learning and optimalizing their hearing.

Keywords: Audio Module, parts of roots and their function

INTRODUCTION

Audio module is one of the media has an important role in teaching blind (sight defect) students. This media contains a message in the form of auditory (can only be heard) so it able to stimulate the mind, feelings, concerns, and help to get knowledge, skills, or attitudes. Audio module is suitable to help the teaching learning process for blind students (Hayati, 2012).

Based on field observations, learning is still dominated by communicative method and rely on braille textbooks. *SLB* (special need school) who have equipment modules interactive audio for the sight defect is also rarely utilizing the media maximally. Audio module that already exists, it's formed of an audio recording of a textbook, without variation musical accompaniment and respite. Lack of interactive elements with the students in the audio module causes saturation. Interactive elements in audio module is also an important thing, because it has a positive effect on learning and more motivating students if the content is designed carefully through the learning needs of students (Eristi, 2005).

In learning science at school, the audio module is very helpful because teachers are expected to verbalize the difficult materials to be understood by students. As examples of the material to know body parts and its functions especially is the root of plants. These materials require a lot of explanation and guidance from the teacher. It will certainly make teacher need more time and extra energy to explain materials to the blind children. So it needs an interactive audio module for learning science that can help the teacher in teaching learning process.

Ozgur (2007) states that the use of this interactive audio module make an positive affect in the teaching learning science for blind (sight defect) students. Science learning activities for the sight defect students able to reach significant learning outcome after school provide the audio

module. This interactive audio module also helps the sight defect students to save the things that are studied in long-term memory very easily, helping to motivate students to learn.

Because of that, the researcher interested to study the development of interactive audio module to know the roots and its function as a support for learning science to help optimize hearing of blind students and motivate them to learn. Problems in this research are as follow: (a) How does the development process step of the interactive audio module to know the roots and its functions for blind students at exceptionally school? (b) How does the product development of the interactive audio module to know the roots and its functions for blind students at exceptionally school? (c) How does the feasibility of the interactive audio module to know the roots and its functions for blind students at exceptionally school?

RESEARCH DESIGN

The development of the interactive audio module to know the roots and its function uses the model of Borg and Gall (1983). Borg and Gall's model basically has ten phases, but in the research, development step just until the fifth phase that is the activitiy of the main product revision, this is due to limited time of the researcher.

PROCEDURE

A. Research and information collecting

This phase examines the literature or theory and doing observation related to the research variable of this development, that are the interactive audio module, learning science and blind children.

B. Planning

This plan consists of several things that must be planned, i.e. (a) objectives or goal, (b) energy, (c) time and (d) the qualification of researcher and form of participation in the study or research.

C. Develop preliminary form of product

The researcher conducted several steps in the product development phase, they are: formulating material particles, developing an understanding measurer, making identification program, synopsis and treatment, script writing, production program.

D. Preliminary field testing

The product was tested to the expert as a validator using instruments that have been prepared. Validator is Dr. Tarzan Purnomo, M.Si. (Expert in Environmental Sciences from the Department of Biological Science FMIPA UNESA, and Prof. Dr. Mustaji, M Pd (Expert in learning media from the Department of Educational Technology Postgraduate UNESA).

E. Main Product Revision

Revision to the interactive audio module to know the root and the function based on the advice and input from subject matter experts and media experts. It is intended to produce media that tested the feasibility validly based on validation of competent experts.

DATA COLLECTION TECHNIQUE

The type of data from this research is quantitative and qualitative data. The quantitative data obtained from a questionnaire distributed to the subject of the trial, while the qualitative data in the form of comments or improvement suggestions (evaluation data and review of the experts or validator). Data collection instruments used in this research was a questionnaire and interview.

DATA ANALYSIS TECHNIQUE

Data analysis technique used is descriptive analysis of qualitative and descriptive statistical analysis through questionnaire (Likert scale) to determine the criticisms,

suggestions, comments from the expert or validator. The results of this questionnaire give a description of media experts attitudes toward the interactive audio module to know the roots and functions. Assessment criteria for each aspect is as follows:

Table 1. Assessment Criteria of Validator to the Interactive Audio Module

No	Average Value of Validator	Remarks	
1	1 ≤ SV ≤1,50	Not good	Not fit to use
2	1,6 ≤ SV≤ 2,50	Less good	Suitable used with many revisions
3	2,6 ≤ SV≤ 3,50	Good	Suitable used with a bit revision
4	3,6 ≤ SV≤ 4,0	Excellent	Suitable used without revision

The product of the interactive audio module is said to be good if it's in the category of "good" or "excellent". Input from sight defect students obtained through interview to know their response toward the interactive audio module to know the roots and functions. Analysis of the data on an interview given to the student analyzed using a scale, that is:

Table 2. Criteria of Students Interview to the Interactive Audio Module

No	Average Value of Respondents	Remarks	
1	1 ≤ SV ≤1,50	Not good	Can't to use
2	1,6 ≤ SV≤ 2,50	Less good	Able to use with many revisions
3	2,6 ≤ SV≤ 3,50	Good	Able to use with a bit revision
4	3,6 ≤ SV≤ 4,0	Excellent	Able to use without revision

Thus the interactive audio module to know the roots and its function is said to be good if it contains of categories: (1) Valid based on assessment of validator and (2) The students response to the interactive audio module in the category of good or excellent.

RESULTS AND DISCUSSION

A. Phase Of Interactive Audio Module Development Process To Know Roots Parts And Its Functions

The procedure of development activities that have done to adapt the model development of Borg and Gall (1983) with the following steps:

1.Preliminary Study and Collecting Information

Sight defect (blind) children have problems on eyesight so in learning they rely on the sense of hearing. Based on these problems, it needed the learning media that can help blind students learn. The use of interactive audio media modules in the learning activities is also used to train and optimize the skills related to aspects of listening skills,

have the ability to encourage his listeners to imagine, as well as cheap and easy so that suitable for sight defect students (Hayati, 2012).

2.*Planning*

This plan includes several things including the preparation or arrangement of the development goals, the involvement of competent experts in their fields, and the time of the production process.

3.Develop preliminary form of product

The material is conveyed in the module is the material about plant morphology and physiology. The formulation of this material refers to the 2013 curriculum for fourth grade students at regular school with the basic competency: 3.1. Explain the outer shape of the body of animals and plants and their functions. The instrument evaluation is in the form of oral test that contains five questions into one in the interactive audio module. The production process was done in the Geronimo Semarang recording studio; it is located in street of Erlangga Barat V no.4 Semarang. The production activities include: 1) Arranging the production team members, 2) Consultation manuscript, 3) Selection of players, 4) Exercise dried, 5) Records, 6) Editing and mixing.

4. *Preliminary* field testing

Initial trials carried out with the testing of products developed to the expert as a validator for assessed using instruments that have been prepared or arranged.

5.*Main product revision*

Revisions were made based on suggestions and input from subject matter experts and media experts. It is intended to produce media that tested the feasibility validly based on the validation of competent experts or validator.

B. The Product Development of the Interactive Audio Module to Know Roots Parts And its Functions

In this research produced the interactive audio module in a good quality with the following description:

1.*Identity of the product*. Product development is in the form of interactive audio module to know the roots and functions packed in pieces of CD-R with the title: Understanding the roots and functions. The total duration of this interactive audio module ± 20 minutes. The audio of learning media consists of background music, narration, and sound effects. Background music used to attract the attention of students during the learning process takes place, in order to increase the spirit and relieve boredom.

2.Interactive Aspect. Interactive aspect in this product formed of a one-way interaction of voice narrator. The narrator will provide questions to the students and given pause a few seconds to answer or the teacher can pause the interactive audio module. So that students do not just listen passively, but also give an active response. The audio aspect consists of background music, narration, and sound effects that aim to attract the attention of *students* during the learning process took place.

3.Material Contents. The material contents consist of two subject matter, i.e. (a) plant morphology and (b) plant physiology.

4.*Implementation of products in learning*. The module is applied in teaching for blind children to one meeting with 2x30 minute time allocation that it's consisting of the initial activity (5 *minutes*), the core activity (50 minutes), the closing activity (5 minutes).

C. Feasibility of the Audio Interactive Module Products to Know the Roots Part And the Functions

1. Validation of the material experts

   The data obtained from the validation results of expert material is in the form of qualitative data (suggestions data and feedback or input). Likert scale that has been prepared to give to the subject matter experts contains of four category scores are 4 (excellent), 3 (good), 2 (less good) and 1 (not good) with comments / suggestions revision. The feasibility analysis validation of the expert material to the all assessment items obtained a score of 3.85. So that the product developed is feasible and able to used without revision.

2. Validation of the media experts

   The data obtained from the validation results of the material experts is formed a qualitative data (suggestions data and feedback or input). Likert Scale that has been arranged to be given to the expert material contains of four category score that is 4 (excellent), 3 (good), 2 (less good) and 1 (not good) with comments / suggestions revision. The assessment result of the media experts is 3.6 and it can be concluded that it can be used without revision.

3. Students Response

   Interview with blind or sight defect students was done to know the students' response to the product. This activity is carried out to four blind student at *SLB YPAB Surabaya*. The questionnaire consist of four categories with a score of 1 (disagree), 2 (less agree), 3 (agree), and 4 (strongly agree). They admitted spirit and didn't bored when studying to know the roots and function by using the interactive audio module and want to learn with it on the other materials, not only on the material of roots and its functions. From the explanation above, it can be concluded that the students' response to the interactive audio module to know the roots and its function is positive.

CONCLUSION AND SUGGESTION

CONCLUSION

The research and development of the interactive audio module to know the roots and its functions using the development model of Borg and Gall 1983. But in this research only up to the fifth phase. Based on the assessment and the feedback or input obtained during the process of developing the interactive audio module to know the roots and functions, it results the product with the following characteristics: The interactive audio module to know the roots and its function packed in the form of CDs with duration of ± 20 minutes 30 seconds. Interactive aspects in the interactive audio module to know the roots and its function is in the form of a one-way interaction of voice narrator.

At trial material experts was obtained the results of feasibility analysis from the validation of materials expert score of 3.85, so that the product developed is feasible and can be used without revision. At trial the learning media experts was obtained a score of 3.6, and it can be concluded that the interactive audio module products to know the roots and functions can be used without revision. Interview with four subjects gained an average score of 3.63, so it does not require more revisions or reparations to the product of interactive audio module to know the roots and its function.

RECOMENDATION

The interactive audio module products to know the roots and its function may help teacher deliver the learning materials at schools. Teacher is also expected to provide a means infrastructures to support the interactive audio module products such as speakers, laptop, or other mp3 players. The interactive audio module products to know the roots and its function can be used for blind (sight defect) students as teaching materials for self-learning and help optimize hearing. Parties who wish to develop further products for the other materials expected to develop for other learning materials and conduct limited test. However, the development needs to pay attention to

the needs and characteristics of sight defect students in order to create the right product and can be more maximal.

REFERENCES:

Borg, W.R and Gall, M.D. (1983). *Educational Research: An Introduction.* New York: Longman, Inc

Eristi, Suzan Duygu. (2005). The Effectiveness Of Interactive Instruction Cd Designed Through The Pre-School Students. Journal of Theoretical and Applied Information Technology. www.jatit.org

Hayati, Kulsum Nur. (2012). *Model Ujian Nasional Berbasis Audio untuk Siswa Tunanetra*. Penelitian dipresentasikan dalam Konferensi Ilmiah Nasional "Asesmen dan Pembangunan Karakter Bangsa" HEPI UNESA 2012

Henderson, F. M (1973). *Communication skills*. Dalam Berthold Lowenfeld (ed), The Visually Handicapped in Schoool. New York: The John Day Co

Ozgur, Aydin Ziya. (2007). *Evaluating Audio Books As Supported Course Materials In Distance Education: The Experiences Of The Blind Learners*. Anadolu university, open education faculty. The turkish online journal of educational technology – tojet october 2007 issn: 1303-6521 volume 6 issue 4 article 2

Sukiman. (2012). *Pengembangan Media Pembelajaran*. Pedagogia. Yogyakarta

Sunanto, Djuang. (2005). *Potensi Anak Berkelainan Penglihatan*. Departemen pendidikan Nasional

Author's Biodata

Lutfi Isni Badiah is a lecturer of guidance and counselling major in PGRI Adibuana Surabaya University. She got master degree at University State of Surabaya. Her research focus on inclusion education and learning of children with visual impairment. Contact author via phone 085727908278 or email at lutfiisnibadiah@gmail.com

PRESENTER'S PAPERS

Learning Style Preferences in Sitxh-Grade of Elementary School

Marleny Leasa
Primary Education Program, Faculty of Teacher's Training and Education
Pattimura University-Ambon
email: marleny.leasa@yahoo.com

John Rafafy Batlolona
Post Graduate Student of State University of Malang
email: john_batlolona@yahoo.co.id

Abstract

During this time teachers tend to design and practice patterns of learning to meet the demands of the curriculum alone, and sometimes to sacrifice internal factors, that is, students' learning styles. Teachers are expected to accommodate the diversity of learning styles of students. From a number of learning style model, the VARK model developed by Flemming was based on sensory modalities. Information about students' learning styles are useful for the purpose of evaluation and redesign of learning. This study aimed to map out the learning style that is generally owned by the sixth grade elementary school students as well as revealing the relationship between learning styles and gender.This study was a one-shot design survey conducted in 18 primary schools in the city of Ambon. Data concerningVARK learning styles of students of sixth grade students were obtained through tests. Data analysis performed used Chi Square, while the magnitude of the relationship was obtained through Cramer coefficient. The result of research indicated that learning styles of the students of grade VI were 56.76% was kinesthetic, 22.86% auditory, read 17.52%, as well as 2.86% visual. The results of chi square analysis showed that there was a significant relationship between learning styles and gender, where the coefficient Cramer reached 0.13.

Key words: learning styles, VARK, gender

INTRODUCTION

Learning should be designed to make the students active. This is in line with the constructivist learning paradigm which bases on *student center learning*. Active learning is developed based on the basis that each student has different learning styles. Students are the target of the learning activities, and thus the students' characteristics become a very important aspect in the process of *design,* implementation, and evaluation.

Learning style is a particular way of learning that the students have when studying learning materials. Learning style is the way the students learn, or a model built to be able to learn in order to demonstrate the knowledge, as well as the motor skills. Similarly, learning styles can also be viewed as a habit, a strategy, or a person's behavior in learning (Pricthard, 2009; Chen, 2011; Abidin, 2011).

Learning style is a way that makes the students understand and process knowledge received from their teachers more easily so that they can improve their learning results. Using the learning style, each student feels comfortable about what they are learning. Suparman (2010) stated that the optimization of the learning styles will be very helpful to the learning process itself. The aspects of learning styles are not only about when we are dealing with information, observing, listening, writing and speaking but also about when we are processing information sequentially, analytically, globally or left brain-right brain, or the other aspect is that when we are reacting toward learning environment.

Fleming, 2001 in Pricthard (2009) and Akhtar (2010) stated that when any information from around the world was available among the students, and that information was quite

necessary, the students tend to use their sensory organs to process them. Similar to SAVI, the learning styles which are developed are known as VARK (visual, auditory, *reading*, and kinesthetic. Either SAVI or VARK approach can lead us learn based on activities, which means that we learn by moving physically actively by utilizing our sensory organs, and involving the whole body or mind in the learning process (Susilo, 2009; Suparman, 2010).

According to DePorter (2006) in fact, students in the class have the heterogeneous abilities and learning styles. Some students can quickly digest the learning materials, but some others can only digest the learning materials slowly. Both of these learning styles require that teacher implement learning strategies appropriate to the students' learning styles. Each student learns according to their own learning styles, personalities or abilities to master the learning materials. Every student learns according to their own learning style. Similarly, the teachers should also have a teaching style which is effective and efficient in improving the learning activities.

Several research findings have reported that learning styles have an effect on students learning results. Dina (2008) and Abidin et al (2011) found that learning styles had an effect on students' cognitive level (high, medium, and low). The Other research by Damavandi et al (2011) and Akhtar (2010) also revealed that learning styles had a significant effect on students' learning results. However, Chen (2011) found that learning styles did not have any significant effect on student learning results.

Based on the results of the observations and interviews with the school head master and school teachers of some elementary schools grade VI in Ambon city, it was found that the learning activities did not pay attention to the characteristics of the students' learning styles in their curriculum. Ironically, teachers are not familiar with the learning styles and how to accommodate it in the learning activities .Teachers tend to treat the heterogeneous students in a homogeneous way in the class. Whereas, in the context of learning in elementary school level, there were various problems associated with the students' characteristics. For instance; some students are slow learners; some students play a lot here and there during the learning activities; some people feel sleepy or make a noise with their friends in the class. Unfortunately, teachers have not been able to seek a proper solution to this situation. This research aims at investigating the learning styles generally possessed by the sixth grade elementary school students, and the correlation between learning styles and gender.

METHOD

This is a survey research, especially correlation survey to uncover the correlation between one or more variables. 18 elementary schools spreading across the city of Ambon were involved in this research. The participants of this research consisted of 650 students of the sixth grade elementary school. The research instrument used was a student learning style test that was developed by Flemming (1995), and had been revised from 13 items to 16 items. In the 16 test items, there were four options namely visual learning style, auditory, reading, and kinesthetic. The instrument was distributed to all participants (650), but only 525 participants returned the results. Using the learning style identification guides, the students' test results were calculated. The highest score on a particular learning style indicated that the students have the preferences toward the particular learning style. The data were analyzed using chi square, the correlation between learning styles and gender as well as the learning reselts were analyzed using Cramer coefficient (C), (Sugiyono, 2007).

RESULTS

Elementary school students' learning style in this research is shown in Table 1 below.

Table 1. The Frequency of Learning Style

Learning Styles	Participants	
	Frequency	Percentage (%)
Visual	15	2.86
Auditory	120	22.86
Read	92	17.52
Kinesthetic	298	56.76
Amount	525	100

Table 1 informed that more than half of the elementary school students have kinesthetic learning style. The second and the third level are followed by the auditory learning style and the reading learning style. While, only few are found to prefer the visual learning style.

The correlation between learning style and gender was analyzed using *Chi-Square* test. Similarly, to know the size of the correlation is by calculating the Cramer coefficient. Table 2 shows the correlation between learning styles and gender.

Table 2. The Correlation Between Learning Styles and Gender Based on The Analysis of *Chi-Square* (χ^2)

Gender	Gaya Belajar								Total
	Visual		Auditory		Read		Kinesthetic		
	Fo	Fh	Fo	Fh	Fo	Fh	Fo	Fh	
Male	7	6.89	66	55.08	31	42.23	137	136.78	241
Female	8	8.11	54	64.92	61	49.77	161	161.22	284
Total	15		120		92		298		525

Nilai $\chi^2_{(4)}$ **5% = 9,488,** χ^2_{hit} **= 9,5236;** $\chi^2_{tab} < \chi^2_{hit;}$ **nilai C = 0.13**

Table 2 describes that the male students tend to have reading and kinesthetic, in contrast to female students who optimize more on the auditory learning, and the visual is equally owned by male and female, although the frequency is very small. Based on the analysis of *Chi-Square*, a significant correlation between learning styles and gender was found, with a value of C = 0.13. This means that the gender factor also determines one's learning style.

DISCUSSION

In the dimension of VARK that includes four learning styles, a kinesthetic has the highest preference of all. Elementary school students generally like to learn in a direct way, "do it". More information is received, processed or transferred back, and used in the decision-making process to a condition kinesthetically. The best way to learn is by experiencing it yourself or directly what was being learned. Learning plays a role in creating a meaningful experience for the students to be able to make the best decision on the other conditions in the future. Learning experience proposed by Wyatt and Looper (1999) in Puskur (2010) explained that that phase *do it* (action) in learning is the key that encourages the students to understand the significance of learning materials. This phase is able to help students understand 90% of learning materials delivered by the teacher, and gets the highest achievement compared to those of the verbal phase (20%), visual phase (30-50%), and involved phase (70%).

On the age in which the elementary school students are still actively growing and developing, they have a big curiosity toward many things. Therefore, the students feel happy when they are involved in or directly perform certain instructions during the learning process. By

directly doing something or independent practice, the students are trained to store more information and experience. The theory of information processing by the brain explains that the ability of the brain to receive information is optimal within 10 minutes. When it lasts longer than 10 minutes, it can cause boredom. Thus, such information is no longer meaningful in the students' knowledge structures (Santrock, 2004).

Table 2 shows that learning styles have a significant correlation with gender, and the value of Cramer coefficient of 0.13, which indicate a weak correlation. The male and the female learning styles are spreading on all learning styles. Some learning styles, such as auditory and visual styles do not show any significant frequency difference compared to that on reading and kinesthetic. Male students tend to be dominant in kinesthetic learning style and read. In contrast, the female students tend to be dominant on their auditory learning style. Unlike the other learning styles, there is no particular gender dominance in visual students.

The research by Slater *et al* (2007) reveals a contrasting result with this research. Saadi *et al* (2014) reported in his research that on class VII and VIII in Jeddah, there was a significant correlation between gender and a single student's learning style (only V, A, R, K), as well as the multimodal. In his research conducted in the first semester students of medical department revealed that there was no difference between the man learning styles and the woman learning style. A relatively similar research result was reported by Wehrwein *et al* (2006) in research on the students of physiology. Similarly, Kocakoglu (2010) in his research reported that the students' learning styles are spread almost evenly both in men and in women, indicating that there is no significant correlation between learning styles and gender.

The male sixth grade students of elementary schools tend to have the kinesthetic because they are more active physically than the female students. At this age, boys have more motor development than girls do. The motor development also contributed to their learning process in the classroom. The results of the interview with the teachers in this research found that the teachers were overwhelmed in managing the male students that were very active in the class. Santrock (2004) said that male students are more likely to look for the attention than are the female students. Therefore, the male students are not happy if they only sit quietly on their chairs. They are always looking for ways to move, touch, and do other physical activities in the learning process.

The other findings are that the male students' preference toward reading learning style is higher in frequency than that of the female students. Dobson (2009) also reveals the similar results in his research conducted on Physiology students. These findings are in contrast with the findings of Slater *et al* (2007) who found that the female students tended to prefer reading and writing learning style than the male students.

Auditory is often preferred by the female students than the male students. According to Purwanti (no year), at the high level class, female students are likely to speak more than the male students do. Thus, they tend to have greater sensitivity in optimizing the sense of hearing for the benefit of the information and knowledge acquisition during the learning process. In addition to the sense of hearing, the communication strategy and ability are also developing (Santrock, 2004).

CONCLUSION

Student's learning style can be revealed using a questionnaire VARK learning styles, as well as through observation of student learning and debriefing. Classification of student's learning style, leading teachers to make learning relevant to the design characteristics of the students, so that they enjoy learning. So, we can concluded from the results of this research that: the learning styles that the elementary school students mostly prefer are kinesthetic, auditory, and reading, and there is a significant correlation between learning styles and the gender, with the value of Cramer coefficient 0.13. If we are aware of their learning style and can help them in determining their preferences.

REFERENCES

Abidin, Mohamad J.F., Rezaee, Abbas A., Abdullah Helan N., Singh, Kiranjit K. B. 2011. Learning Styles and Overall Academic Achievement in a Specific Educational System. *International Journal of Humanities and Social Science*. Vol. 1, No. 10 August. (Online), (http://www.ijhssnet. com/journals/Vol_1_No_10_August_2011/19.pdf,), accessed on 10 February 2013).

Akhtar, Zarina. 2010. *The Effects of Learning Styles and Sosio-economic Status on Learning Achievement of Secondary School Students*. Thesis. (Online), (http://prr.hec.gov.pk/Thesis/759S.pdf,), accessed on 6 February 2013).

Chen, Mei Ching.. 2011. *Relationship Among Self-Directed Learning, Learning Styles, Learning Strategies and Learning Achievement for Students of Technology University in Taiwan by Using Structural Equation Models*. (Online),(http://www. wseas. us/e-library/conferences/2011/Iasi/EDUTE/ EDUTE-11.pdf,), accessed on 6 February 2013).

Damavandi, Alireza J., Mahyuddin, Rahil., Elias Habibah., Daud S. M., Shabani, Jafar. 2011. Academic Achievement of Students with Different Learning Styles. *International Journal of Psychological Studies.*Vol. 3, No. 2. (Online), (*www. ccsenet.org/journal/ index.php/9209*),), accessed on 6 February 2013.

DePorter, Bobbi and Harnacki, Mike. 2006. *Quantum Learning Familiarizing Safe and Fun Learning.* Bandung: Kaifah.

Dina. 2008. *The Effect of Learning Styles (Visual, Auditory, and Kinesthetic) on the Learning Achievement).* (Online), (online), (http://www.infoskripsi.com/Abstract), accessed on 16 June 2012.

Dobson, L. John. 2009. *Learning Style Preferences and Course Performance in an Undergraduate Physiology Class*. Advances in Physiology Education. Vol. 33, pp 308-314.

Koçakoğlu, Melih. 2010. Determining the Learning Styles of Elementary School (1st-8th Grade) Teachers. *International Online Journal of Educational Sciences*. 2 (1), 54-64.

Pritchard, Alan. 2009. *Ways of Learning*. New York: Routledge.

Purwanti, Yuni Isti. No Year. *Characteristics of Childhood 7-12 Ages*. (Online), (http://staff.uny.ac.id, c November 2014).

Pusat Kurikulum. 2010. *Book I: The Development Active Learning Approach Guide.* Jakarta: National Education Ministry, Research and Development Agency.

Rahman, Saemah., Mazli Sham Abdullah., Ruhizan M. Yasin., T. Subahan Mohd Meerah., Lilia Halim and Ruslin Amir. 2011. *Student Learning Style and Preferences for the Promotion of Metacognitive Development Activities in Science Class*. World Applied Sciences Journal 14, pp 11-16.

Ratuanik, W. 2013. The Correlation Between Learning Styles and Science Achievement of Class V Elementary School students at SDN 1 latihan SPG Ambon. *Thesis:* Unpublished. FKIP-Unpatti Ambon.

Saadi, A. Ibrahim. 2014. *Gender and Learning Styles in Saudi Arabia Schools. 2014. The Clute Institute International Academic Conference.* San Antonio, Texas USA.

Slater, Jill. A., Lujan, Heidi. L., DiCarlo, Stephen. E. 2007. Does Gender Influence Learning Style Preference of First Year Medical Student?. *Advances in Physiology Education*, 31: 336-342.

Santrock, JW 2004. *Educational Psychology.* Translatied by Wibowo, T. 2007. Jakarta: Kencana.

Sugiyono. 2007.*Statistic For Research*. Bandung: Alfabeta.

Suparman.2006. *Learning Styles for Students Enjoyment*. Jakarta: Pinus.

Susilo, Joko. M. 2009. *Success with Learning Style* .Jakarta: Pinus.

Wehrwein, A. Erica., Lujan, L. Heidi., DiCarlo, E. Stephen. 2006. *Gender Differences in Learning Style Preferences Among Undergraduate Physiology Students.* Advances in Physiology Education. 31, pp 153-157.

PRESENTER'S PAPERS

Zapalska, Alina and Brozik, Dallas. 2006. Learning Styles and Online Education. *Campus Wide Information Systems*. Vol. 23, No.5, pp 325-335.

Author's Biodata

Marleny Leasa is a lecturer in Primary Education of Pattimura University Ambon. Marleny was born in Ambon on 6th March 1983. She was graduated from Pattimura University on 2006, where she received a Bachelor Degree in biology education. Marleny was also graduated her Master Degree in Biology Education from State University of Malang on 2009. He is currently pursuing her doctor study in State University of Malang marleny.leasa@yahoo.com

John Rafafy Batlolona was born in Tual on 29th June 1988. He graduated from the Pattimura University in 2011, where he received a Bachelor's degree in physical education. Now he is currently studying at postgraduate State University of Malang program physical education. john_batlolona@yahoo.co.id

PRESENTER'S PAPERS

Pre-Service English Language Teachers' Difficulties During Teaching Practice in Senior High

Miftahul Jannah
State University of Malang
Jl. Surabaya, Malang, Indonesia
miftahuljannah950@gmail.com

Abstract

Teaching practice is one of the most essential aspects in teacher education. Despite teaching practice takes the main point of educational program, not all English teacher trainees could perform their best performance in teaching practice. This study was conducted to ascertain teacher trainees' difficulties, the possible causes and solution in teaching English during the teaching practice. The study was a descriptive qualitative. The subjects were the teacher trainees of undergraduate program of English Department. Eleven teacher trainees, a supervisor and two cooperative teachers were interview. Their practicum reports of the students were also reviewed. The result of this study showed three findings. First, the students faced some difficulties in the main elements of teaching management, such as class controlling in the actual environment of teaching a foreign language, time management and dealing with the appropriate model and method of teaching. Another difficulty was related to the teacher trainees' self-confidence standing in front of the class. Moreover, teacher trainees' creativity in modifiying the teaching method and material was also considered low. Second, the difficulties were caused by the lack of students' knowledge and experiences in how to manage the class and prepare themselves before teaching. Third, the possible solution to solve the difficulties were that the students had to master and understand some specific subjects, the students had to cover many literatures or resources of knowledge, the teacher trainees should be guided by their supervisors apprpropriately before starting independent teaching. Besides, performing a better quality of microteaching class should be considered by the college and institutition since the teaching practice will be their first step of a real teaching.

Keywords: ***difficulties; foreign language; teaching practice; teacher trainees***

1. INTRODUCTION

1.1 Background of the Study

Teaching practice is one of the most essential aspects in teacher education (Oluwatay and Adebule, 2012: 109, Azeem, 2011: 308). Every student in a teacher education program is expected to do teaching practice. Teaching practice serves as the pre-service teacher's initiation into the real-life world of the school (Ngidi and Sibaya, 2003: 18). One of the aims of teaching practice is to provide opportunities for teacher trainees to integrate theory and practice (Kinggundu, 2007: 27, Oluwatay and Adebule, 2012: 110, Azeem, 2011: 308). Therefore, the teacher trainees are enriched by many basic knowledge of 'how to be a professional teacher' through theories and practices (Azeem, 2011: 310-311). Waghorn & Stevens (1996: 701) argue that effective communication between theory and practice has been the primary concern of teacher educators for over two decades. It continues to challenge those whose task is to develop pre-service teacher education programs which integrate professional knowledge and classroom teaching practice.

Despite teaching practice takes main point of educational program, many unsatisfied felling come across to the teacher trainees and also the mentors about the learning process exercise. Much evidence shows that teacher trainees get difficulties and stresses at the first time of teaching

practice. Idowu (in Jekayinfa et al. 2012: 79) stressed that most of the problems and difficulties are not resolved even at the end of the exercises: psychological of the teacher trainees, pedagogical preparations, classroom adaptation, and mode and means of assessment. There are three sorts of subject matter; first, content knowledge; second, pedagogic content; and third, curriculum knowledge which knowledge curriculum structures and materials are the main referred, and also integrate how to use them effectively in classroom situation. In classroom teaching practice, the teacher trainees should be able to reform any methods and matters based on appropriate curriculum system.

Moreover, In Indonesian curriculum, English is a compulsory school subject which has taught in all over level of junior and senior high school that has a high ratio of the total mark for passing the national examinations. Despite of their important rule in school institution, not all English teacher trainees could perform their best performance while teaching practice in practical school. Complicated skills of English subject are one of the factors which are caused the problem. Based on Indonesian curriculum, KTSP in 2006, (Mulyanto and Syahman, 2009: 1*)* Improving competency in English subject at high school level consist of four kinds, they are; competency of *speaking*, *listening*, *writing* and *reading*. Every student is expected to have all kinds of these competencies as a major needed to graduate the program and also for continuing programs.

However, different capability among teacher trainees becomes an inhibitory dealing with such emphasizing. The skill of teaching is inherent in individual (Oluwatay and Adebule, 2012: 110), not all of teacher trainees are be able to fulfill the goal despite they must force their thought and fatigue. Teacher trainees have been encouraged to adopt various teaching models during the practice of teaching, in the wave of reform in the training of teaches was critiqued for leaving teachers unprepared to face the complexity of educational practice (Ogonor & Badmus, 2006: 2). These studies also revealed teacher trainees word-wide are anxious about the evaluation.

Earlier researches, as in Kalebic (2006: 656) result provided data on the difficulties students had with certain aspects of teaching and level of help they received from the school, most of students response about learning outcomes, and frustration they had during teaching practice. Second research, Ijaiya (1996:14) noted that most of students teacher difficulties are related to the discipline and class control. The third research, Heeralal & Bayaga (2011: 102) proved that there were some aspects of own behavior that frustrated students such as concerns about not doing everything properly and on time, nervousness and stage fright. Unrepresentative condition of class made teacher trainees while teaching practice always get difficulties in controlling (organizing) the class. Several studies had been conducted on teacher trainees experiences during teaching practice, but a review of the literature indicate that there limited studies that have been conducted on difficulties of English teacher trainees in appropriate field of matter.

In order to identify the difficulties, the researcher concerned with teaching variables such as the teacher trainees themselves, teachers' qualifications, school expectation and supervisors. The researcher investigated these difficulties that were reflected on the teacher trainees' achievement and performance.

Therefore, in this study the writer tried to propose the study entitled: english students pre-service teachers' difficulties in teaching practice: a reflection toward future teacher education.

1.2 Research Questions

This study attempted to answer the following research questions:

1). What are the English teacher trainees' difficulties in teaching English while teaching practice?
2). What are the possible causes of difficulties faced by the English teacher trainees in teaching practice?
3). What are the possible solutions to solve the English teacher trainees' difficulties in teaching practice?

2. RESEARCH METHOD

2.1 Research Design

This study employed a descriptive qualitative study because it involved a work with a relatively small number of case (Silverman, 2005:09), thus the researcher had a deeper understanding dealing with the case. The aim of this study was to discover what the English teacher trainees' difficulties during teaching practice. The result of the study displayed into descriptive data which were consisting of written and oral data from the object.

This research was conducted at undergraduate students at English study program in University of Muhammadiyah Mataram in academic year 2012/2013 who had completed their teaching practice in Senior High Schools. The data was gathered once the students had completed their teaching practice. Their responses and documents about teacher trainees' difficulties in teaching English while teaching practice were obtained and they participated sincerely in this study. The selected participants were obtained by the *purposive sampling*. There were 11 teacher trainees were interviewed.The participants were taken from different capability during teaching practice. The researcher took 40% as the participants from the students who were considered less in their teaching practice performance, then 30% the students who were average in their teaching practice and 30% from students who were considered perform well during teaching practice. The consideration was based on teaching practice scores was taken from UPPL and the microteaching scores. Besides, There was a supervisor who supervised the teacher trainees in a senior high school was interviewed. The cooperative teacher who trained them in doing teaching practice in school were also interviewed.

3. FINDING AND DISCUSSION

3.1 Teacher Trainees' Difficulties

3.1.1 Document Review (Data from Teacher Trainees' Reports)

Based on the teacher trainee reports, the Inhabitation during teaching practice could be categorized into two main aspects: Internal and external Problem. Regarding the internal difficulties, the first difficulty they wrote that they could not organize the class well, as well as explain the material as simple as possible. Besides, they were still confused in choosing appropriate media and method for teaching. It made them frequently applied unappropriate method for some materials, as the consequent many students did not interested to the material. They also got difficulty in organizing the material systematically, so that the material was always not match with the schedule. Mostly they could not optimize the time has been allocated with the material should be taught. Thus, they should maximize the time, with the hope that the material can be delivered based on the time.

Regarding the external factor, mostly the student were not fully pay attention to their explanation in front of the class. It made the teacher trainees confuse in applying teaching method while they should teach inline with the time that has been scheduled also. Eventhough the teacher trainees had prepared the material for the lesson, however they could not apply all what they planned in the class where the class as in a hell noise. This problem was the impact of teacher difficulties in controlling and organizing the class. It was not easy asking students to be silent and focus.

3.1.2.1 Result from Interview

a. Interview Data from Teacher Trainee

Based on the data gathered from teacher trainee through interview, there were some difficulties complained by teacher trainee during teaching practice. The most responses came

across the teacher trainee were concerned students' behavior in the classroom. Teacher trainees mostly complained about the students' lack of interest for what was going on in the classroom, as stated by Tt1, Tt2, and Tt3:

> Tt1 & Tt2: *…the students were really difficult to be silent and focus in the class room. They tended to enjoy playing with their friends. They were just silent if my host teacher accompanied me in the class (translated version).*
>
> Tt3: *...sometimes I got difficult of how to choose the appropriate method to make them understand about English. (Translated version)*
>
> *Tt4:…I got a big problem how to explain them the appropriate instruction based on the material. Besides that, most of the materials were difficult for me. (Translated version)*

As the result of interview above, we found that the first difficulty faced by teacher trainees at the beginning of their teaching practices was related to the class controlling and organization. Keeping students attraction and focusing on the material were given was not easy as they thought. Class controlling impacted on the way of choosing appropriate teaching method. Because conducting the appropriate method for teaching should be based on the situation and context of the class. Teacher could not change the real situation in the class, teacher can only modified their teaching method. The method used in the class room should be in line with the student situation the class, the students learning style is the most important consideration to choose the appropriate method for teaching.

The difficulties were not only all about class, but also the material should be taught. Teacher trainees difficulties were related to the material should be taught. Teacher trainees were still not master all the material should be taught, as stated by Tt3 and Tt4. Regarding to the subject matter, in line with the related literature (Ijaiya, 1996: 18), knowledge of subject matter and selecting the appropriate matter based on the syllabus were considered as another teacher trainee problem. The result also showed also that teacher trainee got a great difficulty to accommodate and providing for individual differences among students in the class, it suggested by Tt5 comment below:

> *Tt5:…students were come with different background, interesting, desiring and learning style. I got difficult how to accommodate their difference in the class… (Translated Version)*

Interview above in line with the same previous research (Ijaiya, 1996:18), where the providing for individual differences was judge as the most important problem faced by teacher trainee.

Teaching is such a complicated, especially for beginner. Keeping class silent was not only the one teacher trainees challenging during teaching practice. Teaching administration is one another teacher trainees' difficulty, a concern which was prominent was about lesson planning. Lesson planning was not easy to make, as stated by below:

> *Tt2:…besides,it was not easy to accommodate the teaching process based on the lesson plan. The scheduled was not easy to be matched with the reality and class context… (Translated version)*
>
> *Tt2: …also the lesson plan should be made in full English, sometimes I got confuse of making a right lesson plan in English. (Translated version)*

The interview above shows that lesson planning was another difficulty in term of providing good teaching administration before teaching. The complicated of lesson plan was not only how to make and apply it in the classroom, but the lesson plan in some of Senior High Schools should be made in English. The data gathered from interview stressed that teaching language is not as simple as teaching another subject. Besides knowing the teaching knowledge,

they have to be fully understand how to make a teaching administration not only in Bahasa Indonesia, but also in appropriate English.

b. Interview Data from Supervisor

From the version of supervisor, there were some of teacher trainees' difficulties during teaching practice, as stated below:

> *…there were some difficulties faced by teacher trainees as long as I observed. The first was related to the students' Attention. The second was the subject matter of English they taught in the class, it was about the subject matter which was related to how teacher trainees improve their appropriate subject matter based on the students' context… (Translated version)*

The interview with the supervisor shows that the most difficulties faced by teacher trainees in teaching training are dealing with the class control, students diversity, conducting the real environment of teaching Foreign Language, and chose the appropriate model and method of teaching English.

c. Interview Data from Cooperative Teacher

In the perspective of cooperative teacher, there were some difficulties faced by teacher trainees in teaching practice, as stated below:

> *…they seemed not too confident in front of the students, that's why many students did not trust them much. (Translated version).*

It shows that cooperative teacher viewed that most of teacher trainees problem at the first was related to their self-confident as an invoice teacher. When was asked about teacher trainees' difficulties related to the class controlling, she continued:

> *…yaaa, their ability of controlling the class still very less… but, it was reasonable, they were still learning… (Translated version).. …the difficulties I observed that they mostly confused of choosing an appropriate method ans approach based the material should be taught. (Translated version)*

Based on the interview above, the problem faced by teacher trainees could not be separated from class controlling and organizing. However, these difficulties were acceptable because she was really aware that they were beginner in teaching. Despite they had been completed by much knowledge and training through college, but it would not be perfect without practice, and she stated that the practice was very complicated than what they had had in mind. That is why she was always keeping give them support and spirit. Moreover, in the perspective of cooperative teacher.

The interview presents that the difficulties of choosing appropriate method for teaching based on the matter should be taught was not only stated by teacher trainees themselves, but also the difficulty was observed by the cooperative teacher. This finding was in line with the previous research (Kalebic, at. al, 2006: 655-656) which presents teacher trainees were problematic with finding the appropriate teaching materials and verbal interaction with learners while controlling the classroom.

d. Possible Causes

There are two point here, first is the the data gathered from document review and the second is from interview. Based the teacher trainee reports, there were some factors as the possible causes of his difficulties during teaching practice. First, it was about the differences of Students' ability and intelligence. They stated that almost all students in their classes had different ability in understanding English. This was a main factor which was inhibited the learning process. Besides,

it caused the difficulty to determine the appropriate method for teaching. As the consequence, the students were not interested to prepare themselves in home. Third, the material that should be taught were too much but the time were not enough. They also argued that the problems caused by the school regulation in case of time allocation. When there were many time missed because of schools program, such us teachers meeting, special holiday, Imtaq and the accidental program from school without any reschedule.

Based on the interview with the teacher trainees. There were specific factors which caused teacher trainees' difficulties based on their own perspective. The fist and the most common comment across teacher trainees were about teacher trainee identity during teaching practice in the class.

Based on the data above, researcher found that some of their external problems were caused from the reality that they were not real teacher in the class. It showed that the students in Senior High School had understood well the position of teacher trainees'in school. Besides external factor, the most comment also was related to the internal factors from the teacher trainees themselves (Tt9). The lack of specific knowledge about English was still commented by many teacher trainees, like Jumiaty ans Sugiarty commented:

The interview above suggested that many teacher trainees were still less of language knowledge. The wider knowledge actually was really need, because they language is not separated only in the material, all the material are related other. Teachers need to know and able to use language correctly before they teach others, because they need to demonstrate before asking student to practice. Lang and Evans (2006: 322-323) stressed that practice is important to train and maintain students sensitivity of language. That is why, teacher should master all over the material should be taught before going for teaching, because basic skills should be provided by clear explanation and demonstration.

Based on the interview with supervisor, there was a main point which was caused teacher trainees' difficulties who taught in Senior High School. The supervisor viewed intensively in the students' psychology towards teacher trainees which was impacted on students' perspective about the role of teacher trainees in the class. The data showed that teacher trainees got difficulties because of their identity as invoice teacher. Students in Senior High School are not children anymore, they have already understood the teacher trainees' roles, they tend to look down them as the students from collage who were practicing their theory in real school.

Based on the cooperative teacher perspective, the aspect which caused mostly the teacher trainees' difficulties, thei are less of knowledge and experiences of teaching. Furthermore, research and data concluded that students lacked competence and confidence in teaching practice were the most factors which impacted their weak performance during teaching practice.

e. The Possible Solutions

The possible Solution that they need to learn more through experiences,not only related to th ematerial, nut also the method of teaching. Choosing an appropriate method is an important aspect of conducting an effective teaching. There were a number of factors which influenced the creating of an effective teacher. They were: knowledge of subject matter, use of appropriate techniques and media, awareness of principles and applied learning, and skill in classroom managements (Gadza, Asbury, Balzar, Childers, Phelps & Walters in Lang and Evans, 2006: 41). The data showed that before teaching, teacher trainee should understand the students' psychology and interactions, because knowing their psychology aspect would make them easy to an effective communicator, as written by Darling-Hammond & Cobb (Lang and Evans, 2006: 41) that beginning teacher must develop the ability to apply knowledge appropriately in different context while handling the dozen of cognitive, psychological, moral and interpersonal demands that simultaneously require attention in a classroom.

In other hand, the time of experiences through microteaching program in college is one factor that should be improved before goin for a real practice. It was indicated that teacher trainees' difficulties were also caused by the process of training through collage. The quality of

microteaching course was considered less, it failed prepare students with the knowledge and experience which they need before going for practice. Serving the good preparation before a real teaching in the classroom is the responsible of every teacher education. The good teacher education should moves beyond the technical. All the aspect should be done, no one can be ignored, because they are related each other. It will provide a solid foundation of theory and practice, so graduates can face the challenges of the present future (Lang and Evans, 2006: 7).

4 CONCLUSION

There were many difficulties faced by teacher trainee during teaching practice. (1). It was about the class controling, the students and the material should be taught in the class. Most of informant tended to respond on classroom teaching and material at the first time when they asked related to their difficulties in teaching practicum; (2). some possible causes were: first, the point of view from the students that teacher trainees were not their real teacher and would not contribute anything for their scores; second, because of the teacher trainees' knowledge and ability in conducting the learning process. Besides, the teacher trainees' knowledge of English matter was less, so that they were difficult in term of modifying the learning style and material; (3)However, there are some solutions to solve: first, the teacher trainees should prepare their mentality and they also should have mastered and understood their specific subject; second, the teacher trainees should have many literatures or resources of knowledge. Third, the role of consultants should continuously in guiding the teacher trainees to compile their teaching practice. Fourth, providence of guidelines for teaching practice. Fifth, the most principle one that the teacher trainees should practice hard and continuously repairing their teaching practice.

REFERENCES

Abdurrahim. 2011. *Students' Difficulties in Writing Research Proposal (a case study at tertiary students of English Education Program in academic year 2010/2011)*. Mataram. UMM

Afolabi, S, O. 1999. *Assessment of Students on Teaching Practice: A case study of collage of Education Ilorin*. Kwara State college of Education: Illorin.

Arikunto, Suharsimi, DR, Prof. *Prosedur Penelitian; Suatu Pendekatan Praktik*. Rineka Cipta. Jakarta

Azeem, Muhmmad. 2011. *Problems of perspective teachers during teaching practice*. Punjab Education Assessment System Education Department, Punjab, Lahore: Pakistan.

Bhargava, Anupama. 2009. *Teaching Practice for Student Teachers of B.ED Programme (Issues, Predicaments & Suggestions).* Turkish Online Journal of Distance Education-TOJDE April ISSN 1302-6488 volume: 10 Number: 2 Article 3

Emilia, Emi. 2009. *Menulis Tesis dan Disertasi.* Alfabeta. *Bandung*

Fleming, Mike., Stevens, David. 2009. *English Teaching in the Secondary School :* Linking theory and practice Third Edition. Routledge's : Taylor & Francis e-Library

Heeralal, Prem J. Bayaga, Anass. 2011. *Pre-Service teachers' Experiences of Teaching Practice: Case of south Africa University*. Faculty of education, school of initial teacher Education: East London.

http://penningtonpublishing.com/blog/reading/characteristics (Accessed on May 19th 2013: 04.42 pm)

Ijaiya, Yetunde, Dr. 1996. *Student teachers' instructional difficulties during teaching practice*. Journal of Educational theory and practice Vol.2 Nos 1 & 2: Institute of Education University of Ilorin : Ilorin.

Iskandar, Dr, M.pd. 2009. *Metode Penelitian Kualitatif*. Gaung Persada. Jakarta.

Jekayinfa, A, A. et al. 2012. *Lecturers' Assessment of teaching Practice Exercise in Nigeria Universities*. Journal of Education and Practice Vol. 3, No. 4.

PRESENTER'S PAPERS

Jekayinfa, A. A, *Ph. D.* 2001. *A Guide to Teaching Practice Textbook. Chapter Eleven: Hints for student teachers on lesson presentation.* http://www.unilorin.edu.ng/publications/jekayinoluwa/BOOK%203.HINTS%20FOR%20STUDENT%20TEACHERS%20ON%20LESSON%20PRESENTATION.html *(Accessed on 15th April 2013)*

Joyce, Bruce. et.al. 2000. *Models of teaching; 6th Edition*. Allyn & Bacon. United States of America

Kalebic, Curkovic, Sanja. 2006. *Teaching practice in pre-service foreign language teacher education: students' experiences and personal view*. Presented on Co-operative Partnerships in Teacher Education, Proceedings of the 31st Annual ATEE Conference, 21–25 October 2006. Netherland

Kecik, Ilknur., Aydin, Belgin. 2011. *Achieving the impossible? Teaching Practice component of a Pre-Service Distance English Language Teacher Training Program in Turkey*. Australia Journal of teacher Education. Vol 36.

Kennedy, M, M. 1999. *The role of Preservice Teacher Education. Handbook of Teaching and Policy*. Jossey Bass: Sanfrancisco.

Kiggundu, Edith. & Nayimuli, S. 2009. *Teaching Practice: A make or break phase for student teachers*. South African journal of Education. 29. 345 – 358. http://www.scielo.org.za/pdf/v29n3/a04v29n3.pdf (*Accessed on 15th April 2013, 13:15 pm)*

Kiggundu, Edith. *2007. Teaching Practice in The Greater Vaal Triangle Area: The Student Teachers' Experience*. *Journal of College Teaching & Learning – June Volume 4, Number 6.* Vaal University Of Technology, South Africa.

Lang, R, hellmut.,Evans, N, David. 2006. *Models, Strategies, and Methods for Effective Teaching*. Allyn & Bacon. United States of America

Longman Advance American Dictionary, Cambridge advance learner's dictionary 3rd edition.

Marshall, Catherine., Rossman, B, Gretchen. 2006. *Designing qualitative research*. Sage Publication. USA

Merriam, B, Sharan. 1998. *Qualitative research and case study applications in education*. Jossey Bass Publisher. San Francisco

Mulyanto, Setia, Tanto, and Syahman, Luciana. 2009. *Pengembangan kompetensi bahasa inggris di sma dengan menggunakan pendekatan inquiry melalui Kegiatan "independent movie festival: anti bullying Campaign".* Jurnal Penelitian Vol. 9 No. 1. April

Nakpodia, E, D. 2011. *Teacher and the student practice teaching program in Nigeria educational system*. Department of Educational administration and policy studies vol. 2(3). Delta State University; Abraka.

Ngidi, David P, and Sibaya, Patric P. 2003. *Student teacher anxieties related to practice teaching*. South Africa Journal of Education. Vol. 23 (1) 18-22.

Ogonor, B.O. et. al. 2006. *Reflective Teaching Practice among student Teachers: the case in a tertiary institution in Nigeria*. Australian Journal of teacher Education, Vol. 31, issue 2.

Oluwatayo, Ayodele, James and Adebule, Olufemi, Samuel. 2012. *Assessment of Teaching Performance of Student-teachers on Teaching Practice*. Canadian Center of Science and Education. Institute of Education, Ekiti State University, Ado-Ekiti, Nigeria.

Orey, Michael. 2010. *Emerging perspective on learning, teaching, and technology*. Jacob Foundation. Zurich (Switzerland)

Pennington, Mark. 2009. *Characteristics of High School Learners*. http://penningtonpublishing.com/blog/reading/characteristics-of-high-school-learners/ (*Accessed on 15th April 2013, 13:20 pm)*

Qadafi, Mu'amar. 2011. *The application of total physical response to develop English as a foreign language student's vocabulary achievement: a descriptive study at fourth grade students of SDN 18 Mataram in academic year 2011/2012*. Mataram. UMM

Quick, Geoffrey., Siebörger, Rob. 2005 . *What matters in practice teaching? The perceptions of schools and students*. *South African Journal of Education* EASA Vol 25(1) 1–4

PRESENTER'S PAPERS

Riash, Abu, Mohammed, Reem. 2011. *Problems Of Teaching English in Middle School Classrooms and their Relationship to Teaching Performance from Educational Supervisors' Perceptions.* Postgraduate Studies and Scientific Research Faculty of Education Department of Curricula and Methodology. Al-Azhar University. Gaza

Silverman, David. 2005. *Doing Qualitative Research*. Sage Publication. London

Sugiyono, Dr, Prof. 2011. *Metode Penelitian Pendidikan (pendekatan Kuantitatif, Kualitatif, dan R&D)*. Alfabeta; Bandung.

Tim UPPL-FKIP. 2012. *Buku Pedoman Praktik Pengalaman Lapangan*. Mataram. UMM

VanBaren, Jennifer. *Roles of a Teacher in the Classroom*. http://www.ehow.com/info_7833444_roles-teacher-classroom.html/ (*Accessed on 15th April 2013, 13:23 pm)*

Waghorn, Adrienne., Stevens, Ken. 1996. *Communication between theory and practice: How student teachers develop theories of teaching.* Australian Journal of Teacher Education Volume 21 | Issue 2 Article 7

Department of Education and Science Inspectorate, 2006. *Learning to Teach*. Stud Ents on Teaching Practice in Iris Hprimary Schools. Government Publications. Postal trade section 51 st. Stephen's Green, Dublin

Author's Biodata

Miftahul Jannah is a student of Post-graduate Program of English Language Teaching, State University of Malang. She hold her bachelor degree from University of Muhammadiyah Mataram (2013). E-mail: miftahuljannah950@gmail.com

The Influence of Problem-Based Learning (PBL) on the Eighth-Grade Students' Concepts of Social Studies

Mochamad Syaichudin
Faculty of Education, State University of Surabaya (UNESA)
Unesa Kampus Lidah Wetan, Surabaya-City, Indonesia
bangudin06@yahoo.com,

Abstract

Social studies is a subject related to the development of human society and as members of society. As we know that the scope of the social sciences is covering human life in society. The scope of the coverage of social studies is very broad. The learning process should be done gradually and continually in accordance with the development of the ability of learners and the scope of the formal object social studies. This is related to real life that human nature is a unified whole that consists of various aspects, such as biological/physical and mental aspects/psychiatric in life. It cannot be separated from the interrelation and interaction with the natural, social and cultural environment. It required an appropriate and more meaningful learning strategy, especially in understanding the concept. Learning strategies that have been proven to bridge these problems is the problem-based learning. The results show that the strategy of problem based learning are to develop critical thinking skills, problem solving, and intellectual skills . In addition, learners can provide learning opportunities in the real experience and make students become autonomous, self-contained and can develop high-level thinking skills. Self-regulated learning is a passive learner internal factors meaning that it will appear as a result of the direct impact of the creation of conditions for conducive learning environment. Appropriate design paradigm form of conditioning through learner-centered learning. The purpose of this study was to look through the level of understanding of the concept of social studies students using problem based learning strategies. Students sometimes answer at this stage to explain just yet at the stage of analyzing. One factor that causes low ability to understand the concept of learners is lack of seriousness in learning learner social studies.

Keywords: ***problem-based learning, self-regulated learning, understanding concepts***

Introduction

There are some students' assumes that to understand social phenomena anyone can do it without needing to learn and attempt first. It is worse by learning process that only referred to rote concept and not directed in the analysis interesting cases that occur in the community that students underestimate and assume that lesson social science (IPS) is a rote and boring lesson for student .Memorizing requires us to remember more information (Schunk , 2012) .The memorizing any information without any purpose in the individual will impact on the ability of someone's memory that will be not for last long .While the students learning experiences will be done more meaningful if it can be useful as their lives .

Sometimes, students just answered in the explaining step and had not answered in the analyzing step yet. One of the factors that caused the low ability to understand the concept of student is the lack of serious learner in learning social lesson. In addition, learner was less accustom to formulate the existing problems but they just concept and poor to use the concept if find the problems in the real life that related to the concept they had so that the result of student learning also is still low .It is because the majority of students are poor to link between what they learn and how this knowledge will be used and applied to a new situation.

So, in a learning process social class, the solution of social problems which are integrated from various aspects appropriated to the character based learning problems .Margetson (1997) has suggested that learning based problems need far greater integrated knowledge .For example social problems, culture, economic, physics, and chemistry. All the discipline area of the science is involved in contributing to overcome the problems of the phenomenon which there are.

Literature Review

Learning strategy has been proven that it can bridge these problems on the top is learning based of a problem (PBL). Learning based problem is a strategy learning that facilitates the learners to learn through the real and authentic problem solving the world and integrate the knowledge cross discipline (Keziah,2009). According to Savery (2006) problem based learning is a strategy of learning that give priority to the approach student centered learning that empower students for doing research, blending between the theory and practice, implement, knowledge , and learners skill to overcome the real problems. Through problem based learning, learners can be challenged to find a solution from the real world problems individually or in a group (Ackay, 2009).

Learning based problem is a set of teaching model that uses problem as focus to develop problem solving, matter, and arrangement own selves skills (Hmelo-silver , 2004. Srafino & Cicchelli , 2005) . Problem based learning are usually also carried out at gregarious in the small group (do not more than four) so that all students are involved in the process. Preparing the lessons by problem based learning is same as preparing in a lesson for learning based problem with use the topic that more complex and abstract than teaching a single concept of like in science or main idea in language and the relation of geography and economy in certain geographical region in social science (Eggen & Kauchak , 2012). Some researches show that problem based learning is done in the small group by using topic which related to the lessons that will be discussed and getting the students to actively involved in any discussion in its group (Calliver, 2000). Cooperation is the activity that is held in any discussion when will solve the problems in learning activities. By cooperating in solving the positive problems in problems learning based problem model(Diana, 2005). Problem based learning is to build principles of learning in developing a theory like building knowledge, map the subject matter and learning context (Gijselaer, 2006).

Hmelo-Silver (2004) suggested that in problem based learning, students are involved to build knowledge for discussion, during learn for themselves, when share in group, and evaluate the findings their learning. Discussion is guided by a tutor or facilitators who its role is to encourage the learners to discuss, ensure that the contents of material is relevant to discussed (e.g. by asking questions), evaluate progress, and monitor the extent to which each of contribute to work a group (Schmidt, et al. , 2007). Problem based learning can be divided into the two types of and that problem structured (well-structured and the problem is structured (ill-structured) (King & Kitchener, 1994).

The structured problem is limited on the problems that can be resolved by applying one or a set of rules limited , for example student can reinforce the concept of study about a social issue with regard to the issue of junior high school-aged children .While the problem is structured or the problem is clearly causing some of the solutions and can be settled by some way , for example students are faced with real problems in daily life . As an example unrest parents about behavior junior high school-aged children about the problem of the relationship the opposite sex. The problem is not often structured does not contain sufficient information to solve the problems or cannot be solved at all (Van Bruggen & Kirscher , 2003) .

Because some solutions and or some ways to reach problem solving , so the problem is not clear (ill-structured) fit to bring up a discussion (Otting & Zwaal , 2006) . In addition ill-structured problems are more represent problems that they find in daily life , thus more realistic than the structured problems (well-structured). Research on the use of learning based problems

strategy are started in medicine, then extends in the field of other, such as architecture, management, law, social science, and education (Hung et a , 2011) .

The results show that learning based problems strategy can develop thinking skills critically, solve the problem, and intellectual skill. Besides, it can give chance to learn for student in real experiences and make students became autonomous, independently and can develop the capacity to think a high degree. This is related to a discovery that be done by Mergendoller, at.al (2006) stated that problem based learning strategy can improve the speaking skill, interested in terms of economic and social science, a reference to learn groups and effectiveness of problem solving are compared with a traditional learning. Problem based learning is learning model that is centered on the learners, develop active learning, problem solving skills and field of knowledge based on concept and problem solving (Major, et al.2000; Malinowski & Johnson, 2001).

Self regulated learning

It should be also considered other factors within learners which is contributing the concept understanding in getting the learning result that is self regulated learning .In self regulated learning, the learning activities are controlled by the own learners. Self regulated learning is as a learning activity process in ensure the aim of learning, directing, monitoring, setting, and controlling their cognition (Zimmerman , 2002) so self regulated learning is an individual to monitor the ability yourself , to make planning and conducting monitoring in resolving their jobs well .

Self regulated learning is characteristic a student that has been believed to psychologists who accommodate views on student who responsible for went off on my own , active in learning in an effort to improve performance of learning .The results of research Zimmerman (2008) expanded that the groups student having self regulated learning shown any increase understanding the concept of learning outcomes and significant management skills in the fields of time and the reactions themselves , compared with groups of students cannot having self regulated learning .

Self regulated learning is an internal student factor that is passive, it means that it will appear due to the direct impact of the creation of conducive conditions of learning environment. According to the paradigm of the conditioning form through learning design centered on the learners (learner centered instruction). According to Santrock (2004), the principles of learner centered instruction is instructions and planning toward the learners, not on the learners. In this case, the learners have the characteristics as facilitator, motivator, and evaluator.

Self regulated learning is a learning process to manage the own selves in an idea, change the habits, pay attention, and the act that can be done to help maintain and increase understanding of the concept and study results. Self regulated learning derived from self regulated (arrangement themselves individual that conduct activity learning. Zimmerman (1989) give a statement that self regulated learning is a potential knowledge that have been had by an individual to increase learning achievements, planning the learning style, determining steps can be done to reach a destination learning and evaluating the success and the deficiency obtained. Individual has the capacity to organize and control her by developing three the process such as : 1) in observation self, the systematic individual monitor caprice her ways, the more quickly individual aware that were taken, 2) evaluation self done through an assessment self, individuals can be decided do to choice reviewing right, 3) a reaction themselves when individual of doing something successfully will take pleasure or pleasure , but if experiencing the failure of individual experienced disappointment . Zimmerman (2002) that education self regulated learning set goals learn to be achieved , regulate and monitor the progress of them .From the opinion of the above it can be said that self regulated learning is learning characteristic with the regulation own selves as the process proactive in determining the purpose (planning) , monitoring , and evaluation . The process is based on by perseverance , confidence on the ability of own and commitment the achievement of a goal learning or finishing duties academic .Target expected is to make a student able to control

well knowledge received, can develop this knowledge through the ability and skill owned and can reach and protecting the result of learning .

The process of achievement self regulated learning is a business to help student make sense of things owned by her like personal initiative , think responsible , diligence and the capacity to think to face tasks that hard (Darmiany , 2009). The constructure self regulated learning divided into two types: (1) belief in the ability self , and (2) hope succeed in reaching its intended purpose . Confidence means beliefs of a person to be can understand and master well behavior required in achieve a feat (Elliot et al , 2000) in self regulated learning there are some ability a student : (1) the ability of clarify the purpose of learning , (2) the ability of adjust a book or a course with talent and their interest , (3) the ability of created education challenging , stimulate , and pleasing , and (4) the ability of avoid pressure erratic as the atmosphere scary , disappointing , and confuse (Zimmerman , 1989) .

Moreover the some excellence, self regulated learning also having three weakness : (1) tend to be happened interaction between a student, (2) a student the possibility of hit in completing a task individuals and group, and (3) demands arrangement self learn does not easy to achieved at a high rate. Based on excellence self regulated learning, it can be said that through cycle of learning four measures systematically, where a student must allow will be grow at proactive learning in turn able to help increase study results. Self regulated learning makes the characteristic of learning that allows individual to be responsible to of learning. Indicators attached to student have capable of being set activities learned well would be different behavior compared student who are not able to arrange one learning activities.

In the process of activity, the application of self regulated learning to guide the learners through the model that has four steps (Zimmerman , 1996) . Its implementation in learning start from the design , the planning step, the executing, monitoring , and self evaluation .The first planning step, started facilitators / learner prepared classrooms a good allowing self regulated learning held . Next learner revealed to a student what would be studied and the several purpose alternative of learning and the concept of needed to understand matter. The learners hear and see briefing, a student determine the purpose of learning and reviewing proper according to the ability, have confidence , and motivator provides the motivation to reach a destination (finished the task) .

The second phase the implementation and monitoring, learner prepared various types of work will be chosen to the level of difficulty different. The learners use series of learning activities, underlining and record , make a summary , set a time and fun learning environment. Besides, the role of learners motivate and direct learners to reach the purpose of learning .

The third stage is monitoring the result that learners activities focuses on to have regard or check the study results and determine reviewing used to complete duties .

Social Concept

The social class is designed to develop knowledge, understanding, and analytical capability about the condition of community social in entering social life of a dynamic. Social class arranged systematically, comprehensive, and integrated in learning toward maturity and success in life in communities. With the approach is expected to school tuition will gain an understanding more sky and deeply on the field of science concerned. Through social class, school tuition directed to function in Indonesian citizens democratic, and responsible, and citizen of the world who love peace. Social class is a synthetic discipline that seeks to organize and develop substance the social science scientifically and psychological to the cause of education. Meaning synthetic discipline, that social class does not only exist the relevant concepts between the sciences education and the social science, b

But also correlate with the problems of community , nationality , and state of the nation address .The national council for the social studies (NCSS) giving a definition that more firmly , as quoted by Catur (2004) , that social class as the study of political , economic , culturals , and environment aspects of societies in the past , present and future .Social class education contain three sub the purpose , namely; as citizenship education , as the science which the concepts and generalizations about it in discipline the social science , and as the science which absorb education material from real life in society then examined in a reflective manner .

Generally, the cause of education social class make school tuition as a good citizen , with various character infinite-dimensional spiritual , personal , social , and intellectual . The purpose of social class areinformation and knowledge, the value and behavior (attitude and values , and objectives skills (skill, social , work and study , working group , and intellectual skill (Jarolimek , 1986: 5) .The purpose of science of the social class is to develop students to sensitive to social problem emerged in the community , having mental attitude positive to improvement all lameness happened , and skillful overcome all problems that happens daily both against himself and upon the community .Of formulation the purpose can broken down that the purpose of social class is to expand their students to:

A. having the awareness and concerns towards their society and environment , through the understanding of history values and society culture.

B. knowing and understanding the basic concept and capable in using the method that is adapted from the social science that then can be used to tackle problems social.

C. capable to use models and thinking process and made a decision to finish issues and problems that develops in the community.

D. paying attention to issues and social problems, and be able to make a critical analysis, then capable to take the suitable action.

E. capable to develop various potentials so that can build own selves to survive which then can responsible in developing the society.

The purpose of learning social class , generally can be formulated among others to deliver , guiding and developing the school tuition potential that: (1) be a citizen and citizen of the world (2) develop understanding of basic community knowledge , (3) develop the thinking ability critically of wisdom and inquiry skill to be able to understand , to comment on , and take measures to participate solving the social nationality problems, (4) build the commitment to humanity values and appreciate and develop noble values and Indonesian culture , and (5) develop the ability to communicate and work together in the life of a pluralistic society , good local , regional and the international stahl , 2008 .

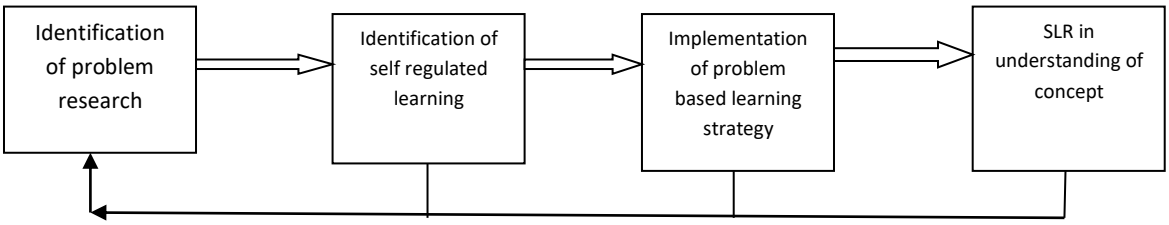
Research of Method

Based on the problems and research objectives who previously noted , so the research uses research methodology quasi experiment (experimental specious with design design use 2x2 version non equivalent control group design (Tuckman , 1999) .This method chosen because the determination of group recipients treatment both the experiment as well as groups kotrol , so that possible only the determination of treatment at random (random assignment to treatment) .To reduce weaknesses as a result of the use of sample or group treatment , then done with the process of selecting sample group having the character and ability relative same (homogeneous) .This method chosen because during performs activities experiment was not possible to change class existing .The study is done by adopting research development (design based research).

Plomp (2010: 13) explained that the research development education is a systematic research to design , develop and evaluate intervensiintervensi education (such as the , material and strategies pelatihan-pengajaran , products and system) as a solution to the problems complicated in practice of education , who also aims to improve knowledge of characteristic of intervention and process of and development costs .

Research development model this was done in use the model Reeves (2006: 59), that is composed of 1) the phase identify and analyze matter in collaborated, by researchers called phase early research, 2) the phase develop basic solutions, by researchers this phase the called phase making products the beginning or building prototypes model training, 3) the phase assessment that is repeat a cycle testing and repairs, 4) the phase reflection, conducted in produce of the theory or principle development, reflection done includes reflection phase research first (Akker, 1999 in Plomp, 2010: 15).

Figure 1 : Model of research



Conclusion

Problem based learning strategies can influence understanding of the concept of social studies a student of VIII grades junior high school with self regulated learning. If a student have self regulated learning highly so a student can improve the abilty that learning outcomes is good for understanding of concept in social studies.

Acknowledgements

Kemenristekdikti give me for scholarship for studied in State University of Malang, Postdooctoral majoring instructional of education.

Bibliography

Ackay, B. (2009). Problem Based Learning in Science Education. *Journal of Turkish Science Education,* 6(1): 26-36

Darmiany, (2009). *Penerapan Ekxperimensial dalam Mengembangkan Self Regulated Learning Mahasiswa*. Disertasi tidak diterbitkan, Malang: Prodi Bimbingan dan Konseling, Program Pascasarjana Universitas Negeri Malang

Elliot, S.N., Kratchwill, T.R., Cook, J.L., & Traver, J.E. (2000). *Educational Psycology : Effective Teaching, Effective Learning, Third Edition*. Boston : McGraw-Hill Hinger Education

PRESENTER'S PAPERS

Eggen, Paul., Kauchak, Don., (2012). *Strategic and models for teachers : Teaching content and thingking skills,* Pearson Education, Inc, Boylstoon Street, Boston,MA

Hmleo-Silver, C. E. (2004). Problem-based learning; What and how do students learn?. *Educational Psycholgy Review*, 16, 235-266

Hung, W. (2011). Theory to Reality: A Few Issues In Implementating Problem Based Learning. Education Tech Research Dev, (Online), 59 (1): 529-552, (http://DOI 10.1007/s11423-011-9198-10), diakses 15 Desember 2015.

Jarolimek, J (1982). *Social Studies Competencies and Skills (leraning to teach as an intern).* Macmillan Publishing, Co, Inc.New York

King, P. M., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promosing intellectual growth and critical thinking in adolescents and adults*: San Fransisco:Jossey-Bass

Keziah, A. A. (2010). A Comparative Study of Problem Based and Lecture-Based Learning in Secondary School Students Motivation to Learn Science. *International Journal of Science and Technology Education Research*, 1(6): 126-131

Major, C. H., Baden, M. S., & Mackinnon, M. (2000). Issues in Prolem Based Learning: A Message from Guest Edition. *Journal on Excellence in College Teaching*. USA. WEB Edition, 11(2): 2-10

Malinowski, J. & Johnson, M. (2001). Navigating the Active Learning Swamp. *Journal of College Scinece Teaching*, 31(3): 20-38

Margetson, D. (1997). *Why is Problem Based Learning a Challenge?* .Dalam Band, D & Falletti, G.I. The Challenge of Problem based learning, 2nd Edition. London: Kogan Page

NCSS., (1994). *Curriculum Standars for the Social Studies*. Washington D.C.: National Council for the Social Studies.

NCSS., (2004). *Curriculum Standars for the Social Studies*. Washington D.C.: National Council for the Social Studies.

Otting, H., & Zwaal, R. (2006). Critical task characteristics in problem-based learning. *Industry & Hingher Education,* 10, 347-357

Santrock, J.W. (2004). Educational Psycology, 2nd Edition. (Diterjemahkan, 2011). Jakarta: Prenada Media Group.

Stahl. J. (2008). A vision of powerful teaching and learning in the social studies : building social understanding and civic Efficacy. *Journal for Social Studies. USA*: National Council for Social Studies. Waldorf, Maryland

Savery, J. R. (2006). Overview of Problem Based Learning : Definition and Distiction. *The Interdiciplinary Journal of Problem Based Learning*, 1 (2): 9-18

Schmidt, H. G., Loyens, S. M. M., Van Gog., T., & Paas, F. (2007). Problem-based learning is compatible with human cognitive architecture: Commentary on Kirschener, Sweller, and Clark (2006). *Educational Psycologist*, 42, 91-97

Schunk, D.H. (2012). *Learning Theories an Educational Perspectives*, Sixth Education. Boston: Pearson Education, Inc.

PRESENTER'S PAPERS

Van Bruggen, J. M., & Kirschner, P. A. (2003). Designing axternal representations to support solving wicked problems. In J. Andriessen, M. Baker, & D. Suthers (Eds.), *Confronting Cognitions: Arguing to learn* (pp 177-203). Doedrecht, the Netherlands: Kluwer Academic Press

Tuckman, R.R. (1999). *Conducting educational research 5th Edition.* Orlando: Harcourt Brace College Publishers.

Zimmerman, B. J. (1989). A Social Cognitive View of Self Regulated Academic Learning. *Journal of Educational Psycology*, (3): 329-339

Zimmerman, B.J. (2002). Becoming a Self Regulated Learner : *An Overview. Theory Into Practice*. 41(1) : 64-72

Author's Biodata

Mochamad Syaichudin is lecturer of Education of Technology at Faculty of Education, State University of Surabaya. He is currently pursuing his doctor study in State University of Malang, majoring Instructional of Education. bangudin06@yahoo.com,

I Wayan Ardhana is a lecturer in Universitas Negeri Malang.
I Nyoman Sudana Degeng is a lecturer in Universitas Negeri Malang.
Sulton is a lecturer in Universitas Negeri Malang.

PRESENTER'S PAPERS

Student's Attentional Location on-Task

Moesarofah
Lecturer of Guidance & CounselingDepartment, University of Adi Buana Surabaya.
Ngagel Dadi IIIB, Surabaya, Indonesia
Email: moesarof.psikologi.13@gmail.com

Abstract

Attention as a psychological construct has a surprising degree of variability. While today most psychologists view this construct as one of the more important variables which influences the course of learning and memory. It is a limited resource that can only be allocated on a limited task (Kahneman, 1973). Limitations attention will donate difficulty in understanding the task. Now the learning environment demanding multi-task activity in children, adolescents, and adults. Advances in technology and multi-function devices creates a need perceived "stay wired" to various media sources. Youngsters have a system of attention and executive functions are not mature, less expensive risks (Courage et al., 2015). In dual-task studies, subjects are asked to respond to two different tasks, each with its own set of stimuli, at the same time. The dual-task situation is well-suited to the study of the capacity model since processing capacity may be overloaded by increasing the difficulty of the tasks and because attention allocation may be measured by a subject's performance on each separate task. The evidence appears to indicate that the processing capacity of the younger children was more easily exceeded than that of the older children by these tasks. Cognitive systems with limited capacity will be discussed. The purpose of this study is to review the attention allocation to the performance of dual-tasks that potentially lead to overload in the processing demands of the task.

Keywords: attention on-task, attention allocation,divided attention, dual-task performance

1. INTRODUCTION

Attention is a heterogeneous function of the underlying and moving all cognitive activities such as learning, memory, thinking and reasoning. The ability to devote attention on-task (Kahneman, 1973) is a resource that is allocated to the task on a limited basis. Attention on-task in the the class is the task demands, where students direct cognitive function in the teacher's explanations in class, learning activities and learning materials as appropriate.

Phenomenas of attention that is often found in schools show students that diverts the gaze elsewhere considered off-task and indicated violates the norm in the class who have serious negative consequences in learning (Doyle, 2006; Emmer & Stough, 2001; Hastings & Bham 2003 ; Helmke, 1986). When teaching in schools is almost always met the students who look towards the teachers, just to see but do not pay attention to the topic of learning in the classroom. To ensure that students are paying attention or not, usually the teacher conducting a review in the form of assignment, quiz or exam. Another phenomenon with the advancement of technology, many students reported that they can listen to music, watch TV, communicate with friends via social media while studying or working on-task without loss of performance.

Factors are believed to influence off-task in the class. Environmental classes for younger students often become a source of potential visual distractions such as pictures of artwork, posters, pictures and other letters than in the learning environment of older students (Godwin et.al, 2011). Distractibility tend to be more experienced younger students (Ruff & Rothbart, 1996).

Different studiesabout the type of off-task performed by Rusnock and Brandler (1979) found no significant difference in students with low and high capability in spending time off-task. Significant differences off-tasks behavior specifically in children with lower abilities occur during the learning and discussion activities, contrary to students with high ability are more likely off-task behavior for engaging creative activities.

Previous research often focus onoff-task behavior as an indicator of violation of norms in the class, but different perspectives to be considered, when students are engaged in the activity off-task to pursue the goal to bring the activities of others in the class. Students exhibit off-task behavior not merely want to interrupt, but trying to achieve the goal of non curriculum in addition to the learning objectives. Off-task to the distraction task decreases with age, in which attention allocation has matured (Ruff & Rothbart, 1996; Ruff & Capozzoli, 2003) and children are increasingly able to take advantage of the growing attention strategies (DeMarie-Dreblow & Miller, 1988).

Student'sattention on-task in the classroom leads to the process of allocating attention, namely the cognitive effort to cultivate competitive tasks as well as complex stimuli (Kahneman, 1973). Limited ability to contribute attentional difficulties in understanding the task (Hula & McNeil, 2008; LaPointe & Erickson, 1991; McNeil et al., 2004, 2005; Murray, Holland, & Beeson, 1997; Robin & Rizzo, 1988). Increasing task demands requires attention resource more (Murray, 1999); which requires greater cognitive effort while capacity is limited. The efficiency of the attention allocation depends on the ability of individuals to assess the task demands (Murray, 1999; Robin & Rizzo, 1988). If task demands exceed resources, then barriers to understanding becomes more severe (Heuer-Brooke, 2015).

The ability to allocate attention during the learning progresses, more difficult experienced by children younger than children are older. Various studies show that younger children are less able to engage in ways efficient than older children, because younger children are prone to overload in processing task demands (Godwin et al., 2011). The ability to control top-down attention allocation directs attention to the intentions, objectives and strategies; not just on the physical characteristics of the stimuli. One of the manifestations in controlling attention is divide attention between dual-task, the success rate depends on how the resources are allocated attention. Attentional control from the top down towards maturity occurs during childhood to adolescence. Pick and Frankel (1974) showed that children aged 12 years of more efficient and flexible than in children aged 8 years in adjustments related strategies task demands.

2. METHOD AND DATA ANALYSIS

Researchers conducted a study of the literature on previous studies relating to the allocation of attentional students in project activities. Literature sources used were: 1) Handbook, 2) reviewed journals.

Literature searched manually and online through google scholar, e-resources and web PNRI psychology Unair to be able to access e-journal of Sciencedirect, ProQuest and Sage. The keywords are attentionon-task, attention allocation, divided attention and dual-task performance. Methods of data analysis used is a comparative analysis between theory. In this literature study, researchers reviewed of the two handbooks and journals.

3. RESULTS

a. Attention Allocation On-task

Attention allocation according to Courage (2015) is a finite mental resource that fuels all cognitive activity. Kahneman (1973) is identified as a limited resourceswhich can only be allocated by limited duty. Jones (2015) shows attention allocation through time to read sentence by

sentence (Broughton et al., 2010; Kendeou & van den Broek, 2005; van den Broek & Kendeou, 2008). The allocation of attention is a different construct of cognitive engagement. The allocation of attentional leads cognitive resource in learning tasks(Bruning, Schraw, & Norby, 2011). Otherwise, cognitive engagement is the quality of the thinking associated with cognitive strategies like elaboration, repetition.Summarizing from the above explanation, the researcher defines the allocation of attention as a cognitive effort to devote attention to the work on the assignment, which is measured through accuracy and reaction time work.

Factors that influence the allocation of attention among of them is tasks demand which aims to focus on single-task or several-task, as the dimensions of attention divided or switching attentionbetween two tasks or more (Meyer &Kiernas, 1999; Monsell, 2003; Pashler& Johnston, 1989, in Courage, 2015).

There are two major theories of Attention: bottleneck / filter theory and capacity theory. Filter theory or selective attention embrace early selection theory of attention and late selection theory of attention. According to early selection theory of attention (Broadbent, 1958), human information processing have limited capacity. Due to the limited capacity so that the required filters / selective with the information and it is treated early, it means the filter or selection based on the sensory organs, then stored in the sensory memory. Information before being processed further, allowing relevant information that has been filtered to pass, while the irrelevant information is filtered out. This model selection is based on physical characteristics, including gestalt features continuity and closure.

The development of Broadbent's theory about the early of selective attention is performed by Treisman. According to Treisman, when information is processed through the filter mechanism, the actual information is not completely blocked as the opinion of Broadbent. Instead, the information is weakened (attenuated), allowing it to pass through all stages of processing at the subconscious level. Treisman also suggest the threshold mechanisms which isa few words, is the basis of an interesting semantic individual attention. Familiar words (as the name itself), according to Treisman has a low threshold value and more easily recognizable.

Attentional theory which is different from before is the theoretical capacity (Kahneman, 1973). He described an attention not in terms of selective but in terms of capacity. Attention is a resource that will be distributed among the various stimuli. According to this theory, attention capacity is determined by arousal; general state of physiological activity. Arousal will be optimal at moderate levels, while the performance will be worsen when you are in an over or under-aroused. Kahneman's model does not conflict with the model selection, can evencomplement the selective attention. Capacity is not associated with the bottleneck theory / filter in information processing, but an attempt to equate attention with cognitive (mental effort). Attention allocation is the allocation of resources to the students's cognitive learning tasks (Bruning, Schraw, and Norby, 2011 in Jones, 2015),

Review of some experts about pointed bottleneck / filter looks mechanistic theory, while the work of human cognitive system is more flexible than is suggested by the bottleneck / filter theory, through cognitive effort which is increasingly efficient as age increased. Considered the description above, the researcher refers to the capacity theory about explaining attentional allocation students in project activities. Consideration of the capacity theory for the attention of the student in the execution of more tasks associated with cognitive effort in engagement tasks.

The allocation of attention in the execution of the task, requires more theoretical understanding of attentional resources, where attention is not just a static, but as a skill (Hirst& Kalmar, 1987), emphasizing top-down processing information. The more difficult the task, the greater the amount of resources required and the greater the degree of arousal, because it is the manifestation of physiological arousal, such as pupil dilation into estimates of mental effort to attention. While the theory of selectivity / filter tends to be static in information processing or the detection of cue stimuli.

Kahneman (1973) developed a model of attentional capacity by suggesting that attentional functions carried out through time-sharing system, for information processing requires cognitive effort, while the number of attempts that can be developed individual is limited.Individual often

presented a lot of information that may be relevant in the process, so the election information for processing allocated according to priority.

b. Divided Attention on dual task

Most of the research on focused attention show attendees trouble doing dual-task at the same time, even though we often perform multiple-tasks at the same time and think a number of things at once. The ability to perform multiple-tasks at once leads to divided attention, which is usually done through the study of dual-task experiments. Divided attention is a person's ability to perform dual-task or more simultaneously Chipunza, 2005).

Study dual-task requires subjects to respond to two different tasks, each with a series of stimuli at the same time. Casual observation of people in everyday life suggests that they are not always awareof having much difficulty in performing different activities at the same time. Szameitatet al. (2002) have reported considerable decrements in dual-task performance thanin single task performance. Researchers such as Tversky (1977) previously arguedthat many tasks interfere with one another significantly, even though they are neitherintellectually challenging nor physically incompatible. Contrary to this assertion,however, recent research has indicated that interference in dual-task performance is notalways obvious (Ben-Shakar ,& Sheffer, 2001). Ben-Shakar .and Sheffer have shownthat dual-task performance may become automatic and less controlled with practice
and thus interference may not even take place. However, Pashler et al. (2001) haveprovided new evidence to show that the issue of automaticity in dual-task performanceis proving less robust, and that stimulus attributes are important in capturing anindividual's attention. Thus, it might be argued that in performing dual tasks, which are either similar or difficult, attention is attracted to tasks whose properties are strongly different (Chipunza, 2005).

Current work, play, and learning environments require multitaskingactivities from children, adolescents and adults. Advances inwebenabledand multi-function devices have created a perceived needto stay "wired" to multiple media sources. The increased demand
that these activities place on information processing resources hasraised concerns about the quality of learning and performance undermultitasking conditions. Young children, whose attention systemsand executive functions are immature, are seen to be especially atrisk. Costs and benefits of "everyday"multitasking areexamined in relation to the classic experimental literatures on dividedattention in task-switching and dual-task performance.multitasking is almost always less efficient(time, accuracy) and can result in a more superficial learning thansingle-task performance.

The roots of that argument go back toexperimental literatures on divided attention, dual-task performance, and task switching dating atleast to the 1930s – well before multitasking emerged as a cognitive and socially significant phenomenon.
That literature indicated that the human information processing system has a limited capacity
and that sharing resources among tasks usually comes at a cost for performance and productivity (Kahneman, 1973; Telford, 1931;Welford, 1952, 1967).Although there is no consensus based on dual-task and task switching, but multi-task slowing down performance and inaccuracy. Multi-task push the strategy provides partial attention to the various sources of information without focusing on one source of information (Stone, 1998; cited in Courage, 2015).

Dual-task methods designed to study attention allocation, there are two basic methodological approaches across studies: comparisons of performance in single- versus dual-task conditions and simple (or easy) versus complex (or difficult) conditions. In a dual-task experiment, participants are asked to complete a task under two conditions, in isolation and simultaneously with a secondary task. When the two tasks are performed at once, decrements in performance on one task reflect the processing load imposed by the second task. Reduced accuracy and slower reaction times during the dual-task condition are interpreted to reflect resource allocation problems or limited capacity resources due to increased task demands. People without aphasia tend to exhibit a decrease in performance on dual tasks when compared to single tasks in terms of

accuracy and response time (Blackwell & Bates, 1995; Granier et al., 2000; Hula et al., 2007; McNeil et al., 2004, 2005; Tseng et al., 1993, cited in Heuer et al., 2015).

Theoretical accounts for decrements in reaction time and accuracy during dual tasks include models of capacity limitation and the central bottleneck model (Hula & McNeil, 2008; Kurland, 2011; Murray, 1999). According to the limited capacity account, attention is a limited processing resource that is flexibly allocated to varying task demands. When task demands exceed capacity resources, performance deceases, as is often observed when comparing single- to dual-task processing.

Dual-task conditions to date include: (a) selecting and pressing a computer keyboard key (Murray et al., 1997, 1998; Tseng et al., 1993), (b) speaking (King & Hux, 1996), (c) gesturing or raising ones' hand when hearing a target word (LaPointe & Erickson, 1991), and (d) continuous manipulation of a joystick or computer mouse during motor tracking (Granier et al., 2000; McNeil et al., 2005, 2006). Requisite eye–hand coordination, visual-spatial orientation, motor planning, and fine motor skills, are commonly affected by brain injury. Poor performance may be incorrectly assumed to be a result of impaired attention allocation. Confounds associated with motor planning and accurate response execution affect all traditional assessments but are especially problematic in dual tasks in which participants are required to coordinate response execution to two tasks at the same time.

Attention is the skill of the process.Eysenck and Keane (1995) have identified three majorfactors that affect the ability to do two or more tasks at once:1. Task similarity. There is a lot of evidence which indicates that the ability to do two
tasks at once is It is difficult. Participants find it much easier to do two dissimilar tasks at once., 2)Task difficulty. It seems self-evident that it is easier to do two simple tasks at oncethan two complex tasks at once., 3)Practice. It improves performance in many dual task experiments.Tasks that seem impossible at first, such as attending to two differentmessages, become possible with practice.

There may be a number of reasons why practice improves performancein dual task experiments. One is that practice may reduce theamount of resources a task uses. Another reason is that practice may help participants learn strategiesto deal with the competing demands of two tasks.

4. conclusion

- Attention allocation improves as a function of age, so that older children are able to implement task demands better than younger children
- Divided attention is influenced bya number of factors including task similarity, task difficulty andpractice. It could be explainedby a single, limited capacity central processor that allocated resourcesbetween tasks.
- The performance of dual-task and multi-task less efficient, in terms of time and accuracy of the single-task performance. Cognitive resources are complex and should be shared during some activities.

REFERENCES

Chipunza, C., Mandeya, A. (2005). Dual-Task Processing: Effects of Task Difficulty and Stimulus Similarity on Dual-Task Performance. South African Journal of Psychology, 35(4) pp. 684-702.

Courage, Mary L., Bakhtiar, Aishah., Fitzpatrick, Cheryll., Kenny, Sophie., Brandeau, Katie. (2015). Growing up multitasking: The costs and benefits for cognitive development. *Developmental Review* 35 5–41.

PRESENTER'S PAPERS

Godwin, K.E. & Fisher, A.V. (2011). Allocation of attention in classroom environments: Consequences for learning. In L. Carlson, C. Hőlscher, and T. F. Shipley (Eds.), *Proceedings of the XXXIII Annual Conference of the Cognitive Science Society*.

Heuer, Sabine., Hallowell, Brooke. (2015). A novel eye-tracking method to assess attention allocation in individuals with and without aphasia using a dual-task paradigm. *Journal of Communication Disorders* 55 15–30.

Jones, Suzanne H., Johnson, Marcus L., Campbell, Brett D. (2015). Hot factors for a cold topic: Examining the role of task-value, attention allocation, and engagement on conceptual change. *Contemporary Educational Psychology* 42.

Kahneman, Daniel. (1973). *Attention and Effort*. New Jersey: Prentice-Hall, Inc.

Lund, Nick. (2001). *Attention and Pattern Recognition.*Taylor & Francis e-Library.

Pashler, Harold E. (1998). *The Psychology of attention*. Cambridge**:** Massachusetts Institute of Techno.

Wilson, Beverly J., Petaja, Holly., Mancil, Larissa. (2011). The Attention skills and academic performance of aggressive/rejected and low aggressive/popular children. E*arly education and development*, 22(6), 907–930.

Author's Biodata

Moesarofah is a lecturer of Guidance & Counseling Department, University of Adi Buana Surabaya. She is certified of Psychology. She received her Master Degree in Airlangga University. Her major interests in Educational Psychology. Email:moesarof.psikologi.13@gmail.com

PRESENTER'S PAPERS

Knowledge of Parents, Teachers, and Therapists about Children with Autism Spectrum Disorder

Muchamad Irvan
Universitas PGRI AdiBuana Surabaya
Jl. Panglima Polim 72A Bojonegoro
Email: irvan.mch15@gmail.com

Abstract

Children with autism spectrum disorder (ASD) is a developmental disorder of children who have complex mental. Children with ASD called a complex developmental disorder that has caused the failure on three aspects, namely the development of social interaction skills, social communication, and behavior (repetitive and restricted). And thus it requires special and intensive treatment of the various parties. They are parents, teachers, therapists, and doctors.This study examines the knowledge of parents, teachers, and therapists about the treatment of children with ASD. Subjects and objects of this study are four parents, two teachers of special education, two teachers of inclusive school, and two therapists. This study was conducted in Sidoarjo. It was a descriptive study with qualitative approach. Data collection techniques used were observation, interview, and documentation. Based on the interview, it showed that all the subjects did not know what is meant by autism spectrum disorder and services that must be provided to treatment him. From the results of this study it can be concluded that the knowledge of parents, teachers, and therapists of children with ASD and treatment is not sufficient. Such problems can arise due to a lack of socialization and specialized training for those who provide children with ASD treatment.

Keywords: ***parents, teachers, therapists, autism spectrum disorder***

INTRODUCTION

In this last decade the children number with autism in the world is increasing. Based on statistics from UNESCO shows that in 2011 people with autism in the world reached 35 million people, while in Indonesia based on BPS data in 2010 reached approximately 112,000 inhabitants (Republika, 2013)

American Psychiatric Association (DSM V: 2013) described ASD into four classifications, namely Autistic Disorder, Asperger syndrome, Rett syndrome, and PDD-NOS (Pervasive Development Disorder-Not Otherwise Specified). Where the four classifications are part ofpervasive disorder umbrella. Koray (2011), pervasive disorders or can be called with ASD (Autism Spectrum Disorder) is a disorder or abnormality in a person, characterized by no development of the social and communication abilities accompanied by repetitive and restricted behavior (interest disorder). ASD is a psychiatric disorder that appeared at early age, characterized by the no development of social and communication skills and social interaction and accompanied by restricted and repetitive behavior symptoms (DSM V: 2013).

The rapid growth of globalization does not just affect the education for normal children, but also the education for children with special needs. Exceptional education experts have been able to classify children with special needs by distractions and barriers experienced, either physical, psychological, and social. The development of educational services, seminars and socialization currently raise parent's awareness of the handling importance of autistic children in early age, both medically and non-medically. It also increases the number of service providers for children with autism. thus increasing understanding of parents and community about autism and the needs of autism services early. But the understanding of parents, therapists, and teachers at school do not understand about the classification of autism according to the symptoms (Asmika, et al: 2006).

Providing treatment to children with ASD needsimportant role of parents, therapists and doctors. In this case the doctor is the source of first information when parents found developmental delays in children. So the doctors have an important role in guiding parents in providing services to children with ASD. Therapist plays an important role in treatment of children with ASD. In this case the therapist role to compile the individual program or exercise program that will be applied and adapted to the children needs. While parents participate to implement individualized program that has been designed by the therapist. For in implementing individual exercise programs in children with ASD need routines and continuity.

Asmika (2006) added that parents, teachers, therapists and doctors need to up date their knowledge related to children with ASD. Because, various experts continue to conduct research in defining the term autism and treatment methods. This is done in order to develop strategies and methods intraining child with ASD. So with knowledge of ASD, all parties play an important role in providing services to children with ASD can contribute best suitable with needs of children with ASD. In relation with the problems, it is necessary to do research about the knowledge of parents, teachers, and therapists about ASD (Autism Spectrum Disorder).

PROCEDURE

Issues to be studied by the researchers is a problem that social and dynamic in nature. Therefore, the researchers chose to use qualitative research methods to determine how to find, collect, process and analyze data from the research. Qualitative research according to Moleong (2007: 6) is research that aims to understand the phenomenon of what is experienced by the subject of study such behavior , perception, motivation, action, holistically and by way of description in words and language, in a natural specific context and by utilizing various natural methods.

In this study, research subjects are the parties who play important role in the treatment of children with ASD in Sidoarjo that are parents of 4 persons, 2 inclusive school teachers, 2 SLB teachers, and 2 therapist.The research object, namely knowledge of parents, teachers, and therapists about Children with ASD and their handling. Data collection techniques used in this study wereobservation, documentation, and interviews. The data analysis was done by creating interview transcript. Furthermore, the interview transcript is reduced and shaped becomeabstraction so that research results can produce study conclusion.

FINDINGS and DISCUSSION

Based on the theoretical study, answer description of instrument interview can be described as follows:

Autism Spectrum Disorder (ASD) is a psychiatric disorder in a person who appears at an early age, characterized by no development of social communication and social interaction skills coupled with restricted and repetitive behavior. ASD is not a disease that affects children and can not be cured (DSM V: 2013). ASD is a disorder that is not curable, but autistic behavior can be mitigated by intensive handling from various parties such as parents, teachers, and therapists.

Children with ASD have difficulty in undergoing the daily activities due to have a developmental disorder of social interaction and communication skills. In general, children with ASD also accompanied with sensory integration disorder. The existence of several disorders that cause the appearance of repetitive behavior (and disorders of interest.Children with ASD so-called spectrum disorder based on the complex disorder and mutual continuity.

Among the community develops myths and beliefs that have not been proven and not based on the results of research. The myths include: 1) ASD caused by immunization; 2) ASD caused by upbringing mistake; 3) ASD can be cured with the help of medication and therapies specifically; 4) ASD can be cured with the help of a nutritious diet. Based on the research results conducted by experts showed that the drugs do not eliminate autistic behavior in children with ASD. Application of nutrition diet affects only children who impaired in the processing of nutrients at brain that is produced by digestion in the stomach.

In providing the treatment to children with ASD require various services and cooperation fromseveral parties such as parents, teachers, and therapists. The required services are 1) occupational therapy to provide handling behavior modification; 2) speech therapy is needed to develop communication skills; 3) Sensory integration therapy is required for the handling of sensory integration disorder; 4) academic learning and remedial therapy is required to deliver instructional services that are tailored to the capabilities and needs of children with ASD. As for those services required important role of parents to cooperate in providing intensive handling through consultation and implementation of the home program given by experts.

While based on the description of interview results on the implementation of this research can be concluded that the parties that were important in providing treatment to children with ASD have less knowledge related to children with ASD and handling services. The conclusions from the analysis of the interview as follows:

1. Parents

   Based on the interviews results conducted, it can be concluded that fromthe four parents showed lack knowledge about children with ASD and handling services. Parents showed his ignorance about what is meant by Autism Spectrum Disorder, disorder experienced by children with ASD, and characteristics that appear as symptoms of autistic behavior. Basically parents undergo a series of activities of different therapies. The big difference in the service given because parents follow the advices of the local community.

2. SLB teachers

   Based on interviews with two SLB teachers, that both subjects showed his ignorance about what is meant by Autism Spectrum Disorder, disorder experienced by children with ASD, and characteristics that appear as symptoms of autistic behavior. Both SLB teachers only teach the subject matter that is tailored to their academic abilities without analyzing the needs and characteristics of children. So that in this case both SLB teachers did not cooperate actively with parents in providing the learning tailored to the needs and characteristics of children with ASD.

3. Inclusive School Teachers

   Based on interviews with two inclusive school teachers, both subjects knew about Autism Spectrum Disorder, but both did not know the specific services that should be provided to handle the disorder in accordance with the characteristics of the children. Learning activities undertaken by teachers is limited to special assistance when students with ASD have difficulty in carrying out non-academic activities at school. As for students with ASD in schools that have intelligence that is equivalent to students in general, so not having problems in carrying out learning activities in the classroom and are able to integrate themselves in the school socialize with friends.

4. Therapist

   Based on interviews with two therapists, that both subjects showed his ignorance of what is meant by Autism Spectrum Disorder, disorder experienced by children with ASD, and characteristics that appear as symptoms of autistic behavior. The therapy program is tailored to the instructions given psychologist who acts as child consultant and develop therapy programs for children with ASD at the therapy institution.

The given suggestions are 1) It needs special training for teachers and therapists to improve their knowledge and skills in understanding the characteristics of the disorder in children with ASD and the treatment programs; 2) Parents play active role to consult with ASD experts such as doctors, psychologists, and child consultants about the services to provide treatment for children with ASD; 3) The ASD specialists such as doctors, psychologists, and child consultants provide guidance to parents to be able to actively participate and cooperate with teachers and therapists in providing treatment to children with ASD. Learning activities and therapy programs can be applied at home by parents to support the development of the child abilities.

ACKNOWLEDGEMENT

We would like to thank toUNIPA the implementation that has support the implementation of grants research of Adi Buana Surabaya. And also we would like to say thanks to StateExceptional School of Gedangan Sidoarjo, State Vocational School 1 of Sidoarjo and Therapy Service Centre of ESYA Sidoarjo that have cooperated and supported this research.

REFERENCES

Arikunto, Suharsimi. 2006. Research Procedure. Jakarta: RinekaCipta.

Arlington, VA, 2013. Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition (DSM 5). Washington. American Psychiatric Association.

Asmika, et al. 2006. Relationships of Parents Motivation To Achieve Children Healing with Knowledge Level About Handling Children with Autism and The Spectrum. Journal of Public Health Sciences Laboratory, Faculty of Medicine.Brawijaya University.Poor.

Greenspan, Stanely. I. 2006. The Child with Special Needs.United Stade. Da Capo Press.

Handoyo. Y. 2006. Practical Hints And Guidelines For Teaching Normal, Autistic Children And Other Behaviors. Jakarta: BhuanaIlmuPopuler.

Kauffman, Walter. 2013. Symposium: The New Diagnostic Criteria for Autism Spectrum Disorder. Department of Neurology Boston childrenâ € ™ s Hospital.Harvard Medical School. Harvard.

Koray, Karabekiroglu. 2011. Pervasive Developmental Disorder-Not Otherwise Specified: Specifying and differentiating. International Journal: Ondukuz Mayis University. Turkey.

Moleong, LJ 2007.Qualitative Research Methodology. Bandung: MandarMaju.

National Institute of Mental Health. 2007. Autism Spectrum Disorder, Pervasive Disorder Develomental. Department of health and Human Services National Institute of Health. US

Notoatmodjo. 2005. Behavioral Health Concepts in Health Promotion. Jakarta: PT. RinekaCipta.

Poerwaka, Hadi. 2005. Behavioral Modification. Jakarta: Ministry of National Education.

Republika. 2013. Holds 112,000 Indonesian Children Are Estimated With Autism. Online: m.Republika.com. accessed on: June 5, 2015.

Rondeau, Emelie. 2010. Is Pervasive Developmental Disorder Not Otherwise Specified Less Stable Than Autistic Disorder? A Meta Analysis.Springer Science-Business Media. Canada.

Schreibman, Laura. 2006. Pervasive Developmental Disorder. International Journal: Psychology Department University of California. San Diego. California.

Sugiyono. 2009. Research Methods of Quantitative, Qualitative and R & D. Bandung: Alfabeta.

Author's Biodata

Muchamad Irvan born in Bojonegoro on 15 March 1990. In 2012, she graduated from the Department of Special Education, State University of Surabaya. She continued her master degree in the same university in 2012 and she graduated in 2014. She has range of experiences as a teacher, therapist and consultant of children with special needs especially for children with autism spectrum disorder since 2011. She started to be a special education lecturer in 2015 in University of PGRI Adi Buana Surabaya. irvan.mch15@gmail.com

PRESENTER'S PAPERS

Effectivity of Psychodrama Techniques to Improve Social Skills Excellent Student Class in High School

Muwakhidah
Lecturer of Guidance dan Counseling Department
University of Adi Buana Surabaya
muwakhidah08@gmail.com

Abstract

A social skill is an individual's ability to adapt in order to be well accepted in the midst of the environment. Social skills are also the skills of the individual indicated by the expression of emotions, emotional sensitivity, emotional control, social expression, social sensitivity, and social control. Psychodrama is used to exploit themselves through concrete actions in which we live, both internally and externally. It is enable to express a strong secure feeling, a broader perspective on issues of individual, social, and also the opportunity to try out the desired behavior. This research aimed to test the effectiveness of role playing psychodrama techniques through group counseling to improve social skills of excellent student class in high schools. The study used was a quasi-experimental with pre-post test using a single design. The experimental group was excellent class students who had low social skills criteria through social skills inventory. The role playing psychodrama held six meetings with different themes. The data were analyzed by Wilcoxon analysis techniques and Sign. Research results showed that the role playing psychodrama was effective for improving the social skills of the excellent class students in the high school class as indicated by a significant difference between the pre-test and post-test that had been given.

Keywords: *psychodrama, social skills*

Understanding excellent class in Indonesia in accordance issued by the Department of Education and Culture Republic of Indonesia is a class that was developed to achieve excellence in the process and outcomes of education. While understanding the classes excellent in the book excellent a class implementation guidelines issued by the Directorate Elementary Education is the number of students who stand out because of their achievements are grouped within a particular class then given the appropriate teaching program with curriculum developed, and the additional material on a particular subject matter.

The program excellent class is a special program for grouping students based on high achievement, where students are required in order to achieve better performance than the regular class students. Different from the accelerated classes that focus on acceleration method for students who have the academic ability is above average, the excellent class group students of similar academic ability above average by enriching the curriculum for the class excellent and facilities and infrastructure to support teaching and learning activities (Hawadi, 2004).

The entry of of students in the classroom makes the students have the label excellent as high-achieving students. Students in grade students excellent is potentially selected among the students in a particular school that organizes this program. To participate in this program, students are expected to go through several stages of selection of academic and non-academic. Excellent class on the hand greatly beneficial for students who have the capacity and ability more. One of the benefits is excellent classes generally provide facilities and programs of different teaching and learning with students in the regular classroom. Facilities and programs excellent learning in the classroom is designed in such way as a means to support students who have the potential and ability more so that it can be channeled and develop optimally.

PRESENTER'S PAPERS

Although the program excellent classes provide appropriate educational opportunities for students who are smart, but the program excellent class also has some disadvantages in the areas of academic, social adjustment, extracurricular activities and emotional adjustment. Especially in the field of social adjustment, students will look very weak and difficult to adapt to new environments when the student has to get a job that interested.

Interpersonal relationships is very important, because it is part of social relationships that can not be released. According to Adler, humans are social beings who are always in touch and need someone else in their life. Humans as social beings in behavior are always in touch with the environment in which he lives. Establish a relationship with another individual is a part that never escape from everyday life. In human life is always interacting with the environment. That's why, every individual needs social skills to build a harmonious relationship with other individuals.

Social skills are the skills interact with other people in a social context in a specific way that can be accepted by the public, private and beneficial to others and can be learned. According to Johnson (1981) things that are included in the social skills that
1) the skill to know each and building trust with other individuals, 2) the skill to communicate precisely and clearly with other individuals, 3) skills for each other, and help with other individuals, and 4) skills to each other to resolve conflicts and problems in social relations.

Relating with social skills, especially students who entered high school level in the group of adolescents, it must be for those schools is one of the places for students to socialize the school is a place where they could trainAt school, there are regulations with sanctions or penalties if violated any of these rules, students will learn discipline and responsibility in school. In addition, students in schools should not have more time to meet and mingle with peers and teachers and school staff, so that school students more social interaction. However, that is especially true for students in grade acceleration, completed the study load is the first demand of school party given by the exclusion of students with developmental task.

Relating to the program excellent classes based on field observations and interviews directly to the object of writing the author at SMAN 8 Malang, students who take the program excellent classes have less social skills than students who do not follow the program excellent classes or regular classes. This is evident from some of the skills of these, the lack of their skills in dealing with other friends outside of class, lack their skills in resolving conflicts in social relationships, lack of their trust in friends in one class (often an assignment from their teacher convenient for done alone group than done, when a given task is the task of the group), it is difficult take a joke by a friend outside the classroom.

Formulation of the problem

Based on the above, the formulation of the problem to be obtained in writing of this fact is:
1. How the social skill class students excellent in SMAN 8 Malang?
2. How the effectiveness of psychodrama techniques to help improve social skills class students excellent in SMAN 8 Malang?

Research purposes

Based on the formula above problems purpose of this paper is:
1. For know the level of the social skill possessed by students program excellent class SMAN 8 Malang.
2. To explain the advisability of psychodrama techniques to help improve students' social skills class excellent.

Benefits of the research

Results of this study would be useful for
1. For schools

Knowing the level of the social skill possessed by excellent grade students, it is expected the school to be able to monitor and pay attention to the development of the social skill of students, so that students could complete the study load and developmental aspects in a balanced.

2. For counselor

As input and consideration to help students maintain and improve the social skill possessed. This is so the students also feel the same as regular grade students without being distinguished, or privileged.

3. For students

Knowing the level of the social skill possessed it is expected to play a role and fulfill the task of development as it should be, especially in the socio-emotional development.

4. For the nex researchers

The variable in this study only limited the student's social skills class excellent so hopefully author can then further develop the student's skills variables identified.

RESEARCH METHODS

Research design

This writing categorized Quasi Experiment study. According Arikunto (2002: 3), the experiment is a way to find a causal relationship (causal connection) between the two factors of deliberate posed by author by eliminating or reducing or setting aside other factors that could interfere. In the experimental research, the design chosen is the most likely author to control other variables that allegedly take effect on the dependent variable. This research aims to test the effectiveness of the technique of playing the role of psychodrama to improve the the social skill of students.

The difference achievement level of students the social skill before being given treatment and after treatment is given, is designed with pre-post test design single experiment. The design of the writing can be described in the following picture:

O_1 X O_2

Gambar 3.1 Desain penulisan

Keterangan :

O_1 : *Pre-test* (Measurement / observation first, the social skill before given a psychodrama technique using a scale of the social skill).

X : Perlakuan (Implementation of psychodrama techniques in excellent class in SMAN 8 Malang)

O_2 : *Post-test*/ condition after treatment (measurement / second observation, the social skill after being given psychodrama techniques with the same scale of the social skill to the social skill scale measurement before treatment)

Population and Sample Research

The population is all individuals who will be the object of writing, which at least has the same properties (Hadi, 1994: 221). For the purposes of this paper, which is used as a population are excellent class class X SMAN 8 Malang. Samples used in this paper is to involve all the students of class X excellent class totaling 10 people. Group of subjects selected based on the characteristics or properties of the previously known populations is based on the inventory at the stage before giving treatment, ie at the stage of pre-test.

Research Instruments

Writing is to know the effectiveness of using psychodrama techniques to improve the the social skill of students. Yng instrument was developed consisting of 38 items with six categories. Among the category of emotional expression with item no one to seven, emotional sensitivity by item no eight to 15, control of emotions with item No. 16 through 18, the social expression with item No. 19 to 26, social sensitivity with item No. 27 to 34, and social control with item No. 35 to 38.

Data analysis

Data analysis is one very important step in writing activities. Analysis of the data used in this paper is a non-parametric method, by using Wilcoxon signed rank test. Wilcoxon signed rank test is a statistical test to look for differences in pre-post test.

RESEARCH RESULT

1. *Pre-test* the social skill of students

The students' social skills pretest data presented in the following table:

Tabel 4.1 Results of Pre-test Social Skills

No. Responden	Indicator						Total	Ket
	1	2	3	4	5	6		
1	12	15	5	16	14	8	70	C
2	12	16	5	12	21	7	73	C
3	11	14	5	15	14	7	66	C
4	14	14	5	14	19	5	71	C
5	14	13	6	14	19	6	72	C
6	12	18	6	14	15	7	72	C
7	13	13	7	16	16	7	72	C
8	12	16	6	15	18	7	74	C
9	12	16	5	13	11	6	63	C
10	15	12	8	17	17	8	77	C
Mean	**12,7**	**14,7**	**5,8**	**14,3**	**16,4**	**6,8**	**71**	**C**

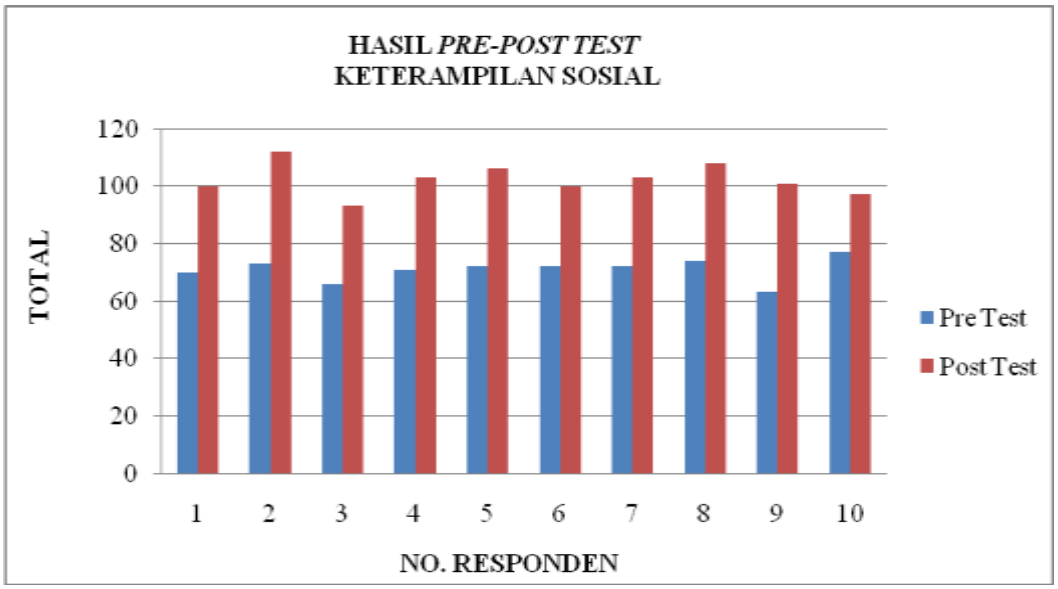
2. *Post-test* social skill

Tabel 4.3 Results of Posttest Social Skills

No. Responden	Indicator						Total	Keterangan
	1	2	3	4	5	6		
1	18	22	9	17	24	10	100	Very good
2	19	25	9	24	24	11	112	Very good
3	19	17	9	18	20	10	93	Very good

4	16	23	9	21	25	9	103	Very good
5	18	23	9	22	26	8	106	Very good
6	19	22	9	20	21	9	100	Very good
7	19	24	9	20	22	9	103	Very good
8	18	26	9	20	23	12	108	Very good
9	17	18	10	22	24	10	101	Very good
10	16	22	10	15	24	10	97	Very good
Mean	17,9	22,2	9,2	19,9	23,3	9,8	102	Very good

3. Chart Pre-Post Test Social Skills



4. Data Implementation of the Treatment

a. Treatment I

The primary role	Emotional expression before treatment	Emotional expression after treatment
Maya	Less skilled in expressing emotions, can not express emotions in appropriate circumstances	Can express emotional upset, angry to friends, can express emotions in accordance with appropriate state.

b. Treatment II

The primary role	emotional sensitivity before *treatment*	emotional sensitivity after *treatment*
Bagus	Always be found without its deliberations, impose the idea to friends without regard to the idea of another friend.	Could feel no joy friend when he speaks, can feel a sense of disappointment when he forced his friend.

c. Treatment III

The primary role	Emotion control before *treatment*	Emotion control after *treatment*
Endah	Was often angry and become ugly with a friend for no apparent reason.	Become more informed how to put emotion in front of others.

d. Treatment IV

The primary role	Social expression before *treatment*	Social expression after *treatment*
Annisa	Do not dare ask someone else, it is difficult to tell the true feelings or blunt, does not like to greet people.	More confident of his ability, saying her true feelings to others.

e. Treament V

The primary role	social sensitivity before *treatment*	social sensitivity after *treatment*
Dewinta	Always strive to be accepted others somehow, not confidence	Learning to be yourself, feel disappointed and not happy companion to him.

f. Treatment VI

The primary role	social control before *treatment*	social control after *treatment*
Fatimah	Too much, very open in a new environment	Controlling excessive taste, learning to open in accordance with the state.

Conclusions and recommendations

Conclusions

Values obtained achievements of treatment amounted to -2.805, meaning that the alternative hypothesis (H1) is accepted H0. This means that the psychodrama technique has efficacy when used to enhance social skills excellent student class.

recommendations

Based on the research presented some suggestions below:

1. For counselor

Parties are expected to research a school counselor attention and help to improve the social skill excellent student class in the skills of emotional expression, emotional sensitivity, emotional control, social expression, social sensitivity, and social control in order to achieve optimal development. Psychodrama can be used by counselors as a tool to help students improve the social skill excellent student class, with a time that used to be considered because psychodrama takes more than one hour lesson, ie, for 60 minutes.

2. For the nex researcher

or the next researcher can try psychodrama techniques use this as a device to help teenagers / students complete low social skills, with the dependent variable and subject in a wider scale to better determine the efficacy of psychodrama techniques.

REFERENCES

Arikunto, Suhartin, 2002. *Prosedur Penelitian Suatu Pendekatan Praktik*. PT.Jakarta:Rineka Cipta.

Arikunto, Suhartin, 2006. *Prosedur Penelitian Suatu Pendekatan Praktik*. PT.Jakarta:Rineka Cipta.

PRESENTER'S PAPERS

Binatama, Tria, 2009. *Keefektifan Penggunaan teknik Relaksasi ntuk Menurunkan Stres Sebelum Mengikuti Ujian Pada Siswa Kelas XII Di SMA Negeri 4 Malang*. Skripsi ini tidak diterbitkan. Malang:Fakultas Ilmu Pendidikan. Universitas Negeri Malang

Ghozali, I. 2007. *Aplikasi Analisis Multivariate dengan program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.

Goleman, Daniel, Alih Bahasa Hermaya, T. 1996. *Kecerdasan Emosional*. Jakarta: Gramedia Pustaka Utama

Handarini, Dany, M. 2000. *Pengembangan Model Pelatihan Keterampilan Sosial Bagi Siswa Sekolah Menengah Umum Terpadu*. Disertasi tidak diterbitkan: Pasca Sarjana. Universitas Negeri Malang.

Hidayah, N. 1998. *Pemahaman Individu Teknik Non Tes*. Malang: OPF IKIP Malang.

Iskandar. 2009. *Metodologi Penelitian Pendidikan Dan Sosial (Kuantitatif Dan Kualitatif)*.Jakarta:Gaung Persada Pers.

Romlah, Tatiek. 2006. *Teori dan Praktik Bimbingan Kelompok*. Malang. Penerbit Universitas Negeri Malang

Ruseffendi, E.T. 1994. *Dasar-dasar Penelitian Pendidikan dan Bidang Non-Eksata Lainnya*. Semarang: IKIP Semarang Press.

Saifuddin, Azwar. 2003. *Penyusunan Skala Psikologi*. Pustaka Pelajar. Yogyakarta

Siskandar. *Kurikulum Program Percepatan Belajar* (Makalah telah disajikan pada Semilokal Nasional Program kelas akselerasi dalam Pendidikan). *Jurnal Ilmu pendidikan*. Tahun ke-VII No. 029 Mei 2010

Suarniarni, Ni Wayan. 2008. *Pengembangan Paket Bergambar dan Penerapan model Structure Learning Approach (SLA) untuk melatih Keterampilan Sosial Siswa Sekolah Dasar.* Tesis tidak diterbitkan. Malang:Program Pasca Sarjana Bimbingan dan Konseling Universitas Negeri Malang

Suprapto. 2007. *Keefektifan Pelaksanaan Layanan Bimbingan Kelompok Dalam Mengembangkan Konsep Diri Positif Pada Siswa Kelas XI SMA Teuku Umar Semarang Tahun Pelajaran 2006/2007*.Skripsi tidak diterbitkan. Semarang:Fakultas Ilmu Pendidikan Universitas Negeri Semarang.

Suryabrata, S.2003. *Metodologi Penelitian*. Jakarta: Rajawali Pers

Thompson. Rosemary A. 2003. *Counseling Techniques. Improving Relationship with others, ourselves, our families and our environment*. 2nd ed. NY: Routledge Taylor & Fraosis Group.

Triton. P.B. 2005. *SPSS13.0 Terapan*. Yogyakarta: Andi Yogyakarta.

Undang-Undang Republik Indonesia No.2 tahun 1989. Tentang Sistim Pendidikan Nasional dan GBHN 1999.

Saukah, A. 2010. *Pedoman Penulisan Karya Ilmiah (PPKI).* Malang: UM Press.

Wibowo, Romi. 2010. *Keefektifan Metode Permainan Simulasi Dalam Bimbingan Kelompok Untuk Meningkatkan Kepercayaan Diri Siswa SMP Negeri 3 Malang.* Skripsi tidak diterbitkan: Fakultas Ilmu Pendidikan. Universitas Negeri Malang.

PRESENTER'S PAPERS

Widada. 1992. *Layanan Bimbingan Belajar di Sekolah*. Malang: Depdikbud IKIP Malang.

Yonathan, P. Victoria. 2001. *Pengembangan Inventori Keterampilan Sosial Bagi Siswa Sekolah Menengah*. Tesis tidak diterbitkan. Pasca Sarjana. Universitas Negeri Malang.

Konseling Kelompok Psikodrama. 2010. *(Online)*, (http://efakons.blogspot.com/), diakses pada 12 Desember 2010

Melatih Kecerdasan Sosial Pada Anak (Keterampilan Sosial). 2010. *(Online)*, (http://sulistyowati.blog.co.uk), diakses tanggal 23 September 2010

Author's Biodata

Muwakhidah is a lecturer of Guidance dan Counseling Department, University of Adi Buana Surabaya. Email: Muwakhidah08@gmail.com

PRESENTER'S PAPERS

A Blended Learning:
An Approach to Enhance College Learners' Reading Skills

Nuriyatul Hamidah
State University of Malang
Jl. Semarang No. 5, Malang, Indonesia
nuriyatulhamidahlagi@gmail.com

Abstract

Blended Learning is also known as the mixed methods in which a portion of the traditional instruction and the technology used in a class to maximize teaching and learning. Singh and Reed (2014) describe it as a learning program where more than one delivery mode is being used with the objective of optimizing the learning outcome. By this definition, enhancing student learning can be fulfilled through blended learning. Specifically, the writer offers the use of blended learning in teaching reading for Indonesian college learners. It is chosen because the reading of Indonesian students needs improvement as investigated by Iftanti (2012) and Hamra & Satriana (2012). As well, Government Act 2005 Number 19 year clearly mentioned that language education develops language competence with special emphasis on reading and writing. However, the writer prefers to select the reading skills as its importance for students' academic learning and to perceive the reading problem faced by Indonesian students. For this reason, this article elaborates the procedures of blended learning and how to apply it for teaching reading as well as the recommendations for teaching college learners. In conclusion, the article proposes the practices of blended learning in teaching English reading especially for college learners.

Key words: blended learning, teaching reading, and reading skills.

1.INTRODUCTION

Learning a second or foreign language which aims to communicate is basically concerned on language competence and language skills including speaking, listening, writing and reading. Reading, which is one of the four language skills, can be defined as an essential skill for L2 learners to master in academic context Grabe (1991). Among all skills, special attention is given to reading skills, which is known as tool in fostering good language acquisition. In language learning, reading can be important factor for success in acquiring a language. In Indonesian context, regarding to the English language teaching, Government Regulation Number 19 year 2005 clearly mentioned that language education develops language competence with special emphasize on reading and writing according to the literacy level set for every level of education. Especially for college learners, most of them are required to take English courses focusing on reading skills to comprehend academic disciplinary text (Masduqi, 2014). They have to have adequate reading skills for their learning especially to comprehend their academic texts. However, some of them do not have sufficient skills on how to read the text comprehensively.

According to *The International Association for the Evaluation of Educational Achievement* (2003), Indonesian students are just capable of mastering 30% material, and find difficulty in reading text. Recently, some researches (Iftanti, 2012; Hamra & Satriana, 2012) found that reading habits of Indonesian EFL students are still poor 3,85% and they state that reading comprehension of Indonesian students need improvement.

Regarding to the problem on reading, the writer proposes the method in teaching reading especially for college learners. In improving teaching-learning progress in a classroom, educational practitioners have tried to design their classroom effectively for their students. As the

development of technology, the innovations in teaching and learning are also developed as well. However, the classroom existence is not avoided. This reveals the method called blended learning which is considered close to modern way of studying without avoiding a classroom. Scholars, researchers and practitioners have been studying the inherent characteristics which compose effective learning and teaching practices and analyzing the benefits from its application. Singh and Reed (2014) describe it as a learning program where more than one delivery mode is being used with the objective of optimizing the learning outcome. It also supported by Bath & Bourke (2010) stated that in many cases the act of "blending" achieves better student experiences and outcomes, and more efficient teaching and course management practices.

Related to the description above, this article aims to discuss teaching reading for college students by using blended learning. To achieve this aim, it firstly describes the meaning of blended learning and relates it to the method of teaching reading. Secondly, in light of the description of blended learning and teaching reading method, this article highlights the advantages of applying blended learning and the practice of blended reading especially in reading classes. Finally, drawing the recommendations for teaching college learners on the practices of blended learning. Indeed, this article also outlines the recommends future direction of teaching EFL reading especially in the Indonesian context.

2.METHOD

This article applies qualitative documentation study. The data were collected through literature review from some journal articles and books which talk about blended learning and its practices. After the data were gathered, the synthesizing was done to find out and summarize the information related to the topic. The finding is described, presented and discussed in the conference presentation.

3. BLENDED LEARNING

The rapid growth of information technology has promoted the increasing use of blended learning in higher education (Ellis, Goodyear, Calvo, & Prosser, 2008). This strategy provides students and teachers with an environment in which they can interact in both face-to-face instruction and online learning.

Some review of related literature has clearly mentioned the meaning of blended learning. Blended learning generally means the application of two or more methods or solutions for learning need. It can refer to the combination of e-learning with traditional methods. Garrison & Vaughan (2008) blended learning can be defined as a design approach whereby both face-to-face and online learning are made better by the presence of the other offers the possibility of recapturing the traditional values of higher education while meeting the demands and needs of the twentyfirst century. It is like a way of thinking about course design is required to reconcile traditional values and practices with evolving expectations and technological possibilities. Likewise, Colin & Insung (2010) conveyed that blended learning, combining technology-based, face-to-face or hands-on learning is often more appropriate in Asian contexts. So let us examine these instructional design issues in greater detail. They also conveyed that blended learning is often the preferred approach. Because face-to-face communication and context are important in Asia, blended learning is often the preferred approach.

Another simply definition defined by Singh & Reed (2001) clearly mentioned that blended learning focuses on optimizing achievement of learning objectives by applying the "right" learning technologies to match the "right" personal learning style to transfer the "right" skills to the "right" person at the "right" time. It can be delineated that the focus of blended learning is on the learning and students' outcome rather than the learning of technology. This emphasizes on the maximizing the use of technology as well as classroom environment for students' learning along with their outcomes. It can be simply said that the most effective learning strategy is "just-what-I-need, just-in-time" as covered in blended learning method.

While, Krause in Bath & Bourke (2010) stated that blended learning is realised in teaching and learning environments where there is an effective integration of different modes of delivery, models of teaching and styles of learning as a result of adopting a strategic and systematic approach to the use of technology combined with the best features of face to face interaction. Besides, Singh & Reed (2001) also mentioned the principles of blended learning that are the lecturer or the teacher must focus on the focusing on the learning objective rather than the method of delivery, many different personal learning styles need to be supported to reach broad audiences, each of us brings different knowledge into the learning experience.

While, the authors of Issues in Digital Technology in Education: Blended Learning (Wikibooks, 2009) identified four broad principles of education design for blended learning. These are:

- A thoughtful integration of face-to-face and fully online instructional components
- Innovative use of technology
- Re-thinking the way we teach
- Sustained assessment and evaluation of blended learning.

Tough the use of blended learning has been broadly recognized by the educational practitioner, the writer assume that there is still a lack of understanding of how best to use technology to advance the goals of higher education in terms of engaging students in critical thinking and discourse. For the next discussion, the writer describes the use or the practices of blended learning. Further, it also elucidates the use of blended learning in teaching reading especially for college learner.

a. Advantages of Blended Learning

Thorne (2003) mentioned some advantages in applying blended learning in teaching-learning program. He stated that blended learning can help the lecturer to focus on learning purposes since it combines teacher explanation and the use of media. It also enables learners to have interaction with the teacher and later on with their classmates in a group discussion. Hence, the learning situation will be varied in using different techniques for the technologies. Besides, the materials used are readily accessible and can be maximally utilized to achieve learning target. Singh and Reed (2014) also revealed that blended learning can boost learning effectiveness as found in the research in University of Tennessee and Stanford. The research found that the applied blended strategy fulfils what is offered by learning program and what learners want to learn.

In addition, Wilson & Sminalich (2005) also stated that blended learning contributes to optimize the learning result and gather students' diverse needs. Firstly, with blended learning, students are taught effectively and appropriately with their goal. We know that the students have different learning style for example some students prefer to learn by listening, others prefer to read about a concept, and still others need to see a demonstration. As proposed by learning style theory that different people learn in different ways. Hence, the teachers are supposed to design their classroom effectively and to cover various styles of their students' in learning. In line to the description above, blended learning addresses these different learning styles by providing a variety of learning solutions and methodologies. Since the learning styles are different among students, there must be varied and different students' need. It is also supported by Sahin (2010) who stated that blended learning is facilitated by an effective combination of different learning techniques, technologies, and delivery modalities to meet specific and individual needs. This means that blended learning provide an ease for students or individual needs. By using various technique and technologies provided, the teachers who use this method will be success in accomplishing their students' needs.

Specifically, related to the use of blended learning for college learners. Sharpe et al. (2006) study found that some universities see other benefits of blended learning, notably:

- The ability to support operating in a global context;
- Offering greater efficiencies, especially with increased student numbers/group sizes;
- The support it can offer professional/work-based skills development

b. Implementing Blended Learning

The main point of applying blended learning for teaching-learning is the use of technology which covers the range of activities between conventional face-toface interactions and those that are fully online. Griffith's Blended Learning Strategy identifies three modes of operation to indicate the level of use of technology in learning and teaching called Blended Learning Implementation Strategy. The modes are shown in the following table.

Table 1 modes in Blended Learning Implementation Strategy

Mode 1	Technology is used to facilitate course management and resources for learner support. For example, to provide information and resources to students (e.g., lecture notes or recordings, assessment guidelines), and to perform basic administrative functions (e.g., announcements or course emails).
Mode 2	Technology is used to enrich the quality of the student learning experience through interactive learning activities beyond those attainable through face-to-face classroom interactions. For example, utilising technology to support communication and collaboration, assessment and the management of your course.
Mode 3	Technology is used to support learning that is largely self-directed but also involves the use of interactive and collaborative learning activities. In this mode courses are delivered fully online.

Additionally, as mentioned in the book entitled *the other blended learning*, Wilson and Smilanich (2005: 89-233) proposed six steps of blended learning.In applying blended learning for the classroom, the teachers or the lecturer need to know and understand the characteristics of the teaching-learning processes. They might understand the goal and students' characteristics as well as the strategy to reach those goals. The steps are as follows:

3.2.1 Determine the Need

The first procedure in implementing blended learning is that the teachers have to know the characteristics of their class especially students' characteristic. Hence, the teachers are able to know the problem faced by their students and simultaneously find the solution for their problems. It is impossible if the teachers do not know the students' problem if they would like to find for a solution. Therefore, the first thing to do is determine the need. It refers to the students' orientation as well as classroom orientation. The important to investigate the need is getting the specific goals so that the teachers can know and define an appropriate method to teach their students to achieve the goals.

Others, the reason why determining the need is important that is for identifying and distinguishing students' characteristics. Later, it will also affect students' attitude toward their learning as well as their achievements. Moreover, by this method enables the teachers to understand the real learning problems and afterward eases them to choose variety of methods to be applied in classroom.

3.2.2 Create Goals and Objectives for the Program

If the teachers have already determined the need, they might decide what they want to achieve with the blended learning. In this case, teachers or lecturers only need to specify the objectives which are steps to help reach the goals. The teachers or the lecturers who have known the goals then they have to decide and also make sure for the objective of the program in order to achieve

the goal oriented. Therefore, they can clearly construct the objectives which are close to the goals. The construction of the objectives would lead to identify the learning outcome. In this step, stipulating the learning objectives assist to step the next stage of applying blended learning that is designing the program.

3.2.3 Design the Blended Program

After defining the learning objectives, it will lead the teachers to design the program. In this procedure, the teacher may determine and consider what and how to apply blended learning as well as define its appropriateness for the learning objectives.

3.2.4 Create and Coordinate the Individual Training Solutions

Once the teachers construct the program, then they should have such as coordination between the other practitioners who apply the blended learning. Everyone's designs must be coordinated, just as different teachers have different problem as well as its solutions.

3.2.5 Implement the Blended Program

After completing the above procedures, implementing the blended program is required. This procedure will be useful for the teacher to evaluate and measure the program weather is it appropriate to be practiced for their classroom or not.

3.2.6 Measure the Results of the Program

The last procedure is to measure the overall results once the blended-technique has been executed. The teachers may evaluate each technique or all blended-techniques to uncover the effective method. Common performances to evaluate teaching-learning process, specifically in language learning, are *reaction* and *learning*.

In *reaction*, teacher can give out the end-of-training questionnaire to students and ask them to honestly assess the technique. It is easier to do this kind of evaluation since we can get the quick and clear answers. In *learning* evaluation, students are measured based on what they have learned during the program. It can be a demonstration of their final project or in the form of written test.

Those are the steps in applying the blended learning in the classroom. Indeed, there are theories that also propose the method in conducting the blended learning. Though, there are differences in making blended learning, the main point is almost the same. The other procedures in designing for blended approach proposed by Bath & Bourke (2010) are planning, designing and developing, implementing, reviewing and improving.

c. Reading skills and Teaching Reading

In language learning, reading can be an important factor for success in acquiring a language. As stated by Mikulecky (2008) reading skills is the basis of instruction in all aspects of language learning: using textbooks for language courses, writing, revising, developing vocabulary, acquiring grammar, editing, and using computer-assisted language learning programs.

In teaching reading, the teachers should know the processes covered in the reading processes that bottom-up and top down. Brown (2007) has clearly definition of these processes. In bottom-up processing, the readers have to recognize linguistics signals such as words, phrases, grammatical clues, etc. Whereas, in top-down processing, the readers must know and understand the text by using their own intelligence. That means in bottom-up process, the readers are demanded to comprehend the text by employing their own experiences or knowledge.

While, for the types of reading class, Brown (2007) proposed two kinds of reading namely intensive and extensive reading class. In intensive reading, students spend lots of time analyzing the text under the close supervision of their teacher. It is reading process in which the students focus on grammatical forms, discourse markers, and other surface structure details for the purpose of understanding literal meaning, implications. The aims of intensive reading are to help the students to construct detailed meaning, develop reading text and enhance vocabulary and grammatical knowledge. On the other hand, Carrell and Carson (1997, 49–50) in Richards and Renandya (2002) stated that extensive reading generally involves rapid reading of large quantities of material or longer reading (e.g., whole books) for general understanding, with the focus generally on the meaning of what is being read than on the language. These extensive reading is mostly performed outside of the classroom which meant for pleasure reading Brown (2007). This process can be helpful for the teachers to develop reading habits, enhance language learning areas such as vocabulary, grammar, etc.

For the purpose of reading, in academic context, reading can be meant as the process of comprehending the text. Related to the teaching reading, researchers and educational practitioner has increasingly developed teaching strategy. A theory called a comprehensive approach that used to increase students' comprehension. By this theory, students are taught through direct explanation, teaching modelling and feedback (Richard & Renandya, 2002). Historically, ESL/EFL reading began along with the emergence of the widely-recognized as the first language teaching method, i.e. the Grammar Translation Method (GTM), also called the reading approach. This method emphasizes on the word knowledge. Further, the theory namely ALM (Audio-Lingual Method) which is regarded to the reading instruction is aimed at developing and strengthening the students speaking skills (Lado, 1961: 223). However, the previous methods could not fulfil the demand that students need to comprehend messages conveyed by reading texts. The new strategies are then employed such as psycholinguistic model and interactive theory acknowledges. Therefore, as the importance of reading in ESL/EFL, further investigation on the reading theory is still needed.

d. Applying Blended Learning in the Teaching Reading

This description focuses on the use of blended learning for teaching reading. As with any curriculum, the learning and teaching activities need to be meaningful and relevant for the students' learning. As mentioned before that blended learning is the mix methods in which technology and face-to face classroom are employed. When the teachers are going to design blended learning for teaching reading, firstly, the teachers need to recognize the design of any aspect of curriculum. Relating to the course aims and learning objectives and considering how to best support students in achieving quality learning are also crucial. Besides, the teachers also need to know the students' difficulties as well as their learning style in reading classes. Further, the following sections, the writer provides guidance adopted from Bath & Bourke (2010) that are planning, designing and developing, implementing and evaluating of blended learning approaches.

1. Planning for integrating blended learning into your course.

At the first stage, take a look at some general curriculum and course design guidelines. It is important to have course aims and learning objectives set before considering blended learning opportunities for your course. Besides, it is also important to ask yourself such as what is the knowledge and students' achievement should achieve? What should students' accomplish and what learning and teaching activities would best support the students' learning.

In the teaching reading, the lecturers should design or plan the classroom by taking a look at the curriculum and course design guidelines. For example, in the first meeting, the lecturers are going to describe the material such as context clue. Since they will use blended learning, it is important to consider the media used whether it is appropriate or not. Once the lecturers use media online such as news media online to teach context clue material, they need to select it

appropriately. For the reason that it is reading class which is purposed to build up students' comprehension, hence the lecturers have t be aware of selecting the text used. The text should be familiar which can built up background knowledge and recall students' experiences.

2. Designing and developing.

The next procedures is designing and developing the blended learning elements including face-to-face, online and assessment. In this stage, the teachers need to have some activities that should be purposeful, appropriate and possible as well as authentic materials. The activity is as much as possible relevant, real-world activities so that students can demonstrate their competency in a more 'true-to-life' setting. For example, in teaching context clue, the lecturers may use video from you tube to have brainstorming section before delivering the text. Providing an access to an image from related website that students can practice their identification can also be used in the teaching reading.

Moreover, offering weekly or end of module online quiz (either for revision or summative assessment purposes) in addition to lecture and text book material. It is also essential to consider a group work activity to facilitate student learning. For example set up a wiki for each group to allow students to work online collaboratively discussing and sharing their analyses and ask them to have a presentation. In this stage, the lecturers also need to arrange assessment activity which is used to measure students' achievement appropriately with the lesson given. The types for designing assessment can be in the form of peer and self assessment. These assessments can be lecturers' site to set up the assessments. The tool enables students to submit work (by either responding to a question online in essay format or by uploading a file), and then for themselves and/or their peers to evaluate according to set criteria.

3. Implementing the blended learning design.

After designing and developing the media and classroom activities, the lecturers then are going to practice teaching using bended learning. They need to guide the students in the classroom activities.

4. Reviewing (evaluating) the effectiveness of your blended learning design.

In reviewing or evaluating the blended learning, Herrington et al. (2001) propose a model of evaluation for online learning and teaching which is based around the three main areas such as pedagogies, resources and delivery strategies. Related to the previous description, in teaching context clues materials for reading, evaluating pedagogies evaluation is the most important. Here, the lecturers need to evaluate the learning activities which underpin the unit. Then, having resources evaluation that deal with the content and information which are provided for the learners. The last, evaluating delivery strategies used that deals with the ways in which the course is delivered to the learners.

5. The last step is planning for the next delivery of your course then involves improving the blended learning experience. In this stage, the lecturer can use or redesign the blended learning along with the other subject materials.

e. Suggestion for Teaching Plan

The blended-learning by and large has been one of teachers' choices to improve class meeting to be more effective and interesting. In applying blended learning, Thorne (2003) recommend some points for teachers that they should know how to:

a. Create the right environment to learn

Thorne (2003) states that many people prefer to learn through discovering with others rather than being told the facts by a specialist. It does not mean students do not want to learn from the expert. They require time to reflect and specific coaching to help them develop what they need to know.

b. Understand learners' different style of learning

In a class, the teachers should know the differences among students' learning style. They might find students who prefer conversation with others, some are serious in every learning session, some enjoy working individually and at the same time there are some enjoying to work in team. They know better what they want to explore the ideas. Of all those styles, students enjoy learning through doing the most. It demands teacher to create a fun teaching-learning process that fulfils the needs of students and, surely, fulfils the target of study.

c. Making learning a real experience

The aforementioned point shows that learning by doing is better than sitting in silence. Teacher can conduct team or individual presentation, finishing a project, completing an activity, solving the problems, and the like to create an enjoyable learning environment. By experiencing in learning, students will make mistakes and later need feedback from teacher. They will find that making mistakes is no big deal in learning process.

d. Plan what to do differently next time/meeting

It is suggested that teacher must have creative ideas to apply many methods in teaching-learning process. It is not forcefully said. It allows teachers to find many sources to make the English class more joyful for students. So, there will be no opinions from students that English is a devilish lesson to be learned.

Additionally, when the lecturers are willing to put lecture materials online, it is worth considering the file size and image compression, timing and release of materials, printing costs, format and purpose of materials.

4. CONCLUSION

This articles has reviewed the theory namely blended reading especially for college learner. This strategy combines two or more methods in teaching-learning which a portion of the traditional instruction and the technology used in a class is to maximize teaching and learning. As may be seen from the above review, the teachers or the lecturers can gain successful result by applying blended learning. This article also conveys the teaching procedure for blended learning. In applying this strategy, the teachers or the lecturers have to know their goal and objectives in reading classes. They also need to be aware of their students' difficulties especially in reading. However, the lecturers have to consider some factors such as the number of student, how to assess students' achievement and also the availability of the technology used.

REFERENCES

Bath, D & Bourke, J. (2010). *Getting Started with Blended Learning*. Griffith University.

Brown, D. H. 2007. *Teaching by Principles. An Interactive Approach to Language Pedagogy*. San Francisco: Addison Wesly Longman, Inc.

Colin L. & Insung J. (2010). *Distance and blended learning in Asia*. New York: Routledge.

Ellis, R.A., Goodyear, P., Calvo, R.A., & Prosser, M. (2008). Engineering students' conceptions of and approaches to learning through discussions in face-to-face and online contexts. Learning and Instruction, 18(3), 267–282.

Garrison, D.R. & Vaughan N. D. (2008). *Blended Learning in Higher Education.* San Fransisco: Jossey Bass.

Grabe, W. (1991). Current developments in second language reading research. *TESOL Quarterly*, 25(3), 375-406.

Hamra, A. & Satriana, E. 2012. A model of Reading teaching for University EFL Students: Need Analysis and Model Design. *English Language Teaching Journal*, 5 (10), 1-10.

Herrington, A., Herrington, J., Oliver, R., Stoney, S. & Willis, J. (2001). Quality assurance of online courses: The development of an instrument to audit online units. In G. Kennedy, M.

Keppell, C. McNaught & T. Petrovic (Eds.) *Meeting at the crossroads: Proceedings of ASCILITE 2001*, (pp 263-270). Melbourne: The University of Melbourne.

Iftanti, E. 2012. *A Survey of the English Reading Habits of EFL Students in Indonesia*. TEFLIN *Journal*, 23 (2): 149-164.

Lado, R. 1961. *Language testing*. London: Longman.

Masduqi, H. 2014. *EFL Reading in Indonesian Universities: Perspectives and Challenges in Cultural Contexts*. *Journal of Teaching and Education* 3 (3): 385-397.

Mikulecky, B. S. (2008). *Teaching Reading in a Second Language*. Pearson Education.

Richards, J. C and Renandya, W. A. 2002. *Methodology in Language Teaching. an Anthology of*

Current Practice. Cambridge: Cambridge University Press.

Sharpe, R et al. (2006) The undergraduate experience of blended e-learning: A review of UK literature and practice undertaken for the Higher Education Academy, http://www.heacademy.ac.uk/research.htm

Singh, H. & Reed, C. (2014). *A White Paper: Achieving Success with Blended Learning*. In http://www.leerbeleving.nl/wbts/wbt2014/blend-ce.pdf, retrieved January 27, 2015.

Thorne, K. 2003. *Blended Learning: How to Integrate Online and Traditional Learning*. London: Kogan Page.

Wilson, D. & Sminalich, E. (2005). *Blended Learning: A Classroom-Centered Approach*. San Fransisco: Pfeiffer.

Wikibooks (2009) Issues in digital technology in education: Blended learning http://en.wikibooks.org/wiki/Issues_in_Digital_Technology_in_Education/Blended_Learning

Author's Biodata

Nuriyatul Hamidah finished her undergraduate degree at the State Islamic University of Malang in 2013. She is an English teacher in one of homeschooling in Malang and private English course. Now, she is continuing her study in a graduate program majoring in English Language Teaching of State University of Malang. Email: nuriyatulhamidahlagi@gmail.com

PRESENTER'S PAPERS

The Role of Teacher's Non-Verbal Communication Behavior in the Classroom

Nurmida Catherine Sitompul
Graduate Program, University of PGRI Adi Buana Surabaya
Jl. Dukuh Menanggal XII/4 Surabaya
nurmida.catherine.s@gmail.com

Abstract

Learning is communication activity. The are two type of communication, verbal communication and non verbal communication. This paper is intended to discribe the role of teacher's non-verbal communication behavior in classroom. Teacher's ability to deliver learning content is determined by his or her communication skills. There are two basic reasons why the teacher has to know the role of non-verbal communication in class, they are;1)to be a good receiver for her students, 2) to be able to send positive signals which can support student's learning, and at the same time, not to send negative signals which can prevent student's learning. Teacher has to know the effective communication through non-verbal behavior in learning and practice to use it.

Key words*: teacher non-verbal communication behavior, delivery strategy, communication skill, congruent communication*

A. The Meaning of Nonverbal Communication Behavior

Miller (2005) explains the meaning of nonverbal communication behavior as a communication without words. It is not easy to explain the ontology of nonverbal communication behavior according to the experts (Burgoon & Saine, 1978; Richmond, et al., 1991).Richmond et al. (1991:2) says that "Nonverbal communication is nonsense. All communication involves language, hence all communication is verbal."According to Edwar Sapir (in Burgoon & Saine, 1978:6) "nonverbal communication is an elaborate code that is written nowhere, known to none, and understood by all."

In line with thestudy according to the experts, some aspects includes in the nonverbal communication like kinesic(Birthwhistel, 1985), gesture (Pease, 1996), facial language (Whiteside, 1996; Ekman, 2009), artifact anddistance (Derlega &Margulis, 1983; Abizar, 1988), physical appearance (Ambady & Rosenthal, 1993), cultural symbol (Schutz, 1971), and paralinguistick (Frideman, 1983).Burgoon & Saine (1978) connects nonverbal communication with several things, which are: signs versus symbols, intent, consciousness and feedback. These things are intended to understand the experts' thoughts and describes as follows:

1. Signs versus symbols

The question is do the nonverbal communication have to be a symbol or sign? There are some experts who differentiate between a sign and symbol, but some others think that it just the same. The experts who differentiate between a sign and symbol state that sign is a natural things for something that is signed, while symbol is anarbitrary assigned representation. For example: smoke is the sign of fire, but the word "smoke" is symbolized something else. The symbolic communication includes: a) signal system, this system has to be socially understood and called as a code, b) an encoder is someone who delivers something using code, and c) a decoder is someone who gives systematic response toward the code. Meaning that, if a behavior doesn't give any clue, it can be categorized as meaningless behavior since cannot be understood among the observer, and does not produce any response that can be predicted. It is just as a sign, observer's assumption, not a message that sent by an encoder. If the meaning criteria is shared and systematic response also described in the definition of communication (many experts does not do the limitation), there is a

question that has to be answered, is there any nonarbitrary understanding, shared sign (cues) also included.

There are various types of nonverbal behavior, like gesture and posture, which naturally appears as emotional signal with communicative value. Burgoon & Saine (1978) concludes that symbol and sign can be included in the definition of nonverbal communication as long as the meaning can be socially understood.

2. Intent

Another question to be answered is, does nonverbal cues has to be intentional (having particular purpose) and who will decide the special purpose. Based on the source of orientation approach, only messages which intentionaly sent by the source can be classified as communication.In other words, the source will determine the purpose. But, according to the receiver of orientation approach, what does the receiver think is something which is sent intentionally and included as communication. Burgoon & Saine (1978) tends to accept the opinion of receiver orientation since most people are faced many nonintentional of nonverbal behavior which interpreted as something intentional.

3. Consciousness

Some people think that consciousness is a part of intention; which intentional behavior (with special purpose) is conducted consciously and vice versa.Burgoon & Saine (1978), conscious behavior, from the sender or receiver or observer includes in the definition of nonverbal communication.

4. Feedback

Another issue is, does nonverbal communication must be accepted and known through feedback or response. Many communication definitions include feedback as one of the requirement characteristic. No one can questioned when a receiver gives reaction to the nonverbal sender; the communication is begin; but how if the receiver does not give any reaction? Can it be claimed that "you can not communicate", the answer is easy: not giving any reactions does not mean the person does not receive the message; because sometimes nonverbal message is difficult to say.It is possible that sometime a person does not pay attention or not giving reactions toward someone else expression or gesture but he can remember it another time. When we are giving attention to someone verbal communication and make us missed the important nonverbal sign, and it blurred on our attention. Even the final answer about the feedback is not found, but the two experts tend to include it in the definition of nonverbal communication.

The discussion based onBurgoon & Saine (1978:9-10)can be concluded as follow:

> Now that we have covered some of the major issues, we are ready to offer our working definition. We consider nonverbal communication to be those attributes or actions of humans, other than the use of words themselves, which have socially shared meaning, are intentionally sent or interpreted as intentional, are consciously sent or consciously received, and have the potential for feedback from the receiver.

The discussion above is enough to describe the nonverbal and verbal communication. In general, there are two views about nonverbal communication that are nonverbal communication as the antithesis of verbal communication and the view about nonverbal communication as interactionism (symbolic interaction). The first view is followed bysome experts like Burgoon & Saine (1978), Richmond, et al. (1991), and Abizar (1988). Second view is followed by Karp & Yoels (1986).

For the dialectics, nonverbal communication is assumed as a form of human communication besides as verbal communication. It means that in dialectics condition, the process of delivering the message is done by nonverbal expression or "communication without words" (Richmond dkk, 1991: 4). According to this view, nonverbal communication is describe as communication without words, as define by Karp & Yoels (1986: 31):"nonverbal communication is any of the modes of communication (such as gesture or facial expression) other than verbal." With that definition, the keywords used are"mode of communication" which referto how to deliver message through gesture and facial expression, and other nonverbal behavior (Abizar, 1988; Gazda, 1989, Tubb, 1987), meaning that even without words, there are still a message that want to be delivered.

Another interesting things from this definition is the experts does not differentiate between terminology of nonverbal communication and behavior, it makes the terms is used by turns with the same meaning Richmond et al. (1991: 6-7), so the definition of nonverbal communication and behavior is used at the same level. The assumption is every nonverbal communication activity always involves nonverbal behavior. The most important things is "pattern of delivery message" and not on the etymology definitions.

The second view is to define the nonverbal communication in symbolic interaction perspectives as proposed by Karp & Yoels (1986: 30): "An important idea in this perspective is that individuals collectively shape, mold, and refashion their social worlds thorough the process of communication with others and responding to their communications."

The definition by Karp & Yoels (1986) shows the similarities with the first group experts, nonverbal communication is communication without words, but different in accentuation. The first group (dialectics) giving constatation of the nonverbal communication in a nonverbal behavior, while in the second group (interactionism) refer to nonverbal symbol created by human. So, according to the second group, nonverbal communication has wider dimension rather than delivering message through nonverbal behavior.

These two groups, are difference in taxonomy of nonverbal communication, the important thing that have to be concluded from these views is all nonverbal symbol can be categorized into nonverbal communication variables. In the context, nonverbal communication; include, cultural symbols (architecture, tool, languages intonation), social symbol (family name), and religious symbol (liturgy), sounds, environment, and human motoric behavior.

According to the dialectic thinkers and interactionism, it can be concluded that nonverbal communication is a human communication which the delivery message activity is done through the use of nonverbal symbols like nonverbal behavior, cultural symbols, social symbols, and religious symbols.

B. The Use of Nonverbal Behavior

Miller (2005) gives some important reasons why human use nonverbal communication:

- Words are limited.
- Nonverbal signals have particular strength.
- Nonverbal message is genuine.
- Nonverbal signals can express some feeling which hard to say with words.
- Separated communication channel is needed to help sending complex messages.

Miller's opinions showed that nonverbal behavior has some strength that verbal communication does not have. It existence deserve to get attention in human interaction process. The experts like Burgoon & Saine (1978), Knapp (1978), Birthwhistell (1985), Johnson (1986), Richmond et al.

(1991), Pease (1996) shows the similarities in setting the function of nonverbal communication behavior, which are:

a. Repetition function is repeating the idea which has done verbally, for example: teacher nod her head several times as a sign of student's idea approval.
b. Contradiction function is a rejection or different interpretation to a verbal message, for example: praise student achievement with crooking lips and saying "you are good".
c. Accentuation function is emphasized verbal message, expressing regret with hitting something.
d. Complement function means to fulfill the meaning of verbal message. For example: a student is reporting an accident he sees (verbally), he tells the story with gesture and voice intonation which express how does he feels about the accident.
e. Substitution function is replacing the verbal message, for example teacher praise the student with her thumb up.
f. Regulation function is to managethe interaction in communication, for example:in a discussion a teacher can use her hand to show whose turn is stating the opinions.

C. The Role of Nonverbal Communication in Learning

Teacher has to know the role of nonverbal communication in learning because of two reasons; 1) teacher can be a better receiver of students' messages, and 2) teacher is able to send positive signals to support students' learning and at the same time can increase her skill to not sending negative signals which can block the learning (Miller, 2005).

Richmond et al. (1991: 270) states that the role of nonverbal communication in learning as important as verbal communication:

> The primary function of a teacher's verbal behavior in the classroom is to give content to improve student's cognitive learning. The primary function of a teacher's nonverbal behaviors in the classroom is to improve affect or liking for the subject matter.

Teacher who has skill of nonverbal communication can build affection and student's participation in learning activity. If affection between teacher and student increase, student will like to listen, learn more and have positive attitude for school. Effective class communication between teacher and student is the key to build love of learning. As delivery strategy, teacher's skill of nonverbal communication will determine the effectiveness of delivery message learning in class.

Galloway research (cited in Sprinthall & Sprinthall, 1990:339) successfully made a table called Galloway System which shows how teacher's behavior on nonverbal communication give good direct influence and indirect influence toward students. Galloway System can be seen in Table 1.

Table 1 Nonverbal Behavior: Galloway System

	Teacher's nonverbal that:	
	Facilitates student's development	**Constricts student's growth**
Direct Influence	1,2 CONGRUENT Nonverbal behavior is consistent with words. No "mixed messages" are given. Body language demonstrates an appropriate range of feeling.	INCONGRUENT Behavior contradicts words; for example, smiles when annoyed. Body language is overcontrolled. Feelings are rarely if ever shown
	3 IMPLEMENT	PERFUNCTORY

	As teacher uses ideas of pupils, nonverbals are consistently encouraging; for example, leans toward, smiles.	Noverbal behavior indicates no genuine interest in student ideas; for example, bored posture or facial expression.
	4. PERSONAL Teacher maintains face-to-face eye contact, is "connected" with the class, maintains a comfortable "psychological" distance.	IMPERSONAL Teacher avoids eye contact; for example, talks to the floor or ceilling or maintains excessive distance.
Indirect Influence	5 RESPONSIVE Tone, pace of talk are designed to keep student interest.	UNRESPONSIVE Teacher drones on and on, with little variation in tone, and screens out students cues.
	6 INVOLVE Nonverbal behavior encourages student participation in clarifying directions and rules.	DISMISS Nonverbal behavior cues students to avoid participation.
	7 FIRM Nonverbal is consistent with firm language in controlling misbehavior.	HARSH Nonverbal behavior is severe, aggressive, genuinely intimidating.

(Source: Sprinthall & Sprinthall, 1990:339)

Galloway findings has two main implications, which are 1) teacher's nonverbal behavior have indirect influence to the class atmosphere, as shown in point 5, 6 and 7; 2) teacher needs to pay more attention and realize her nonverbal behavior. A teacher can ask her colleague to do some observations, evaluation and check it with Galloway system. Richmond, et al.(1991) said that the effective of teacher nonverbal communication behavior can support student's learning. This behavior is called nonverbal immediacy, means behavior as the collective influence from nonverbal communication behaviors. According to Richmond, et al. (1991), "Immediacy is the degree of perceives physical or psychological closeness between people." The principle is "People are drawn toward persons and things they like, evaluate highly, and prefer; they avoid or move away from things they dislike, evaluate negatively, or do not prefer."

Teacher's nonverbal communication can be said as immediacy or not can be seen at table 2.

Table 2 Chart of The BehaviorImmediacy/NonImmediacy

CATEGORY	IMMEDIACY BEHAVIORS	NONIMMEDIACY BEHAVIORS
Verbal Immediacy	Pronouns like we, us. Talk with others. Statements that infer liking (e.g., I like your dress). I really like that. You are right.	Use of you, you and I, I. Talk to/at others. Guarded statements of liking (Your dress is OK). That's dumb. That's a stupid idea.
Appearance	Attractive; Clean, Neat; Informal clothing but not sloppy; Appropriate hairstyle.	Unattractive; Dirty, Unkept; Formal clothing; Inappropriate/ unusual hairstyle.
Gesture and Body Movement	Leaning toward and another. Open body position. More gesture. More positive affect displays. Relaxed body	Leaning away from another. Closed body position. Fewer gestures. More negative affect displays. Tense body

CATEGORY	IMMEDIACY BEHAVIORS	NONIMMEDIACY BEHAVIORS
	position. Calm movements. Positive head movements.	position. Nervous movements. Negative head movements.
Face and Eye	Eye contact and mutual gaze. Facial expressions that show pleasure. Smile a lot.	Limited eye contact. Avert eye gaze. Facial expressions that show displeasure. Frown a lot.
Voice	Short pauses. Few silences. Positive vocal inflections. Vocal variety. Relaxed tones (calm). Sound confident. Dynamic, animated, interested; Friendly vocal cues.	Lengthy pauses/silences. Sarcasm. Monotonous, dull, irritated tones. Nasal. Harsh sounding. Sneering sounds. Bored, unfriendly vocal cues.
Space	Move closer to a person. Stand closer to a person. Sit closer. Orient more directly. Lean forward while seated.	Lean away from a person. Sit farther away. Lean away/back while seated. Stand farther away. Indirect body position.
Touch	Touch on head, hand. Forearm, shoulder, Pat; Friendly handshake; Frequent touch; Hugging.	Avoid or withdraw from touch. Clammy/distant handshake. Seldom touches. Slapping, hitting, striking another.
Environment	Warm, secure, pleasant environment. Soft colors. Moveable chairs. Moderate to soft illumination.	Cold, distant, ugly environments. Bright illumination. Fixed seating. Ugly rooms. Ugly colors.
Scent	Pleasant, inoffensive scents. Familiar scents. Scents of one's own culture.	Unpleasant, offensive scents. Unfamiliar scents. Scents from other cultures.
Time	Short latency of response. Promptness. Spending more time with another. Spending time with another when they choose.	Long latency of response. Delinquent about being on time. Spending little time with another. Often glances at watch/clock.

Source: Richmond, McCroskey, & Payne (1991:224)

According to table 2, Richmond, et al. (1991) when someone tends to have immediacy nonverbal communication behavior, she will be able to do something as follows:

- Improve the bound, relationship and affection in interpersonal relationship.
- Approachable communication style
- More responsive and be more understanding, good listener, able to make people communicate comfortably, someone who knows and understand other's need.
- Increase high solidarity
- Lower the level of anxiety. Someone with immediacy nonverbal will looks relaxed and calm so they can communicate without feeling anxious.
- Lower the status; a superior with immediacy nonverbal can be a good friend and closer to her inferior without losing power.
- Considered as a competent communicator.

In a real life, someone does not need to physically approaching someone else, but almost all the time she can communicate her feeling through nonverbal behavior. If someone's nonverbal behavior can make her approachable, she is immediate. On the other hand, if someone is unapproachable, she is nonimmediate.

Quantum teaching model gives some understanding that supports the role of nonverbal communication in learning. The quantum learning put teacher as one of the factorthat influenced student success because teacher is a media to deliver learning content. According to Lozanov as cited in DePorter et al. (1999:114) the most effective things that teacher can do for her students is become a model about how to be a learner. To become a model for the students, teacher should have the ability to communicate well. Teacher's saying and how to say it can influence the way students receive the material (curriculum). Different ways will give different influence. One important way to build a congruent communication is through effective nonverbal communication.

Teacherbehavior innonverbal communication in quantum teaching plays a role that a teacher can teach more, faster, and increase teacher's saying. This is only happen if a teacher can create a congruent communication. Meaning that, the teacher's saying is important as the learning delivery strategy. A teacher can not show the importance of the material if her ways to deliver it not support it. Verbal and nonverbal language is congruent. If the teacher says "I am so excited" with seated position and head down, the students will not trust what the teacher said and trust more on a message that is sent through nonverbal behavior which means "teacher is not excited". Now, compare it with a teacher who sit upright, clear view, breath from the chest, smile and said "I am so excited!" Body (along with the voice) is a messenger. Using different nonverbal communication tools (facial expression, body language, voice and gesture) effectively, teacher can deliver congruent message which can strengthen her communication in teaching. Congruent message is a message that has words, facial expression (including eye contact), body language, posture. Teacher's face says the same things as her body and mind. The use of eye contact has to do continuously in order to build connections and high relationship between teacher and students. Always keep the eye contact with the students while talking to them. It can make students feel accepted and not be ignored. Do not look at the students' head. The use of facial expression is smiling (DePorter, dkk, 1999: 124-128).

Previous Study

McCroskey, et al. (1996)made an instrument to measure the level of immediacy for the teacher which is called Perceived Nonverbal Immediacy Behavior Scale. This instrument is the description of somechannelof nonverbal communication that is gesture, voice, eye contact, facial expressions, movement, body position.The Instrument devided into 10, that are: (1) Gesture while talking to the class; (2) Uses monotone/dull voice when talking to the class; (3) Looks at the class while talking; (4) Smiles at the class while talking; (5) Has a very tense body position while talking to the class; (6) Moves around the classroom while teaching; (7)Looks at the board or notes while talking to the class; (8) Has a very relaxed body position while talking to the class.; (9) Smiles at individual students in the class; and (10) Uses a variety of vocal expressions when talking to the class.

The research conducted by Andersen (cited in McCroskey, et al, 1996) shows that immediacyis an effective learning behavior. Anderson concluded that"nonverbal immediacy"as the most important representative in a research of teaching effectiveness. Teacher's nonverbal communication behavior which included in immediacy behavior is effective to support students' learning. So, it can be concluded that more immediacy a teacher's nonverbal behavior, it will create effective teaching behavior.Chesebro & McCroskey (2001) found out that immediacy nonverbal can reduce the apprehension. Apprehension can disturb learning effectiveness since it can limit the effectiveness of information processing (Wheeless cited in Chesebro & McCroskey, 2001). The result of this research also show that students with apprehension will lack of effectivity in listening and information processing (Preiss cited in Chesebro & McCroskey, 2001). In line with this opinion Launa Ellison (cited in Dryden & Vos, 1999:304) states that "since the brain cannot pay attention to everything…boring or emotionally flat lessons simply will not be

remembered." Thus, Stoke says that "80 percent of learning difficulties are related to stress. Remove the stress and you remove the difficulties" (cited in Dryden & Vos (1999:370). In other words, immediacy teacher's role is to increase the brain function with decreasing the level of apprehension and stress in learning, which at the end can increase student learning outcomes. The assessment in Indonesian context conducted by Maniyeni (2001), Sitompul (2012) and Sitompul (2014) also found that teacher who has the traits of nonverbal communication.

Phenomenology done by Friesen (2003) says that the development of nonverbal communication has an ability to create atmosphere pedagogy. The atmosphere pedagogic has the ability to create a relationship between teacher and students to create learning atmosphere. Friesen (2013) found that the ability of the computer interactive learning media is not supporting because of ontological obstacles. It means that teachers are different with another media and substitution of teacher's role that have to be assessed deeper. The role of a teacher according to Degeng (1989: 142-146) can be a motivator for the students, but at the same time, teacher destroy other students motivation.

Conclusion

The learning activity is a communicative activity. So, a communication skill has to be learned by teachers, lecturers and everyone who involved in teaching and learning activity. The behavior of nonverbal communication has its own role in increasing the communication process in class. The experts have given their result that explained some effective communication of nonverbal behavior. In the current use of learning media with high technology (more interactive), teacher's role in teaching and learning process should be considered.

Reference

Abizar. 1988. *Komunikasi Organisasi*.Jakarta: Proyek P2LPTK. Departemen Pendidikan dan Kebudayaan, Direktorat Jenderal Pendidikan Tinggi.

Albers, D. L. 2004. *Nonverbal Immediacy in the Classroom*, (online), (http://clearinghouse.missouriwestern.edu/manuscripts/236.asp, diakses 14 Maret 2006).

Ambady, N. & Rosenthal, R. 1993. Half a Minute: Predicting Teacher Evaluations from thin Slices of Nonverbal and Physical Attractiveness. *Journal of Personality and Social Psychology*, 64(3): 431-441.

Birdwhistell, R.L. 1985. *Kinesics and Context: Essays on Body Motion Communication*. USA: University of Pennsylvania Publication.

Burgoon, J. K. & Saine, T. 1978. *The Unspoken Dialog: An Introduction to Nonverbal Communicatio*n. Boston: Houghton-Mifflin.

Chesebro, J.L. & McCroskey, J.C. 2001. The Relationship of Teacher Clarity and Immediacy with Student State Receiver Apprehension, Affect, and Cognitive Learning. *Communication Education*, 50 (1): 59-68.

Degeng, I.N.S. 1989. *Ilmu Pengajaran: Taksonomi Variabel*. Jakarta: Departemen Pendidikan dan Kebudayaan, Dirjen Dikti, P2LPTK.

DePorter, B. & Hernacki, M. 1992. *Quantum Learning: Membiasakan Belajar Nyaman dan Menyenangkan*. Bandung: Penerbit Mizan.

DePorter, B., Reardon, M., & Nourie, S.S. 1999. *Quantum Teaching: Orchestrating Student Success.* Needham Heights, MA: Allyn & Bacon..

PRESENTER'S PAPERS

Derlega, V.J. & Margulis, T. 1983. Loneliness and Intimate Communication. Dalam Perlman, D. and Chozby, P.C. (Eds.). *Social Psychology*. (hlm. 207-226). New York: Holt, Reinehart and Winston.

Dryden, G. & Vos, J. 1999. *The Learning Revolution: To Change the Way to World Learns*. Torrance, California: The Learning Web.

Ekman, P. (Online), (http://www.paulekman.com, diakses 1 Juni 2009).

Ekman, P., Friesen, W. & O'Sullivan, M. 1988. Smile When Lying. *Journal of Personality and Social Psychology*, 54(3): 414-420.

Friesen, N. 2003. *The Pedagogical Significance of the Computer-Student Relation*. Draft Dissertation. A Thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Doctor of Philosophy. (Online), (http://www.phenomenologyonline.com, diakses 5 Agustus 2006).

Gazda, G. 1989. Group *Counseling A Development Approach*. 4th edition. Boston: Allyn and Bacon, Inc.

Johnson, D.W. 1986. *Reaching Out: Interpersonal Effectiveness and Self Actualization*. Englewood Cliffs, New Jersey: Prentince-Hall Inc.

Karp, D., A. & Yoels, W.C. 1986. *Sociology and Everyday Life*. USA: F.E. Peacock Publishers, Inc.

Maniyeni, A.M.D. 2002. *Karakteristik Perilaku Komunikasi Nonverbal Dosen Universitas Artha Wacana Kupang Berdasarkan Empat Etnis di Nusa Tenggara Timur*. Tesis Tidak diterbitkan. Malang: Program Pascasarjana Universitas Negeri Malang.

McCroskey, J.C., Sallinen, A., Fayer, J.M., Richmond, V.P., & Barraclough, R.A. 1996. Nonverbal Immediacy and Cognitive Learning: A Cross-cultural Investigation. *Communication Education*, 45: 200-211.

Miller, P.W. 2005. Body Language in the Classroom. *Techniques*, Nov/Dec 2005; 80, 8. ProQuest Education Journals pg. 28, (online), diakses 17 Oktober 2006.

Pease, A. 1987. *Bahasa Tubuh: Bagaimana Membaca Pikiran Seseorang Melalui Gerak Isyarat*. Jakarta: Penerbit Arcan.

Richmond, V.P., McCroskey, J.M. & Payne, S.K. 1991. *Nonverbal Behavior in Interpersonal Relation*. Englewood Cliffs, New Jersey: Prentice Hall, Inc.

Schutz, W.C. 1971. *Here Comes Every-Body*. New York: Harper and Row, Publishers.

Sitompul, N.C. 2012. Perilaku Komunikasi Nonverbal Guru dalam Kelas Pembelajaran: Maknanya bagi Siswa SMA. *Jurnal Pendidikan dan Pembelajaran*, 19 (1): 38-49.

Sitompul, N.C. 2014. *Karakteristik Perilaku Komunikasi Nonverbal Guru Peserta Program Profesi Keguruan Sekolah Dasar (PPGSD) pada Praktek Mengajar di Laoratorium Microteaching*. Prosiding Seminar Nasional Teknologi Pembelajaran. Pogram Studi Teknologi Pembelajaran, Program Pascasarjana,. Malang: Universitas Negeri. Malang 22 Nopember 2014.

Sprinthall, N. A. & Sprinthall, R.C. 1990. *Educational Psychology: A Developmental Approach*. Fifth Edition. New York: MacGraw-Hill.

Thweatt, K.S. & McCroskey, J.C. 1998. The Impact of Teacher Immediacy and Misbehaviors on Teacher Credibility. *Communication Education*, 47 (348-358).

Tubbs, S.L. 1987. *Human Comunication*. New York: Random House.

Valencic, K.M., McCroskey, J.C. & Richmond, V.P. 2005a. *A Preliminary Test of a Theory of Instructional Communication*. (Online), (http://www.JamesCMcCroskey.com/electronic/001.htm, diakses 27 Maret 2006).

Valencic, K.M., McCroskey, J.C., & Richmond, V.P. 2005b. *The Relationship between Teachers' Temperament and Students' Perceptions of Teacher Communication Behavior*. (Online), (http://www.JamesMcCroskey.com/electronic/002.htm, diakses 27 Maret 2006).

Whiteside, R.L. 1996. *Bahasa Wajah*. Jakarta: Penerbit Arcan.

Author's Biodata

Nurmida Catherine Sitompul is lecturer at Graduate Program of University of PGRI Adi Buana Surabaya.
nurmida.catherine.s@gmail.com

PRESENTER'S PAPERS

Effects of Problem-Based Learning Model Versus Expository Model and Motivation on Physics Learning Outcomes of Eleventh-Grade Students

Prayekti
FKIP-Universitas Terbuka
Jl. Cabe Raya Pondok Cabe Tangerang Selatan 15418 Banten
Prayekti@ut.ac.id

Abstract

Problem-based learning (PBL) is one of innovative learning models which can provide an active learning to students, including the motivation to achieve shown by students when the learning is in progress. This research was aimed to discover: (1) differences of physics learning result for student group taught by PBL versus expository learning; (2) differences of physics learning result for students having different motivations to achieve; (3) interaction effect of PBL strategy versus learning strategy and motivation to achieve toward physic learning results. For knowing motivation effect and learning model toward improvement of physic learning result for eleventh-grade students, Path Analysis was used. The result showed that early capability of students of learning physics insignificantly influenced students' learning result and the examination conducted evidenced that giving PBL model could improve significantly the physic learning results of the students. The research concluded that giving PBL model is able to improve the learning motivation of the students significantly.

Keywords: PBL, motivation to achieve, expository, physics

I. Introduction

The learning during this time is still dominated by teacher, so it doesn't give opportunity for student to develop optimally and self-sufficient through discovery and thought processes. Teacher centered has caused an accumulation of information or concepts which useless for student. Teacher always demands the student to learn, but not teaching how should the student learn and resolve the problem (Tabrani, 1998). Applicability Education Unit Level Curriculum (KTSP) asks the changing of learning paradigm, one of them is learning with teacher centered into student centered. According to Trianto (2007), learning in Education Unit Level Curriculum context with competency-based is also asking the learning not only to learn concept, theory and facts, but also application in daily life. The learning material is not only arranged from simple things with memorizing and understanding, but also arranged from the complex material which needs analysis, application and synthesis, in skill of problem solving, so the learning can reach the more maximum result.

Teacher has used many physic learning methods to discuss the learning material and also the practical which conducted in the laboratory. The methods used by teacher are speech, discussion, cooperative, interactive, and so forth. One of physic learning model used is problem-based learning (PBL). Problem-based learning is one of innovative learning model which can give an active learning condition to the student. PBL is the learning model which involves the student to solve the problem through scientific method stages, so the student can learn the knowledge related with the problem and alsi have skill to resolve problems. Furthermore, PBL is a learning approach by creating confrontation to the student with practical problems, or open ended through stimulus into the learning. PBL has characteristics as follows: (1) The learning is started with problem, (2) ensuring that the problem given is related with reality world of student, (3) organizing the lesson surrounding the problem, not surrounding the discipline of science, (4) giving great responsible to learner in building and operating their learning process directly, (5) using small

group, and (6) demanding the learner to demonstrate what they have learned in form of the product or performance. Based on the explanation above appears clearly that learning with PBL model to be started by any problems (the problems can be rose by student or teacher), then the student deeps their knowledge about what they have known and what they need to know to solve the problem. The student can chose the problems assumed as important to resolve.

In learning, the teacher tends to give a learning material with expository by asking the question to student, but the student still have difficulty to answer and express their opinion. Teacher's efforts is always motivating the student in order to be like and not ashamed expressing their opinion. Thus, the learning can run smoothly and more effective. Expository learning is one of common approach used by teacher in learning activity for almost the whole subjects. Expository learning is the teacher delivering material, giving speech, defining subject or explaining material. Thus, expository approach is the most dominant approach conducted by teacher, and the teaching like this is much practiced almost by all teachers. Student roles in expository learning has become listener and writter of material, they seat on the chair, so the student condition becomes passive. Expository learning is more emphasizing the teacher's activity in achieving the learning goal determined, and ignoring the student's activeness in learning process, so student's capability is developed optimally, because it is only little opportunity for student to be active involved in learning.

Based on the background above, the problem of this study is: how far an effect of PBL versus expository model and student's motivation to achieve toward physic learning result at class XI to be detailed into goals which stated: (1) differences of physic learning result between student group taught by PBL versus expository learning; (2) differences of student's physic learning result who has different motivation to achieve; (3) interaction effects between PBL learning strategy versus expository toward physic learning result; (4) interaction effects of learning strategy and motivation to achieve toward physic learning result.

II. Literature Review

Problem-Based Learning (PBL)

PBL model asks the student to be active involved directly into learning process. PBL model contains some steps which can ask the student to be active in learning process. Student activeness in learning process can train the student's capability. It is accordance with Sudarman's opinion (2007) that the learning approach which uses the reality world problem as context for student to learn about problem solving skill, and to obtain essential knowledge and concept. Using of PBL can improve an autonomy learning, motivation to achieve, problem solving and communication skill. As one of ways to improve the student's capability is PBL.

Based on PBL model, problem is one of challenging approach for student to seek solution from the real world that can be solved with group. PBL leads student to be self-learning, so it can develop the motivation to achieve and analyze the existing problem in the real world. PBL model can also stimulate the motivation to achieve and a new knowledge which useful for long term. PBL process is signed by any problem (the problem can be from both student or teacher), then the student deeps their knowledge about what they have known and how to solve the problems with group in order to help each other, so student is able to collaborate in problem solving. Using PBL with heterogeneous member of group is likely to the student exchanging their thought, collaborating to solve problem and finally they can improve their motivation to achieve. Thus, application of PBL can also help student improving their motivation to achieve.

It is accordance with opinion of Senocak (Akinoglu 2007) who has stated that PBL model is more effective if compared with traditional model, because PBL Model is more applying the learning concept, process and problem solving for student. Basically, student has potential of motivation to achieve, this potential should be better trained since early through learning which the student must be active and it were very not fortune if can be developed well. Thus, applying PBL model on sub main topic of vector can train the student's capability. The increasing of affective aspect is caused by creation of a new learning environment in the classroom through PBL which stimulates a good attitude for student. Affective aspect on this study is: presence of student; b)

student's focus when the learning is in progress; c) courage of student to express an opinion; d) courage of student to ask; e) appreciate an opinion of other student. It is accordance with Anni's opinion (2006) that an important factor in learning is the learning place, environment situation and sociey learning cultural will influence a readiness, process, and learning result. Then, all those aspects can be observed when learning is using PBL model.

On the PBL model, before starting learning, the student has been ready to learn. Student is grouped into small group when the learning in progress. This small group is intended to make the student can collaborate, exchange opinion (ask the question, give an opinion), and they can appreciate an opinion of other student, until they can decide the common conclusion. If PBL model were related with the real life, it is interesting of student's attention, so the student will be motivated to be always presence and join with the classroom before teacher arrives at the classroom. These aspects become indicators on the affective aspect assessment which entered to know the student's attitude for implementation of applying for PBL model on main sub-topic of Kinematics with vector analysis.

Based on the study of Akinoglu (2007), PBL is more influencing of student's learning achievement than traditional learning model applied in the school. PBL is also more effective than classical model which discovery-based. PBL is the model which preferred by student. Because, PBL model can improve the capability to solve problem and collaborate within one group and improve student's motivation to achieve.

PBL is the learning approach which uses the real world problem as the context for student to encourage student's motivation to achieve and problem solving skill, and to obtain an essential knowledge and concept from course or learning materials. Teacher within problem-based learning has much roles, especially in presenting problem, giving question, establishing dialog, helping to find problem and giving a research facilities. Teacher is also preparing the encouragement which can improve inquiry growth and student's intellectual with motivation to achieve.

PBL is the learning model which involves student to solve problem through scientific method stages, so the student can learn the knowledge related with the problem and have skill to solve problems. PBL is as a learning approach which uses the real world problem as the context for student to learn about the way of critical thought and problem solving skill, and also to obtain an essential knowledge and concept from lesson material.

Expository

Expository model is the learning model used by firstly giving definition, principles and learning material concept and also giving example of problem solving exercise in form of speech, demonstration, question and answer and assignment. The student follows the pattern determined by teacher carefully. Using expository method as learning method leads to deliver the lesson content to student directly. Student doesn't need to look for and find the facts, principles, and concept by themselves, because the material had been presented clearly by teacher when using this method. Learning activity by using expository method tends to teacher-centered. Teacher is active to give explanation or information of learning about learning material with detail. Expository method is often analogized with speech method, because they are the same in giving information.

Generally, teacher prefers to use speech method combined with question and answer method. Speech method is preferred because easy to implement with simple preparation, not wasting time and energy, by one step can reach the whole student directly and this can be done in classroom only. Every presentation the information orally can be said as speech. Presentation of speech is formal and usually in 45 minute or informal which only 5 minute. Speech can be said good or bad, but delivering speech should be assessed according to objective of their using. Expository method is the way to deliver lesson material with oral communication. Speech method is more effective and efficient to deliver information and meaning. Speech method is the teaching method by using verbal explanation. It is one way communication and completed with aided tool of audio visual, demonstration, question and answer, short discussion, etc. Furthermore, to make effective of speech method, it is important to prepare the steps as follows: a) formulating the large special instructional goal, b) identifying and understanding the student's characteristic, c)

arranging the speech material by using an advance organizer, d) delivering the material with giving short information on the black board, giving a concrete examples and feedback, giving summary in every last material discussion, e) planning an evaluation with programed. Recitation method is the learning method which more known as home work, although this statement is not true in overall. The question and answer method is used together with speech method, to stimulate student's thought activity, and to know their instructional effectiveness. Within question and answer method, the teacher can regulate important parts which need to get special attention.

In learning process by expository method should be sensitive for student response. Description of relationship between stimulus and response may not be simple as predicted, and this interaction influences the response given is also producing some consequence which will influence the student's behavior. For creating an interaction, interesting student's attention and training student skill, the speech method is usually combined with question and answer method and giving assignment. Recitation or assignment can be also done out door or in laboratory. Pasaribu stated that recitation method has three phases, such as: a) teacher gives an assignment, b) student does the assignment, and c) student is responsible to the teacher about what they have learned. This conventional model is the learning with *the Teacher Centered Approach*. Within the Teacher Centered Approach, all learning activities are almost controlled by teacher. All systems should be directed into series of the neat happening within institution education, without effort to look for and applying the different learning strategy accordance with the theme and learning difficulties for every individual. Differing expository method and speech method Teacher's domination in expository method is much reduced. Teacher doesn't talk persistently, an information will be given when it should be, as like on the start learning, to explain a new concept and principles, when gives an example of case at field and other. Expository method is the way to express idea in giving information with oral or written. Expository method can include combination of speech method, drill method, question and answer method, discovery and demonstration methods. Within learning by using expository method, central of activity is still on teacher. Compared with speech method, expository method has much reduced the teacher's domination. But, compared with demonstration method, this method is still greater.

Motivation to Achieve

Brophy et al. (within Eggen, 2007:298) stated that motivation is the power that gives energy, encouragement and as direct behavior to achieve the goals. It is meant that the very strong motivation influences individual's life power. Motivation is the power or motif which exist on self-individual to act achieving the concrete goal to satisfy their needs (Schermerhorn, et all, 1998:64). According to Sardiman (2000:73), motivation is series of efforts to provide certain condition, so individual wants to do something. If he/she doesn't like, then he/she efforts to eliminate the sense of dislike. Then, the motivation on self-student is very important factor that influenced what big the student do the learning activity and to be active on certain time, especially if the need to achieve the goal is very urgent (Eggen, 2007:298). In lining with the argument above, motivation is something which supports to move, to direct, and keep individual behavior in order to do something, so individual achieves certain result or goals.

Discussing on motivation to achieve is certainly not lost from the word of motive. Motive is from the word of motion which means move or impulse. Motive is the situation within self-individual that encourage them to do activity or certain behavior to the goal which they want to achieve based on the needs (Tabrani, 1994:98). Motive is as individual thruster to do certain activity for achieving the goal. Every activity conducted by individual is stimulated by the prower of individual inner, we call this thruster power is as motive. Concept of motivation to achieve is firstly using the term of *Need for Achievement* and popularized by McClelland (within Martaniah, 1984:21), this concept is started from assumption that *Need for Achievement* as the physicological power which encourages every individual, so it makes an active and dynamics to pursue the learning progress, thus the student can obtain an expected value. While (Eggen, 2007:315) stated that motivation to achieve tends to sustainable efforts, and ready to accept challenges with expectation to achieve high achievement. Motivation to achieve is as hard effort to improve self-

capability as high as possible in all activities by using an advantage standard as comparator. An advantage standard can be the task implementation result perfectness level, comparing with self-achievement before, and comparing with other achievement. Capability within some activities owned by individual is an advantage standard where the activity may be success or failure. Motivation to achieve can be meant as struggle to add the achievement as high as possible.

Motivation to achieve is the thruster which related with achievement, that is mastering, manipulating, regulating an environment or physic to resolve challenge and to keep the high quality learning, competing through an effort to be better than before and creating an higher action than other people. Individual with motivation to achieve is usually preferring the duty which demands a responsible. It means that the successful achieved is not from help of other people or luck factor, but because their hard effort. Individual has also strong thruster to know soon the real result of their action, because it can be used as feedback. Furthermore, from that evaluation result, individual can improve him/herself.

Essence of Motivation to Achieve

Motivation is very strong related with capability, so we can saya that there is capability contained within individual which has full motivation. Motivation is meant as thruster or mover that conditioning an individual and lead to achive the goal. Individual will only learn if he/she has capability to learn. Any capability to learn showed that individual has motivation to learn. There is positive and significant correlation between motivation to achieve with learning result. High or low motivation of individual will determine option to act, intensity to act, and effort to act or performance in every time. Individual with motivation to achieve will do a better activity, efficient, faster, and more spirit and responsible. For achieving a good learning achievement, exercise factor is absolutely important to do by student, but without motivation will have the constrained result and the process takes time. In the contrary, motivation without exercise is impossible because everything will not be directed. Motivation to achieve is individual inclination to react for situation to achieve the achievement performed within behavior form. Motivation to achieve is the motive which stimulates an individual to triggered with advantage of other and self-advantage.

Relationship between motivation to achieve and physic learning result

Essence of physic is the learning process to move and learning through movement. Physical program attempts to help the learner to used their body to be more efficient in conducting various basic move skills and the complex skills which needs in daily life. Physical teacher should give the successful experience for every children, because it becomes the source of motivation. Motivation is an individual willingness to chose, direct and strengthen the behavior in achieving goal. Individual with motivation to achieve will do something by strong intention to progress, direct to advantage standard, happy with competition, has high spirit, believe in their capability, and dislike wasting of time. Motivation to achieve supports individual to spur with advantage, both self-advantage or other advantage, and support individual to be active participating in physical activities. Student involvement in every movement task, beside supported to express their capability. also to reach successful experience. Therefore, effort to provoke student's motivation is giving the successful experience to the student. Thus, tasks of move are also adapted with student's capability, so they will be motivated to perform the performance owned, related with implementation of move tasks within physical activities. Based on the explanation above, we can assume that there is positive correlation between motivation to achieve with physic education learning result.

Effecting Factors for Motivation to Achieve

One of principle in implementing education is individual take part effectively in the implemented education activities. For conducting an activity, firstly it should have impulse to do that activity. In other word, for conducting an activity should have the motivation. It is also in learning process, individual should have motivation to join learning activity which in progress.

Motivation to achieve can be influenced by their environment (Crow and Crow, 1989:24), it is meant that an attitude for environment is the guideline of individual's view and assessment for the environment. Positive attitude for environment will increase motivation to achieve, while negative attitude for environment will decrease motivation to achieve.

Weiner (within Martaniah, 1984:2) stated that there are four elements which cause the motivation to achieve. Weiner based on his finding with Potipan stated their opinion about motivation to achieve are as follow: (a) Individual with high motive to achieve attributes the success on effort and attributes the failure on no effort; (b) Individual with low motive to achieve doesn't see an effort as the determinant of result; (c) Individual with high motive to achieve assumes that the cause of success is the high capability; (d) Individual with high motive to achieve have relatively high capability.

Many theories relies on the motivation. According to Morgan (within Sardiman, 2000:78), there are four supporting factors for individual to do activity and these can trigger the rising of student's motivation to achieve, such as: (a) Need to do an activity; (b) Need to satisfy other people; (c) Need to achieve a result; (d) Need to solve problem; (e) Other factors which can influence motivation to achieve.

Owens, (1991:15) stated that motivation is a good encouragement from internal or external, so it makes an individual to do something. Some internal and external factors will influence individual, where the factor may be the need. According to Gollwitzer (1996) that motivation can meant the need, drive, and goals. The same thing was stated by Ford (1992) that individual's motivation can be based on emergency, intention, and drive in relating with needs. Individual will have motivation to do an activity, if that becomes their needs. Gagne, (2002) stated that motivation is as very important element in education process and in task implementation process within daily life. Motivation is very important part in human life, both as researcher, farmer, servant, and others.

Correlation between motivation and learning is very closely, where the motivation may be basic/internal/external drive of individual. Motivation is to drive, direct and defend the student's learning behavior. This was stated by Elliot (2000), that motivation is one of factor influencing learning process and result. Motivation influences the student's choice for different of activity and capability and also student's academic goals. The established of academic motivation influences the student's capability. That motivation can become individual drive to do behavior changing in order to become better in fulfilling their life needs (Gresham, 1988). Motivation owned by student is very diverse, and that diversity need to understand and pay attention to lead and improve the student's capability, because the motivation to achieve is very influencing the student's successful to mastery the lesson. Other finding by Hamid, within Hasaruddin Hafid 2007:211) who stated that learning treatment is not interacted with motivation.

III. Research Method

This research is aimed to obtain an accurate empirical data and can be trusted to get the proper description about direct effects of variables: Learning model and motivation to achieve for student's physic learning result at Junior High School Class XI. This research is aimed to know: (1) Effect of learning model (X_1) for student's physic learning result at Senior High School Class XI (Y). (2) Effect of motivation to achieve (X_2) for student's physic learning result at Senior High School Class XI (Y). (3) Effect of learning model (X_1) and motivation to achieve (X_2) and for student'sphysic learning result at Senior High School Class XI (Y).

Place and Time of Research

This research has been conducted in Jakarta, at SMAN Jakarta during eight months. This research consisted of three stages, such as: 1) stage of trial and error for an instrument, 2) stage of collecting data, and (3) stage of data processing and data analysis. The method used on this research is survey method with quantitive approach. The research focused on disclosure of effects among variables. Relationship between these research variables can be described into the problem constellation as follows:

IV. Analysis Result and Discussion

A. Result

This research was conducted at State Junior High School (SMAN) in Different Class II, such as Class XI A and Class XI B. For knowing an effect of PBL and expository models for student's physic learning result at Class XI. The research was conducted on 62 students, they were grouped based on learning model given.There are 32 student at Class XI who has been given PBL model and 30 students at Class XI who has been given expository model. Descriptively, average of student's physic learning result before and after given the learnings are as follow:

Table 1. Average of Physic Learning Result on Pretest and Post-test

Learning Model	Average	
	Pretest	Post-test
Problem Based Learning	27.7	82.5
Expository	23.9	76.8

Descriptively, the research obtained that on student group with PBL model have average of student's physic learning result before learning (pretest) is 27.7. After learning (post-test), has happened an increasing with average of physic learning result as 82.5. On student group with expository learning model have average of physic learning result before learning (pretest) is 23.9. After learning (post-test), has happened an increasing with average of physic learning result as 76.8. Based on that table can be showed that overall learning model group have happened an increasing of physic learning result after learning.

For knowing an effect of motivation and learning model toward an increasing student's physic learning result at class XI have been conducted the analysis process by using Path Analysis.Here is structural model of motivation effect and learning model toward student's physic learning result at class XI: Within this structural model, there are four relationships among variables directly (direct affect) which had been examined. Examination result of relationship among variable of this research is as follows:

Table 2. Structural Model of Path Analysis Result: Direct Effect

Path of Direct Effect	Standardized Coefficient	CR	p-value	Note
Pretest→of Learning Result	-0,203	0,189	0,055	Insignificant
Motivation→of Learning Result	-0,123	0,128	0,284	Insignificant
Learning Model→ of Motivation	0,388	1,431	0,001	Significant
Learning Model→of Learning Result	0,564	1,557	0,000	Significant

Based on Table 2 showed that an examination of direct effect between pretest for learning result is obtained CR-value as 0.189 with p-value as 0.055. P-value is greater than 0.05, it showed that pretest is not giving a significant effect for learning result, in other word, early capability of student for physic science is insignificant effect for student's physic learning result. On examination of direct effect between motivation for learning result was obtained CR-value as 1.538 with p-value as 0.128. P-value is greater than 0.05 showed that motivation variable gave insignificant effect for learning result, in other word, student's learning motivation both student with PBL model or expository model are insignificant effects for physic learning result.

On examination of direct effect between learning model for learning motivation was obtained CR-value as 1.431 with p-value as 0.001. P-value is less than 0.05 showed that variable of learning model gave significant effect for learning motivation. Path coefficient as 0.388 had positive value which contains the meaning that PBL model given to the student at class XI is able to increase student's learning motivation. This is supported from comparison of student's learning motivation on two groups:

Table 3.Comparisson of Student's Learning Motivation at Class XI

Learning Model	Average of Motivation	t-statistic	p-value	Note
Expository	79.7	-3,296	0,002	Significant
PBL	84.4			

Based on table 3 showed that average of student's learning motivation at class XI who given PBL model is greater that the student given expository learning model. From this examination was evidenced that giving PBL model to be able to increase student's learning motivation at class XI significantly. On examination of direct effect among learning model for learning result was obtained CR-value as 1.557 with p-value as 0.000. P-value is less than 0.05 showed that variable of learning models gave significant effect for learning result. Path coefficient as 0.564 has positive value which contains a meaning that PBL model gven to student ast class XI to be able to increase student's physic learning result. This is supported by comparison result of student's physic learning result on the second group:

Table 4.Comparisson of Student's Physic Learning Result at Class XI

Learning Model	Average of Learning Result	t-statistic	p-value	Note
Expository	76.8	-3,792	0,000	Significant
PBL	82.5			

Based on table 4 showed that average of student's physic learning result at class XI who given PBL model is higher that student given expository learning model. Based on this examination had been evidenced that giving PBL Model to be able to increase student's physic learning esult at class XI significantly.

Discussion

Physic is the science which learns the natural behavior in some symptom in order to be able to understand what does control or determine those behavior. Based on this explanation, then learning physic is not lost from mastery of physic basic concept through understanding. Basically, physic is basic science, as like chemical, biology, astronomy, and geology. Basic sciences are needed in some branch of application and technique knowledge sciences, without a strong basic science, application sciences can't be progress faster. Physic theory is not only read, because physic is not only memorizing, but it should be read and understood and also practiced. Physic learning is part of natural sciences subjects. Natural sciences classically can be divided into two sections: (1) *physical sciences which has an object as substance, energy, and transformation of substance and energy*, (2) *biological sciences* which has an object as organism and their environment. Learning is an effort to obtain knowledge and understanding through series of activities which involves some existing elements. Learning student is really having many concepts

on his/her brain, especially an early concept about natural in his/her surrounding. Through systematically learning, those early concepts will be producing the true concept and directed properly. In physic learning, the first thing demanded is capability to understand concept, principle or laws, then the student should be able to rearrange into their language accordance with their maturity and intellectual development. Physic learning is developing a capability to think analytically, inductive and deductive in solving the problem related with phenomenon of surrounding natural, and it can develope knowledge, skill and confidence behavior.

Furthermore, physic learning globally is like stated as follows: (1) Physic learning process is determining concept, principle, theory, and natural laws, and also it can stimulate the reaction, or an answer which can be understood and accepted objectively, honest and rational; (2) Basically, teaching physis is an effort to chose strategy to educate and teach accordance with the material will be delivered, and an effort to provide conducive physic learning condition and situation, in order to the student can do exploration physically and to find concept, principle, theory, and natural law and also applying them in daily life; (3) Basically. physic learning result is awareness of student to obtain concept and physic concept networking through exploration and experiment, and awareness of student to apply their knowledge to solve the problem faced in their daily life.

Learning is development process of new knowledge, skill, and attitude when individual interacted with information and environment. According to learning is the process where an individual environment is managed intentionally to be likely participating within certain behavior in special condition or producing response for certain situation. Physic learning can be seen as the process to develop an capability to understand physic concept, principle or laws, so within the learning process should consider an effective and efficient learning strategy and method. Physic learning in junior high school is one of Natural Sciences which become facilities for student to learn themselves and surrounding natural. In physic learning, science process experience and science product understanding in direct experience form will be very meaningful in forming the student's concept. This is also accordance with mental development level of Junior High School Student which are still on transition phase from concrete into formal, it would make very easy for student, if the science learning asks the student to learn formulating concept inductively based on an empirical facts in the field.

V. Conclusion and Suggestion

A. Conclusion

1. Early capability of student's physic science has insignificant effect for student's physic learning result.
2. All learnings model group, both PBL or expository has increased the physic learning result after learning.
3. Student's learning motivation, both student given by PBL model or expository model has insignificant effect for physic learning result.
4. Giving PBL model is able to increase student;s physic learning result at Class XI significantly.

B. Suggestion

For researcher should see early capability of student, which they must be homogeneous and oberve their student's cognitive style, if they want to investigate the student's learning achievement. Then, investigation result will be more perfect.

Reference

Akinaglu O & Ruhan Ozkardes Tandogan, R. O. 2007. The effects of problem based active learning of student' academic achievement, attitude and concept learning. *Eurasia Journal of Mathematics, Science & Technology Education*, 3 (1): 71-81

Anni CT, dkk. 2006. *Psikologi Belajar*. Semarang: UNNES Press

Crow, L & Crow, A. 1989. *Psikologi Pendidikan*. Penterjemah Abror. Yogjakarta: Nur Cahaya.

Eggen, P. & Kauchak, D. 2007. *Educational Psychology, Windows on Classroom,* Seventh Edition. Columbus Uhio: Pearson Merril Practice Hill.

Elliot, S.N., at al. 2000. *Educational Psychology: Effective Teaching, Effective Learning*. Third Edition. Buston: McGraw-Hill Higher Education.

Gagne, F., & StPere, F. 2002. When IQ is Controlled, Does Motivation Still Predict Achievement? *Intelligence*, 30(1), 71-100.

Hafid, H. 2007. *Pengaruh Metoda Pembelajaran (Kooperatif Model Stad vs Konvensional) dan Motivasi Berprestasi Terhadap Hasil Belajar Pemecahan Masalah Soal Cerita Matematika pada Siswa Kelas IV SD di Kota Makasar*. Disertasi tidak diterbitkan. Malang: Prodi Teknologi Pembelajaran Pascasarjana Universitas Negeri Malang.

Ford, M. E. 1992. Human Motivation: Goals, Emotions, and Personal Agency Beliefs. Newbury Park, CA: Sage.

Gollwitzer, P. M. 1996. The Volitional Benefits of Planning. in P.M. Gollwitzer, & J.A. Bargh (Eds.), The Psychology of Action: Linking Cognition and Motivation to Behavior (pp. 287-312). New York: Guilford.

Gresham, F. K. 1988. Social Competence and motivational characteristics of Learning Disabled Students. in M. Wang, M. Reynolds, & H. Walberg (Eds.), *Handbook of Special Education: Mildly Handicapped Conditions* (pp. 283-302). New York: Pergamon Press.

Martaniah & Mulyani, S. 1984, *Motif Sosial.* Yogyakarta: Gadjah Mada University Press.

Owens, R.G. 1991. *Organizational Behavior Instrumen Education*. Masschrisetts: Allyn and Bacon.

Sardiman, A.M. 2000. *Interaksi dan Motivasi Belajar Mengajar*. Jakarta: CV. Rajawali.

Schermerhorn, Jr., John, R., Hunt, J. G. & Osborn, R. N. 1998. *Basic Organizational Behavior,* 2nd edition. New York: John Miley & Sons, Inc.

Sudarman. 2007. Problem Based Learning: suatu model pembelajaran untuk mengembangkan dan meningkatkan kemampuan memecahkan masalah. *Jurnal Pendidikan Inovatif*, 2 (2)

Tabrani, A. & Rusyan. 1998. *Pendekatan dalam Proses Belajar Mengajar.* Bandung: PT. Remadja Karya.

Trianto. 2007. *Model-model Pembelajaran Inovatif Berorientasi Kontruktivisme*. Jakarta: Prestasi Pustaka

Author's Biodata

Nama : Dr. Prayekti, M.Pd

NIP : 195805081983032002

Unit Kerja : Dosen Pendidikan Fisika FKIP-UT

Alamat : Jalan Cabe Raya Pondok Cabe Tangerang Selatan 15418 Banten

PRESENTER'S PAPERS

The Procedural Steps of Learning Contexts in Orchestra Model to Enhance Learning Quality

Putu Dian Danayanti Degeng
Universitas Brawijaya
Malang, Indonesia
annya_jolie@yahoo.com

Nyoman Sudana Degeng
Universitas Negeri Malang
Malang, Indonesia
sudana_daniel@yahoo.com

Abstract

The Government Act No 19 Year 2005, verse 19, act 1, stated that, a learning process in a particular educational institution are administered interactive, inspiring, joyful, challenging, and motivating to enhance learners' active participation and allow them to create creative ideas based on their capabilities, interests, and physical and psychological development. In fact, the learning process in the educational institution does not match with the regulation. In class, there is less interaction between teacher and the student, student and other students, and, students and the learning environments. Besides, the teaching and learning process cannot inspire and give motivation to the students to create new ideas for more joyful and challenging learning activity. This happens because the instructional model used is not allowing creativity and freedom in learning. Creativity and freedom in learning is important in every teaching and learning activity. This article describes the main idea of procedural steps in orchestra model. There are two dimensions in orchestra model which are the context and content. This paper is intended to explain the procedural steps in the dimension of context which is divided in four aspects. All these steps is designed using interactive, inspiring, joyful, challenging and motivating learningto enhance learning quality.

Keywords: instructional orchestra model, dimension of context, interacting, inspiring, joyful, challenging and motivating learning

INTRODUCTION

Today,student success and failure in class is determined by the system and not by the student itself (Degeng, 2007). From the beginning until the end, everything in class has been set up. What to learn and how to do it has already determined by the teacher. When a student do not allowed to choose what to learn and how to deal with it, he will become a passive learner. This kind of learning restriction can affect his will to learn. Educational institution which supposed to make the student become an active and creative learner does not give enough space to support it (Degeng, 2015). As stated in the Government Act No 19 Year 2005, verse 19, act 1, a learning process in a particular educational institution are administered interactive, inspiring, joyful, challenging, and motivating to enhance learners' active participation and allow them to create creative ideas based on their capabilities, interests, and physical and psychological development;a class should become a place where the students can grow, learn and express his ideas freely. Student can learn best if he is given freedom to manage his learning. That is why, whether will be success of fail, it is depends on the student itself, not determine by the strict rules.

Learning is a complex and unique process (Degeng, 2013; Novak &Gowin, 2002). A complex learning process means that someone who is learning will involves all the aspects, mentally and physically. While a unique learning process means that the learning behavior only occurred on the learner and not on others. This is happened sincesomeone who is learning will

shows different learning behavior.According to these facts, an instructional model which is supporting student freedom in learning is really needed.

There are at least five reasons why an instructional orchestra model is needed. First, the interaction between teacher and student is conducted one way or teacher centered. This is often happened since teacher is the most important aspect in class. Besides,only teacher who can becomes the main learning source. Second, there is less stimulus which allowing creativity. Since teacher is the one who knows best, he rarely gives chance to the students' ideas. Third,the negative learning atmosphere.Teacher cannot accept students' idea or reaction during the learning process. For example, teacher tends to raise his intonation and change body language to show that he is the one who have power in class. It makes students have to follow his directions all the time.Fourth,less of a risk-taking task. The students are not giving enough space to solve their own learning problems. Fifth, everything that shows by the teacher cannot give motivation for the students. A teacher should become a good motivator for all students. It means that everything that was done, whether it success or failed, have to be valued.

INSTRUCTIONAL ORCHESTRA MODEL

The learning reconstruction is start from the learning designthat can be used as the starting point for reconstruction of learning quality (Degeng, 2013). It means that the reconstruction of learning quality is beginswith the reconstruction of learning design. According to Degeng's statement, it can be said that a good learning design is needed to enhance learning quality.

The indicators of instructional orchestra model are: freedom, leisure, wonder, joy and passion. The learning environment that gives freedom will allow the students to choose physically, mentally and emotionally that will leads to creative and productive learning activities (Degeng, 2014). This mental ability guidesthe students to learn with their own ways about what they are really interested in.With the freedom that they have, students can learn at their leisure without any pressure or compulsion. When the students feel amazed, it can be said that they are really interested in something. Teacher can bring wonder back into teaching by making creative questions (Elkind& Sweet, 1997 in DePorteret al., 1999). Creative questions with unique answers will make the student feel amazed and that make wonder come true. After bringing the wonder back in learning, student can enjoy learning with joy and full of passion to explore and discover new things.The main indicator of successful learning is student's peace (Degeng, 2006). Student will feel peace if the learning process is conducted with joy and passion.

The dimension of context in instructional orchestra model isamaster plan onhow to design a learning environment whichincludes freedom, leisure, wonder, joy and passion. The contexts are: interactive, inspiring, joyful, challenging and motivating.

Interactive

The word "interactive" means that there is a relationship between one group and another. It involves people who are working together and having an influence on each other. Learning can be interactive when there is an interaction between the teacher and student, student and other students, and students and learning environment. Interactive learning can be designed through orchestrating a strong foundation. DePorteret al. (1999) said that a strong foundation serves as an essential part of learning community. It means that interactive learning can be designed through orchestratinga strong foundation. These are theaspects for orchestrating a strong foundationin interactive learning: a) orchestrating a shared purpose; b) orchestrating shared principles and values; c) orchestrating powerful beliefs about teaching and learning; d) orchestrating clear agreements, policies, procedures and rules; e) orchestrating partnership in learning.

Orchestrating a shared purpose

Every learning community sharesa common purpose (DePorteret al., 1999). Teacher usually will shares this purpose in the beginning and then asks the students to give opinion about it. The procedural steps to orchestrate a shared purpose: 1) explaining what will be the learning goal that

day, 2) asking the students to give response about it, 3) making a conclusion about the learning goal.

Orchestrating shared principles and values

Orchestrating shared principles and values is the beginning of learning success. Good shared principles and values that commonly understood among the students will create friendly learning atmosphere.When the teacher teaches principles and values, he is teaching character (DePorteret al., 1999). The procedural steps to orchestrate shared principles and values: 1) explaining what will be the shared principles and values that have to be built in order to achieve the learning goal, 2) asking the students to give response about it, 3) building students' spirit to do the shared principles and values, 4) naming the principles and values that is important to be learned that day, 5) doing the shared principles and values on the learning group, 6) giving chances to all students to experience the shared principles and values, 7) celebrating the success of the shared principles and values.

Orchestrating powerful beliefs about teaching and learning (teacher and student)

When a teacher or a student is confident enough, it will influence his behavior. It is important to the teacher and students to know what they are capable of because it can arouse self-esteem. When teacher and students realize their ability, they will create great combination for successful teaching and learning. The procedural steps to orchestrate powerful beliefs about teaching and learning: 1) knowing the teacher and students ability, 2) giving responses about each other strengths and weaknesses, 3) building spirit to actualize the powerful beliefs about teaching and learning, 4) naming the powerful beliefs about teaching and learning, 5) experiencing the success from powerful beliefs about teaching and learning.

Orchestrating clear agreements, policies, procedures and rules

There is a difference between agreements, policies, procedures and rules. Agreements are less formal than policies. Agreements area simple and concrete list for supporting the learning process. Policies are something that supports the learning goal and explains the procedural steps in particular situation. Procedures tell the students about things that are expected and what action should be done. Procedures are more stabled, controlled, and structured. There is a consequence if breaking the rules. So, it can be said that rules are more strictly than agreements and policies.

A strong foundation is built from agreements, policies and rules as a guidance to act. To make it effective, both teacher and students should have clear understanding about it. The procedural steps to orchestrate clear agreements, policies, procedures and rules: 1) explaining what will be the agreements, policies, procedures and rules that have to be orchestrated to reach the learning goal, 2) asking the students to give response about the agreements, policies, procedures and rules, 3) building the students' spirit to create the agreements, policies, procedures and rulesin learning, 4) naming the agreements, policies, procedures and rules, 5) creating the agreements, policies, procedures and rules in learning groups, 6) giving chances to all students to experience the agreements, policies, procedures and rules, 7) celebrating the students' success.

Orchestrating partnership in learning

Partnership in learning involves teacher and students. Teacher and the students need to become a partner in learning. As partner, both teacher and students have to follow the rules that had decided before. The procedural steps to orchestrate partnership in learning: 1) explaining the way to orchestrate partnership in learning to reach the learning goal today, 2) asking the students response about what should be done in orchestrating partnership in learning, 3) building spirit to create partnership in learning, 4) naming the partnership in learning, 5) creating partnership in learning, 6) giving chances to all students to experience the partnership in learning, 7) celebrating students' success.

PRESENTER'S PAPERS

Inspiring

The word "inspiring" also means stimulating that lead to creative activity. When a student is inspired by something, he can create new things. Learning can be inspiring when all the member of learning community can give stimulus for each other. In other words, inspiring learning activity allows creative thinking. This creative thinking will leads to divergent thinking.

Inspiring learning can be designed through orchestrating dynamic learning. To orchestrate a dynamic learning there are three aspects that is; a) orchestrating the main idea "from their world to our world";b) orchestrating teaching with students' learning characteristics;c) orchestrating success, failure and risk.

Orchestrating the main idea "from their world to our world"

Teacher and students live in a different world. Sometimes, this becomes boundaries in teaching and learning process. Teacher cannot get the students' attentions and students hardly understand what the teacher means. With this kind of situation, the teaching and learning activity will completely fail. In order to make the teaching and learning activity success, teacher should change his ways of thinking. It begins with entering the students' world and then bring teacher's world to them.So, the teacher has to know his students well, mentally and emotionally and then teach them according to their nature. The procedural steps toorchestrate the main idea "from their world to our world": 1)identifying student characteristics, 2) identifying a shared purpose, 3) building agreements to reach a shared purpose.

Orchestrating teaching with students' learning characteristics

To orchestrate dynamic learning, teacher has to know his students' characteristics. Adjusting teaching with different characteristics is challenging enough.The procedural steps to orchestrate teaching with students' learning characteristics: 1)identifying students' characteristics, 2) motivating the student to choose the suitable media, 3) observing the appropriateness between the student and chosen media, 4) observing the interaction between the student and chosen media, 5) motivating the student to solve the learning problem with the chosen media.

Orchestrating success, failure and risk

Success, failure and risk are parts of the learning process. Students can get a success now but fail later. The procedural steps to orchestrate success, failure and risk: 1) motivating the students to choose suitable media, 2)observing the appropriateness between the student and chosen media, 3) observing the interaction between the student and chosen media, 4) motivating the student to learn with the chosen media, 5) identifying the students' success and failure, 6) motivating the student to do risk-taking, 7) motivating the students to accept the risk of their decision, 8) motivating the student to do self-evaluation.

Joyful

When student is given freedom to learn whatever they want, they will feel happy. This is happen since they can choose what they are really interested in. They can decide what materials they are going to learnthat day.Joyful learning can be designed through orchestrating fun learning environment.The aspects for orchestrating joyful learning environment: a) orchestrating instructional media; b) orchestrating learning environment; c) orchestrating the tables and chairs in class; d) orchestrating the plants, pets, and scents; e) orchestrating the music.

Orchestrating instructional media

Instructional media can be anything that can be used for learning. The procedural steps to orchestrate instructional media: 1) determining the learning theme, 2) determining the learning format, 3) choosing the suitable media, 4) enjoying learning using the chosen media.

Orchestrating learning environment

Anything in students surrounding can be categorize as learning environment. The picture or poster hanging on the wall can mean something. Using color can strengthen the teaching and learning activity because the brain thinks in color (DePorter et al., 1999). The procedural steps to orchestrate learning environment: 1)determining the learning theme, 2) determining the learning format atmosphere, 3) choosing the suitable supporting media, 4) enjoying learning environment.

Orchestrating the tables and chairs in class

In the instructional orchestra model, it is important to arrange the tables and chairs according to the selected theme in class. A right tables and chairs arrangement can maximize the moment of learning. DePorteret al. (1999) gives some options in tables and chairs arrangement: first, teacher can use a semi-circle for a large group discussion. Second, teacher can place all tables and chairs against the wall when want to allow for individual tasks and leave the center of the room open for a small group instruction or large group discussion with everyone of the floor. The procedural steps to orchestrate the tables and chairs in class: 1)determining the learning theme, 2) determining the learning format atmosphere, 3) designing the tables and chairs according to the learning format.

Orchestrating the plants, pets, and scents

Putting the plants, choosing the pets, and selecting the suitable scents play important role in creating friendly learning environment. First, putting plans in class can enrich the oxygen level and give nice visual effect. Second, the existence of pets in class can bring out the caring nature of the students and calm them like pets do (DePorteret al., 1999). Third, scents can increases the ability of creative thinking. For example, peppermint, basil, lemon, cinnamon, and rosemary can increases mental alertness; while lavender, chamomile, orange, and rose can induce calmness and relaxation. The procedural steps to orchestrate the plants, pets, and scents: 1)determining the learning theme, 2) determining the learning format atmosphere, 3) choosing the suitable plants, pets and scents, 4) designing the plants, pets, and scents.

Orchestrating the music

Music produces mental and physical effects (Campbell, 1997; DePorteret al., 1999). Thus, music can be used in a variety ways in learning. Campbell (1997) categorized some of music's possible therapeutic uses that can be used in learning: masks unpleasant sounds and feelings, slow down and equalize brain waves, regulate stress related hormones, changes perception of space, changes perception of time, strengthen memory and learning, etc. Specific music suggestions given by DePorteret al. (1999) are: for studying, reading, listening, presenting can use *Mozart Flute Concertos, Relax With The Classics: Andante and Pastorale, Six Duets for Two Flutes*, etc. Special music for fun: *TV's Greatest Hits Series, Disney's For Our Children*. Break Music: Movie Soundtracks, Hit Collection from the 60s, 70s, 80s, 90s,etc. Music for reflection: Windham Hill Records: *A Winter's Solstice*, Yanni: *Out of Silence*, etc. The procedural steps to orchestrate the music: 1)determining the learning theme, 2) determining the learning format atmosphere, 3) choosing the music, 4) designing the place, volume and time.

Challenging and Motivating

The word "challenging" and motivating" in the context of orchestrating passionate atmosphere is closely related. When the students feel the task is challenging, they will be motivated to finish it. Challenging and motivating learning can be designed through orchestrating passionate atmosphere. The aspects for orchestrating passionate atmosphere: a) orchestrating the learning motivation; b) orchestrating sympathy and empathy; c) orchestrating joy and wonder; d) orchestrating risk-taking; e) orchestrating belonging; f) orchestrating modeling.

Orchestrating the learning motivation

Motivation is a great investment for students. Without having motivation, students cannot do anything well. There are two kinds of motivation, intrinsic and extrinsic. Intrinsic motivation comes from within, while extrinsic motivation comes from the surrounding. The procedural steps to orchestrate the learning motivation: 1) identifying students' characteristics, 2) analyzing students body language, 3) identifying the factors that can influence the students success, 4) harmonizing teacher's body language with verbal expression.

Orchestrating sympathy and empathy

Creating harmonious relationship can become a strong communication bridge for teacher and students. The students will learn easily and the teacher can give positive influences in teaching and learning activities. Laws and rules without relationship is the same as hatred and rebellion. Teacher who gives so many strict rules in class will create rebellion students. To avoid such things, teacher is expected to treat all the students nicely to make them feel accepted as a member of the class. The procedural steps to orchestrate sympathy and empathy: 1) identifying student characteristics, 2) identifying student way of thinking and how do they feel about their experiences, 3) identifying student interest.

Orchestrating joy and wonder

Joy and wonder are two things that often missed in creating class atmosphere. But in this model, these two things become important in orchestrating successful challenging and motivating context. Feeling of joy and wonder usually occur when the student discovering something they never thought before. Wonderment will happen if the teacher can be a good motivator and give lead questions to arouse students' curiosity. The procedural steps to orchestrate joy and wonder: 1) identifying student characteristics, 2) identifying student motivation in risk-taking, 3) identifying the questions that need divergent answers.

Orchestrating risk-taking

Every time doing something for the first time, will involves risk-taking. Students have their own comfort zone. Once the teacher asks them to try something new, they have to step out from their comfort zone and move to unknown zone. It has the same idea as learning. Learning is risking (Deporter, 1999). Every time the students are ready to learn something new, it means that they are ready to do risk-taking.The procedural steps to orchestrate risk-taking: 1) identifying the student characteristics, 2) identifying studentmotivation in risk-taking, 3) identifying the factors that can influence the students' success, 4) identifying the level of student concentration.

Orchestrating belonging

Both teacher and students need to build the sense of belonging. When a teacher builds the sense of belonging, he removes threads and prepares for the students' brain to relax and start to engage with their emotions. This creates a feeling of team, unity, agreement and support in learning (DePorter, 1999). The procedural steps to orchestrate belonging: 1)identifying the student characteristics, 2) identifying student way of communication, 3) creating comfortable and friendly communication, 4) arouse student and teacher trust of each other.

Orchestrating modeling

Modeling is a powerful way to build a friendly relationship between teacher and the students. By using himself as a model, a teacher has already building a connection with the students. DePorter (1999), gives some ways to become a great model, which are: model clear communication, acknowledge every effort, smile, use energy to create more energy, be a great listener, paraphrase students' thoughts, step out of the comfort zone regularly and let the students

knows it, reframe or restate negative situation to find the positive in them. The procedural steps to orchestrate modeling: 1) identifying student characteristics, 2) identifying student way of communication, 3) using teacherhimself as a model.

CONCLUSION

The dimension of contexts in instructional orchestra model is a master plan on designing a friendly and flexible learning environment. The contexts are: 1) interactive through orchestratinga strong foundation, 2) inspiringthrough orchestrating dynamic learning, 3) joyfulthrough orchestrating fun learning environment, and 4) challenging and motivatingthrough orchestrating passionate atmosphere. Every aspect in contexts always includes freedom, leisure, wonder, joy and passion.

REFERENCES

Champbell, Don. (1997). *The Mozart Effect: Tapping the power of music to heal the body, strengthen the mind, and unlock the creative spirit*. New York: Avon Books, Inc.

Degeng, Nyoman. (2006). *Orkestra Belajar-Mengajar Kreatif-Inovatif Untuk Menumbuhkan Keterampilan Hidup Menuju Puncak Prestasi*. Makalah disajikan dalam Lokakarya di SMP Surabaya, Surabaya 4 Januari.

Degeng, Nyoman. (2007). *Paradigma Pendidikan: Dari Behavioristik Ke Konstruktivistik.* Makalah disajikan dalam Seminar di Universitas PGRI Adibuana Surabaya, Surabaya 16 September.

Degeng, Nyoman. (2013). *Ilmu Pembelajaran: Klasifikasi Variabel untuk Pengembangan Teori & Penelitian.* Bandung: Kalam Hidup.

Degeng, Putu. (2014). Model *OrkestraPembelajaranInteraktif, Inspiratif, Menyenangkan, Menantang, Memotivasi (I2M3)*.ProdukDisertasitidakditerbitkan.

Degeng, Putu. (2015). *Pengembangan Model Orkestra Pembelajaran Interaktif, Inspiratif, Menyenangkan, Menantang, danMemotivasiUntukMeningkatkanKualitasPembelajaran*.Disertasi tidak diterbitkan. Malang: PPS Universitas Negeri Malang.

DePorter, Bobbi., Reardon, Mark., Singer-Nourie, Sarah. (1999). Quantum Teaching: Orchestrating Student Success. Boston: Allyn and Bacon.

Novak, Joseph & Gowin, D. Bob. (2002). *Learning How To Learn*. Cambridge: The Press Syndicate of The University of Cambridge.

Peraturan Pemerintah Nomor 19 Tahun 2005 tentang Standar Nasional Pendidikan. (2006). Bandung: Citra Umbara.

Author's Biodata

Putu Dian Danayanti Degeng is a lecturer at Faculty of Cultural Studies in Universitas Brawijaya, Indonesia.Her interest is on Developing Instructional Theory and Models,Early Childhood Education.
annya_jolie@yahoo.com

Nyoman Sudana Degeng is a professor at Universitas Negeri Malang, Indonesia. His interest is on Research and Statistics, Program Evaluation, Curriculum Development and Instructional Design, Instructional Materials Development for School and Training, Developing Instructional Theory and Models.
sudana_daniel@yahoo.com

The Effect of Compensation and Work Discipline of the Employee Productivity at PT. Pos Indonesia (Persero) Bandung Head Office

Rr. Watie Rachmawati
Sekolah Tinggi Ilmu Ekonomi Ekuitas
watieroro@yahoo.com
watieroro2@gmail.com

Abstract

In this study the problem under study is the performance benefits provided to the employees felt less fair and not right on target, the company often seen a lot of employees who leave work activities before time runs out working hours, employees come to work slow hours, employees do Loss to follow Invalid. The object of this study was employees of PT. Pos Indonesia Head Office of Bandung, amounting to 150 people. This study used a questionnaire as a data collection tool census techniques that all employees of PT. Pos Indonesia Head Office of Bandung. This study used descriptive and verification methods. Data processing is done by analyzing the data covers the validity and reliability, multiple linear regression analysis, correlation analysis and determination to measure the effect of compensation and labor discipline on employee productivity PT. Pos Indonesia Head Office of Bandung.

Conclusion this study is based on the responses of respondents are compensated fairly well with 63.5%, disciplined work quite well with 62.7%, and labor productivity is quite good with 66.4%. From the correlation analysis there is a relationship being between compensation and discipline influence on employee productivity PT. Pos Indonesia Head Office of Bandung of 0.587 which indicates that there is a relationship between compensation and discipline are working on work productivity PT. Pos Indonesia Head Office of Bandung as well as the coefficient of determination of 34.4% while the remaining 65.6% is influenced by other variables not examined.

Keywords: *Compensation, Discipline and Productivity.*

1. INTRODUCTION

In the current era of globalization required resources can competition resources with other enterprise resources. So as to be prioritized is how the performance of employees in order to improve productivity performance. Productivity of employees cannot be separated from their compensation, employee discipline. PT. POS Indonesia is a state-owned enterprise (SOE) Indonesia engaged in the field of postal services and other services. To improve employee productivity PT. Pos Indonesia (Persero) Bandung Head Office in achieving the results of his work that has been set by the company one of which is through the provision of compensation in the form; salary, wages, incentives, holiday allowances, transportation allowances, pensions, medical expenses and allowances grief / death. As for the discipline of employees receive training on, the importance of a good work discipline and provide compensation for employees who have the discipline and the presence of maximum work so that the company's survival can be maintained and the company's goals can be achieved effectively and efficiently.

In today's global competition, the working world desperately needs people who can think for advanced, intelligent, innovative and able to work with high morale in the face of progress. Various organizations or companies trying to increase productivity with the aim of achieving the company's survival. Without a good labor productivity in all areas of the company, the success of an organization or enterprise to be something very difficult or even impossible to realize.

The use of optimal human resources greatly affect the achievement of the company's strategy, so any company trying to get employees involved in organizational effectiveness can always provide achievements in high productivity levels. To increase the productivity of employees, many factors need to be considered by the company such as compensation and working discipline.

Based on observations and interviews conducted in PT. Pos Indonesia (Persero) Bandung Head Office, there are several issues, namely: performance benefits given to employees felt less unfair and not targeted. Performance allowance is made based on an assessment of each employee's performance and the performance appraisal in Crosscheck by the leadership, but in practice the leadership did not do Crosscheck causing performance ratings among employees that can perform well with employees who are not good at all. Furthermore, the company can often be seen some employees leave their work activities before time runs out working hours. In this case the employee does not comply with company policy that reflected the still low level of discipline in the company. Apart from that also slows hours employees come to work. In the activity of work, employees often do not leave on time so much work is neglected. Furthermore, employees are employees who LTFU Unauthorized, meaning that the employee does not attend work without any information to the employer or the company. So the discipline of employees does not meet optimal standards expected of companies, which in the end value of the company's productivity standards will decline.

PT. Pos Indonesia (Persero) Bandung Head Office, as one of the companies, it will face the problem of compensation and employee discipline. For that there should be a study of compensation and working discipline in the hope of solving such problems and can provide feedback, which is quite useful for the company. Goal of this research is the employees in the company, the employees at PT. Pos Indonesia (Persero) Bandung Head Office. Based on the above descriptions, researchers interested in conducting a study entitled "The Effect of Compensation and Work Discipline of the Employee Productivity PT. Pos Indonesia (Persero) Bandung Head Office ".

The purpose of this study was to determine and obtain information relating to the Compensation Effect and Work Discipline of the Employee Productivity PT. Pos Indonesia (Persero) Bandung Head Office. And The purpose of this study are to determine the compensation, working discipline, employee productivity and to know the effect of Compensation and Discipline Work Productivity Employees working at PT. Pos Indonesia Bandung Central Office.

2. LITERATURE, FRAMEWORK FOR THINKING AND HYPOTHESES RESEARCH

2.1. Literature Review

Compensation is something that employees received in lieu of contributing their services to the company. The compensation is one of the implementation of human resource management functions that relate to all types of individual awards as an exchange in performing organizational tasks. Sitohang (2007: 220) said "Compensation is setting the overall provision of remuneration for employees and managers in the form of financial and goods and services received by each employee." Rival & Sagala (2013: 741), said "Compensation is something that employees received in lieu of contributing their services to the company". Hasibuan (2013: 118), states "Compensation is all the income in the form of money, goods directly or indirectly received by employees as a reward for services rendered to the company. The third is based on the above understanding can be concluded that the compensation is the income received by employees as remuneration for his contribution to the achievement of corporate goals. Compensation of employees used in the fulfillment of their needs, while the compensation awarded, the company expects employees can increase their productivity better. In general, compensation management goal is to help companies achieve the success of the company's strategy and ensuring the creation of internal and external justice. External Justice guarantees that the jobs will be compensated equitably by comparing the same job in the job market. The purpose of compensation management, including:

1. Obtain qualified human resources
2. Maintain the existing employees
3. Ensuring justice
4. Respect for the desired behavior
5. Controlling costs
6. Following the rule of law
7. Facilitate understanding
8. Increase the efficiency of administration

Discipline of work is an attempt of the organization's management company to implement or execute the rules or provisions that must be compiled by all employees without exception. According to Rival (2005: 444) states "Discipline is a tool used by managers to communicate with employees so that they are willing to change a behavior as well as an effort to raise awareness and the willingness of a person to obey all laws and social norms in force". Hasibuan (2013: 193) "Discipline is the most important function of HRM operative for the better discipline of employees, the higher the performance that can be achieved". It can be concluded that Discipline is a form of activity carried out by the management of both government agencies and private so that employees can work in accordance with applicable regulations and their performance as expected and could reach the goals of the company.

Meanwhile, definition of Work Productivity according to Fandy Tjiptono (2009: 54) states "Productivity in the technical sense refers to the degree of effectiveness, efficiency in resource use, while understanding the behavior of productivity is a mental attitude that is constantly trying to keep growing". And Sedarmayanti (2009: 57) states "Work Productivity is a mental attitude that has a passion for doing greater improvement". Based on the notion of productivity above, it can be concluded that productivity is a mental attitude that is always trying to make improvements to continue to develop improvements.

2.2. Framework of Thought

High labor productivity is one of the goals to be achieved by the company, the company's goal is achieved or not depends on the human resources that exist in the company. Productive companies are companies that have high labor productivity. Productivity is affected by many factors related both to the workers themselves as well as other factors. These factors, among others, the spirit, the discipline of work and compensation obtained from the Company.

According Hasibuan (2013: 118) "Compensation is all the income in the form of money, goods, directly or indirectly received by employees as a reward for services rendered to the company". According Fandy Tjiptono (2009: 54) states "Productivity in the technical sense refers to the degree of effectiveness, efficiency in resource use, while understanding the behavior of productivity is a mental attitude that is constantly trying to keep growing". According Rivai (2005: 444) "Discipline is a tool used by managers to communicate with employees so that they are willing to change a behavior as well as an effort to raise awareness and the willingness of a person to obey all laws and social norms in force".

There are some explanations of the relationship between Compensation, Work Discipline and Employee Productivity interplay. These relationships are as follows:

Compensation is one of the factors that affect employee productivity. Provision of compensation to employees will greatly affect how the performance of the employees themselves. Employees will be more motivated if the compensation given by the company will be in accordance with what is expected and in accordance with what is done. Therefore the provision of fair compensation, and the right is required companies to motivate their employees so as to create excitement employment impact on morale can increase employee productivity itself.

Development of labor discipline that can affect employee productivity. Discipline high work productivity will improve also, it is in line with the opinion of Sindu Mulianto, et al (2006: 189) that employees with high discipline will result in higher productivity, otherwise if not disciplined, there will be a lot of violations that would lead to low productivity.

Productivity is affected by many factors related both to the workers themselves as well as other factors. These factors, among others, the spirit, the discipline of work and compensation obtained from the Company. High productivity can be achieved if supported by the employees who have morale and a high work discipline in carrying out its duties and obligations. Jointly awarding appropriate compensation and good working discipline can affect employee productivity.

Framework based on the description above, it can be concluded chart frame of mind about the influence of compensation and working discipline on employee productivity as follows:

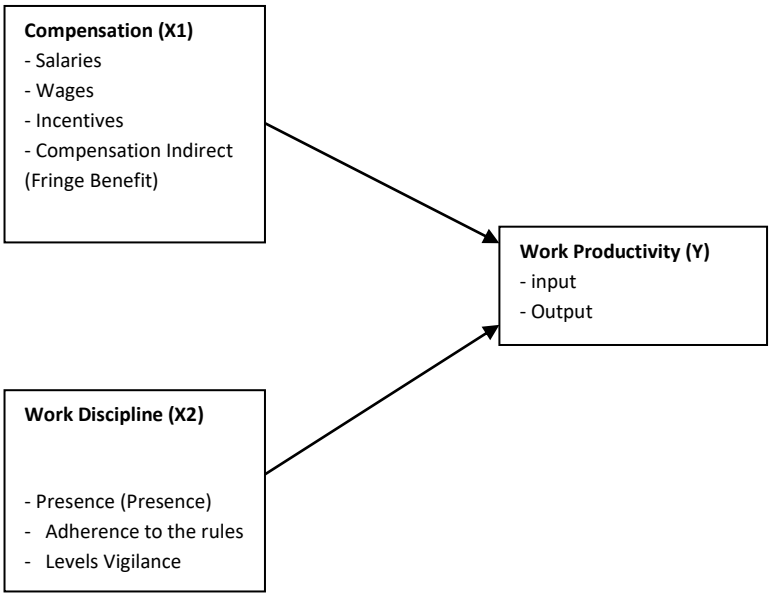


Figure 2.1 Framework

Source: Data processed by the author, 2014

2.3 Hypothesis

Based on the description of the framework, the research hypothesis:

"Compensation and Work Discipline positive effect on Employee Productivity at PT. Pos Indonesia (Persero) Bandung Head Office ".

3.OBJECT AND METHODS

3.1. Research Object

In this study, the research object is the independent variable compensation (X1) and the Discipline of Work (X2) on the dependent variable Work Productivity (Y). This study will be conducted at PT. Pos Indonesia (Persero) Bandung Head Office.

3.2. Research methods

3.2.1 Methods Used

The method used in this research is descriptive and verification methods. According to M. Nazir (2005: 54) descriptive research method can be explained as follows:

"Descriptive research method is a method in researching the status of a group human, an object, a set of conditions, a system of thought or a class of events in the present. The goal is to create a description, picture or painting in a systematic, factual and accurate information on the facts, nature and the relationship between the phenomenon investigated. "

Descriptive method used to describe the results of research to answer the problem formulation of the description of each of the variables studied. While the verification method according to Sugiyono (2008: 207) is:

"The methods of verification is a research method used to determine the causal relationship between variables by testing hypotheses through a statistical calculation that results obtained evidence that suggests the hypothesis is accepted or rejected, and show the effects of the variables used to test the hypothesis by using statistical calculations."

It can be concluded that the descriptive verification method is a method that aims to describe the facts that exist and explain the relationship between the variables studied by collecting data, process, analyze, and interpret data in statistical hypothesis testing.

3.2.2. Operationalization of Research Variables

The variables used in this study, is a component of compensation and working discipline as independent variables and labor productivity as the dependent variable. In order for variables such research can provide data for research purposes.

3.2.3. Population and Sampling Techniques

The population is all employees of PT. Pos Indonesia (Persero) Bandung Head Office amounted to 150 people. The sample used is the entire amount of the population of 150 people by the census technique.

3.2.3.3 Census / Sampling Saturated

Census / saturated sampling were used that the entire amount of the population of 150 people.

3.2.4 Data Collection Techniques

In collecting the data used is as follows:

1. Research field (Field Research)

Data search is spent directly on the studied company to obtain primary data, through:

a. Direct observation (Observation), namely how or techniques to obtain data by conducting direct observation in the study site.
b. Interview (Interview), namely data collection techniques done by a question and answer or direct communication to the company and the consumer.
c. Questionnaire (Questionnaire), according Sugiyono (2014: 115) questionnaire is a technique of data collection is done by giving a set question or a written statement to the respondent to answer. By distributing questionnaires to employees of PT. Pos Indonesia (Persero) Bandung Head Office.

2. The research literature (Library Research)

Collecting data through sources not directly related to the topic, such as literature - literature, company documents as well as magazines, newspapers that has to do with the object that will be discussed to obtain secondary data.

4. RESULTS AND DISCUSSION

4.1. Respondent Characteristic

Data respondents of this research were 150 respondents. Data on the characteristics of the respondents as follows:

1. Respondent Identity Based on Sex
2. Respondent Identity Based on Age
3. Respondent Identity Based on Education

4. Respondent Identity Based on Work Time
   It can be seen on the tables below:

Table 4.1
Respondent Identity Based on Sex

No.	Sex	F	%
1	Male	84	56
2	Female	66	44
Total		150	100

Source: Questionnaire (Primary Data Processed)

Table 4.2
Respondent Identity Based on Age

No.	Age	F	%
1	17-24 year	10	6
2	25-32 year	36	24
3	33-40 year	37	25
4	> 41 year	67	45
Total		150	100

Source: Questionnaire (Primary Data Processed)

Table 4.3
Respondent Identity Based on Education

No.	Education	F	%
1	S3 (Ph.d)	0	0
2	S2 (Magister)	2	1
3	S1 (Bachelor)	76	51
4	D3 (Diploma)	39	26
5	SMA (Senior High School)	33	22
Total		150	100

Source: Questionnaire (Primary Data Processed)

Table 4.4
Respondent Identity Based on Work Time

No.	Work Time	F	%
1	<1 year	5	3
2	1-3 year	27	18
3	4-6 year	34	23
4	>6 year	84	56
Total		150	100

Source: Questionnaire (Primary Data Processed)

4.2. Validity Test

Calculation of the validity of the test is done using the formula of Pearson Product Moment Correlation. Based on calculations with SPSS 20:00 result of the 26 items on the statement of compensation and working discipline on work productivity by using a balanced scorecard in the table below:

Table 4.5
Result of Validity Test

Questionnaire	r_{tabel}	Variable X1	Result
1	0,1348	0,442	Valid
2	0,1348	0,472	Valid
3	0,1348	0,680	Valid

4	0,1348	0,525	Valid
5	0,1348	0,691	Valid
6	0,1348	0,575	Valid
7	0,1348	0,631	Valid
8	0,1348	0,738	Valid
9	0,1348	0,657	Valid
10	0,1348	1,000	Valid
Questionnaire	r_{tabel}	Variabel X2	Result
1	0,1348	0,474	Valid
2	0,1348	0,522	Valid
3	0,1348	0,623	Valid
4	0,1348	0,435	Valid
5	0,1348	0,562	Valid
6	0,1348	0,406	Valid
7	0,1348	0,529	Valid
8	0,1348	0,540	Valid
9	0,1348	0,582	Valid
10	0,1348	1,000	Valid
Questionnaire	r_{tabel}	Variable Y	Result
1	0,1348	0,653	Valid
2	0,1348	0,688	Valid
3	0,1348	0,778	Valid
4	0,1348	0,791	Valid
5	0,1348	0,810	Valid
6	0,1348	0,751	Valid
7	0,1348	0,848	Valid
8	0,1348	0,807	Valid
9	0,1348	1,000	Valid

(Source SPSS 20 Processed)

Based on Table 4.5 above, if the value of Corrected Item-Total Correlation greater than or equal to 0.1348 of the indicator is feasible (valid) and vice versa (Imam Ghazali, 2005). So it can be concluded that the 26-point declaration on the questionnaire declared invalid or feasible to use.

4.3. Reliability Test

In a reliability test performed in this study the authors use statistical tools in SPSS 20:00 using Cronbach's Alpha formula, which is a set-point declaration that measure variables can be acceptable if it has a reliability coefficient greater than or equal to 0.70 (Rochaety, et al. 2007: 56). Questionnaire reliability test results can be seen in the following table:

Table 4.6
Result of Reliability Test

Compensation Variabel (X1)

Reliability Statistics

Cronbach's Alpha	N of Items
,748	10

(Source SPSS 20 Processed)

Tabel 4.7
Result of Reliability Test

Work Discipline (X2)
Reliability Statistics

Cronbach's Alpha	N of Items
,719	10

(Source SPSS 20 Processed)

Tabel 4.8
Result of Reliability Test

Work Productivity (Y)
Reliability Statistics

Cronbach's Alpha	N of Items
,784	9

(Source SPSS 20 Processed)

According to the table above shows that of the 150 respondents to the statement item 9 variables X1, X2 statement item 9 and 8 statement item variable Y has a reliability rate of more

than 0.700. It can be concluded that as many as 26 statements in the variables X1, X2 and Y is reliable. The construct or said to be reliable if the variable has a value of alpha above 0.70, and vice versa (Imam Ghazali, 2005).

4.4. Normality test

Normality test on the regression model was used to test whether the residual value resulting from normally distributed regression or regression tidak.Model good thing is that has residual value that is normally distributed. Some normality test method is to look at the sources of the distribution data on the graph diagonal Normal P-P Plot of regression standardized residual or the One Sample Kolmogorov-Smirnov test. With the help of software SPSS 20 is obtained as follows:

Table 4.9
Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		150
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	4,61826752
Most Extreme Differences	Absolute	,065
	Positive	,065
	Negative	-,055
Kolmogorov-Smirnov Z		,794
Asymp. Sig. (2-tailed)		,554

a. Test distribution is Normal.

b. Calculated from data.

(Source SPSS 20 Processed)

From the above it can be seen that the output value of significance (Asymp.Sig 2-tailed) of 0.554. Because of the significance of more than 0.05 (0.554> 0.05), the residual value has been normal.

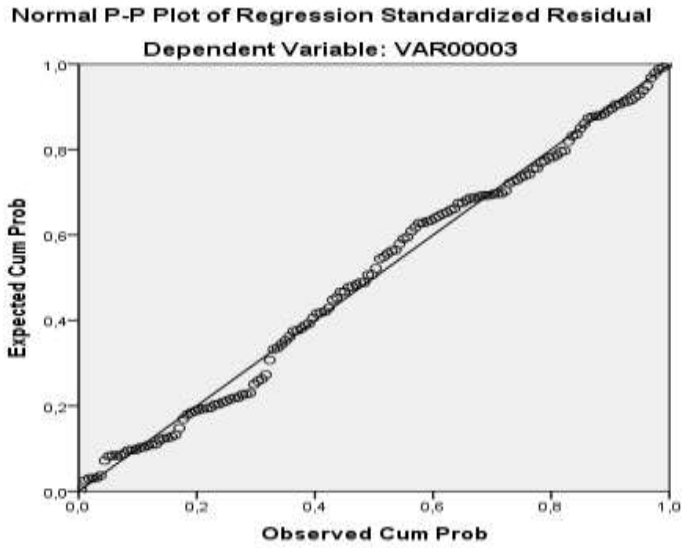


Figure 4.4

Normal P-P Plot of regression

From the chart image can be seen that the points spread around the line and follow the diagonal line then the residual value has been normal.

4.5. Multiple Linear Regression Analysis

To determine the effect of compensation and working discipline on employee productivity PT. Pos Indonesia (Persero) Bandung Head Office, the authors used multiple regression analysis with the following model:

Y= a + +

Y = The dependent variable value (Work Productivity)
A = The constant, the value of Y if X1, X2 = 0
, = The regression coefficient, which increase or decrease the value of a variable based on
,
= Variabel independen (Kompensasi dan Disiplin Kerja)

Based on the results of data processing using SPSS 20 obtained the following results:

Table 4.5
Multiple Linear Regression Analysis
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,805	2,848		,985	,326
	Compensasi	,500	,105	,441	4,741	,000
	Work Discipline	,247	,123	,187	2,013	,046

a. Dependent Variable: Work productivity

(Source: SPSS 20 processed)

Output software SPSS 20 is obtained regression model as follows:

$$\mathbf{Y = 2{,}805 + 0{,}500\ X_1 + 0{,}247\ X_2}$$

Constant value (a) is 2,805. This means that if the compensation, working discipline is 0 then the level of labor productivity is positive, namely 2,805, and if the value of the variable compensation regression coefficient ( ), is positive, ie 0.500. This means that any increase in compensation of around 1%, the labor productivity increased by 0.500, then to the regression coefficient of labor discipline ( ) worth positive, namely 0.247 means that any increase in labor discipline by 1%, the labor productivity will be increased by 0.247 assuming other independent variables value permanent.

4.6. Correlation Analysis and Determination

Correlation analysis aims to measure the strength of association (correlation) between two variables linear. Correlation does not indicate a functional relationship. In other words, correlation analysis does not distinguish between the dependent variable and independent variables. In regression analysis, correlation analysis used also shows the direction of the relationship between the dependent variable and independent variables in addition to measuring the strength of the association (relationship).

Analysis of coefficient of determination (KD) is used to see how much the independent variable (X) effect on the dependent variable (Y) expressed in percentage.

Here is a table calculation and determination correlation analysis using SPSS Software 20:

Tabel 4.6
Analisis Korelasi dan Determinasi

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,587[a]	,344	,335	4,64958	1,757

a. Predictors: (Constant), Work Discipline, Compensation

b. Dependent Variable: Work Productivity

(Source SPSS 20 processed)

From the above table is obtained correlation coefficient (r) of 0.587, which means there is a relationship being between the influences of compensation and working discipline on work productivity. This means that there is a relationship that is positive but not significant between the influence of compensation and working discipline on employee productivity PT. Pos Indonesia (Persero) Bandung Head office.

Then for the coefficient of determination of compensation and the effect of the work on the productivity of labor discipline shown by the coefficient of determination with the following formula:

KD = × 100%

= (0,587 X 100%

= 34,4 %

The coefficient of determination of the calculation result obtained at (34.4%). While the rest of (65.6%) can be explained by other variables not examined.

The overall compensation in PT. Pos Indonesia (Persero) Bandung Head Office conducted recapitulation of respondents score Compensation is divided into four dimensions, namely, salaries, wages, incentives and indirect compensation (*Fringe benefit*). The total compensation of the four dimensions is divided into nine questions, the final result amounted to 63.5%, meaning that the total score based on the percentage of respondents can be concluded compensation in PT. Pos Indonesia (Persero) Bandung Head Office in the scale of the category quite well. This is consistent with the theory Hasibuan (2013: 743) "If managed properly, the compensation will help the company to achieve its objectives and obtaining, maintaining, and keeping employees well".

The overall labor discipline in PT. Pos Indonesia (Persero) Bandung Head Office conducted recapitulation total score responder discipline of work which is divided into three dimensions, namely, the presence, adherence to work rules, the level of vigilance. The total of Work Discipline three dimensions is divided into nine questions, the final result amounted to 62.7% means that the total score based on the percentage of respondents can be concluded work discipline at PT. Pos Indonesia (Persero) Bandung Head Office in the scale of the category quite

well. This is consistent with the theory Hasibuan (2013: 193) "Discipline is the most important function of HRM operative for the better discipline of employees, the higher the performance that can be achieved".

Total productivity of two-dimensional work is divided into eight questions, the final result amounted to 66.4%, meaning that the total score based on the percentage of respondents can be concluded labor productivity at PT. Pos Indonesia (Persero) Bandung Head Office in the scale of the category quite well. This is consistent with the theory of Paul Mali (cited by Sedarmayanti (2009: 57) Work Productivity is "How to generate or increase the yield of goods and services as high as possible by utilizing resources efficiently".

5. Conclusion

Based on the results of research and discussion that has been described in previous chapters, the authors conclude that:

1. Compensation in PT. Pos Indonesia (Persero) Bandung Head Office is already quite good. It can be seen from the results of recapitulation of respondents compensation of (63.5%) means that the provision of compensation in PT. Pos Indonesia (Persero) Bandung Central Office still does not meet the expectations and needs of employees who expect the company will give better compensation as expected.
2. Discipline Working at PT. Pos Indonesia (Persero) Head Office Bandung is quite good. It can be seen from the results of recapitulation of respondents working discipline (62.7%) means the discipline of work in PT. Pos Indonesia (Persero) Bandung Head Office is not maximized so that the discipline of employees do not meet optimal standards expected of the company.
3. Work Productivity at PT. Pos Indonesia (Persero) Head Office Bandung is quite good. It can be seen from the results of recapitulation of respondents productivity of labor (66.4%) means the employee's productivity PT. Pos Indonesia (Persero) Bandung Central Office has not yet reached the maximum and objectives of the company that expects employees produce high labor productivity.
4. Based on the results of the study are the correlation coefficient of (0.587) which shows that the correlation between the influence of compensation and working discipline on employee productivity PT. Pos Indonesia (Persero) Bandung Head Office is located in the level of relationship, meaning that it has a positive correlation and determination coefficient (34.4%) The remaining (65.6%) can be explained by other variables not examined such as motivation, training, development, and others.

REFERENCES

Akdon & Riduwan, (2007), *Formulas and Data In Statistical analysis (Rumus dan Data Dalam Analisis Statistika)*. Cet 2, Alfabeta, Bandung.

Gibson, James. (2006), *Organizational Behavior, Structure and Process* (*Organisasi Perlaku, Struktur dan Proses)*. Jakarta: Bumi Aksara.

Hasibuan, Malayu.S.P. (2013), *Human Resources Management (Manajemen Sumber Daya Manusia)*. Jakarta: PT. Bumi Aksara.

http://ejournal.unsrat.ac.id/index.php/emba/article/view/1372/1083 downloaded on 28 September 2014.

http://ejournal-s1.undip.ac.id/index.php/jiab/article/view/3483/3412 downloaded on 28 September 2014.

http://manajemenppm.wordpress.com/2013/06/21/mendisiplinkan-karyawan-bermasalah/ downloaded on 21 October 2014.

PRESENTER'S PAPERS

http://repository.usu.ac.id/bitstream/123456789/28505/4/Chapter%20II.pdf diunduh pada tanggal 29 September 2014.

http://samryaazza.blogspot.com/ downloaded on 30 September 2014.

http://soloraya.net/membangun-kedisiplinan-dalam-organisasi.html downloaded on 21 October 2014.

http://www.academia.edu/3883649/PERBAIKAN_PRODUKTIVITAS downloaded on 28 September 2014.

http://www.e-jurnal.com/2013/09/pengertian-disiplin-kerja.html downloaded on 21 October 2014.

Kriyantono, R. (2010), *Practical Techniques Research Communications (Teknik Praktis Riset Komunikas)i*. Jakarta: Kencana.

Labudo, Y. (2013), *Discipline Work and Compensation Effect on Employee Productivity* (*Disiplin Kerja dan Kompensasi Pengaruhnya terhadap Produktivitas Karyawan)*. Jurnal EMBA,Vol.1 No.3, hlm 55-62.

Mohammad Nazir. (2005), *Research method* (*Metode Penelitian)*. Jakarta: Ghalia.

Narmawati, Umi. (2010). *Scientific Writing* (*Penulisan Karya Ilmiah)*. Jakarta : Penerbit Genesis.

Pryatno, D.(2012), *How to study lightning data analysis with SPSS 20 (Cara kilat belajar analisis data dengan SPSS 20)*. Penerbit Andi publisher, Yogyakarta.

Rivai, V. dan Ahmad Fawzi Mohd Basri. (2005), *Performace Appraisal* . Jakarta: Rajagrafindo Persada.

Rivai, V. & Sagala, E.J. (2013), *Management of human resources for the company: From theory to practice (Manajemen sumber daya manusia untuk perusahaan: Dari teori ke praktik)*. Jakarta: ed, 2-cet 4.: Rajawali Pers.

Sedarmayanti. (2009), *Human Resources Management (Manajemen Sumber Daya Manusia)*. Bandung: PT. Refika Aditama.

Sihotang, A. (2007), *Human Resources Management (Manajemen Sumber Daya Manusia)*. Jakarta: PT Pradnya Paramita.

Sinungan, M. (2003). *Productivity What And How (Produktivitas Apa Dan Bagaimana)*. Jakarta : Bumi Aksara.

Sugiyono. (2008), *Qualitative and Quantitative Research Methods RND*. (*Metode Penelitian Kuantitatif Kualitatif & RND)*. Bandung: Alfabeta.

Sugiyono. (2012), *Qualitative and Quantitative Research Methods RND*. (*Metode Penelitian Kuantitatif Kualitatif & RND)*. Bandung: Alfabeta.

Sugiyono. (2014), *Qualitative and Quantitative Research Methods RND*. (*Metode Penelitian Kuantitatif Kualitatif & RND)*. Bandung: Alfabeta.

Supangat, A. (2007), *Statistik dalam Kajian Deskriftif, Inferensidan Non parametrik*. Jakarta: Kencana Prenada Grup.

Tjiptono, F. (2009), *Services Marketing Strategy (Strategi Pemasaran Jasa)*. CV. Andi:Yogyakarta.

PRESENTER'S PAPERS

Tjutju, Y. & Suwatno. (2009), *Human Resources Management (Manajemen Sumber Daya Manusia)*. Bandung : Alfabeta.

Wibowo, A.E. (2012), *SPSS practical applications in research (Aplikasi praktis SPSS dalam penelitian)*. Penerbit gava media, Yogyakarta.

Author's Biodata

Rr. Watie Rachmawati is a lecturer at STIE EKUITAS, She is teaching Human Resource Management, as well as business practitioners in the field of constructions, which accumulated in the Association of Chambers of Commerce and Industry (KADIN), Business Women Association of Indonesia (IWAPI). He completed his graduate level studies at Padjadjaran University, and completed her doctoral degree studies in Padjadjaran University. She is interested in matters related to human resource management. **watieroro@yahoo.com**, **watieroro2@gmail.com**

PRESENTER'S PAPERS

The Study of Essay Written by Students of English Education Program 2013 at University of PGRI Adi Buana Surabaya

Rikat Eka Prastyawan
University of PGRI Adi Buana Surabaya
rikatekaprastyawan@gmail.com

Abstract

Essay is a short piece of writing at least three paragraphs long that is taught in the fifth semester in English Education Program at Adibuana University of Surabaya. However, most of students don't pay attention to the structure of essay and also the sentence structure used to build up their essays. That's why the researcher investigates how is the structure of an essay made by the students of English Education Program 2013 at Adi Buana University of Surabaya. The theory used by the researcher to analyze the data is stated by zemach. In this study, the researcher uses descriptive qualitative in doing the research. The data of this study is all the words, phrases, and sentences written by the students of English Education Program 2013 at Adibuana University of Surabaya related to the research questions. The source of Data is the essay writing made by them. The data collection technique is done by the researcher through getting the scores of students' writing, finding the students' writing, and copying the students' writing while the data analysis is done through collecting the data, classifying the data, reducing the data, selecting the data, and displaying the data. Result shows that students organizaiton of essay is complete, there are introductory, main body, and also concluding paragrapah. However, the components to build up a good paragraph such as thesis statement, topic sentence, and supporting sentences are not always paid attention by them. Those happen because they lack of ideas and grammatical compentency. The conclusion is It is needed to make the outline of essay which is able to be used as the guiedance how to build up from paragraph to essay, so the ideas could be organized well.

Key words: ***Essay, English Education Program, Writing***

ACKGROUND OF THE STUDY

Writing is one of the language skills which is used to transfer the ideas. Then, they are arranged together in a clear logical way, so the paragraph can be created. That's why, a group of related sentences are needed to make a paragraph. Additionally, a short piece of writing at least three paragraphs long is called by essay. The essay is a piece of writing that consists of several paragraphs related a single topic. The term "essay" comes from the French word, which means to try or trying. The essay is an attempt to communicate the information, opinions or feelings and usually presents an argument about a topic. In this case, the essay is a short article which usually contains the author's opinion on a particular subject. In creating an essay, the author must pay attention to the structure of essay in order to make the readers easy to understand what the author means in his or her writing. The structure of essay consists of three elements. They are introductory paragraph, body, and concluding paragraph.

Introduction is an important part of an essay. This section determines whether the reader will be interested to finish reading the essay. Introduction paragraph obviously increases the interest of the reader to finish reading. In contrast, preliminary boring will make the reader end his reading. Basically, the introduction contains an adequate introduction of the topic to be written. The idea that is written in the introductory paragraphs provides an overview of the ideas or arguments to be written on the content of the essay. The most important element in the introductory paragraph is a sentence thesis (thesis statement). Thesis sentence is the main idea of

the essay. This thesis sentence serves as a controller of an idea that would be submitted in the body of the essay.

In essay body, the author is able to develop the ideas based on the thesis statement stated at the end of introductory paragraph. In addition, the author can transfer his or her ideas more than one paragraph. So, the author can express the ideas related to the thesis statement. In the body of essay, the reader will know what the author means. However, some of authors do not pay attention to the development of ideas in the body. There are some sentences which have no relations to the thesis statement. The body of essay consists of many ideas which are able to make the reader confused. This phenomenon is able to reflect that the author loses the focus on his or her writing.

The last element is concluding paragraph. In this section, the author can give the command or summary to the whole content of the essay. But, some authors often make the concluding paragraph by using a sentence. It should be more than one sentence because the paragraph is a group of related sentences. Moreover, the author is also able to give the judgment or opinion to the phenomenon happens in an essay which the author writes.

Based on the background above, the researcher wants to investigate the essay written by students of English Education Program 2013 in Adi Buana University of Surabaya. They get writing II in the fourth semester. In this lecture, the students are hoped to be able to develop the paragraph to an essay. That's why the researcher thinks that the study of essay written by the students of English Education Program 2013 are able to give the description how well they develop their writing into an essay.

RESEARCH METHOD

In conducting the study, the writer prefers to use a descriptive qualitative research as a research method. It Concerns with descriptions, qualities and observations (Swetnam, 2004: 128). The aim of the descriptive method itself is to obtain systematical description and accurate facts. According to Flick et.al (2000:3) qualitative research is a research procedure that draws attention to the process, meaning patterns, and structural features. Thus the data in this research are described in the form of words, phrases, sentences, or paragraph relating to the text which the writer investigates in order to answer the research questions stated in the previous chapter. They are the structue of essay and the students' writing styles. So, from the explanation above, descriptive qualitative method is an appropriate one to conduct this research.

Data and Source of Data

The data of this study is all the words, phrases, and sentences in Essay written by the students of English Education Program 2013 at Adibuana University of Surabaya related to the research questions. The source of Data is the essay writing made by them.

Instrument.

In this section, the researcher acts as the main instruments to collect the data by using a purposive sampling. As stated in Swetnam (2004: 128) purposive sampling is non-random samples of those believe to be representative. The researcher took some essays which got A good mark from the lecturer and also had at least three paragraphs long.

Data Collection Technique

Researcher did some steps that can be described as follows:

Getting the scores of students' writing

In this step, the researcher got the students' scores by asking the asisstant lecturer of Writing II at English Education Program at Adibuana University of Surabaya. Then, the researcher classified the students' score based on their final score. Next, he chose the name of the students from English Education Program who got A score of writing II after completing the lecture. Then, the researcher listed their names and registration numbers in order to find their writing.

PRESENTER'S PAPERS

Findings Students' writing

In this step, the researcher chose the class in Adibuana University of Surabaya. It was easy to find the writing because the students must collect their assignment to the lecturer every week to know the students' ability progress in writing. Then, the researcher searched the students' names that got A score in their lecture of writing II.

Copies the students' essay writing

After getting the essay writing, the researcher scans the essay writing to make them in soft files to be put in the appendices, while the hard files are used to be analyzed and described by the researcher based on the structure of essay and also the sentence structure which are used by the students in writing an essay.

Data Analysis

In this step, the writer describes the analysis of the data. There are some ways that the researcher has done to analyze the data. They are collecting the data, classifying the data, reducing the data, selecting the data, and displaying the data.

Collecting the data

In this step, the writer collected the essay written by students who got A score in writing II. The researcher got many data that consist of words, phrases, and sentences.

Classifying the data

After collecting many data, the next step that the researcher has done is classifying the data. Many data that consist of words, phrases, and sentences are classified according to the topics and analyzes the data accurately. By classifying the data, the writer gets the frame works how to answer each research questions which are stated in the previous chapter.

Reducing the data

After classifying the data, the researcher reduces the data in order to simplify the data, so the researcher is able to determine which data are relevant to the research questions, and which data are not. In order words, reducing the data is used in short of analysis in which sharpens, classifies, reduces and organizes the data in such a way to draw the conclusion.

Selecting the data

After reducing the data, the researcher selects the data based on the topic related to the research questions. Then, he organizes the data with the title that becomes the answers of research questions.

Displaying the data

After the collecting, classifying, reducing, and selecting the data, final step is displaying the data into word, phrase, and sentences related to the research questions in order to make the conclusion of the research. The researcher puts all displaying data in the chapter of findings and discussion.

RESULT AND DISCUSSION

In this part the essay organization are analyzed based on the theory stated by Zeemach (2005) and also Doigu (2002) to discuss the following phenomenon The phenomenon found in the first data is that the essay written by the student is complete involving the introductory paragraph, body, and also concluding paragraph, however, the writer didn't pay attention well to the repetition of the ideas, structure of sentences, and also the number of sentences in each paragraph. Although the students could express the ideas well, they have to pay attention to the definition of paragraph consisting a group of related sentences. In the second data, the students wrote the essay as follows; Based on the second data, the researcher finds new phenomenon which is different with the first data. The essay organization is complete. It has introductory paragraph, main body, and concluding paragrapah, but the student could not develop

the introductory and concluding paragraph well. It only has some sentences to reach the thesis statement or to give some comments or restate the ideas written in the previous paragraph. There are many sentences in introductory paragraph, main body, and concluding paragraph which are grammatically errors.

Based on the the third data, the researcher finds that the essay organization written by the student is complete. There are introductory, main body, and concluding paragraph. There are some sentences which are errrors grammatically in each paragraph. There is no idea which is out of topic. The sentences in the introductory paragraph are able to give the brainstorming for the reader then the next sentences are able to bring the reader to the thesis statement that the student wanted to describe more in the main body of essay. In addition, the main body written by the student consists of topic sentence which is able to develop by using supporting sentences, but there are some points which have not been described by the student about the reason why Dr.Oz Indonesia is attractive and entertaining. On the other hand, the student was good enough to make the concluding paragraph. She/he gave some comments, restated the topic sentence, and also wrote some important points from the previous paragraphs. Based on the data above, the researcher finds some phenomenons that the essay organizations written by the student above is not complete. There is no concluding paragraph which restates or giving some comments to the whole essay to close the writing. The student could write the introductory paragraph well, but he/she wrote some sentences which were out of place. It means that some sentences are not appropriate to write in introductory paragraph. The main body of essay is able to support the thesis statement. There are three paragraphs in the main body of essay. If the students wrote the concluding paragraph, the essay would be the complete on its organization. The next data which was written by the student was Mario Teguh Golden Ways.

Next the data, the student's Essay organization is complete. There are introductory paragraph, main body, and concluding paragraph. Some phenomenons that the researcher finds are the sentences in the main body are not developed well. The student lacked of knowledge and ideas to explain the topic sentence. It is better to combine all of ideas in main body paragraphs into one paragraph in order to accomodate all the ideas in the main body of essay. The introductory and concluding paragraph could be developed well by using the supporting sentences that connect each others

The next data, the researcher finds that the role of thesis statement and topic sentence in each paragraph are very important. Student's essay organization is complete, however, the ideas could not be organized well. There are alot of ideas which are out ot topic. So the introductory paragraph, main body, and also concluding paragraph didn't have a good unity. Based on the data data above, the researcher finds some new phenomenons. The Essay organization written by the student above is complete. There is introductory parargraph, main body and also concluding paragraph. However, the student was not able to write the topic sentence in introductory and main body paragraph. So the ideas could be developed based on the topic sentence. Some sentences are difficult to develop because he/she could not find the topic sentence in each paragraph he/she writes. On the other hand, the concluding paragraph is good. He/she was able to restated or gave some comments to the topic of esssay and also wrote some important points.

Additionally, the researcher finds some phenomenons that the organization of essay written by the student above is not complete. There is no concluding paragraphh. There are some information gaps in introductory paragraph. The sentences are not connected each others. Additionally, there are two paragraphs in the main body of essay that actually it should be combined into a single paragraph. The first and second sentence in the main body belong to the general statement which should be written in the introductory paragraph. On the other hand, the studen also wrote a single sentence in concluding paragraph. That is why the essay organization written by the student above is not complet. It only consists of introductory and main body paragraph. That's all the phenomenons that the researcher finds to answer the first research questions.

Conclusion

The conclusion that the researcher can draw is that the students need guidence to build up the organizaiton of essay. It is better to make the outline of essay which is able to be used as the guiedance how to build up from paragraph to essay. In addition, the essay organization made by the students are influenced by the ideas they have and also the grammatical competent.

.

BIBLIOGRAPHY

Azar, Betty Schrampfer. 1993. *Foundamental of English Grammar*. Jakarta: Binarupa Aksara

Ary, Donald and Lucy Cheser. Asghar Razavieh. 1990. *Introduction to Research in Education*. Oralando: Holt, Rinhart, and Winston, Inc.

Brown, H. Douglas. 2004. Language Assessment: Principles and Classroom Practices. New York: Pearson Education, Inc.

Byrd, Patricia., and Benson Beverly. 2001. *Applied English Grammar*. Boston: Heinle.

Duigu, Gabi.2002. Essay Writing for English Tests. NSW:Academic English Press.

Harmer**,** Jeremy. 2003. *The Practice of English Language Teaching; Third Edition; Completely Revised and Updated.* Edinburgh Gate: Pearson Education Limited

McCrimmon, James M. 1967. *Writing with a Purpose*. Boston: Houghton Mifflin Company.

Oshima, Alice and Ann Hogue. 1991. *Writing Academic English 3rd Edition.* London: Longman.

Zemach, Dorothy and Lisa A Rumisek.2003. Academic Writing from Paragraph to Essay. Spain:Mc.Millan Publisher.

Author's Biodata

Rikat Eka Prastyawan is an english lecturer in English Education Program at Adi Buana University of Surabaya. His main interest is Teaching Language Skills and Components. The published articles which were ever written by him were about the Study of abstracts written by english education program at State university of Surbaya, Code Mixing and Code Swtiching used by English Education Teachers at SMAN 16 Surabaya, the implementation of integrated writing technique to teach writing, and Sentence structures to build up abstract. rikatekaprastyawan@gmail.com

PRESENTER'S PAPERS

Guide to Writing Thesis Literature Review

Rufi'i
University of PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia
rufii.adibuana@gmail.com

Abstract

The literature review represents the most important step of the research process in qualitative, quantitative, and mixed research studies. However, one failure in thesis writing is writing a literature review. The present paper summarizes some important information about how to write a literature review of high-quality thesis. It starts with a discussion of the purpose of literature review, presents a taxonomy for review of the literature, and then discusses the steps in conducting a literature review of quantitative or qualitative analyses. Finally it concludes with a discussion of common errors and a frame work for self-evaluation of the literature review. It will hopefully provide explicit guidance as to how to formally analyze and interpret selected literature to establish a convincing thesis to answer the study's question.

Keywords: ***guide to writing thesis, literature review***

1. INTRODUCTION

Literature review is rendered as a significant part of any research. If there is an error in the review of the literature, a error will be made in the research, in particularly, in the written research report. It is because a researcher cannot do significant research without first understanding the literature in the field (Boote & Beile, 2005). A study of the practice of examiners of Dissertations of Australia, Mullins and Kiley (2002) found that:

> the examiners usually begin reviewing the dissertation in the hope that it will pass. The concept of bad literature review indicated the writer had a problem. When literature review is inadequate, the examiner will look at methods of data collection, analysis, and conclusions more carefully (Boote & Beile, 2005).

Regarding how important the explanation of theses and research articles is, Boote and Beile (2005) states that the secret is not well known by the people who sit on the team of examiners is that most of the concepts are poorly written.

According to Alton-Lee (1998), Grante and Graue (1999), and LeCompte, Klinger, Campbell, and Menck (2003), the manuscripts published in the journal have also many flaws. There have been many published articles. However, there is the lack of information procedures for writing reviews literature. Boot and Beile (2005) suggest:

> Students are looking for advice on how to improve the review and find little published guidance to literature review writing. Most graduate students receive little or no formal training in how to analyze and synthesize the research literature in the field, and they are unlikely to find elsewhere.

Not only is there a lack of published information to guide authors to review the literature, it will require a complex process to merely write one problem. Gall, Borg, and Gall (1996) estimated that the completion of a review of the literature of dissertation/thesis to be accepted takes between three and six months of efforts.

The purpose of this paper is therefore to collect and summarize the most relevant information on how to write a thesis literature review as a guide to thesis writers. It begins with a discussion of the purpose of the literature review, taxonomy, and discusses the steps in conducting a literature review of quantitative or qualitative. A discussion of common errors and the framework for evaluation of the literature review concludes the article.

2. REVIEW OF LITERATURE

2.1 Purpose of Writing

Review of literature is a means of showing the author's knowledge of a particular field of study, including vocabulary, theories, the key variables, phenomena, methods and history. Literature review also informs students as researchers affect the research groups in the field. With some modifications, a literature review is included scientific documents (LeCompte, et al, 2003).

According to Gall, Borg, and Gall (1996), a literature review play some roles in: (1) restricting on the research problem, (2) looking for a new line of research, (3) avoiding an inappropriate approach, (4) gaining insights into the methodology, (5) identifying the recommendations for further research, and (6) seeking support for a grounded theory.

Hart (1998) contributed an additional reason to review the literature, including: (1) distinguishing between what has been done on what needs to be done, (2) finding the important variables relevant to the topic, (3) synthesizing and gaining a new perspective, (4) identifying the relationship between ideas and practices, (5) establishing the context of the topic or issue, (6) rationalizing the importance of the problem, (7) improving and acquiring vocabulary related to subject, (8) understanding the structure of the subject, (9) relating ideas and theories to application, (10) identifying the main methodologies and research techniques that have been used, and (11) putting the research into historical context. Another purpose for writing the literature review is to provide a framework to relate the new findings to previous findings in the discussion section of the thesis.

2.2Taxonomy

An effective method to start planning literature review of research is to consider where the review proposed matches the Cooper's Taxonomy (1988) as shown in Table 1 below. Cooper showed taxonomy that can be classified into five characteristics: focus, objectives, perspectives, coverage, organization, and audience. Table 1 shows the characteristics listed on the left, with the level characteristics on the right. In the following paragraphs, each of these characteristics of literature review is described in more detail.

2.2.1 Focus

The first characteristic is the focus of the review. Cooper (1988) identified four potential focuses: research, research methods, theories, or practices or application. The literature review focuses on general research results. The definition of a literature review is analysis and synthesis of information, focusing on the findings and not only bibliographic citations, but also summarizing the substance of literature and drawing conclusions. In terms of developing the research thinking, the study results can help to identify the lack of information on the results of certain studies, thus forming a necessity.

The selected research methods in research are to identify the key variables, measures, and methods of analysis and inform the research results. Review of methodology is also useful for identifying strengths and weaknesses in research, and examining how research methodology practices are conducted, and combining with a discussion of the research results. It can also identify ways in which methods inform the research results. Overview of methodology brings about reasons to justify the proposed thesis, if it turns out that previous studies have many shortcomings in the methodology.

Table 1 Cooper' Taxonomy

Features	Category
Focus	research results theory research methods practice or application
Purpose	integration (A) generalization (B) conflict resolution (C) linguistics Identification of the central issues
Perspectives	neutral representation support for position
Coverage	Complete coverage Complete with selective quotation Representative Central or important
Organization	Historical organizations The conceptual methodology
Audience	Special scholars General Practitioner scholars or the general public policy makers

Cooper (1988)

2.4. Purpose

The aim is to integrate and generalize findings across units, treatment, outcome and arrangements; to solve problems in a study; or to bridge the language used throughout the study. Meta-analysis is a technique used in which the main objective is to integrate the results of quantitative research. Others include critically analyzing previous studies, identifying the central issues, or explaining the line of argument in a study.

Generally speaking, a thesis oftentimes has multiple purposes. it is necessary to critically analyze the research, identify the central issue, or explain the argument. If an author of this thesis uses literature review to justify his research, the goal will be more emphasis on critically analyzing the literature, to identify weaknesses and propose to rectify the shortcomings with his thesis research. Authors should integrate discussion to present the readers with a more in-depth discussion.

2.5 Perspectives

In a qualitative primary research, the revision of the author is to reveal the bias of previous studies and discuss how the study was biased. This will affect the literature review. In quantitative research, the author can try to take a neutral perspective, and present the research findings as fact. The perspective taken depends on whether the review conducted is in the mainstream of quantitative or qualitative methods. Since secondary research (the Review Research) is to main research method, it makes sense for the review authors to follow the tradition of qualitative and

reveal bias and author of a quantitative review to follow the tradition of quantitative and claim the neutral position. This decision will be determined by the particular cas2.

2.3Coverage

Proper references must be included throughout the text and the list of references must be provided in this section. The references inserted in the text and the list of references must be done as follow:

(1) Reference citations: Citations in the main body, appendices, tables and figures are to be made using the last name of the author.
(2) List of references: List all cited references (including citations in tables, figures and appendices) in alphabetical order according to the first-named author. The titles of papers, patents and books or monograph chapters and the initial and final page numbers are to be included. Journal papers, book/monograph sections or chapters, and conference proceedings are given the reference section at the end of this document.
(3) Referencing websites: With the increasing availability of useful information found in the internet, website references must also be reported. At the end of the reference list, a separate section of websites and the date consulted is made.

The third approach is to consider the scope of a representative sample of the article and make inferences about the entire population of the sample article. However, random sampling is far from easy. The approach may be more certain to gather evidence to show that a representative sample is actually representative.

2.4 Organization

There are many formats to set up the literature review. The three most common include history, conceptual, and methodological formats. In the discussion of the history format is organized chronologically. Obviously, it is preferred when the emphasis is on the development of research methods or theory, or a change in practice from time to time.

In a second common organizational scheme built around the concept, the literature review may be organized around the proposition in research. The rationale of theoretical reviews is focused and arranged according to various theories in the literature. The literature review can be set methodology, such as in an empirical paper (introduction, methods, results, and discussion). The reviewer begins with an introduction, defining methods, and presents the results in the history or conceptual format, then move on to the discussion of the results. This organizational format commonly used in meta-analysis report.

2.5 Audiences

The last characteristic of Cooper's Taxonomy (1988) is audience. For the thesis, the supervisor and examiner of the thesis is the main audience. The lecturers associated with the thesis are included in a secondary audience. Writing a thesis review of the literature to the public, non-academic audience should be avoided.

2.6 **How to Conduct Literature**

According to Cooper(1984), a step by step guide on how to conduct to review the literature, (1) the formulation of the problem; (2) data collection; (3) evaluation of the data; (4) analysis and interpretation; (5) the public presentation.

To conduct and report of a literature review that is the stage to perform a literature review and report is in fact a parallel process to conduct primary research. With a few modifications, the conduct of primary research applies to conduct secondary research (literature review). The key components are: (a) the reason for a review; (B) the research question or hypothesis guiding the research; (C) an explicit plan to collect data, including how the unit will be chosen; (D) an explicit

plan to analyze the data; and (e) plans to present the data. The literature review, the validity and reliability, the same issues that apply to the research principal, also applies to secondary research. And, as in the main study, the stages may be repeated and may not be completed in the order.

Cooper (1984), provides a framework to guide the completion of the four stages of the research literature review. On the left, a table identifying the general characteristics of each stage of research including: research questions, the main function of each stage, procedural differences which can lead to different conclusions, and potential sources of invalidity at every stage. For each characteristic, the rest of table columns raise key questions to guide the author of the review, for instance, formation problems, data collection, data evaluation, analysis and interpretation, and public presentations.

The following sections discuss in more detail the steps Cooper (1984) suggested to conduct a review of the literature.

2.7 Problem Formulation (for a literature review)

Once the appropriate type of explanations have been identified (see taxonomy Cooper in Table 1), the focus shifts to formulation problems. In this step the reviewer decides what questions will be answered and set literature review explicit criteria to determine inclusion, or exclusion, of an article included in the review. At this point it is important to make a distinction between the literary explanation of questions (questions that can be answered by reviewing secondary research) and empirical research questions (questions that can be answered only through primary research). The literature review is a major source of empirical research question (Randolph, 2007c).

The formulation of the problem begins with the determination of the questions that will guide the review of the literature. This question should be significantly affected by the purpose and focus of the review.

The second step in the formation of the problem is to explicitly specify the inclusion and exclusion criteria. The criteria are influenced by the review focus, objectives and scope. Inclusion/exclusion criteria should be explicit and comprehensive enough so that every article that comes can be included or excluded based solely on these criteria. Furthermore, the criteria should include sufficient details so that two people, given the same set of articles, will identify almost the same subset of the article. In fact, in a review where reliability is important, such as when the whole dissertation or thesis is a review, researchers often hire others to test the reliability of the system of inclusion/exclusion, then compares to the resulting subset to reveal inconsistencies, thus revising criteria.

2.8 Data collection

The purpose of the data collection phase is to gather a complete, semi-complete, representative, or an important set of relevant articles. As in the main study, the researchers of the secondary data do not only have to draw up a systematic plan for data collection, but also it must accurately document how the data is collected. The data collection process often begins with electronic search academic databases and the Internet. When the search is done, accurate records should be kept of the date of each search, a searchable database, key words and combinations of keywords used, and the number of records generated from each search.

There are several approaches to find the article. The possible most effective method is to find references of articles taken, determine which seems relevant, to find people and read their references, and repeat the process until the saturation point is reached the point where there are no relevant articles recently come to the centre of the intended article.

When looking for electronics and references depleted, users are advised to share a list of references with colleagues and experts in the field to determine if they detect any missing articles. Listserv sends a request to the main experts in the relevant field, with a request that they identify the lost article. It is often effective for generating additional references.

The data collection process can be stopped when the saturation point is reached, and the reviewer has enough evidence to convince the readers that everything can reasonably be done to identify all relevant articles having diligently performed. Of course, there is the possibility that a new article will be coming after the data collection period has concluded. However, unless a new article is very important, the article can be left out. If not, the reviewers may have opened the door again and begin again the process of collecting data.

When obviously irrelevant articles have been identified and removed, users can begin to determine which of the remaining articles will be included in the literature review. When reliability is critical, it is common to two or more other eligible individuals to determine article in the new part to meet the inclusion and exclusion criteria to estimate and consider the level of interrater agreement. Neuendorf (2002) provides a thorough discussion to measure interrater agreement. When the final subset of relevant articles is regarded as completed, the data evaluation phase can start data.

2.9 Data evaluation

At this stage of the data evaluation, extracting and evaluating the information in articles should start to meet the inclusion criteria. To start, the reviewers plan a system for extracting the data from the article. The type of data captured is determined by focus and review purposes. If the focus is on the research and the goal is integration, one of the results of the study will extract data from each article and decide how to integrate these results. As the data are evaluated, it is advisable for the reviewers to document extracted data types and processes used. Because it requires extensive details, this documentation is sometimes recorded using a form of separate coding and a coding book, which is included as an attachment of dissertation/thesis. Documentation can be included in the main body of the dissertation/thesis. Certainly, literature review would require the extraction of additional types of data, particularly data that identify the factors possibly affecting the study results.

In general, literature review examines data relating to the quality of research. However, there are conflicting views about the inclusion of low quality articles in the review. Some, like Cooper, suggest including high-quality articles in a study. Others suggested including both high quality and low quality studies and reporting the difference between the two. If there is no difference, the data can be grouped together. If there are differences, however, the reviewer may wish to separately report the results of articles of high quality and low quality articles.

The main goal of reviews is oftentimes to integrate or synthesize research results or a common metric size that should be identified where all the research results can be revealed. In a quantitative synthesis, common metrics should be the difference in proportion between control and treatment groups.

2.10 Analysis and interpretation of data

At the stage of data analysis and interpretation, the data extracted should be interpreted. If the purpose of the literature review is the integration, the integration of data can start. Depending on the type of data collected, quantitative, qualitative, or the synthesis of mixed-methods will be carried out. More information about analyzing the data for quantitative and qualitative literature review is given later.

2.11. Public presentations

At this stage the review author specifies the information that is more important and will be presented and the information that is less important and can be left out. In the literature review dissertation/thesis, the author can be liberal about how much information is to be included. As discussed previously, the explanation is generally held historically, conceptually, or methodology.

The main audience for the literature review is dissertations/theses supervisors and dissertation/thesis reviewers, and others. The secondary audience is the other scholars in the field. The dissertation/thesis review can be revised later to meet the needs of a more general audience.

If this research is a contribution to the well-established channels of theory and empirical research, it should be made clear what contribution and how research contributes to enrich the theoretical perspective. If the study is intended to establish a new line of theory, it should make clear what the new theory is, how it relates to the existing theory and evidence, why a new theory is needed, and the scope of its intended application.

If this research is driven by practical concerns, it should make clear what their concerns are, why they are important, and how this research may solve the formulated problem. If the research is motivated by the lack of information on the problems or issues, the formation of the problem should make clear what information is lacking, why it is important, and how this investigation will address the information needed.

.2.11 A quantitative explanation

Two common types of quantitative review are narrative review and meta-analysis review. Prior methods of meta-analysis becomes prevalent, almost all quantitative reviews are narrative. According to Gall, Borg, and Gall (1996), a narrative review is good to put a more emphasis on a study design and to organize their results to form a picture of the state of knowledge on issues or topics being reviewed. The numbers of results that are statistically significant are compared to the number of results that is not significant. Each study is described separately in a few sentences or paragraphs. However, although it is often used them, narrative reviews tend to be affected by the subjectivity of the reviewers. Research has shown that the conclusions of the review can be a completely different narrative from the other review written by different authors, even when exactly the same article is reviewed (Light & Pillemer, 1984).

In a review of meta-analyzes, the reviews are to (a) collect a representative sample or comprehensive articles, (b) code of the articles according to a number of aspects (quality of research, the type of interventions used, the type of measurement used, the study results), (c) find common metrics (average standard effect size difference) which allows studies to be synthesized, and then (d) examine how the characteristics of studies covary with the study results.

3. CONCLUSION

From the above discussion, it can be concluded that literature review is the most important part of the research to complete it. It is a central topic and body text of the research. It is synthesis concept of the study. It is an overall review of what a researcher found in the research program. Literature review is a necessary part of the research articles or reports. With a literature review, an author needs to establish a clear tie between the works that have been cited and the topic being written about. By undertaking a literature review, he or she is able to critically summarise the current knowledge in the area under investigation, to identify any strengths and weaknesses in previous work, so to help identify them in his or her own research and thus eliminate the potential weaknesses, whilst bringing to the fore of the potential strengths. In addition, a good and full literature search will provide the context within which to place his or her study.

REFERENCES

Alton Lee,A.(1998).Atroubleshooter'schecklistforprospectiveauthorsderivedfromreviewers'criticalfeedback.*TeachingandTeacherEducation,14*(8),887-890.

AmericanEducationResearchAssociation.(2006).StandardsforreportingonempiricalsocialscienceresearchinAERApublications.*EducationalResearcher,35*(6),33-40.

Boote,D.N.,&Beile,P.(2005).Scholarsbeforeresearchers:Onthecentralityofthedissertationliteraturereviewinresearchpreparation.*EducationalResearcher,34*(6),3-15.

Cooper,H.M.,(1984).*Theintegrativeresearchreview:Asystematicapproach.*Appliedsocialresearchmethodsseries(Vol.2).BeverlyHills,CA:Sage.

Cooper,H.M.(1988).Organizingknowledgesynthesis:Ataxonomyofliteraturereviews.*KnowledgeinSociety,1,*104-126.

Hart,C.(1998).*Doingaliteraturereview:Releasingthesocialscienceresearchimagination.*London:Sage.

Gall,M.D.,Borg,W.R.,&Gall,J.P.(1996).*Educationresearch:Anintroduction*(6thed.).WhitePlains,NY:Longman.

Glass,G.V.,McGaw,B.,&Smith,M.L.(1981).*Meta-analysisinsocialresearch.*BeverlyHills,CA:Sage.

Grant,C.A.,&Graue,E.(1999)(Re)Viewingareview:Acasehistoryofthe"ReviewofEducationalResearch."*ReviewofEducationalResearch,69*(4),384-396.

LeCompte,M.D.,Klinger,J.K.,CampbellS.A.,&Menke,D.W.(2003).Editor'sintroduction.*ReviewofEducationalResearch,73*(2),123-124.

Light,R.J.,&Pillemer,D.B.(1984).*Summingup:Thescienceofreviewingresearch.*Cambridge,MA:HarvardUniversityPress.

Mullins,G.,&Kiley,M.(2002)."It'saPhD,notaNobelPrize":Howexperiencedexaminersassessresearchtheses.*StudiesinHigherEducation,27*(4),369-386.

Neuendorf,K.A.(2002).*Thecontentanalysishandbook.*ThousandOaks,CA:Sage.

Randolph,J.J.(2007a).Computerscienceeducationresearchatthecrossroads:Amethodologicalreviewofcomputerscienceeducationresearch:2000-2005.(Doctoraldissertation,UtahStateUniversity,2007).RetrievedMarch1,2009,fromhttp://www.archive.org/details/randolph_dissertation

Randolph,J.J.(2007b).Meta-analysisoftheeffectsofresponsecardsonstudentachievement,participation,andintervalsofoff-taskbehavior.*JournalofPositiveBehaviorInterventions,9*(2),113-128.

Randolph,J.J.(2007c).*Multidisciplinarymethodsineducationaltechnologyresearchanddevelopment.*Hämeenlinna,Finland:HAMKPress.RetrievedMarch1,2008,fromhttp://justus.randolph.name/methods.

Randolph, J.J. (2009).Dissertation Literature Review. *Journal PracticalAssessment,Research&Evaluation,Vol14,No13.*

Rosenthal,R.(1991).*Meta-analyticproceduresforsocialresearch.*Rev.ed.NewburyPark,CA:Sage.

PRESENTER'S PAPERS

Author's Biodata

Rufi'i is teaching at the Graduate Program of University of PGRI Adi Buana Surabaya. In 2007 he continued his education at the doctoral technology graduate study program, State University of Malang. He had the opportunity to follow the sandwich course at the University of Queensland Brisbane Australia and obtained his PhD in 2010. He has been assigned as the head of the study program in Educational Technology Graduate University of PGRI Adi Buana Surabaya in 2013. His research interests are statistical research, research methodology, andevaluationof education.

Email: rufii.adibuana@gmail.com

PRESENTER'S PAPERS

Development of Bamboo Basket Oven Machine-Based Finish Non Toxic Eco Design Strategies to Support Production of Small and Medium Enterprises

Rusdiyantoro
Adi Buana Surabaya University
Surabaya, Indonesia
rusdi2008@gmail.com

Yunia Dwie Nurcahyanie
Adi Buana Surabaya University
Surabaya, Indonesia
yuniadwie@gmail.com

Abstract

Competition of small and medium industries in particular products made from bamboo in Indonesia is quite tight. But the ability to penetrate the export of products made from bamboo by Indonesian SMEs cannot compete with products from other countries. One reason is the inability of business manufacturer of bamboo do non-toxic finishing, and does not apply the concept of cleaner production in their production processes. Based on the previous study concept of cleaner production cannot be separated from the methods of Design For Assembly (DFA), Design for Disassembly (DFD), Design for Maintenance (DFM). One settlement to the DFA, particularly the finishing process is the use of bamboo products or paint finishing techniques that are not toxic, but the maximum in the preservation process. Application of products with non-toxic finishing techniques requires drying techniques are good for bamboo material. With the condition of maximum dry bamboo material, reducing the porous material, and with non toxic finishing porous are able to close perfectly and reduce the risk of mold and other material risk of damage. That requires the engine oven or dryer that can reduce moisture of bamboo and bamboo amplifies using non toxic water-based finishing.

Keywords: ***bamboo basket, dryers, finishing***

1. Introduction

Product development and sustainability is a combination of conditions that are important from the design stage, the selection of raw materials, typical products, garbage products. The number of components that are involved from the beginning of product development, production, marketing, production to processing waste leftovers. Because of the many things that are involved and each have the characteristics of different industries will require an appropriate methodology to develop and implement more sustainable products. Definitions related to Sustainable Product Development (Sustainable Product Development). Worlds initial definition issued by the Commission on Environment and Development's basically sustainable products are all kinds of products produced today but its use must always relate to future needs.

Many cases of related products made from bamboo that has been exported, but the quality is not in accordance with customer expectations. This happened because the conditions are still damp directly bamboo finished with oil-based paint materials are toxic. However, the paint still was not able to close the porous material of bamboo, and the material damage occurred inside the product, to the exterior still looks good, the inner product damage occurs.

Based on previous research SPD method proved a major contribution to the sustainability of the life of the product, and provide the possibility for a product to have a longer life by

performing various treatments such as recycle and reuse. Thus the initial design of the SPD process is able to save raw material needs and processes, so overall it can save costs in the manufacturing industry. (Rusdiyantoro, 2011).

Product design in the furniture industry has a huge impact on the sustainability of the products, which the SMEs have to have a strategy and control at every stage of the production process using technology that supports the production bersih.Berdasarkan the situation, this research will provide cleaner production solutions that reduce the use of toxic paint finishing or products made from bamboo particularly basket, by developing a dryer or portable oven to reduce the moisture in the bamboo material before it finished. With the condition of the dried bamboo material maximum, it can do the painting process that does not require oil-based paint materials.This research was supported entirely by SMEs kerajianan bamboo industry in Surabaya scale SMEs in particular on the production of baskets made from bamboo, a system capable of implementing Sustainable Product Development at the preservation and strengthening of product that reduces the risk of damage to the drying up of bamboo material.

Interest in this research proposal are: the design of a portable oven machine for bamboo basket products as eco design efforts to support the production of small and medium enterprises SME case studies Bamboo Basket in Surabaya.

2. Research methods

To achieve the objectives, the stages of the activities carried out are

1. Study of literature
2. Review of previous research
3. Study design: a. Research framework, b. Preliminary research, c. Design criteria, d. Preparation of research.
4. Implementation of research
5. Data processing: a. Measurement and clustering of the type and number of the main raw material, support, packaging raw materials b. Observations bamboo basket product development process since the design process, production processes, finishig process, the packaging process, the distribution process c. Making a dryer or oven machine for bamboo basket of products to support eco design, and testing the product moisture bamboo basket.
6. Submission of reports and publication of research results.

The literature study is done to get the theoretical basis and development of the latest research results. This is done so that the results of the study in accordance with the latest developments in the science of environmentally friendly products. The literature used is a wide range of literature relating to the theory of the technique of drying bamboo material, non toxic finishing theory, the theory of clean production and cost efficiency using clean production. Moreover, the main emphasis literature study is based on scientific reports listed in the journal, both nationally and internationally in the field of product development. The journals that will be referred to include 'Science Direct', 'Forum', 'Time'. Proceedings of the national and international levels.The results that have been achieved from the previous proposer research, namely the study of the development of green products.

Table 1. Lists the stages of analysis and procedures used

NO.	*Stages*	*Procedure*
1.	Historical Data Analisys	The chronological evolution of the production of bamboo basket SMEs in Surabaya
2.	Structure Analysis	Components and constituent materials
3.	Function Analysis	How the function of bamboo baskets in general
4.	Ergonomical Analysis	Who the user is, where the product is used, what is desired by consumers bamboo baskets, any activity that could be supported by a bamboo basket product, non toxic finishing what's best as the development of the bamboo basket.
5.	Market Analysis	Where only a bamboo basket products marketed and how the distribution process
6.	Technical Analysis	Where only a bamboo basket products marketed and how the distribution process.

3. Design Criteria and Treatment Flow Research

In the first phase all stages of the data compiled beginning to achieve the objectives and implementation of research and component costs. At the stage of problem identification, pre-research is needed to address the existing problems, how problems can arise, and why problems can occur. In this identification of many things which need to overlap and conflict between the drive task.

The next stage is the stage of the production process such as pay attention to the electoral process bamboo material as the main material basket. This implementation is not easy because the product must be designed to simplify the production process and the process of weaving. The environmental impact can be reduced if the raw material used preserved in ways that embrace the progress of clean production, drying up and the use of non-toxic finish.

The development phase or phase-2 is the analysis phase where the goal is to find a solution to the problem described earlier. This phase uses the data source photos, videos, interviews, surveys, reports from companies and stakeholeder, research articles, to get detailed information on the problem solving drying systems and finishing the bamboo basket-scale exports.

In the process of the development of environment-based production process bamboo baskets required detailed data of raw materials, moisture levels baskets are manufactured and variations of finishing materials are used, observe the production process, administrative aspects and techniques of SMEs, the consumption of energy and water used, the origin of the raw materials, how processing the rest of the production materials and how the process of disposal of production materials.

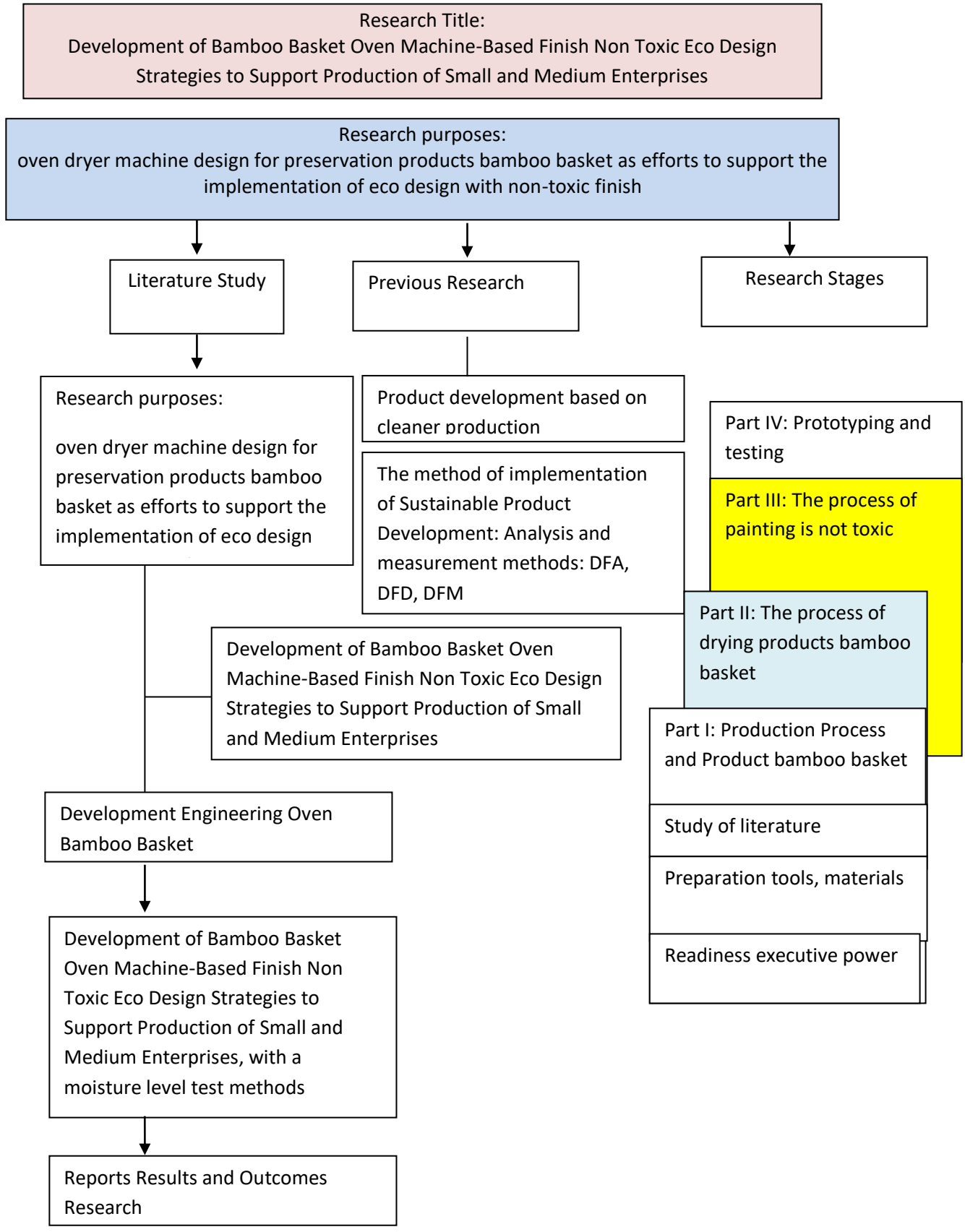


Figure 1. Implementation Method Research

Phase 3 is to conduct the tests after the drying treatment process using a bamboo basket oven machine developed. The main phase of the Eco Design for product development bamboo basket. This phase is executed after the data is made up of products in the form of product prototypes to be tested strength, index of pollutants are calculated and compared with the previous HPI products, calculating inner and outher shipper shipper of the product developed. Designing products for the bamboo basket oven machines that require the fastest production process can thus save electrical energy and water usage.

Data processing

This includes the stages of data processing activities

1) Correction of success saving time production process, packaging the product prototype than previous products
2) Evaluation of the factors finishing integrated non toxic compared with previous products.
3) Submission of reports and publications Research
4) Based on the originality and novelty of design prototypes and systems in this study, it can be expected that the result of this research will be published in accredited journals and international journals.
5) Implementing Energy Readiness
6) Executive personnel consisted of one team leader with the competence of the green productivity, a member of researchers with the competence of product design and one member with management competencies.

3. CONCLUSION

This paper are still purposing methodology of our first stages research. We produce prototype of bamboo oven dryer, and implementation of non toxic materials for bamboo crafting. After all reseach is completed, we sure that our result can be implemented in small enterprises and booster economical effect for wide society.

4. ACKNOWLEDGEMENTS

This research is funded by Adi Buana University from its research skim the priority research program from Adi Buana University.

BIBLIOGRAPHY

Kano, N., Seraku, K., Takahashi, F., & Tsuji, S. (1984). Attractive quality and must-be quality. *The Journal of the Japanese Society for Quality Control*, pp. 39 -48.

Lee,Y., Sheu,L., Tsou,Y., (2008). Quality Function Deployment Implementation Based on Fuzzy Kano Model : An Application in PLM System, *Computers & Industrial Engineering 2008.*

Rusdiyantoro, 2010, Pengembangan Model Integrasi *Sustainable Product Development* (SPD) Untuk Menjamin Keberlanjutan Produk, Hibah Adi Buana DIPA 2010

Rusdiyantoro, 2010, Perancangan Rombong Dan Tenda Pedagang Kaki Lima Penjual Makanan Yang Estetis Dan Ergonomis Dengan Metode Kano-QFD (Studi Kasus Pkl Di Alun-Alun Sidoarjo) Surat Perjanjian Pelaksanaan Hibah P2M/III/2010Penelitian Nomor: 257/SP2H/PP/D, 1 Maret 2010

PRESENTER'S PAPERS

Rusdiyantoro, (2011), *Product Green Design Development to Support Green Lifecycle Engineering Manufactured in Adibuana Metalworks,* Prosiding *International Conference on Creative Industry (ICCI),* ISBN 978-979-781-8

Rusdiyantoro, (2013), Pengembangan Model Pendidikan Metode *Just In Time (JIT), Penelitian Hibah Adi Buana2013*

Setyo Purwoto, Yunia Dwie N, (2012), Portable Compact Reactors Water Treatment Berbasis Zeolit Dan *Ion Exchange* Terpadukan Dengan *Reverse Osmosis* (RO) Guna Mengatasi Kesulitan Air Layak Minum Masyarakat Pesisir, Laporan Penelitian Strategis Nasional 2012

Yunia Dwie N, (2008), Perancangan Produk Modular Untuk mendukung Green Lifecycle Engineering dengan Algoritme Genetik, Thesis 2008

Yunia Dwie N, (2011), Rancang Bangun Prototype Untuk Mempercepat Leadtime Pengembangan Produk Modular Serta Mendukung *Green Lifecycle Engineering, Hibah Adi Buana DIPA 2011*

Yunia Dwie N, Moses L Singgih, (2009), *Quality function deployment implementation based on Fuzzy Kano model An Application on Product Green Life Cycle Engineering,* International Journal of Design Taiwan, ISSN: 1991-3761 Eissn: 1994-036X

Yunia Dwie N, Prihono,(2011), Pengembangan Model Fuzzy Kano QFD Untuk Peningkatan Pelayanan Bis Kota berbasis Gender, Seminar Nasional Teknik Industri dan Kongres BKSTI VI Medan, Sumatra Utara, Prosiding ISBN 978-602-99977-0-5

Yunia Dwie N, Rusdiyantoro , (2010) , Perancangan Green Product di Lab Sistem Manufaktur Teknik Industri, Laporan IBIKK 2010

Yunia Dwie N, Rusdiyantoro, (2011), Pemetaan dan analisis sisi permintaan dalam dimensi kualitas, kuantitas, lokasi dan waktu di wilayah Surabaya, Sektor Perdagangan dan Jasa, dengan metode Fullfillment Index, Laporan Penelitian Penyelarasan Pendidikan dan Dunia Kerja

Yunia Dwie N, Rusdiyantoro,(2012), Pemetaan dan analisis sisi pasokan dalam dimensi kualitas, kuantitas, lokasi dan waktu di wilayah Makasar dengan metode allignment index, Laporan Penelitian Penyelarasan dan Dunia Kerja

Yunia Dwie N, Setyo Purwoto, (2011), *External Water Treatment for Feedwater Boiler,* Prosiding *International Conference on Creative Industry , ISBN : 978-979-8897-81-8, ITS Surabaya*

Author's Biodata

Rusdiyantoro is a lecturer in Industrial Engineering Departement. University of Adi Buana Surabaya. He was studied in State University of Surabaya for Departement of Machine Engineering, then he contiued study at University of WR Supratman for Industrial Engineering, and received master degree in 2009. His major interest is in machine and manufacture, and enterpreneur . rusdi2008@gmail.com

Yunia Dwie Nurcahyanie is a lecturer in Industrial Engineering Departement. University of Adi Buana Surabaya. She was studied in Institut Technologi 10 Nopember Surabaya for Departement of Product Design Engineering, then she contiued study at ITS also for Industrial Engineering for master degree, and received master degree in 2009. Her major interest is in product design and innovations for SME. yuniadwie@gmail.com

PRESENTER'S PAPERS

Students' Journal Writing: Promoting Reflective Learning on Students' Perception and Comprehension towards Students' Self-Awareness and Critical Thinking Development in English As Foreign Language Classroom

Salim Nabhan
University of PGRI Adi Buana Surabaya
Grand Semanggi Residence C-21 Surabaya, Indonesia
Email: salimnabhan@yahoo.com

Abstract

Reflective learning has been supporting the teaching and learning process. Literature suggests several methods to encorage student's reflection. The aim of the research is to investigate the use of journal writing to know students' perception and comprehension about teaching and learning process in English as Foreign Language Classroom towards student's self awareness and critical thinking. A qualitative research was conducted. The students' learning experinces through portfolio in the form of journal were analysed for data of the research. The subject of the research was the first year students of English Education Department, University of PGRI Adi Buana Surabaya, Indonesia. The Students attended one semester (16 meetings) program of Intensive English Course as one of the subjects in the English Education Department. The information obtained from the students was based on researcher's experience in utilizing the journal as a reflective medium in the classroom. The result indicated that the journal helped students to recognize their feeling and create deeper insight of English teaching and learning towards self-awarness and critical thinking development.

Keywords: Reflective learning, student journal, students' perception, critical thinking

1. INTRODUCTION

Reflection has been widely performed by individuals to recall the events or experiences. In the context of English language teaching and learning, reflection can be used either by the teachers or the students themselves. The reflective learning engages the students to reflect the students' classroom activities. The teachers need to know and understand well what the students feel or assume towards their teaching practice, moreover when they face the students with different learning style. Hillier (2005: 63) has identified individual learning style. Students have not only different level of knowledge but also different way of learning and preferences. If we notice our teaching activities, some learners may enjoy the activities and some learners may not. It may happen when the teaching activities do not meet the learners' preferences in learning style. This indicates that teachers need information from the students regarding what the students prefer. Kolb (1984 as citec by Hiller, 2005: 65) divides four types of preferences. They are an accomodator who learns best by doing and feeling, a diverger who likes to undergo experience and reflect, a converger who prefers thinking and doing, an assimilator who prefers watching and thinking. If teachers have those students with different types of learning style, they must ensure that the learners learn well. Techers need to identify the learners' need in terms of their feeling and expectation, the material of the lessons, and other requirments.

The reseacher is aware of the importance of reflective learning and considers using journal as the medium in teaching Intensive Course Subject to the first year students in English Education Department. Therefore, the of aim of the research is to investigate the use of journal writing to

know students' perception and comprehension in English as Foreign Language Classroom towards students' self awareness and critical thinking.

2. REVIEW OF RELATED LITERATURE

2. 1. The Nature of Reflective Learning

In the discussion of terminology, Moon (2004: 80) defines that the concept of reflection is represented into 'reflection' itself, 'reflective learning', 'reflective writing', and 'reflective practice'. 'Reflection' is a process related to learning and thinking. Therefore, 'reflective learning' is emphasized on the intention to learn as the result of reflection. 'Reflective writing' represents the process within the choosen medium. Writing is the medium. While, 'reflective practice', according to Schon (1983, 1987 cited by Moon, 2004: 80), focusing on the using of reflection in professional or other complex activities as a means of copyng with situations that are unpredictable. It is a new phrase that was developed in nursing and teacher education and is being applied in other professions. This study will focus on reflective learning using journal writing as a reflective method.

In EFL Classroom, reflection process can stimulate the students to evaluate what they have learned as well as promote the students to have critical thinking and self-awarness towards English learning and teaching. Further, Moon (2004: 84) suggests the outcomes as the results of reflective process: learning, knowledge, and understanding; some forms of action; a process of critical review; personal and continuing professional development; reflection on the process of learning or personal functioning (metacognition); the building of theory from observation in practice situations; the making of decisions/resolution of uncertainty, the solving of problems; empowerement and emantipations; unexpected outcomes (e.g., images, ideas that could be solutions to dilemma or seen as creative activities); emotion (that can be an outcome or can be part of the process); clarification and recognition that there is a need for firther reflection.

There are different dimensions of reflection depending on the situation and times including narrative reflection that describes the event and what happens, percipient reflection that tells about the perception and reactions involved, analytical reflection that describes about the situation analytically, evaluative reflection which evaluates the experince, and critical reflection that considers implication for the future (Brocbank & McGill, 2007:126-127).

Reflection is an integral part of experiential learning in which real experience becomes the basis of reflection and observation, and the reflection becomes the abstract conceptualization that produces the active experimentation and creates new experince (Kolb, 1984, as cited in Zwosdiak-Myers, 2011: 28-29) as shown in the following figure.

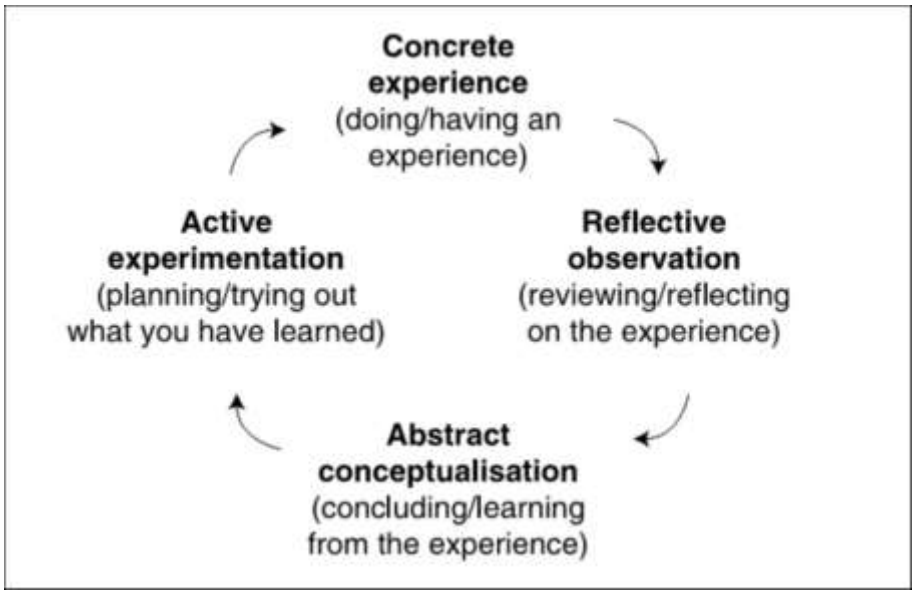


Figure 1: Model of Experiential Learning

Ryan, & Ryan (2015: 19-25) underline the importance of teaching reflective learning in higher education level in which the assessment is commonly embedded in the course objectives, learning outcomes, or professional standards. Two models of pedagofical fields of reflection in in higher education are proposed, the category-based on dimension which deals with the level of thinking or higher order thinking skill and the development-based dimension which deals with the progression of program or course accross time. It is called Teaching and Assessing Reflective Learning Model (TARL Model). Therefore, reflection is implemented as consistent developmental process.

2.2. Journal and the Process of Learning

In promoting students' reflection through classroom activities, Paris & Ayres (2004: 61) suggest some activities such as portfolios, surveys, inventories, conferences, and journals. Each activity done by the teacher provides the students to have self evaluation of their work and abilities. Journal creates personal links between the students and the teacher. Journal is analytic in the sense that the students reflect what they have experienced during teaching and learning process in the classroom. Journal records the experiences, thoughts, and feelings about particular aspects of life, or with specific structures (Bolton, 2010: 128). Journal can record everything depending on the issue that it pertains. A journal can consist of a set of questions about who, what, where, how, and why.

Richards & Lockhart (2007: 6-7) suggests writing journal as a written response to teaching events in which it can serve the purpose of recording the the events and ideas for later reflection and helping trigger insights about teaching. The discovery process is found in the the writing journal. Many different classroom experiences can be explored through writing journal such as personal reactions faced during learning process, some problems in teaching, and some ideas or suggestion for future improvement.

The use of students journal can be beneficial for students to learn from their experience. Therefore it is significant to explore the process of learning from experince. That's why, "all learning is learning from experience" (Moon, 2006: 21). In Addition, Moon (2006: 44-51) suggests some purposes of journal-writing. They are to record experience, to facilitate learning from experience, to support understanding and the representation of the understanding, to develop critical thinking or the development of question attitude, to encourage metacognition, to increase acive involvement in and ownership of learning, to increase ability in reflection and thinking, to enhance problem-solving skills, as means of assesment in formal education, to enhance reflective practice, for reasons of personal development and self-empowerment, for therapeutic purposes or as a means of supporting behaviour change, to enhance creativity, to improve writing, to improve or give 'voice'; as a means of self-expression, to foster communication and to foster reflective and creative interaction in a group, to support planning and progress in research or a project, and as a means of communication between a learner and another.

2.3. Self Awareness and Critical Thinking

One of the objectives of learning is that how to develop the students' awareness and critical thinking, so students' are aware of themselves in the sense of how they respond and behave towards the teaching and learning activities. By this way, the students are invited to think critically. Journal writing is one of the suggested media in promoting reflective learning.

Some researchers have defined the term of critical thinking. Haskins (2006:2) states that critical thinking is "a process by which we use our knowledge and intelligence to effectively arrive at the most reasonable and justifiable positions on issues, and which endeavors to identify and overcome the numerous hindrances to rational thinking.". Facione (1998:12) asserts that critical thinking is "the process of purposeful, self-regulatory judgment. This process reasoned consideration to evidence, contenxt, conceptualizations, methods, and criteria." There are 6 main skills of critical thinking, as described by Facione (1998), including self- regulation, interpretation, analysis, enference, explanantion, and evaluation.

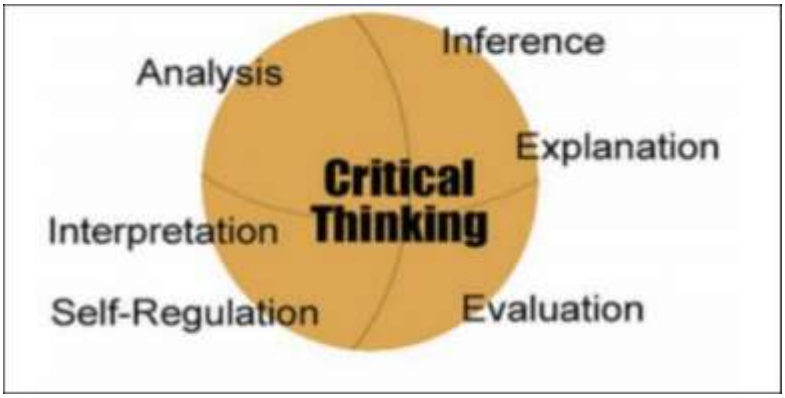


Figure 2. Core Critical Thinking Skills (Facione, P.A.: 1998)

Previous research concerning reflective learning from different field has shown the the benefits of using journal writing. The reseach by Letch (2012) found that reflective journal is potential in teaching BPM (Business Process Management). In the field of English as Foreign Language Classroom, according to Ragawanti (2009), Students' journal is applicable to look at students' belief in teaching and learning English.

3. METHOD

The subject of the research is the First Semester of English Education Department, University of PGRI Adi Buana Surabaya, Indonesia. The students were class B consisted of 39 students. The students attended one semester (16 meetings) program of Intensive English Course as one of the subjects in the English Education Department. The objective of the course is to prepare and develop students' ability of general English. The course covers four English Language Skills (listening, speaking, reading, and writing) and English Language Components (Grammar, Vocabulary Building, and Pronunciation). The course were taught by two lecturers. The researcher was one of the lecturers of the course. Writing students' journal was one of the tasks given to the students and submitted in the end of each topic (every two meetings) as a reflective medium. The researcher conducted qualitative research by analysing the portfolio of the students' journal writing as the data of the research.

This writing journal activity was given to the students to let them share what they had experinced during teaching and learning process. Besides, the activity was also intended as writing practice. Lecturer corrected the grammar and vocabulary based on the writing assessment rubric. The journal consisted of the information about what they felt, what they learnt, and what they suggested. The questions were as follows:

1. Write a Topic/General Sentence about the Intensive Course Meeting
2. Write what happened (description of event).
3. Write what you felt or feel about it.
4. Write what you have learned from the meeting.
5. Write what you hope and/or plan for the future.
6. End your writing. Write a final remark of the meeting or your feelings.

Based on those content of the journal, researcher then grouped them into the catagory of students' perception about the learning and teaching procesee, students' comprehension about the learning outcomes, and students' self-awareness and critical thinking.

4. FINDING AND DISCUSSION

4.1. Students' Perception about the Teaching and Learning Process

This section focuses on the students' perception regarding the running of teaching and learning in the classroom. It discusses about what the students feel towards the classroom activities delivered by the lecturers. This section also deals with how the students respond to the lectures' performance concerning with the classroom management. The students' responses can be positive or negative depending on how the classroom is managed. These responses can be very beneficial for the lecturers to evaluate the activities done by the students in the classroom.

Table 1: Extracts from Students' Journal of Item 1-3

1	The way of the teacher, I like it because it makes me understand. The way of teaching is enjoyable, so I can understand, for example I can talk about people in my house (Student 5)
2	I enjoyed in the class today because we studied together with our group (Student 1)
3	I felt that article group discussion in the class was useful because it not only improved our English sepaking or our ability to communicate with our friends, but also facilitated us to share knowledge to one another (Student 35)
4	I felt very nervous because I could not sepak fluently when I explained my daily activities to my friends (Student 20)
5	I felt confused in IC Class because sometimes I did not understand (Student 3)
6	I like it because explaining in front of students and lecturer makes me brave and confident to explain article in English language although I am very nervous (Student 5)
7	I felt happy about article discussion yesterday bacause it was interesting article (Student 9)

From the table above, It can be seen that how the students' journal revealed what the students felt towards the teaching and learning process. Student 5 (first row) felt positive to the lesson, as the student enjoyed and could understand the lesson. Student 1 and 35 (Second and third rows) indicated that group discussion technique used by the lecturer was proven to be effective and succesful to give to the students. The technique was used to teach an article for speaking practice. Student 35 got the advantages not only improving the speaking skill but also sharing the ideas among the students.

This journal also revealed the students' problem in the classroom. Forth and fifth rows reflected the students' feeling during classroom activities. Student 20 felt nervous when the student presented the material in front of the students. The student did not have self confidence regarding the speaking ability. In addition, Student 3 faced the difficulty in understanding the lessons given by the lecturer, but the student did not mention the reason why the student did not understand. In connection with the mentality problems of the students, Student 6 (shown in row 6) believed that by practicing in front of the class, the student was more confident and brave. Therefore the student gave a positive respond towards such activity.

Another aspect regarding the students' perception found from the students' journal was dealing with the topic of the materials. The student was motivated to engage in the classroom activities, as the topic given was very interesting. It was shown in the last row telling that Student 9 was very happy to discuss the topic because the topic was interesting.

4.2. Students' Comprehension about the Learning Outcomes

This section discusses about the learning ourcomes understood by the students. The journal evaluates how far the students received the lesson given by the lecturer. This section also give the description how the students reflected the lesson as the self-reflection and self-evaluation towards the lesson. Three different meetings with different topics are presented in the extracts of students' journal below. The first is unit 1 with the topic My Personal Information, the second is unit 2 with the topic Talking about People, and the third is unit 3 with the topic Everyday Activities.

Table 2: Extracts from Students' Journal of Item 4

1	I learnt about time and map in IC Class last Monday because we have to know about it so we can apply it in our daily activity (Student 3)
2	I learnt about telling the time, how to ask and give direction, syllable, word stress, talking about people (describing an object), and group discussion on each article about.... (Student 39)
3	I learnt about how to make a resume well and how to use preferences in the classroom. I could understand the explanation because the lecturers explained very clearly and well understanding (Student 37)
4	The first I've learnt about the difference between resume and CV. The resume is more spesific than CV. The second I've learnt about using prefer, would rather, would prefer and so on. Besides that, I have learnt about how making new years' resolution (Student 17)
5	I got many knowledge from this presentation because every group there were different topic in the class today (Student 1)
6	We need to excercise a lot in IC Course because for me this is very important to improve the quality of learner's language (Student 19)

The journal gave the idea about how the students wrote the journal regarding the topic given and how they organized their writing to cover sub topics given by the lecturer into the journal. The journal was also used to measure how far they understood the lesson. From the table above, first and second rows (Student 3 and Student 39) indicated that both students gave different idea about the lesson. Student 39 went into detail. This might show that Student 39 followed more the lesson than Student 3. The same thing happened to the third and forth rows. Student 17 gave more information regarding the lesson written in the journal. This might indicate that Student 17 gave more attention to all the lessons.

The next finding showed that the students could understand beyond the matterials given. Fifth and Sixth rows shows that Student 1 underlined the benefits of group presentation, as the student got more knowledge from the techniques used, and Student 19 expected to have more practice and excerice. However, students have reflected how far they have learnt and experienced during the teaching and learning process.

4.3 Students' Self Awareness and Critical Thinking

This section focuses on students' self awareness and critical thinking. The journal encourages and stimulates the students to think deeply regarding the the course, so it can develop their self-awareness and critical thinking. It also facilitates the students to write what they expect from the lecturer. The students' expectation can be about the techniques used, activities, or topics of the lesson. Besides, it also opens the feedback from the students. The journal is very useful medium for lecturer to evaluate him/herself concerning their way of teaching and the materials which are selected. Therefore, after avaluation, the lecturer can prepare the lesson plan very well in the future.

Table 3 : Extracts from Students' Journal of Item 5 and 6

1	The end of my journal, I just want to say that I love this course because it is very necessary for my future life (Student 38)
2	I hope I can increase my English skill in the society in the future because I want to be a professional teacher (Student 37)
3	I hope I can be successful person and useful for all the people because I want to make my parents excited and proud of having a daughter like me in this world (Student 6)
4	I want to study hard to understand the material because I want to get a good grade (Student 15)
5	I think this IC is really great and I fell confortable to join this IC because it is very useful for next level (Student 24)
6	I will turn off my mobile phone in the class while studying because it can help me to focus and study well (Student 22)

From the above table, it can be concluded that students were motivated to join the course. Student 38 (the first row) came to understand about the importance of studying English. It indicated that self-awareness had developed well. Row 2-4 also gave the idea of the students' motivations in learning English. They expected to have skills in English very well. Student 37 wanted to be professional teacher, Student 6 wanted to be succesful person that can make the parent proud of the students, and Student 15 wanted to get good mark. However, they have used their mind to think critically based on their capacity. They did not only join the class, but also brought their motivation to the class.

Another finding revealed, when Student 22 (sixth row) presented the article about using mobile phone in the classroom, the student came to realize that that mobile phone could disturb the student's focus to the lesson. The journal mediated him to have self-evaluation. Through the journal, the student could move from a surface understanding to a deeper understanding. Self-awareness was also developed. The student became more critical and analytical thinker.

5. CONCLUSION AND SUGGESTION

Reflective learning is an active process that the students are evaluating the the experince of teaching and learning. Reflection is an important skill to develop for the students, since it can help the students to improve their way of learning from their experinces. Writing journal is one of the media to promote reflective learning. To conclude, reflective learning using students journal were beneficial for both the students and the lectures. Students' journal writing helped both parties in teaching and learning process. Lectures knew the students' perceptions and understanding about the lesson. The students also had self reflection and develop their self-awareness and critical thinking. Since the research focused on the writing journal in which students had to be able to develop their idea into good sentences, the writing skill was also needed to be taught to the students.

After knowing the benefits of student's writing journal in promoting reflective learning, it is recommended that the further research be undertaken in the areas of reflective learning using other media such as portfolios, surveys, inventories, and conferences. More broadly, the research can be also conducted for other field.

REFERENCES:

Bolton, Gillie. 2010. *Reflective Practice: Writing and Professional Development* (3rd ed). London: Sage Publications Ltd.

Brocbank, Anne. & McGill, Ian. 2007. *Facilitating Reflective Learning in Higher Education* (2nd ed.). England: Society for Research into Higher Education and Open University Press.

Facione, P. A. 1998. *Critical Thinking; What it is and Why It Counts.* California: Academy Press.

Haskin, G.R. 2006. A Practival Guide to Critical Thinking. Retrieved February 5, 2016, from http://www.skepdic.com/essays/haskins.pdf

Hillier, Yvonne. 2005. *Reflective Teaching in Further and Adult Education* (2nd Ed.). London and New York: Continum.

Lecth, Nick. 2012. *Using Refelctive Journals to Engage Students in Learning Business Process Management Process.* Knowledge Management and E-Learning: an International Journal, 4: 435-453.

Moon, Jennifer A. 2004. *A Handbook of Reflective and Experiental Learning: Theory and Practice*. London and New York: RoutledgeFalmer.

Moon, Jennifer A. 2006. *Learning Journals: A Handbook for Reflective Practice and Professional Development* (2nd ed). London and New York: Routledge

Paris, Scott G. & Ayres, Linda R. 1994. *Becoming Reflective Students and Teachers With Portfolios and Authentic Assessment* (1st ed). Washington DC: American Psychological Association.

Ragwanti, Debora Tri. 2009. *EFL Students' Journal: A Reflective Medium to Look at Students' beliefs in English Teaching and Learning*. The New English Teacher: A Journal of Language Teaching and Research, 3.1/3.2: 178-189.

Richards, Jack C. & Lockhart, Charles. 2007. *Reflective Teaching in Second Language Classroom*. Cambridge and New York: Cambridge University Press.

Ryan, Mary & Ryan, Michael. 2015. 'A model for reflection for in the pedagogic field of higher education'. In In Mary Elizabeth Ryan (Ed), *Teaching Reflective Learning in Higher Education: A Systematic Approach Using Pedagogic Pattern s* (pp. 15-27). Switzerland: Springer International Publishing.

Zwosdiak-Myers, Paula. 2011. 'Reflective practice for professional development'. In Andrew Green (Ed), *Becoming a Reflective English Teacher* (1st Ed., pp. 26-42). England: Open University Press.

Author's Biodata

Salim Nabhan is a lecturer of English Education Department, University of Adi Buana Surabaya. He is certified in CESOL (Certificate of English for Speaker of other Language) TAFE, New South Wales, Australia. He received his Master Degree under ICCR Scholarship Scheme in Delhi University. His major interests cover literature in Language Teaching and ELT methodology. Email:salimnabhan@yahoo.com.

PRESENTER'S PAPERS

Optimum Time of a Missile in Vertical Dive Manoeuvre using Pontryagin's Minimum Principle

Sari Cahyaningtias
University of Adi Buana Surabaya
Jl. Ngagel Dadi II, Surabaya, Indonesia
scahyaningtias@gmail.com

S. Subchan
Kalimantan Institute of Technology
Karang Joang, Balikpapan, Indonesia
subchan@itk.ac.id

Abstract

Missile is a popular weapon which every single country must have to protect their territory, especially, Indonesia, an archipelago country. This missile is a guided weapon and designed to protect outermost Island from a thread of other Country. This research presented surface-to-surface missile in final dive manouvre for unmovement target. Furthermore, it was proposed manoeuvring based on Unmanned Aerial Vehicle (UAV), autopilot system, which needs accuration and minimum both time and thrust.Mathematic's Modelling of missile's movement forms non-linear dynamical systems, and boundary condition. Optimal time of manoeuvring can be attained by controlling the thrust of missile while attacking an object. This paper introduced Pontryagin's Minimum Principle, which is useable to solve the problem. The numerical solution showed that trajectory of the missile is split it up in 3 sub-intervals; flight, climbing, and diving. The numerical simulation showed that the missile must climb in order to satisfy the final dive condition and the optimum time of a missile depends on intial condition of the altitude and the terminal velocity.

Keywords: *missile, optimal control, Pontryagin's Minimum Principle, thrust, dive manoeuvre, unmovement target*

1. INTRODUCTION

Missile is a military rocket which has automatic control system to targetan object and suit the direction. Missile is one of the unmanned aeral vehicle (UAV) which uses both in military and civilian needed such as controlling forest from illegal logging and sea from illegal fishing. It clearly is known that UAV can be handled using autopilot system to follow the references trajectory which could minimized both the risk and cost [6]

Trajectory tracking of surface-to-surface missile is divided in three sub-interval, namely: minimum altitude flight, climbing, and diving [5], [7],[8]. Restrictiveness of fuel supply in maoeuvring can be handled by minimizing time manoeuvring to attack the target. Mathematics modelling of mass centre missile follow several assumption: the earth is spherical and non-rotation and ignoring lateral movement of the missile. Some boundary problems also were considered in this research such as massa of missile remains constant $\frac{dm}{dt} \cong 0$; there was no any obstacle while manoeuvring; The thrust and angle of attack are the controller of this problem which should be attacked fixed target.

Trajectory problem of missile has been studied by many researches both using classical control theory and modified optimal control. In 2013, Wang and Dong using hybrid algorithm to intercept trajectory optimization for multi-stage air defense missile which the missile always flies in the plane formed by the earth centre, launch point, and the predicted intercept point. Maopeng at. al. In 2014, integrated missile guidance and control law using adaptive fuzzy sliding mode control. They also conducted stability of close loop system.

This paper presents computational result of the optimal trajectory of missile which minimized the time manoevring along the optimal trajectory. Furthermore, Vertical dive manoeuvre was chosen as final manoeuvre by considering effect of its attacking. It would shot to pieces the target permanently. Optimal control is applied by forcing the thrust dan angle of attack to get optimum time using Pontryagin's Minimum Principle.

2.PROBLEM FORMULATION

Purpose of this research is to attack motionless target precisely and to minimize time manoeuvring [8]. Here was given the definition of missile axes and angles.

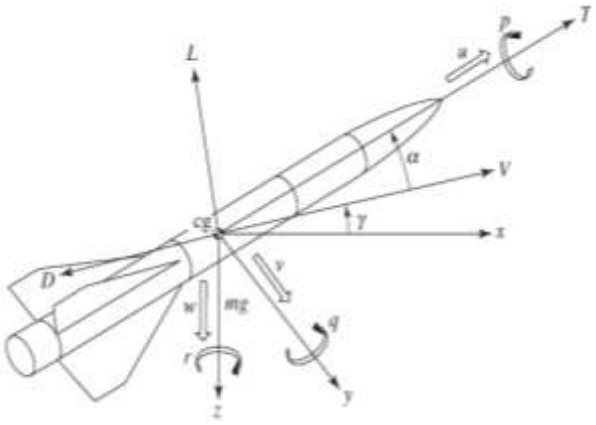


Figure 1 Definition of missile axes and angles

Based on Figure 1, The dynamic equations of a point massmissile, which may be written as: [4]

$$\frac{dV}{dt} = \frac{1}{m}[T\cos\alpha - D] - g\sin\gamma \qquad (1)$$

$$\frac{d\gamma}{dt} = \frac{1}{mV}[L + T\sin\alpha] - \frac{g}{V}\cos\gamma \qquad (2)$$

$$\frac{dx}{dt} = V\cos\gamma \qquad (3)$$

$$\frac{dh}{dt} = V\sin\gamma \qquad (4)$$

There are four state variables, namely: speed V, γ flight path angle, horizontal position x, and altitude h.The control variables are Thrust T and angle of attackα. Axial aerodynamics forces and normal aerodynamics forces are function of altitude, speed, and angle of attack, which are defined as:

$$D(h,V,\alpha) = \frac{1}{2}C_D\rho V^2 S$$

$$C_D = A_1\alpha^2 + A_2\alpha + A_3$$

$$L(h,V,\alpha) = \frac{1}{2} C_L \rho V^2 S$$

$$C_L = B_1 \alpha + B_2$$

where ρ, air density, is given by

$$\rho = C_1 h^2 + C_2 h + C_3$$

whereasS reference area of missile, mMassaand$g$gravity.

Table 1.Physical Modelling Parameter

Parameter	Nilai	Unit
M	1005	Kg
G	9.81	m/s²
S	0.3376	m²
A_1	-1.9431	
A_2	-0.1499	
A_3	0.2359	
B_1	21.9	
B_2	0	
C_1	$3.312\ 10^{-9}$	Kg m^{-5}
C_2	$-1.142\ 10^{-4}$	Kg m^{-4}
C_3	1.224	Kg m^{-3}

Table 2.Boundary Condition and Constraints

Parameter	Nilai	Unit
V(0)	210	m/s²
$\gamma(0)$	0	Rad
$x(0)$	0	m
$h(0)$	30, 100, 200	m
$V(t_f)$	290, 310	m/s²
$\gamma(t_f)$	$-\frac{\pi}{2}$	rad
$x(t_f)$	10000	meter
T_{maks}	6000	N
T_{min}	1000	N

The initial and final conditions for the four state variables are specified:

$$\gamma(0) = \gamma_0, \quad \gamma(t_f) = \gamma_f,$$

$$V(0) = V_0, \quad V(t_f) = V_f,$$
$$h(0) = h_0, \quad h(t_f) = h_f$$

$$x(0) = x_0, \quad x(t_f) = x_f$$

Boundary of control

$T_{min} \leq T \leq T_{maks}$

The problem of this research is how to get the minimum time of missile to attack the fixed target in vertical dive manoeuvre. Performance index of this problem is function of timewhich is given by:

$$J = \int_{t0}^{tf} dt \quad (5)$$

where$t$ time of manoeuvring, $t_0 \leq t \leq t_f$in which$t_0$initial time and $t_f$final time.

3. MATHEMATICAL ANALYSIS

Optimal control theory is used to Solvethe optimum time problem. Firstly form hamiltonian function from equation (1), (2), (3), (4), and (5)

$$H = 1 + \lambda_v\left(\frac{1}{m}(T\cos\alpha - D) - g\sin\gamma\right) + \lambda_\gamma\left(\frac{1}{mV}[L + T\sin\alpha] - \frac{g}{V}\cos\gamma\right) + \lambda_x V\cos\gamma + \lambda_h V\sin\gamma \quad (9)$$

The stationer condition:

$$\frac{\partial H}{\partial\alpha} = -\frac{\lambda_v}{m}(T\sin\alpha - D_\alpha) + \frac{\lambda_\gamma}{mV}([L_\alpha + T\cos\alpha]) = 0$$

where

$$D_\alpha = \frac{1}{2}\rho V^2 S(2A_1\alpha + A_2)$$

$$L_\alpha = \frac{1}{2}\rho V^2 S.B$$

then,

$$\frac{\partial H}{\partial\alpha} = 0$$

$$-\frac{\lambda_v}{m}(T\sin\alpha - \frac{1}{2}(2A_1\alpha + A_2)(C_1h^2 + C_2h + C_3)V^2S) + \frac{1}{2}\frac{\lambda_\gamma}{mV}B_1(C_1h^2 + C_2h + C_3)V^2S + \frac{\lambda_\gamma}{mV}T\cos\alpha = 0$$

$$-\frac{\lambda_v}{m}\left(T\sin\alpha - \tfrac{1}{2}(2A_1\alpha + A_2)(C_1h^2 + C_2h + C_3)V^2S\right) + \frac{\lambda_\gamma}{mV}T\cos\alpha = \frac{\lambda_\gamma}{mV}\left(\tfrac{1}{2}B_1(C_1h^2 + h + C_3)V^2S\right) \quad (10)$$

The angle of attack, α,in equation (10) explicitly couldn't be gotten because it is a non-linear equation. That is why, numerical approximation was chosen to get the solution. This paper was not focus on numerical solution, the value of angle of attack would be solved using computational result.

$$\frac{\partial H}{\partial T} = \frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha \qquad (11)$$

Co-state:

$$\dot{\lambda}_v = -\left\{\begin{matrix}\lambda_\gamma\left(\frac{1}{mV^2}(L_v) - \frac{\dot{L}+T\sin\alpha}{mV^2} - \frac{g\cos\gamma}{V^2}\right) - \frac{D_v}{m}\lambda_v \\ +\lambda_x\cos\gamma + \lambda_h\sin\gamma\end{matrix}\right\} \qquad (12)$$

where

$$L_v = C_L\rho VS$$

$$D_v = C_D\rho VS$$

$$\dot{\lambda}_v = -\left\{\lambda_\gamma\left(\frac{1}{mV^2}(B_1\alpha + B_2)(C_1h^2 + C_2h + C_3)VS - \frac{1}{2}\frac{(B_1\alpha + B_2)(C_1h^2 + C_2h + C_3)V^2S + T\sin\alpha}{mV^2} - \frac{g\cos\gamma}{V^2}\right) - \frac{(A_1\alpha^2 + A_2\alpha + A_3)(C_1h^2 + C_2h + C_3)VS}{m}\lambda_v + \lambda_x\cos\gamma + \lambda_h\sin\gamma\right\}$$

$$\dot{\lambda}_\gamma = -\left\{-\frac{\lambda_v g\cos\gamma}{m} + \lambda_\gamma\frac{g}{V}\sin\gamma - \lambda_x V\sin\gamma + \lambda_h V\cos\gamma\right\} \qquad (13)$$

$$\dot{\lambda}_x = 0$$

$$\dot{\lambda}_h = -\left\{-\frac{\lambda_v}{m}\frac{1}{2}C_D\rho_h V^2S + \frac{1}{2}\frac{\lambda_\gamma}{mV}C_L\rho_h V^2S\right\}$$

where

$$\rho_h = 2C_1h + C_2$$

Then,

$$\dot{\lambda}_h = \frac{\lambda_v}{m}\frac{1}{2}(A_1\alpha^2 + A_2\alpha + A_3)(2C_1h + C_2)V^2S - \frac{1}{2}\frac{\lambda_\gamma}{mV}(B_1\alpha + B_2)(2C_1h + C_2)V^2S$$

Controller T appears linearly in Hamiltonian (5) so optimal of T could not be chosen in stationer condition. Bounding of thrust causes three types interval of optimal controller [10]:

$$T(t) = \begin{cases} T_{max} & \text{jika } \frac{\partial H}{\partial T} < 0 \\ T_{singular} & \text{jika } \frac{\partial H}{\partial T} = 0 \\ T_{min} & \text{jika } \frac{\partial H}{\partial T} > 0 \end{cases}$$

Switching function have been defined in stationair condition in equation (11):

$$\frac{\partial H}{\partial T} = \frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha$$

- Optimal T is on the boundary condition ($T = T_{maks}$ atau T_{min})

$$\frac{\partial H}{\partial T} = \frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha$$

So then optimal control of T optimal on its boundary if

- $T = 6000$ jika $\frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha < 0$
- $T = 1000$ jika $\frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha > 0$

In this cases optimum of angle of attack α could be gained from equation (10)

- Optimal T while $T = T_{sing}$ (*singular control*)

It is generally known that if Hamiltonian formulation is linear toward controller, The solution of those condition will be solved using Bang-bang control Theory to get the controller $T.H_T$was differentiated toward t (waktu)getting $T_{singular}$.

$$H_T = \left(\frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha\right) = 0$$

Then $\frac{d}{dt}H_T = 0$

$$\frac{d}{dt}\left(\frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha\right) = \frac{\dot{\lambda}_v}{m}\cos\alpha + \frac{\dot{\lambda}_\gamma \sin\alpha\, mV - \lambda_\gamma \sin\alpha\, \dot{V}}{(mV)^2} = 0 \quad (13)$$

Subtitutes equation (1), (12), and (13) into equation (14), so

$$-\frac{\cos\alpha}{m}\left(-\frac{\lambda_v D}{m} + \lambda_\gamma\left(\frac{L_v}{mV} - \frac{L}{mV^2} + \frac{T\sin\alpha}{mV^2} + \frac{g\cos\gamma}{V^2}\right) + \lambda_x\cos\gamma + \lambda_h\sin\gamma\right)$$
$$+\frac{\sin\alpha}{mV}\left(\lambda_v g\cos\gamma - \lambda_\gamma\frac{g}{V}\sin\gamma + \lambda_x V\sin\gamma - \lambda_h V\cos\gamma\right)$$
$$-\frac{\lambda_\gamma\sin\alpha}{mV^2}\left(\frac{1}{m}(T\cos\alpha - D) - g\sin\gamma\right) = 0$$

$$T = \frac{mV}{2\lambda_\gamma\sin\alpha}\cos\alpha\left(\frac{g\cos\gamma}{m} - \frac{L}{mV}\right) - \frac{\lambda_v mV}{2\sin\alpha\cos\alpha}\left(\frac{2\cos\alpha}{m} + \sin\alpha\, g\cos\gamma\right)$$
$$+\frac{\lambda_x mV^2}{2\lambda_\gamma\sin\alpha}\cos\gamma - \frac{\lambda_x mV^2}{2\lambda_\gamma\cos\alpha}\sin\gamma + \frac{\lambda_h mV^2}{2\lambda_\gamma\sin\alpha}\sin\gamma + \frac{\lambda_h mV^2}{2\lambda_\gamma\cos\alpha}\sin\gamma -$$
$$\frac{D}{2\cos\alpha} \quad (14)$$

Equation (14) is a control law as an linear feedback control and allows to singular arch if fullfill [1];[2] :

1. $\frac{\partial H}{\partial u} = 0$
2. $\frac{\partial}{\partial u}\left[\left(\frac{d}{dt}\right)^k H_u\right] = 0$

For controller $u = \begin{bmatrix} T \\ \alpha \end{bmatrix}$

So then can be gained stationer condition of controller T

$$\frac{\partial H}{\partial T} = \frac{\lambda_v}{m}\cos\alpha + \frac{\lambda_\gamma}{mV}\sin\alpha = 0$$

Controller T may appears linearly in Hamiltonian function, so to get the second order differential from it toward controller T, Hamiltonian functionional was differentiated partialy toward the time

$$\frac{d}{dt}\frac{\partial H}{\partial T} = \frac{\dot{\lambda}_v}{m}\cos\alpha + \frac{\dot{\lambda}_\gamma \sin\alpha mV - \lambda_\gamma \sin\alpha \dot{V}}{(mV)^2} = 0 \quad (15)$$

Substitutes state equation (1) and co-states (12) and (13) into (15) which results the new one

$$\frac{d}{dt}H_T = -\frac{\cos\alpha}{m}\left(-\frac{\lambda_v D}{m} + \lambda_\gamma\left(\frac{L_v}{mV} - \frac{L}{mV^2} + \frac{T\sin\alpha}{mV^2} + \frac{g\cos\gamma}{V^2}\right) + \lambda_x\cos\gamma + \lambda_h\sin\gamma\right)$$
$$+\frac{\sin\alpha}{mV}\left(\lambda_v g\cos\gamma - \lambda_\gamma\frac{g}{V}\sin\gamma + \lambda_x V\sin\gamma - \lambda_h V\cos\gamma\right) - \frac{\lambda_\gamma\sin\alpha}{mV^2}\left(\frac{1}{m}(T\cos\alpha - D) - g\sin\gamma\right)$$
$$= 0 \quad (16)$$

The second order differential of Hamiltonial functional toward controller T is given by

$$\frac{\partial}{\partial T}\frac{d}{dt}\frac{\partial H}{\partial T} = \frac{\lambda_\gamma\sin\alpha\cos\alpha}{(mV)^2} - \frac{\lambda_\gamma\sin\alpha\cos\alpha}{m^2V^2} = 0$$

(17)

The attack of angle may appears non-linearly in condition (9). It means that the second order differential of Hamiltonian toward controller,α,can be got directly as written by

$$\frac{\partial^2 H}{\partial\alpha\,\partial\alpha} = \frac{\lambda_v}{m}(D_{\alpha\alpha} - T\cos\alpha) - \frac{\lambda_\gamma}{mV}T\sin\alpha = 0 \quad (18)$$

Where

$$D_{\alpha\alpha} = \frac{1}{2}A_1(C_1h^2 + C_2h + C_3)V^2S - T\cos\alpha$$

So then

$$\frac{\lambda_v}{m}\left(\frac{1}{2}A_1(C_1h^2 + C_2h + C_3)V^2S - T\cos\alpha\right) - \frac{\lambda_\gamma}{mV}T\sin\alpha = 0$$

Hamiltonian (9) is differentiated by to each control

$$\frac{\partial^2 H}{\partial\alpha\,\partial T} = -\frac{\lambda_v}{m}\sin\alpha + \frac{\lambda_\gamma}{mV}\cos\alpha = 0$$

(19.a)

$$\frac{\partial^2 H}{\partial T\,\partial\alpha} = -\frac{\lambda_v}{m}\sin\alpha + \frac{\lambda_\gamma}{mV}\cos\alpha = 0$$

(19.b)

Generalization of Legendre-Clebs (Bell DJ dan Jacobson DH, 1975) in equation (17) – (19) can be written in matriks:

$$\begin{bmatrix} \frac{\partial}{\partial T}\frac{d}{dt}\frac{\partial H}{\partial T} & \frac{\partial^2 H}{\partial \alpha \partial T} \\ \frac{\partial^2 H}{\partial T \partial \alpha} & \frac{\partial^2 H}{\partial \alpha \partial \alpha} \end{bmatrix} = \begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$$

It can be solved by evaluating the determinant, follows

$$\begin{vmatrix} 0 & -\frac{\lambda_v}{m}\sin\alpha + \frac{\lambda_\gamma}{mV}\cos\alpha \\ -\frac{\lambda_v}{m}\sin\alpha + \frac{\lambda_\gamma}{mV}\cos\alpha & \frac{\lambda_v}{m}(D_{\alpha\alpha} - T\cos\alpha) - \frac{\lambda_\gamma}{mV}T\sin\alpha \end{vmatrix} = 0$$

$$\left(-\frac{\lambda_v}{m}\sin\alpha + \frac{\lambda_\gamma}{mV}\cos\alpha\right)^2 = 0$$

Getting new equation as written by,

$$-\frac{\lambda_v}{m}\sin\alpha + \frac{\lambda_\gamma}{mV}\cos\alpha = 0 \qquad (20)$$

Optimal condition in singular arc iff the equations (11) and (20) are zero. Both equations may be written as:

$$\begin{pmatrix} \frac{\lambda_\gamma}{mV} & \frac{\lambda_v}{m} \\ -\frac{\lambda_v}{m} & \frac{\lambda_\gamma}{mV} \end{pmatrix} \begin{pmatrix} \sin\alpha \\ \cos\alpha \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}$$

It is clear that $\sin\alpha$ and $\cos\alpha$ will never equal to zero along the same α, so matriks of those formulation should be zero to get the solution. In the other words the matriks determinant should be equal to zero, as written by:

$$\begin{vmatrix} \frac{\lambda_\gamma}{mV} & \frac{\lambda_v}{m} \\ -\frac{\lambda_v}{m} & \frac{\lambda_\gamma}{mV} \end{vmatrix} = 0$$

$$\left(\frac{\lambda_\gamma}{mV}\right)^2 + \left(\frac{\lambda_v}{m}\right)^2 = 0 \qquad (21)$$

Condition (21) cannot be satisfied simultaneously, so can be concluded that there are no optimal condition in singular arc.

Computational Analysis

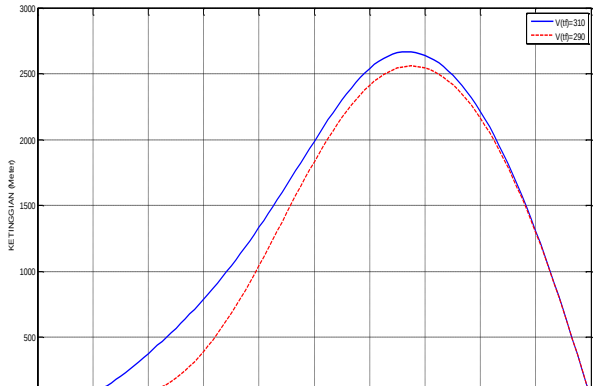


Figure 2Performance of missile's altitude toward normalization time

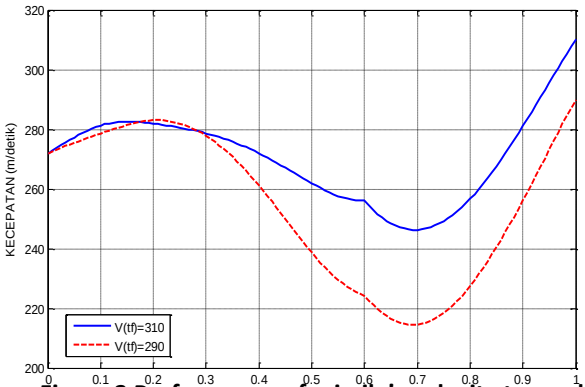


Figure 3 Performance of missile's velocity toward nirmalization time

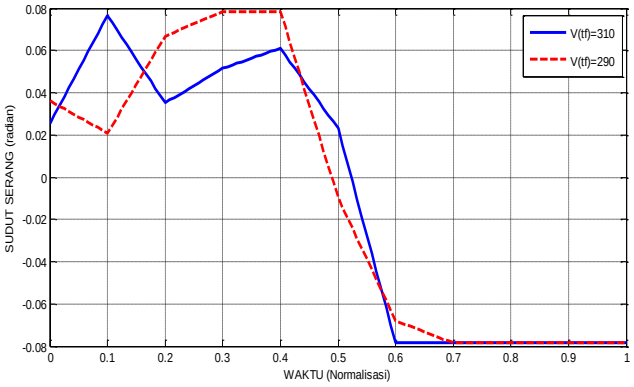


Figure 4 Performance of angle of attack missile toward time

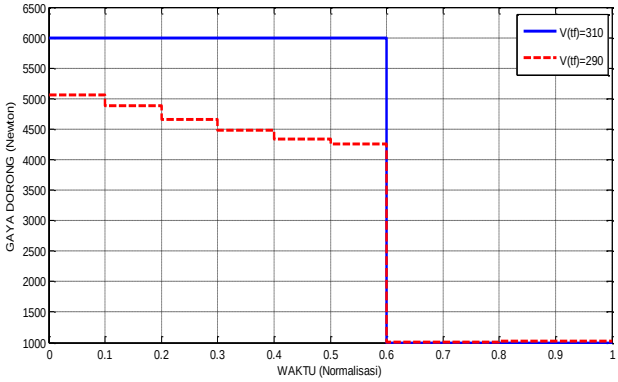


Figure 5 Performance of thrust of missile toward time

The trajectory of surface-to-surface missile with vertical dive manoeuvre is split of three sub-interval:

1. Minimum altitude flight
   The missilelaunches at current altitudeand therefore the altitude constraintsare active directly at the start of the manoeuvre. In thiscase the speed of the missile remains constant on theminimum value *h*min (see Figures 2) until themissile must start climbing while the thrust is on themaximum value. The flight time of first arc depends tothe final-speed. Figure 5 shows that the thurst of missile remains at maximum, 6000 N, while the speed slightly higher until the next sub-interval in Figure 3.
2. Climbing
   The Speed of missile after flight in minimum altitude decreased gradually until reached the optimum altitude to start manoeuvre which is vertical dive manoeuvre. The thrust of missile remains maximum until time-0.6 (normalization time), furthermore there suddenly switched into lowest boundary, 1000 N. It showed that missile wasturning down and starting dive manoeuvre.
3. Diving
   The missile must gain the powerto reach the target therefore the speed increase rapidlysince the initial diving speed is lower than the finalspeed. The normal acceleration is saturated on

theminimum value for this arc. Whereas the thrust remains constant around 1000 N. The angle of attack convergenly is moving at –pi/40 radian.

Here presents computational solution of minimizing time problem depends on initial altitude and final speed.

Table 3. Optimum time by computation

Initial Altitude (meter)	Final Speed (m/s)	Objective Function (s)
30	290	48.0781385
	310	44.8815557
100	290	47.9329181
	310	44.8199641
200	290	47.7656314
	310	44.6765635

4. CONCLUSION

In this paper, analysis of surface-to-surface missile which considered objective and dynamical system showed that trajectory tracking of this missile was split up in three sub-intervals, namely flying, climbing, and divingin which had different performances of speed. Those paths were result by controlling thrust and angle of attack. First path, the missile launched at h=30m and remained stable in this altitude. Second part, velocity of missile decreased dramatically while climbing to reach optimum altitude before manoeuvring. Furthermore the last path, dive manoeuvring, the speed of missile got faster rapidly to final speed. It would be happened while missile was at 30 meters above the target with angle of attack's -90deg.Travel time of missile was influenced by starting position while it was shoot and final speed of missile itself. The higher launch site and the bigger final speed of missile affected the shorter its time travel. Another variable that should be considered in missile manoeuvring is energy. It can be minimize in objective function. This problem can be condected in future reserach.

REFERENCES

Bell, DJ. And Jacobson, DH. (1975). **Singular Optimal Control Problem**. Lodon: Academic Press INC.

Bryson, A.E., danHo, Y.C. (1975). **Applied Optimal Control Optimization, Estimation, and Control.** Washington DC: Hemisphere Publishing Corporation.

Jennings, L.S., Fisher, M.E., Teo, K.L. dan Goh, C.J. (2002). **Miser3 Optimal Control Software**. Australia: The University of Western Australia.

Maoping, et.al. (2014). **Backstepping Design of missile gudance and control based on adaptive fuzzy sliding mode control.** Chinese Journal of Aeronautics 27(3): 634-642.

Siouris, G. 2003. **Missile Guidance and Control Systems**. USA: Springer

Subchan, S. (2007). **Trajectory Shaping of urface-to-Surface Missile with Terminal Impact angle Constraint.** Makara Teknologi, Indonesia University.11(2), p:65-70.

PRESENTER'S PAPERS

Subchan, S., et.al. (2008). **Pythagorean Hodograph Path Planning for Tracking Airborne Contaminant usingg Sensor Swarn.** IEEE International Instrumentation ans Measurement Technology Conference Victoria, Vancouver Island, Canada, May.

Subchan, S. danZbikowski, R. (2007). **Computational Optimal Control of the Terminal Bunt Manoeuvre – Part 2: Minimum-Time Case**. Optimal Control Applications and Methods. No.28, p.355-379.

Subchan, S. danZbikowski, R. (2009). **Computational Optimal Control : Tools and Practice**. UK: John Wiley & Sons Ltd.

Wang, F.B. and Dong, C.H. (2013). **Fast intercept trajectory optimization for multi-stage air defense missile using hybrid algorithm.** Elsivier Procedia Engineering No 67, pp 447-456

Author's Biodata

Sari Cahyaningtias is a lecturer in Mathematics Education Department in Adi Buana University, Surabaya. She received both her Bachelor's and Master's Degree in Mathematics from Sepuluh Nopember Institute of Technology, Surabaya in 2011 and 2014 respectively. Her current research interests are dynamical system, stability analysis, and ship guidance and control. scahyaningtias@gmail.com

Subchan graduated from mathematics department ITS Surabaya. He studied applied mathematics in Delft University from 1998 until 2000, Netherland. Furthermore, he received Ph.D from Crandfield University, UK. While studying he joined team stellar which is team reasearch in military prodact and won prestigious, RJ Mitchell Trophy for his creation in military system. Recently he is lecturer in Kalimantan Institute of Technology.

PRESENTER'S PAPERS

Design and Development of Online Learner Teacher (OLT) System Using Learning Management System (LMS) Moodle to Improve Pedagogical and Professional Competences for Teachers in Indonesia

Siyamta
Vocational Education Developmpment Center,
Teluk Mandar Street, No.1, Malang
Email Address : yamtasiyamta@gmail.com

Punaji Setyosari
State University of Malang, Semarang Street No. 5, Malang.
Email Address : pun_pasca@yahoo.com.

Waras Kamdi
State University of Malang, Semarang Street No. 5, Malang.
Email Address : -

Saida Ulfa
State University of Malang, Semarang Street No. 5, Malang.
Email Address : saida.ulfa@gmail.com

Abstract

The purpose of this paper is to (1) design a system of online learners teacher (OLT), (2) developing a system of online learners teacher (OLT), (3) measure the increase in pedagogical and professional competences. This study used a quantitative approach. Vocational high school teachers involved in conducting public testing, majoring in Computer Engineering and Networks. For the data collection an online test was used. The results obtained were (1) a draft system of teacher learners online, (2) the development of a system of teachers learners using online learning management system (LMS) Moodle (3) that based on the public test conducted by the teachers of Vocational High School (SMK) concentration on Computer Engineering and Network, it was obtained that the overall design of the system was quite good, was equipped with preliminary session, core session and closing session. At the core session, there are lesson sessions, reference materials, worksheets, formative evaluation, self-evaluation and summative evaluation. With this system, the pedagogical and professional competences increased.

Keywords: *e-learning, blended learning, online learner teacher, pedagogical competence, professional competence*

1. INTRODUCTION

E-learning has been steadily integrating into the educational process due to global information technologies(Iriana, et.al 2015). In modern education the important place is taken by the e-learning, which development substantially is defined by theevolution of technologies.Teacheris one of theimportant elements that mustexistin thelearning system. Teachersare objectsthat directly dealwith studentsinthe school. Therefore, teachersmust havea professional attitude. Ifa teacher does nothave aprofessional attitude, then studentsare educatedto bedifficulttogrowanddevelop properly. Teacherisone of the foundationfor the countryin terms of education. With theprofessional and qualifiedteacherswill beable to producea goodqualityof the nation.The key thatshould be ownedbyeveryteacheriscompetence. Competenceis a set ofknowledge andteaching skillsof teachersinperforming his professional dutiesasa teacherso that the goalofeducation can beachieved by either.

PRESENTER'S PAPERS

A competent teacher seizes every opportunity to encourage learning, believing that all students can learn. And learning isn't limited to the classroom. To this end, the teacher takes every opportunity to improve on his or her own professional practice, in order to provide quality learning. The teacher competency standardsset forthinthe regulationsof the Minister ofNational Educationon standardsof academicqualificationsand competence ofteachers.Inthe regulationstates thatprofessional teachersshouldhavefourcompetencies, namelypedagogical competence, personal competence, professional competence andsocial competence.Pedagogical competenceisthe ability ofteachers to understandthe dynamics ofthe learning process. Learning that takes placeinthe classroomwill alwaysbe dynamic. This occursbecause ofthe interactionorrelationshipof mutual communicationbetween teachers and students, students withstudents as well asstudentswith learning resources. Dynamiclearningwillhappen becausein a classpopulated bymulti-character andmulti-potential. Heterogeneityof students inthe class willrequire theskills of teachersin designinglearning programs. Personal competenceis one of thepersonal abilityto be possessed byprofessional teachersin a mannerthatreflects the personality ofbothyourself, beprudentandwise, mature anddignifiedandnoble characterhastobe a good examplefor theenvironment.

Professionalcompetenceis the abilityof a teachertomanage learning. The abilityto manage learningis supportedby the mastery ofthe subject matter,classroom management, learning strategies, teaching methods, andthe use oflearning media. Social competence isthe ability of teachersto be able tosociallyinteractandcommunicatewell withthe citizensand residentsof the schoolwhere theteacher stay.Social skillscan be observer throughsocial interaction withteachersand students, fellowteachers andthecommunityin whichit resides.

Indonesianrepublicgovernmenthas donea variety ofways toimprove the professionalismof teachers. Some ways areevertaken, among others, inthe form offace-to-face training. After followingtraining, then conductedthecompetency test forteachers.Training or ugrading vocationalcompetencyhas been doneinVocationalEdicationDevelopmentCenter(VEDC) Malangfor 13 days(10 daysfor training and threedaysforCompetency Test).

Face to face instruction,will not beeffectiveespeciallywith regard tothe capacity orthe number oftraining participants, as well asdeploymenttraining. The indonesian governmentmake a program ofTeacherCompetency Test(UKG) onlineforall teachersinIndonesiawho haveidentifier number(Kemdikbud 2015).Based on theTeacherCompetency Test(UKG) 2015, itwas found thatthe averagevalue ofUKGis not good(Kemdikbud 2015).The national averageteacher competencytest valueis55, 0 which comprisespedagogical and professional competenceasthe following Figure 2.

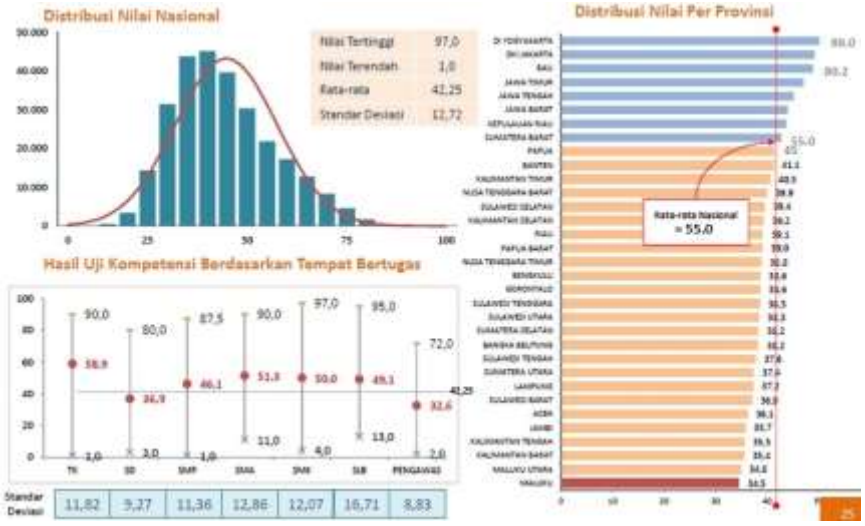


Figure 1: The results of mapping teacher 2015

The results of themappingof teachersin 2015who earnedgrades abovethe averagethat hasisWest Java, Central Java, Yogyakarta, Jakarta, Bali, East Java, andBangkaBelitung. Teacherswho have previouslyfollowed theTeacherCompetency Testwillgetthe results ofthe mappingin the formof report cardsin which there are10components of the assessment. For componentswhose valueis red,then itwill get the training or upgrading.The resultsofthe mappingorteachercompetency test, is a determinanttofollow the model ofthe next training; isonline, blended learningorface-to-face instruction.

2.DESIGN SISTEM ONLINE LEARNER TEACHER (OLT)

After theTeacherCompetency Test, it will producescore of test (mapping). Themappingused asthe classifier tofollow MasterOnlineLearnersandonceconsideredpretest scores. The system designof onlinelearnersteacher, shown in the figurebelow (Sumarna Surapranata, 2016).

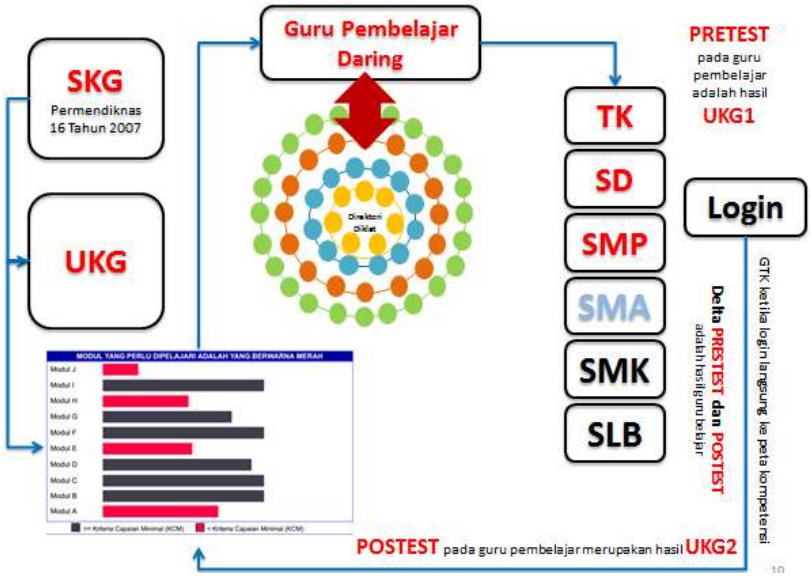


Figure 2: Design of online learner teacher (OLT)

Todevelopment a sistem onlineof the above,weuse alearningmanagement system (LMS)Moodle.Many educational institutions are taking initiatives to start eLearning courses using open source software based LMS portals. Modular Object Oriented Dynamic Learning Environment (MOODLE) is one of the widely used environments across the reputed educational institutions in the developed countries for such courses.The user interfaceof onlinelearnersteacher, shown in the figurebelow.

Figure 3: Interface of online learner teacher

InMoodlethere are severalresourcesandactivity, for examplelesson, page, book, quizzes, blogs, urlresources,forums, glossary, and so forthas shown inthe following Figure 4.

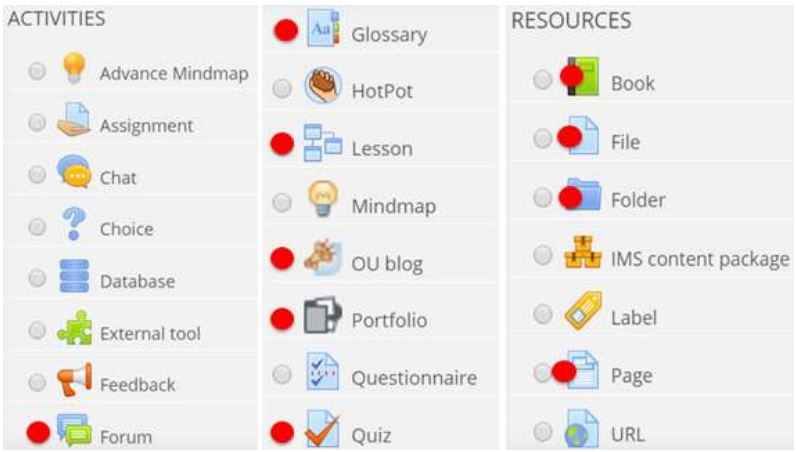


Figure 4: Activities and Resources in Moodle

In the implementationof online learningactivitiesare divided intosixsessions, namelyare introduction,fourmainsessionsandaclosing session. One of thesessions associatedwiththe learning activitiesare shownas follows.

Figure 5: The lesson of online learner teacher

After theonlinelearning processis completed, the next step isthe final exam.the resultsofthe final examisthe value ofteachercompetency test.as shownin the Figure below.

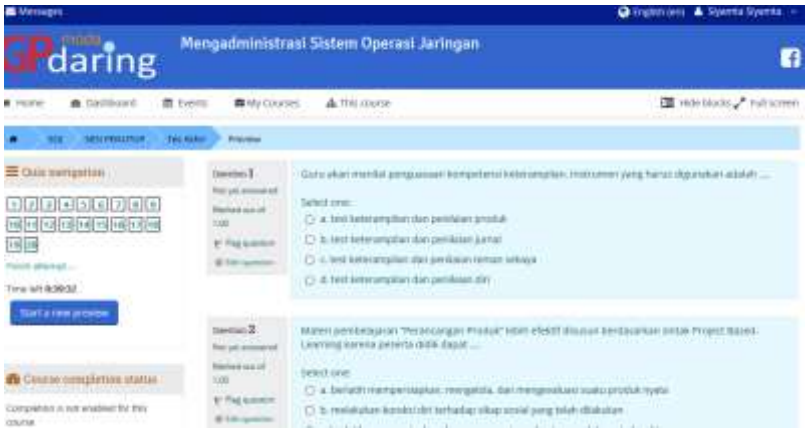


Figure 6: The Formative evaluation in online learner teacher

3.CONCLUSION

The resut of designing and developing asystem ofteacherlearnersonlineand trialsis limited for 50teachers, it can be concludedthat : (1) system ofteacherlearningonlineis working properly, (2) an increase inpedagogic competenceand professional, which is obtained from theexamsummativefinalonlinemodule, (3) based on the public test conducted by the teacher Vocational High School (SMK) packages expertise Computer Engineering and Network , obtained that the overall design of the system is quite good, is equipped with a preliminary session, core sessions and the closing session. At the core there is a lesson sessions, reference materials, worksheets, formative evaluation, self-evaluation and summative evaluation. Withthis system,increasedpedagogical andprofessional competence.

Some suggestionsfromrespondentsare necessary to addedan interactivefile, some imagesare toolarge so we must for a long tome to download file, online system alsoneedsa stable and good internet network connection.

REFERENCES

Clark and Mayer.(2011). *E-Learning and the Science of Instruction, Proven Guidelines for Consumer and Designers of Multimedia Learning*, Third Edition, San Francisco.John Wiley & Sons Inc.

Gagne, E.D. (1985). *The Conditions of Learning and Theory of Instruction*, Fourth Editions. New York: Holt, Rinehart & Winston.

Graham et.al.(2014). *Developing Models and Theory for Blended Learning Research*. In A.G. Blended Learning Research Perspectives, Volume 2 (PP 13-33), New York.

Iriana, et.al (2015).*E-Course based on the LMS Moodle for English language Teaching*: Development and Implemantation of Result, Procedia – Social and Behavioral Sciences 206 (2015) 236-240.

Mayer RE and Alexakder PA, (2011).*Handbook of Research on Learning and Instruction*, Educational Psychology Handbook Series, New York: Routledge.

Reigeluth, Charles M and Cheliman Alison A Carr (2009), *Instructional Design Theory and Models, Building a Common Knowledge Base*, Volume III, New York.

Ruth Colvin Clark and Richard E. Mayer (2008), *E-Learning and the Science of Instruction*, Proven Guidelines for Consumers and Designers of Multimedia Learning, John San Francisco : John Wiley & Sons.

Sumarna Surapranata (2016), *Strategi Pelaksanaan Guru Pembelajar*, Jakarta: Kementerian Pendidikan dan Kebudayaan, Direktorat Jenderal Guru dan Tenaga Kependidikan.

http://konten.elearning.id/course/view.php?id=299

Author's Biodata

Siyamta is a Learning Technology Developer, who served in the Vocational Education Development Center(VEDC Malang). Currently pursuing his Doctoral Program at the State University of Malang, field of interesting Learning Technology. His major interests are Learning Technology, Blended Learning, Social Media for Learning, E-learning, Instructional Design, Multimedia for Learning and Computer Network. yamtasiyamta@gmail.com.

Punaji Setyosari is professor at State University of Malang. pun_pasca@yahoo.com.
Waras Kamdi is lecturer in State University of Malang.
Saida Ulfa is lecturer in State University of Malang. saida.ulfa@gmail.com

Teaching Moral Values through A Folktale 'Lazy Maria'

Siyaswati
Universitas of PGRI Adi Buana Surabaya - Indonesia
Siyasw@yahoo.com

Abstract

This study focused on the teaching moral values through a folktale in an English language lesson. The selected folktale "Lazy Maria" helps impart lessons related to the meaning in life. Folktales are a versatile source of passing down moral values. Lindahl (2004) has states that folktales are stories that are from generation to generation, an invaluable creative material that passes down a certain culture's oral tradition. Some folktales are partly make believe and partly real. Folktales function the same way all over the world: a communal tradition that is orally transmitted. The transmission is through its plots, characters, language and pictures of life. This study limited itself to "Lazy Maria" folktale and related itself to the teaching of English which was appropriate for the college students' level to develop their critical thinking skills regarding the moral values embedded in folktales.

Keywords: teaching moral values, folktales

1. INTRODUCTION

This study focuses on the moral values of the young. It deals with meaning in life through moral values in American folktales. The study draws on the morality of ordinary life performed by the main characters in the folktales.Moral refers to generally accepted customs of conduct and right living in a society, and to the individual's practice in relation to the morals of civilization. Moral can be pertaining to, or concerned with the principles or rules of right conduct or the distinction between right and wrong; ethical: moral attitudes. Expressing or conveying truths or counsel as to right conduct. Moral founded on the fundamental principles of right conduct rather than on legalities, enactment, or custom: moral obligations. Capable of conforming to the rules of right conduct: a moral being. It's conforming to the rules of right conduct (opposed to immoral): a moral man. Moral teaching or practical lesson contained in a fable, tale, experience, etc.

This study is implementing folktale as the data. Folktales are a versatile source of passing down moral values. Lindahl (2004) has stated that folktales are stories told from generation to generation; an invaluable creative material that continues a certain culture's oral tradition. Some folktales are part make believe and part real. Folktales function the same way all over the world: a communal tradition is orally transmitted. The transmission is through its plots,characters,language and picture of life. Themes of folktales include stories for children , legendary, tall tale and jokes.

In addition, folktales may provide strategies to raise people's awareness of the different socio-cultural rules and different concepts of politeness in given social contexts. Lindahl (2004) further stated that folktales as literature show the significance of culture in language learning for the achievement of meaningful communication and the understanding of a particular language. At the heart of all this is recognition that a foreign

language learner may draw incorrect assumptions which are due to cultural misunderstanding when reading unfamiliar discourse.

American folktales have been long pervasive in the American culture. Green (2008) has stated that folktales started from the North America and encompassed the United States and Canada. The vast territorial scopes, ecological variety, ad ethnic diversity of the continent compel selective rather than comprehensive coverage of narrative traditions. The two primary divisions utilized for North America are Native American and non-Native American. Among the indigenous North American cultures are hunters and gathers, agriculturalists, mariners, small band societies, and theocracies with elaborate hierarchies. The major regions of the Northeast, the South, the Plains, the Southwest, the West, and the Northwest Coast are represented, and the locations of the groups and the lifestyles developed within these regions are presented in the head notes to individual tales.

To comprehend folktales, one should possess sufficient linguistic, rhetorical, and cultural knowledge as suggested by Wolfram (2007). It is because folktales are literary genre characterized by heavy use of dialogue (folktales are based on oral tradition). Based on those explanation above, this paper would like to describe the moral value in American Folktales 'Lazy Maria'

Folktales do not only function to entertain people before sleeping traditionally (mostly for children because it sometimes contains magical creatures, fairies, etc.), but to deliver something implicit behind the stories as well. The implicit meanings produced in folktales are mostly teaching about morality, both giving the example of how human should have good morality and of how human should not reproduce the negative morality practiced by the character(s) in the stories. Through such understanding, it indicates how a circulation morality is delivered through stories. Here is the point, delivering morality must be in good dictions, or at least, the politeness in linguistics dimension. This is what to explore in this research, the correlation among folktale, morality and the politeness inside it. This study is focused on the moral value for the young. It deals with meaning in life through moral values and politeness in American folktales. The study draws on the morality of ordinary life performed by the characters in the folktales.

Moral refers to generally accepted customs of conduct and right living in a society, and to the individual's practice in relation to the morals of civilization. Moral can be pertaining to, or be concerned with the principles or rules of right conduct or the distinction between right and wrong, while ethical deals with moral attitudes. Furthermore, moral expresses or conveys truths or right conduct. And basically moral is grounded on the fundamental principles of right conduct rather than on legalities, enactment, or custom. Moral obligations play on the scope of conforming the rules of right conduct. Moral also means capable of conforming to the rules of right conduct as in moral being. A moral man conforms to the rules of right conduct, as opposed to an immoral and therefore, humanis called as a moral man. Many moral teaching or practical lesson are found in a fables, tales, experiences, etc.

In general, folktale narration is a cultural form in all countries. Oral narration provides amusement and comfort to listeners in a simple way. This means that most people have probably experienced the telling of folktales. When one society has communication links with other countries, oral folktale narration also migrates to those countries. One society will narrate folktales to another and vice versa. The narrators receive the folktales from their partners for narration in their own countries as well (Ibid: 2000, p. 56). In this way, previous generations have been transferring these stories from generation to generation to the present time. Generally, folktales have been transferred via the oral form to written texts Vichea (1999:11). In Pali the word "oral" is *mukhabadha*. The relation between oral and written folktale is explained by PrakKhorng's graph which comes from an idea developed by Stith Thompson, illustrating how the written form developed from the oral, and in turn an oral form can develop from a written one PrakKhorng (2000:58)

As Stith Thompson expressed in *The Folktale* every society has an oral folktale tradition that includes a narrator and an audience. The stories that were narrated could be stories of recent

events, or oral narration that came from the ancient memories of the older generations. Male and female, old and young are fascinated when listening to these stories. Listening to the narrations entertained or relaxed the listeners after the hard work of everyday life, allowing them to recognize the characters' behavior in the stories, and to practice religious beliefs in their own way.

Many spiritual values or we can mention with moral values that can be learned by all people. And this is universal values. There are love and affection, honesty, responsibility, perseverance, integrity, harmony, patience, bravery, justice, simplicity, peaceful, etc.(Buzan,2003:28)

This study analyzes one American folktales 'Lazy Maria' by employing Qualitative Research Design. In collecting the data, the researcher conducts observation and elicitation. Since the data are written material that is in the form of folktales. In obtaining data, the researcher follows Hawthorn (1994:14) that there are two stages of reading processes. The first is heuristic reading where the first interpretation takes place, since it is during this reading that meaning is apprehended. The second is retroactive reading in which the second interpretation takes place and this is the hermeneutic reading

2. DISCUSSION

This is a well-known tale. The original source is New York and the National Origin is German American. According to folklorist Emelyn Gardner, the tradition bearer comes from a family known for traditional arts such as divination and supernatural healing as well as storytelling. This ordinary folktale embodies the familiar quest images, formulaic elements, contrasts between siblings, and supernatural encounters that mark this genre. The story as follows: Once upon a time there lived a man with three daughters, who, as he thought, were old enough to look out for themselves. So he called them to him, and said, ''It is time to go out in the world and seek your fortune. I'll start the oldest first. Go and see what luck you have in the world!'' So the oldest girl took her bundle of clothes tied up in a big kerchief, and away she went. After a while, just as she was beginning to feel hungry, she saw standing right near her a cow. The cow said, ''Milk me, milk me, or my bag will bust! Milk me, milk me, or my bag will bust!'' No sooner had the cow said this, and the girl was wishing for some-thing to milk the cow into, than she espied right near the cow an oven. [1]

From it came a voice, which said, ''Take me out or I'll burn up! Take me out or I'll burn up!'' The girl looked inside the oven to see what was talking, and there was a fine loaf of bread. She took it out, dug the center out of it, and filled the hollow with milk from the cow, then had a meal of bread and milk.[2] She said, ''The old man sent me out, and I must be doing well.'' [3] After she had eaten all the bread and milk she wanted, she went on her way.

Pretty soon she came to an apple tree full of apples. ''Shake me, shake me, or my limbs will break! Shake me, shake me, or my limbs will break!'' said the apple tree. So the girl shook the tree until her lap was full of apples. [4] When she had eaten all the apples she wanted, she put some in her kerchief and went on her way. Towards dusk she came to a fine-looking mansion, and she thought she would inquire if they (the occupants) wanted anybody to work for them. Seeing a man standing in front of the house, she called out, ''Halloo!'' ''Halloo!'' answered the man, who liked the girl's looks. ''Do you want a girl to work for you?'' asked the girl. ''I think we do need one,'' answered the man; ''but my master isn't home tonight, so you had better stay all night. Which door would you like to enter? One is a gold door: if you go in through it, you will be covered from head to foot with gold. The other is a tar door: if you go in through it, you will be covered with tar.'' ''Oh, I don't mind!' [5]' replied the girl. ''I had just as soon be covered with tar as with gold.'' ''You are so humble, you deserve to go through the golden door.'' ''I don't care,'' repeated the girl.

Thereupon the man led her through the golden door; and the gold clung to her nose, her fingers, her ears, to every part of her, until she was completely covered with gold. When she was well inside the house, the man said, ''We have two places where we put those who come here. Will you sleep under the ladder with the cats and dogs, or will you sleep in the high bed with all

your gold and glitter?'' ''I'd just as soon crawl under the ladder with the cats and dogs as to sleep in the high bed.'' ''Being as you are so humble, I'll put you in the high bed with all your gold and glitter.''[6]

When she reached the room where the high bed was, she saw that everything was of gold. The gold from everything she touched stuck to her, even the golden sheets; and in the morning, with the golden sheets clinging fast to her, she thought she was rich enough to go home. So home she went.

When the family saw her coming, her father said, ''What! Is that lazy whelp coming back? I'll get the horse-whip and whip her to death!'' The girl, however, as soon as she came near enough to make herself heard, cried out, ''O father! I'm rich, rich!'' And sure enough, the father had never seen so much gold in his life as he now saw on his daughter. As soon as he touched her, the gold fell off from her to the ground. The father ordered the girl to tell where she had been. When he heard the story, he decided to send the second daughter to try her luck in the same way. The second daughter had precisely the same experiences as her sister, and she too returned home ''rich, rich!''[7]

Then the father said, ''Now for Lazy Maria! She's never been good for anything yet. Let's see what she can do!'' To her he said, ''Even if you are our baby, you must go.'' So Lazy Maria took her bundle on her shoulder and started. Soon she came to the cow, which said, ''Milk me, milk me, or my bag will bust! Milk me, milk me, or my bag will bust!'' ''Go along, you old bitch! I don't care if it does,''[8] replied the girl. Then the voice from within the oven cried out, ''Take me out or I'll burn up! Take me out or I'll burn up!'' ''Burn up, then! I won't touch you I won't work when I'm all tired out,'' complained the girl, and went on her way [9]. When she came to the apple tree, it cried, ''Shake me, shake me, or my limbs will break! Shake me, shake me, or my limbs will break!'' ''Let your limbs break, then! I sha'n't shake you,'' said the girl, and went on.[10]

When she came to the mansion, the man on guard told her of the two doors, and asked her through which she wanted to enter. ''I want to go through the golden door,'' said the girl. [11] ''All right!'' and the man pushed her through the tar door. The tar stuck to her hair, filled her eyes, and covered her from head to foot.'' ''Oh, my father will kill me!'' she cried. ''Where will you sleep, under the ladder with the cats, or in the high bed?'' asked the man. '' In the high bed, tar and all,'' at once decided the girl. ''All right! Creep under the ladder.'' And the man pushed her among the cats and dogs. ''You must be more humble,'' said he, ''if you would get on in the world.''

The next morning the poor girl all covered with tar as she was, started for home. When the family saw her coming, they rushed out to see the gold; but when they discovered that she was covered with tar instead of gold, they cried, ''Let's whip her!'' ''Oh, no!'' said her father. ''Let's scrub the tar off!'' but, scrub as they would, they couldn't get it off, because, you see, it had been put on by a witch. They scraped and scraped until they scraped the hair off her head, and the skin off her fingers and toes. At last they scraped off one of her warts, and there lay the witch. At that all the tar fell off, and Lazy Maria was free once more. But while her two sisters were rich and could go and come as they liked, Lazy Maria always had to stay at home, poor. [12]

There are some important life lessons to be found in the story as follows:

1. The cow said, ''Milk me, milk me, or my bag will bust! Milk me, milk me, or my bag will bust!'' No sooner had the cow said this, and the girl was wishing for some-thing to milk the cow into. Moral to the story, helping other people or other creatures will give beneficial to us.
2. ''Take me out or I'll burn up! Take me out or I'll burn up!'' The girl looked inside the oven to see what was talking, and there was a fine loaf of bread. She took it out, dug the center out of it, and filled the hollow with milk from the cow, then had a meal of bread and milk. Moral to the story is helping other people or other creatures will give beneficial to us.
3. "The old man sent me out, and I must be doing well". Moral to the story is being had a good behavior to take care of ourselves where ever we are.

4. ''Shake me, shake me, or my limbs will break! Shake me, shake me, or my limbs will break!'' said the apple tree. So the girl shook the tree until her lap was full of apples. Moral to the story is helping other people or other creatures will give beneficial to us.
5. The other is a tar door: if you go in through it, you will be covered with tar.'' ''Oh, I don't mind!. Moral to the story is being humble is good to protect ourselves.
6. ''Being as you are so humble, I'll put you in the high bed with all your gold and glitter.'' Moral to the story is being humble will give us appreciation.
7. The second daughter had precisely the same experiences as her sister, and she too returned home ''rich, rich!'' Moral to the story is that you should be grateful for what you get.
8. So Lazy Maria took her bundle on her shoulder and started. Soon she came to the cow, which said, ''Milk me, milk me, or my bag will bust! Milk me, milk me, or my bag will bust!'' ''Go along, you old bitch! I don't care if it does,'' Moral to the story is being nice, appreciate and give respond to other human or other creature's request.
9. Then the voice from within the oven cried out, ''Take me out or I'll burn up! Take me out or I'll burn up!'' ''Burn up, then! I won't touch you I won't work when I'm all tired out,'' complained the girl, and went on her way. Moral to the story is giving bad words to other human or other creature; it will give you bad impact.
10. When she came to the apple tree, it cried, ''Shake me, shake me, or my limbs will break! Shake me, shake me, or my limbs will break!'' ''Let your limbs break, then! I sha'n't shake you,'' said the girl, and went on. Moral to the story is giving respond bad words to other human or other creature; it will give you bad impact.
11. When she came to the mansion, the man on guard told her of the two doors, and asked her through which she wanted to enter. ''I want to go through the golden door,'' said the girl. Moral to the story is being that greed will ultimately bring your downfall.
12. But while her two sisters were rich and could go and come as they liked, Lazy Maria always had to stay at home, poor. The moral was not to get overly greedy; you may end up with nothing.

3. CONCLUSION

From the above discussion throughout the folktale, it can be shared some conclusions that there are many moral values that we can take from the folktales. If we help other people or other creatures, we will get beneficial. As a person we must be thankful for what we have. Those who do not appreciate the small things likely do not have the capacity to appreciate anything and are destined to live a life deprived of joy. Then, do not to get overly greedy and to value what you have, no matter how little it is. The last is Itwould be not too greedy because it will end up with nothing.

REFERENCES

Barcalow, Emmett. (1994).*Moral Philosophy: Theory and Issues*. California:WadsworthPublishing Company

Buzan, Tony. (2003). *ThePower of Spiritual Intelligence: SepuluhCara Jadi Orangyang Cerdassecara Spiritual*. Jakarta: GramediaPustakaUtama.

Earle, William James. (1992).*Introduction to Philosophy*. New York: Mc. Graw Hill.

Edwards,Paul. (1972).*TheEncyclopediaofPhilosophy*.NewYork:Macmillan

Green, Thomas A., ed. (2008). *World Folktales* Greenwood Press.

Green, Thomas, (2006). *The Greenwood Library of American Folktales*, Westport USA: Greenwood Press

Hawthorn, Jeremy. (1994.) *A Concise Glossary of Contemporary Theory. London:Edward Arnold.*

Hazlitt, Henry. (2003).*Dasar-dasarMoralitas*. Yogyakarta: PustakaPelajar.

PRESENTER'S PAPERS

Lewis, Judy. (1995). *Myths, Legends, and Folktales*. Context: Southeast Asians & other new comers in California's classrooms. Vol. 15 no. 115

Lindahl, Carl.(2004). *American Folktales: from the collections of Library of Congress*. Armonk, New York: M.E.Sharpe. Inc.

PrakKhorngNimmanmeun (2000). *NithanPheun Ban Siksa*(Folktales Study), Chulalongkorn University: Chulalongkorn University Publishing House.

Shaffer,DavidR.andSigelmanCarolK. (1995).*LifeSpanHumanDevelopment*. California:Brooks/ Cole Publishing Company.

Thompson, Stith. (1977).*The Folktale*, Berkeley: University of California Press.

Author's Biodata

Siyaswati has been a faculty member of English Education Department, University of PGRI Adi Buana Surabaya since 2008. She gained her master degree in English Language and Literature Teaching Program from State University of Surabaya in August 2004. Now she is a doctorate student of the English Language and Literature Teaching Program of State University of Surabaya. In 2012, she attended *Sandwich Program* at Ohio State University in United State of America which is funded by Directorate of Higher Education the Government of Republic Indonesia. Her major interests cover teaching linguistic, language assessment, and Business English.
Email: siyasw@yahoo.com

PRESENTER'S PAPERS

How Can We Use Edmodo Application in Learning Process For School Level

Sri Wahyuningsih
University of DR. Sutomo,
Surabaya, Indonesia
Wahyu580.ww@gmail.com

Aiga Ventivani
State University of Malang
Malang, Indonesia
Aigaventivani1@gmail.com

Ruliani Adzima
State University of Malang
Malang, Indonesia
Roeli.oelin@gmail.com

Abstract

In the development of technology era, teacher should not be left behind by the development of technology today, especially in using technology as an interactive media for learning. Many people grasp technology in their hands, but they still do not use technology appropriately. The writers therefore deal with the use of human performance technology, especially in learning processess. In this paper, the discussion addresses"How Can We Use Edmodo Application In Learning Process For School Level". In this chance, the writers are promoting Edmodo as an instructional medium that uses internet and can help teacher do everything for learning processess. For example, the teacher can give learning materials, assigment, quiz, score, and interactive learning through Edmodo application. Besides, this application can help teacher to construct interaction between teacher and student in a class and outside the class. Not only creating interaction between teacher and students, but Edmodo application can also construct interaction between teacher, students, and parents. It is helpful for parents to control and monitor their children's activities in learning processess. So, Edmodo is an instructional medium that can help teacher to make active, efective, interactive, and inovative learning in class as well as outside the class.

Keywords: *human performance technology, edmodo application, interactive media*

INTRODUCTION

Nowadays there are many applications which can be used as interactive media for teaching and learning. The demand of employing such media is the media's pertinence that can be used inside and outside the classroom. One of those applications that we want to discuss is an application called Edmodo. This is an interactional media apps that can construct an effective, active, interactive and innovative teaching and learning process. Besides this app is easy to be used by the teachers by using internet connection. Teachers can do many things to help them conducting teaching and learning process by using this application.

First, it would facilitate the teacher with easy way to upload some materials needed so the students would be easier to use the materials inside or outside the class. Moreover, students can also connected to the other students outside the class in order to discuss the lesson. This is what can help the students to develop interactive learning. The other benefit of this application is that

the teachers can distribute the task for the students. This can be done by arranging the deadline of task collection. This application will reject the task collection after the due date in which this would also help the students accustomed to collect their task on time. Third, the teachers can make a-real-time quiz which can enhance the students' participation to answer the quiz via Edmodo. Furthermore, teachers can also uploaded the score easily and quickly so the students can see their scores by opening their Edmodo application. Fourth, the answer form in Edmodo is in the form of polling. This polling form will make the teachers and the students easier to vote or choose. In order to use this application effectively, the teachers could make a class group in Edmodo so they can easily monitor the students' participation in interactive learning via Edmodo. Not only connecting the students to students, and teachers to students, but this application is also able to connect the teachers with the students' parents, and also a teacher to other teachers. The purpose is that the parents can also monitor their children's learning process.

Above outline has described the use of the application called Edmodo for learning languages to us. According to Subyakto (1988:191) the most important thing in teaching and learning process is students and their activities. In relation to teaching language, the students-and-teacher relationship must be constructed and maintained well. And Dewantara (2012:11) said that the factors which can contribute to the students' difficulty in teaching and learning language is divided into two factors, internal and external. One of those contributing factors is the low bound of students-and-teacher relationship. Hardjono (1988;14) also stated the three contributing factors which can determine the students-and-teacher relationship are stated as follows:

1.1 Effects of teaches' personality to the effectiveness of the teaching and learning process.

Kohlshlanky (in Hardjono, 1988:15) had once distributed a questionnaire to the teachers and the students. The questionnaire is about the ideal relationship between teachers and students. Then he summed up the result of the questionnaire that the ideal relationship between the students and the teachers is that there must be a friendlu relationship.

1.2 Effects of positive relationship between the teachers and the students to the effectiveness of the teaching and learning activities.

What is done by the teacher would only by giving stimuli to the students so the students would be stimulated to give responses. If the teachers and the student's relationship is negative, this would hamper the process of the stimuli and response.

1.3 Teachers' creativity and the effectiveness of the teaching process.

Creative here means the teachers' strategies to hold their role in bilateral relation among the teachers, material and the students. This is an obvious fact that the teachers' creativity would affect to the students' achievements.

Andayani (2007:29) stated 4 problems which would be faced by the teachers in teaching language. These include arranging the lesson plans, interacting with the students in the process, and also using the media and materials. These is also added by the students' problem in learning literature is that the lesson is difficult to understand and the students also hate the lesson. According to Rombepajung (1988:3) the main elements of language teaching and learning process are as follows:

a. general policy and purpose
b. Administration and organization
c. relevant profession
d. Teaching and learning types
e. teachers training
f. strategies
g. pedagogy, methodology and teaching
h. silabus design
i. material arrangement

j. problems in language teaching and learning
k. students

1. Evaluation

These elements are in line with Hatta's (2010:1) "*Strong reasons for failure are as follows: 1) Unwillingness to learn, 2) Learner's expectations are too low, 3) Unrealistic aims, 4) Off-set teaching, 5) Fiscal and organizational impediments, 6) Insufficient time for learning and teaching, 7) Gross incompetence in teaching, 8) When the teachers/materials equation is not solved, 9) Teacher inadequately prepared, 10) Willing learners, 11) Learners see the relevance of their learning, 12) Learner's expectations are high,13) The target language has good standing in the community, 14) Psychical and organizational requirements are met, 15) Realistic aim are accepted by all, 16)Suitable syllabus, 17) Intensity of teaching relatively high, 18)Teacher have a high level of professional competence".*

Wulyani (2007:265) stated some problems that might be faced by the students, two of them are the amount of the students in a classroom and not all teachers understand the applied curriculum. This also in line with Andayani's statement above.

2. Language teaching methods

One of the aspects that very much determine the success of learning is the use of learning strategy (Nurhayati,2013:2). The low student motivation and uninteresting learning strategy might be two of the factors that causes the learning of speaking skill less interesting (Dewantara,2012:1). Using the interesting method can grow students' interest towards the materials. Therefore, the teachers must pay attention to the language teaching methods used so that the students can get to the goals optimally in learning language.

Subyakto (1998:9-52) stated the 8 methods in language teaching, such as grammar method, direct method, reading method, oral approach, audiolingual approach, "teacher is ssilent" method, group learning method and suggestopedia. According to Hata (2010:2), one of the factors that causes the failure and success of the foreign language teaching is *teacher have a high level of professional competence.* Teachers are required to have high competence in performing the profession. It is similar to the opinion of Dewantara (2012:5) that teacher has the responsibility in selecting the appropriate learning strategy that goes with the current condition and consider every single thing in selecting the learning strategy so that the goals of the learning process can be reached optimally in an effective and efficient manner.

Hardjono (1988:80) stated that the learning steps samples which are not expected but till practiced vastly are as follows.

Passive voice learning:

a. Teacher explains the rule in creating passive sentences.
b. The students are expected to repeat the rules in language.
c. Teacher writes the rules in the board with several passive sentences as examples.
d. Based on the rules and the examples, the students are asked to creat passive sentences or changing active sentences into passive sentences.
e. As a practice, the students are drilled and they are directly asked to do the questions in the boos.

This kind of method is suitable if we want to teach the language theory, not teaching the use of language as an instrument of communication. This kind of materials will be forgotten soon because the learning process through passive thinking, not active thinking. In the next sub chapter, will be eplained further learning using technology and how technology can support learning process.

3. Learning through technology

Today, education in Indonesia have developed from *teacher-center* to be

student-center. *Student-center* believes that the student learning process is expected to be active to gain knowledge. It is also explained in the previous sub chapter that the materials gained from the passive student method will be easily forgotten. From this thinking, we want to try active learning process that uses the technology as a learning media. It is similar to the opinion of Jonassen, et al (2003:11) who stated that *technologies provide rich and flexible media for representing what students know and what they are learning.*

Rahman. J (2008:2) stated that learning media are all supporting tools or things which are used in learning activities, with the purppose of conveying the learning message from the source (teacher or other sources) to the recipient (in this term students). Jonassen, et al (2003:12) mentioned several benefits of technology in learning as follows

a.Technology as a tool to support knowledge.
b.Technology as a tool to gain information to explore knowledge to support learning.
c.Technology as a learning context. *'learning by doing'*
d.Technology as a social media to support learning.
e.Technology as an intellectual partner to support learning as reflecting.

Nevertheless, it should be noted that technology is merely a learning media, not a learning instrument. The role of the teacher as a main instrument to reach the learning success.

We have explained above that learning through technology stated by Rahman J, therefore we will also explain the definition of Edmodo and its function as follows. Thhe use of internet nowadays is becomes massive. Now, beside using internet as a communication media, internet is also used as a media to search various information for al field. According to Williams (Munir, 2010: 195), internet can be formulated as "a large collection of computers in networks that are tied together so that many users can share their vast resources." One of the examples are facebook site. According to Checkfacebook.com, per December 2012, the users of Facebook in Indonesia is the fourth biggest in the world after India, which is more than 50 million users. Of all the users of facebook in Indonesia, of course majority of them are students and teacher. The trend of utilization of this social networking can be a chance in learning process. Now, one of the social networks that has many features for learning meadia is Edmodo. Edmodo is a school based environment social network. It is developed by Nicolas Borg and Jeff O'Hara, Edmodo is aimed on the use for teachers, students and parents. Similar as other social networks, Edmodo can be accessed freely in the www.edmodo.com site.

Edmodo is a social media-based learning platform for teachers, students as well as parents. Edmodo was developed in the end of 2008 on the first time by Nic Borg and Jeff O'hara and Edmodo itself can be said as an e-learning program that applies the easy, efficient as well as enjoyable learning system. Edmodo presents safe and easy ways to build a virtual classroom based on class division similar to school.

The design of the Edmodo display is almost the same as facebook. With Edmodo, teachers/lecturers can send grades, tasks, or quizzes for students easily. In using Edmodo, there are several things that must be considered, such as special codes for each class/group. If a student want to join a group, first the student must know the special code of that group.

The benefits of Edmodo for learning

Edmodo has several benefits in learning such as:

1. Edmodo is a very efficient communication and discussion platform for teachers and students.
2. With Edmodo, each student can interact and discuss with direct monitoring from the teacher.
3. Furthermor, Edmodo eases the communication between teacher, students as well as parents.
4. As a right platform for quizzes or examinations.
5. Teacher can give materials such as questions, learning photos, videos easily to the students. Furthermore, the students can download the learning material.
6. Using Edmodo, parents can monitor their children's learning activities easily. It also eases

the teacher in giving questions from whenever and wherever needed.

Edmodo's features

There are many features offered by Edmodo to support the learning process. The following are the features in Edmodo:

1. Polling

Polling is one of the features that can only be used by the teacher This feature is usually used by the teacher to know the students'responses on particular thing. The following is the polling display sample in Edmodo:

2. Gradebook

This feature is similar with student grade notes. With this feature, the teacher can give grades to the student manually or automatically.

This feature also enabes teacher to manage the learning result grading for all students. This grade can be exported to file .csv.

In Gradebook feature, teacher has full access on this feature while the students can only see the grade recapitulation in the form of graphs and direct grading.

3. Quiz

Quiz feature can only be made by teacher, while the students do not have access to make quiz. They can only answer the quizzes questions given by the teacher.

Quiz is used by teacher to give online evaluation to students in the form of multiple choice, short answers or essays.

4. File and Links

This featre is used to send notes with file and link attachment. Usually, the files have the extension .doc, .ppt, .xls, .pdf and many more.

5. Library

Using this feature, the teacher can upload learning materials, presentation, pictures, videos, references and others.

This feature is used as a forum to accommodate various files and links fo teachers or students.

6. Assignment

This feature is used by the teacher to give assignments to the students via online.

The adantage of this feature is complete with the deadline, attach file feature that enables students to send the assignments directly to the teachers in the form of document files (pdf, doc, xls, ppt), and also "Turn in" button in the assignment sending which shows that the students have finished their assignment.

7. Award Badge

To give a reward for students or a group, usually the teacher uses this award badge feature. The following is the display of "Award badge" feature in Edmodo:

8. Parent Code

With this feature, arents can monitor the learning activities done by their children.

To collect this code, the parents can click their children's class/group in Edmodo or can be collected directly from the teacher. Seen from the benefits and the features, Edmodo is a right choice to be used as an online learning media. Furthermore, Edmodo also eases the learning activities between teacher and students. Other benefit from Edmodo is that the parents can monitor their children's learning activities.

CONCLUSION

What can be concluded from this paper is that beside conventional teaching, teacher can also use Edmodo as a supporting instrument in learning process. It is because the features in Edmodo support the learning process. By using edmodo as a supportive instrument in learning process, it can make the students more active in learning.

SUGGESTION

It is suggested to the related parties, especially teacher and education observers to maximize the social network use for students' learning process.

REFERENCES

Andayani. 2007. *Problema Pembelajaran Apresiasi Sastra di Sekolah* Dasar. *Jurnal Bahasa Sastra dan Pengajarannya.*Vol.5 No.1 April 2007

Dewantara, I Putu Mas. 2012. *Identifikasi Faktor Penyebab Kesulitan Belajar Keterampilan Berbicara Siswa Kelas VII Smpn 5 Negara dan Strategi Guru Untuk Mengatasinya.* Yogyakarta, (Online), (http://Pasca.undhiksa.ac.id), diakses pada 06 September 2015.

Hardjono, Sartinah. 1988. *Psikologi Belajar Mengajar Bahasa Asing*. Jakarta. Departemen Pendidikan dan kebudayaan.

Hardjono, Sartinah. 1988. *Prinsip-Prinsip Pengajran Bahasa Dan Sastra.* Jakarta. Departemen Pendidikan dan kebudayaan.

Hata, Kazuki. 2010. *A Research Survey: Factor of Success and Failure for Japanese EFL / ESL Students.* (Online), (http://journal.seijo.ac.jp>pdf>eng-036-01), diakses pada 06 September 2015.

Jonassen [et al]. 2003. Learning to Solve Problems with Technology. New Jersey. Upper Saddle River.

Nurhayati. 2008. *Berbagai Strategi Pembelajaran Bahasa dapat Meningkatkan Kemampuan Berbahasa Siswa.* (Online), (http://eprints.unsri.ac.id), diakses pada 06 September 2015.

Rahman. J. Rizky, Wawan Setiawan, dan Eka Fitrajaya R.2008. *Optimalisasi Macromedia Flash Untuk Mendukung Pembelajaran Berbasis Komputer Pada Program Studi Ilmu Komputer FPMIPA UPI.* JURNAL PENDIDIKAN TEKNOLOGI INFORMASI DAN KOMUNIKASI ISSN:1979-9264 VOLUME 1, NOMOR 2, DESEMBER 2008

Rombepajung. J.P. 1988. *Pengajaran dan Pembelajaran Bahasa Asing*. Jakarta. Departemen Pendidikan dan Kebudayaan.

Subyakto-N. Sri Utari. 1988. *Metodologi Pengajaran Bahasa*. Jakarta. Departemen Pendidikan dan kebudayaan.

Wulyani, Anik Nunuk. 2007. *Competency-Based Teaching and Learning at Senior High School. Jurnal Bahasa, Sastra, Seni dan Pengajarannya.*Tahun 35. No.2 Agustus 2007

------. 2012. Largest Countries on Facebook. (http://www.checkfacebook.com/, diakses tanggal 6 Desember 2012).

Arifin, Zainal. 2009. Evaluasi Pembelajaran. Bandung: PT Remaja Rosdakarya.

Depdiknas. (2006). Permendiknas Nomor 16 Tahun 2007 tentang Standar Kualifikasi Akademik dan Kompetensi Guru. Jakarta: Depdiknas.

PRESENTER'S PAPERS

Ekawati, Estina & Tamimuddin , M. 2011. Ekspektasi Pemanfaatan Online Social Network Dalam Pembelajaran. Jurnal Edukasi matematika, Vol 2, 270-277.

Munir. 2010. Kurikulum Berbasis Teknologi Informasi dan Komunikasi. Bandung: Alfabeta.

Munthe, Bermawi. 2009. Desain Pembelajaran. Yogyakarta: Pustaka Insan Madani.

Wena, Made. 2009. Strategi Pembelajaran Inovatif Kontemporer. Jakarta: Bumi Aksara

Author's Biodata

Sri Wahyuningsih was graduated of Indonesia Language Teaching in University of DR. Sutomo, Surabaya. In 2015, she takes Magister's of Language Teaching in State University of Malang.

Aiga Ventivani was graduated of Mandarin Language Teaching in State University of Malang, 2015. Then, she takes Magister's of Language Teaching in State University of Malang, and now she gets second semester. Now, she is active as a teacher's extracurricular in Laboratory of Senior High School, State University of Malang.

Ruliani Adzima was graduated of English Language Teaching in State University of Malang, 2014. In 2015, she takes Magister's of Language Teaching in State University of Malang, and now she gets second semester.

PRESENTER'S PAPERS

New Patterns of Environmental Education in Society through Community-Based Environmental Management A Case Study in Kalanganyar Sedati of Sidoarjo Regency

Sri Widyastuti
University of PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia
rafirudi@yahoo.co.id

Enny Puri Rahayu
University of PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia

Abstract

Environmental education is one important factor to minimize damages to environment and a means to produce human resources to implement the principles of sustainable development. Mindset of communities to manage the environment is that Community-Based Management is the direct involvement of the community in managing the environment. It will be a necessity when it concerns the management of what society needs as occurring in villages of Kalanganyar Sedati of Sidoarjo Regency. They serve as milkfish production centers, as well as a center for the sale of refined products such as milk fish without spines. The processing of waste disturbs environmental sanitation because the waste dumped into rivers contaminate the rivers. Fish waste management efforts undertaken by fish waste processing into liquid organic fertilizer useful for agriculture in the regions. The problem of waste is therefore resolved and the community benefit economically from the environmental management. The present paper, accordingly, puts forward how the environmental education was conducted in Kalanganyar Sedati of Sidoarjo Regency to manage fish waste in order to reduce the river contamination.

Keywords: environmental education, environmental management community-based, liquid organic fertilizer from fish waste

1. INTRODUCTION

The discovery of chemical fertilizers (inorganic) is one of the triggers of the green revolution (in the field of agriculture) in the world. Having the intensification of technologies relying on agro chemical substance (chemical fertilizer) applied in Indonesia, the agricultural output proves to increase. However, the continuous use of chemical fertilizers proves to be detrimental. The use of chemical fertilizers in the long term can seriously impair the physical, chemical, and biological. Accordingly, the soil potentials to support the availability of water, nutrients, and the life of microorganisms decrease.

Utilization of organic materials from animal sources by making use of waste of fish industries could be an alternative. Basically, the waste of fishing industries cannot be used directly as liquid fertilizer since organic matter contains fat and protein which cannot be absorbed immediately by plants. The decomposition of organic content in wastewater is therefore needed with the aim of breaking the complex compounds into organic compounds that are simpler. Consequently, the plants more easily absorb the nutrients contained in the organic liquid fertilizer.

Kalanganyar village has the potential of milkfish farming development in addition to being a collector of the fish from areas outside the Sidoarjo region where the fish originally comes from. Villagers of Kalanganyar mostly make use of the fish by managing home industries producing grilled fish, thorn-removed milkfish, high pressure cooked, smoked milkfish, milkfish crispy chips. The fish processing of is very simple. It can be done manually and without paying attention to environmental sanitation and personal hygiene of workers. Every year there are between 25-30% of marine fish catches which should eventually become scrap or fish waste due (Department of Fisheries and Marine Resources in Figures, 2014).

Fish waste processing results as well as the unused catch can be processed into liquid organic fertilizer. Therefore, it will not be waste. It cannot be a source of contaminants that can cause disease. But it will enhance the welfare of the surrounding community. They no longer need to buy fertilizers for agricultural crops, can sell organic liquid fertilizer produced as well as the cleanliness, beauty and health can be maintained.

The mindset to change waste into a more valuable material will be more economical if it is done together by the community. That will boost the welfare of the community together at the same time. The mindset of communities to manage the environment is called Community-Based Management. The Community Based Management is the direct involvement of communities in managing natural resources as part of environmental education in those communities.

The environmental management is carried out through a bottom-up processing of fish waste generated by Kalanganyar villagers into liquid organic fertilizer that meets the national standard liquid of organic fertilizer. This mechanism is in accordance with Government Act No. 71 Year 2011. The purpose of this study was to investigate the techniques of producing organic fertilizer from waste liquid bio-activator fisheries using EM4 (Effective microorganisms 4) and see the quality of liquid fertilizer produced by the price of the C/N ratio in an attempt to environmental education in community empowerment.

2. METHOD

The production process of the liquid organic fertilizer from the waste generated Kalanganyar Village community is described as follows:

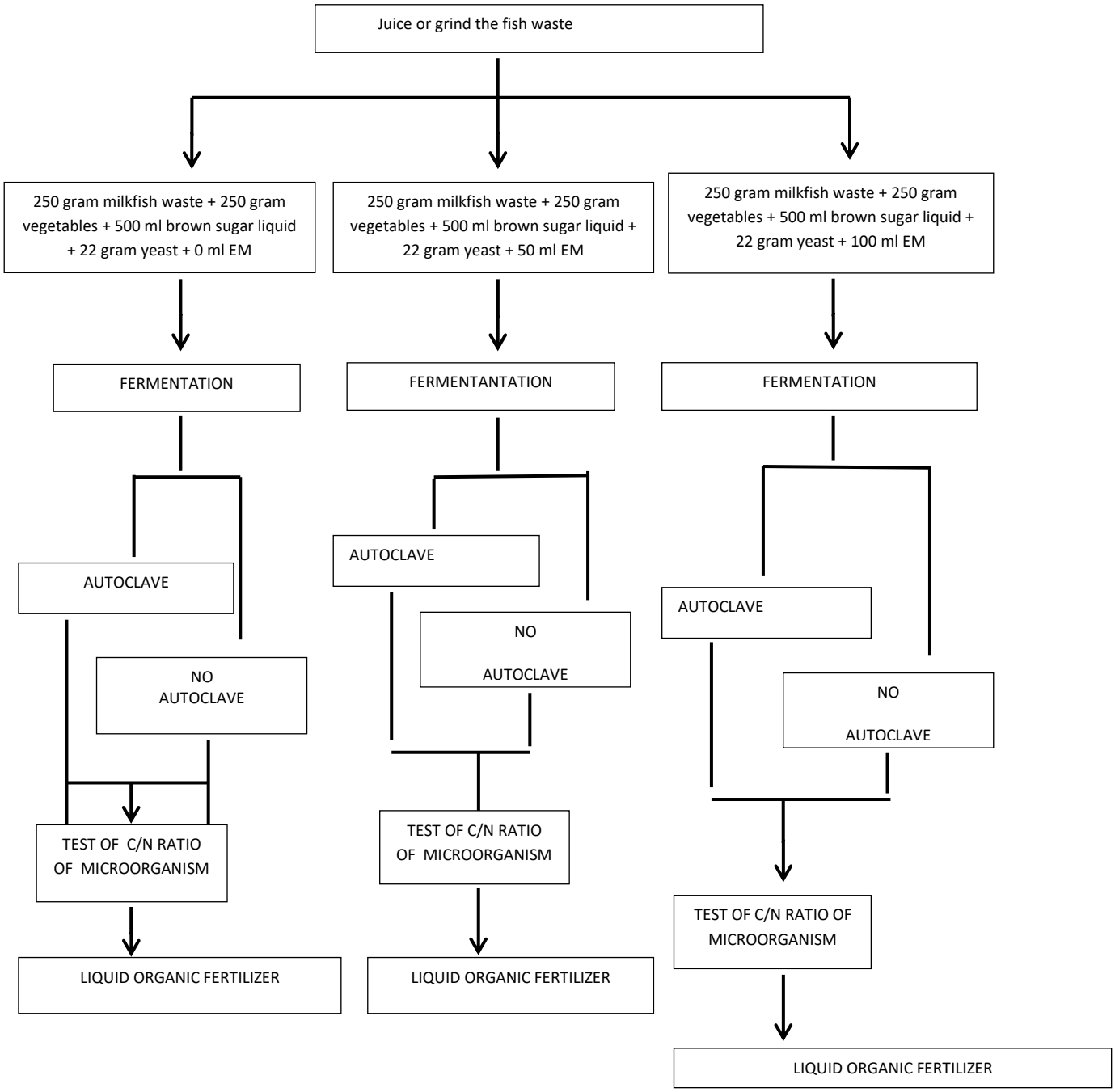


Figure 1 The production process of liquid organic fertilizer

From Figure 1, the steps undertaken to produce liquid organic fertilizer are as follows:

(a) Clean up the fish offal and blood.

(b) After the clean, chop up fish waste as fine as possible and then put into 0.5 liters of water and blend it with juicer or grinder.

(c) Dissolve the sugar with hot water.
(d) Put into the fish waste, brown sugar and pour a solution of 500 ml, then as much as 22 grams of baker's yeast to the fermenter.
(e) Stir until well blended in the same direction.
(f) Cover the fermenter tightly and let it stay for 72 hours.
(g) Put into the EM 4 to the fermenter.
(h) Stir until well blended in the same direction.
(i) Cover the fermenter tightly and let it stay for 72 hours.
(j) After 72 hours + 14 days, strain POC with a cloth until POC is clean and free of residue.
(k) Sterilize POC by autoclaving to get rid of microorganisms.
(l) Place the POC in a clean container, cover it tightly, and keep it from sunlight (ultraviolet). The samples are taken and measured by the levels of N and C.

3. RESULTS AND DISCUSSION

3.1 Results

Sample Code	Carbon (mg/L)	Nitrogen (mg/L)	C/N Ratio
WITH AUTOCLAVE			
Liquid Fertilizer Control (0 ml) EM	24,567,00	268.23	9.13
250 gr Fish Waste 250 + 250 gr Vegetables			
Liquid Fertilizer (50 ml) EM	27,245,00	154.9	17.83
250 gr Fish Waste 250 + 250 gr Vegetables			
Liquid Fertilizer (100 ml) EM	29,535,00	139.8	20.93
250 gr Fish Waste 250 + 250 gr Vegetables			
WITH AUTOCLAVE			
Solid Control (0 ml) EM	20,229,00	190.7	10.60
250 gr Fish Waste 250 + 250 gr Vegetables			
Solid (50 ml) EM	24,358,00	198.1	12.35
250 gr Fish Waste 250 + 250 gr Vegetables			
Solid (100 ml) EM	27, 320,00	124.8	21.77
250 gr Fish Waste 250 + 250 gr Vegetables			

WITHOUT AUTOCLAVE			
Liquid Fertilizer Control (0 ml) EM	18,545,00	128.3	14.43
250 gr Fish Waste 250 + 250 gr Vegetables			
Liquid Fertilizer (50 ml) EM	23,358,00	124.1	25.55
250 gr Fish Waste 250 + 250 gr Vegetables			
Liquid Fertilizer (100 ml) EM	24,665,00	125.0	30.75
250 gr Fish Waste 250 + 250 gr Vegetables			
Solid Control (0 ml) EM	20,322,00	122.4	16.72
250 gr Fish Waste 250 + 250 gr Vegetables			
Solid (50 ml) EM	24,235,00	119.4	20.35
250 gr Fish Waste 250 + 250 gr Vegetables			
Solid (100 ml) EM	27,220,00	105.7	28.90
250 gr Fish Waste 250 + 250 gr Vegetables			

Sample Code WITHOUT AUTOCLAVE	Test Results of Salmonella (Colony/gr)
Liquid Fertilizer Control (0 ml) EM	2.1×10^{2}
250 gr Fish Waste 250 + 250 gr Vegetables	
Liquid Fertilizer (50 ml) EM	15.5×10^{2}
250 gr Fish Waste 250 + 250 gr Vegetables	
Liquid Fertilizer (100 ml) EM	25.55×10^{3}
250 gr Fish Waste 250 + 250 gr Vegetables	

3.2 Discussion

The fertilizers made from the fish waste were reported that they significantly reduced pathogen attacks, for instance, *Macrophomina phaseolina*, *Rhizoctonia solani and Fusarium spp*., the okra and string beans (Abasi et al., 2003; Irshad et al., 2006) and could induce *Actynomicetes spp*. *and Rhizobacteria spp* involved in producing the hormones to grow around the plant roots (El-Tarabily et al., 2003).

However, in general, these fish fertilizers have been developed nowadays generally made from good quality fish that compete with the society' needs for food. Accordingly, fish waste is available in large enough quantities and unutilized. The waste is generally collected in fish shelters and traditional markets. The composition of the waste is generally in the form of fish that have been damaged, guts, fins, head, and scales. If utilized, then the fish waste as fertilizer has the potential for good quality fish similar to the existing fish fertilizer on the market. The fermentation and enrichment treatment has not yet significantly affected the quality of the organic fertilizer made from the fish waste.

It turns out that the quality of the organic fertilizers was significantly affected by the amount of carbon source. The amount of carbon being ideal for use in the fermentation process of the fish waste into organic fertilizers was 30% (v/v). The above-mentioned fertilizers fermented from the fish waste possessed chemical characteristics similar to types of fertilizers on the market. Therefore, there is a need for more in-depth testing, particularly related to how the plants respond to organic fertilizers.

The process of making the liquid fertilizer naturally takes usually six months to a year (depending on the material used). Accordingly, bio-activators/agent of decomposer today have been developed commercially produced to increase the speed of decomposition, enhance the decomposition of organic matter, and can improve the quality of the final product (Nuryani et. al, 2002).

The added bio-activator in the production of liquid fertilizer is expected to accelerate the formation of liquid fertilizer by 2- 3 weeks or 1-1.5months. Generally speaking, fresh organic material has a high C/N ratio, as a case of rice straw having a C/N=50-70. Principally, production of fertilizer is to lower the C/N ratio of organic matter that is equal to the C/N ratio of soil (<20) .The higher the C/N ratio of fertilizer materials, the longer the process will be because the C/N ratio should be lowered. The fertilizer production can take place under aerobic and anaerobic conditions.

The fermentation process can be accelerated by the addition of bio-activator that is a source of microorganisms. Microorganism activities are affected by the concentration of sugar as sucrose contained in the sugar solution is the substrate easily digested and utilized for growth of those microorganisms.

The success of liquid organic fertilizer production by the fermentation is indicated by a white coating on the surface, a particular odour, and colour changes from green to brown and the fertilizer produced is brownish yellow. White coating on the surface of the fertilizer is *actinomycetes*. They are a kind of mushrooms growing after the production of fertilizer.

The liquid organic fertilizer derived from the fish waste has undergone total changes as indicated by the absence of waste blood. In addition, it brings out the odour like the smell of durian. While the results derived from the fermentation of milkfish waste smells like fermented cassava.

Figure 1:

Solids and liquid fertilizer which have been filtered.

Figure 2:

Solids of liquid organic fertilizer from fish waste + vegetables. The fermentation process requiring 14 + 3 days has been running perfectly. No blood waste.

Figure 3: The resulted waste is more homogeneous and more liquid

Analysis of the results of composting process on C/N ratio

C/N ratio is the ratio of energy supply for the microbes for nitrogen to synthesize protein. The C/N ratio of the raw materials utilized in this study was 68.14. This ratio was so high that it could not be directly used as fertilizers for crops. The required C/N ratio for fertilizers ranges from 10 to 20. It could be attained after the fermentation process was carried out with the help of bio-activator, as shown in Figure 3 above.

Based on the data regarding the C/N ratio, it showed that the CN ratio increased in accordance with the extent to which EM 4 was added. It is assumed that the more bacteria activator was added, the higher the value of the CN ratio was. However, based on SNI Organic Liquid Fertilizer required by the Ministry of Agriculture Regulation, there is not clearly a set number. It only stipulates that the C/N ratio is <6. Therefore, the addition of 100 ml EM 4 is very adequate.

Analysis of the results of the microbiological testing

Based on SNI Liquid Organic Fertilizer required by the Ministry of Agriculture Regulation of Year 2011, organic liquid fertilizer should be free from microbial pathogens, such as *E. Coli* and *Salmonella*. The lab results for solids that were not in the autoclave showed that the salmonella exceeded the threshold for the liquid organic fertilizers added with vegetables. This can be understood since the added vegetables were in the form of waste as well. The vegetables therefore also contained germs. The temperatures of the fermentation process were not able to get rid of the salmonella. Consequently, the autoclave process was required to remove germs in the liquid organic fertilizer. In addition to secure against the salmonella, the autoclave process would increase the degree of C/N ratio. The results analysis of the C/N ratio of liquid organic fertilizer manufactured in the autoclave process showed an increase in comparison to that not processed with autoclave.

4. CONCLUSION

4.1. Conclusion

1. The fish waste of the Kalanganyar villagers can be converted into the liquid organic fertilizer with the C/N ratio corresponding to the Ministry of Agriculture Regulation of Year 2011.
2. The addition of bio-activators is needed to make the fermentation process runs perfectly.
3. It is sufficient to add 50 ml EM 4 for a 500 gram of sample.
4. Environmental Education in the community can be based on the needs of the community, in particular those that can boost people's welfare.

4.2. Suggestion

1. The fermentation process of catfish waste should be exceeding 14 days so that the overall waste can be thoroughly fermented.
2. The addition of vegetables aids the process of turning waste into a liquid organic fertilizer. At the same time, however, it increases the number of the salmonella in it.
3. The autoclave process has capability in reducing the number of bacteria.

REFERENCES

Davis, J. G., M. A. P. Brown, C. Evans, and J. Mansfield. (2004). *The Integration of Foliar Applied Seaweed And Fish Products Into The Fertility Management of Organically Grown Sweet Pepper.* Organic Farming Research Foundation Project Report. North Carolina State University.

El-Tarabily, K. A., A. H. Nassar, E.S. Giles, J. Hardy, and K. Sivasithamparam. (2004). Fish

emulsion as a food base for rhizobacteria promoting growth of radish (*Raphanus sativus* L. var. *sativus*) in a sandy soil. *Plant and Soil 252 (2):*397-411.

EM4 *Indoneisa*. (2013). EM-4 Pertanian. http://www.em4indonesia.com/prod uksi/pertanian. Retrieved on 30 March 2013.

Eviati & Sulaeman. (2009). *Analisa Kimia Tanah, Tanaman, Air Dan Pupuk*. Bogor: Badan Penelitian Dan Pengembangan Pertanian Departemen Pertanian

Fitria Y. (2008). *Pembuatan Pupuk Organik Cair dari Limbah Cair Industri Perikanan Menggunakan Asam Asetat dan EM4 (EffectiveMicroorganisme4)*.Tugas Akhir. Fakultas Perikanan dan Ilmu Kelautan. Bogor: Institut Pertanian Bogor.

Glogoza, P. (2007). Effect of foliar applied compost tea and fish emulsion on organically grown soybean. *U of MN extension service*. Januari 2007.

Hadisuwito, S. (2012). *Membuat Pupuk Organik Cair*. Jakarta : AgroMedia Pustaka

Author's Biodata

Sri Widyastuti is a lecturer of Enviromental Engineering Departement University of Adi Buana Surabaya. he received her Master Degree in Organic Chemistry from University of Gadjah Mada Yogyakarta Indonesia. Her major interestsis in Enviromental Organic Pollutan

Enny Puri Rahayu is a lecturer of the Home Economics Department of University of PGRI Adi Buana Surabaya.

E-Learning Quality Control Framework Studies in Higher Education Environment

Soetam Rizky Wicaksono
Ma Chung University
Villa Puncak Tidar N-01 Malang East Java, Indonesia
soetam.rizky@machung.ac.id

Abstract

The implementation of e-learning in higher education has been based upon assumption that e-learning can help lecturers improving student learning motivation. However, e-learning that has been running has often no longer cared whether it has been able to meet the required needs of teaching and learning process. So, it is a must to have quality control which e-learning can be maintained for its quality and to keep its innovation for the process. The present research was devoted to quality control framework on e-learning in the scope of Indonesia's higher education. This research main cause was that there were diverse quality control frameworks of e-learning, while implementation of e-learning in Indonesia was still in the stages of socialization and existence. So, the existing quality control framework was being reviewed in order to be more appropriate for Indonesia higher education environment generally. The results of this study were expected to be the initial proposal for a framework for quality assurance systems for e-learning in Indonesia's higher education. Therefore, in future studies, it can develop a new framework of the quality assurance systems of e-learning that can be applied generally.

Keywords: *e-learning, quality control, higher education*

1. INTRODUCTION

E-learning usage in higher education environment nowadays is no longer become improvement, since that e-learning has already become need for most university. EDUCAUSE research in 2011, has announced report that 99 % from 2500 universities sample from 18 countries has already implemented e-learning (EDUCAUSE, 2012). Thus, it proves that e-learning is really become common thing in higher education.

However, misunderstanding concept about e-learning implementation is that most of university focused on course material repository or discussion forum. Thus, many lecturers and also students becoming sceptical about e-learning, and its function merely become obligatory task for them rather than improvement effort for learning process (Al-Shboul & Alsmadi, 2010; Cole, 2009; Burgess, 2003).

On the other hand, many students which come from net generation today, admit that using e-learning can leverage their motivation in learning process (Cole, 2009; Finger, Sun, & Jamiesen-Proctor, 2010; Singh, O'Donoghue, & Worton, 2005; Weller, 2002). So, it means that e-learning really need a restrict control in order to keep its function on the righ track. In order to keep the e-learning is in the right track, it will need certain quality control inside it.

While e-learning in higher education environment, especially in Indonesia, mostly still in development and implementation stage, its quality control often being ignored. However, without good quality control, e-learning will back to obligatory task rather than learning improvement. This is the main reason why e-learning quality control is important today.

E-learning quality control has been described by some of researcher, such as from UWS (University of Western Sydney), which mention that e-learning quality depend on its development, supporting staff and advanced standard (Ireland, Correia, & Griffin, 2009). However, quality control standard should be different between each country, and more specific is different between each university. It happened because their e-learning condition are completely different, whether its level or its environment.

Thus, this study tries to redescribe e-learning quality control framework in higher education environment, specifically in Indonesia. This study merely focus on initial framework which should be develop further more using empirical research. So, its result based upon literature study rather than survey. Moreover, once again, it should be redevelop using quantitative research in the future.

2. E-LEARNING QUALITY PERSPECTIVE

The term of quality, in higher education environment, is defined as conformance to standard or specification (Green, 1994). However, the term of standard is bias and always different based upon the product or services. In education services, standard can be assessed according to need and who the customers are. Thus, quality itself can be relative and value-laden concept and maybe viewed differently by various stakeholders (Jung, 2010).

More explicitly, quality in e-learning only described as effort to simply get something up and running(MacDonald & Thompson, 2005). It means that for most institution, having e-learning that can be accessed by students and lecturers are already reflected great effort for them to leverage their learning process.

On the other hand, quality in e-learning can be seen from perspective of seven quality dimensions that already empirically surveyed, which are: institutional support, course development, course structure,teaching and learning, student support, faculty support, and evaluation and assessment(Jung, 2010). In that research, some of factors which are considered as important are: (1) national accreditation, (2) interaction, (3) staff support, (4) learner support, and (5) information and publicity online.

Those factor are compressed from more than 60 factors which are identified earlier. It means that in term of internal assesment, many students merely concern about how e-learning are published and fulfilling national standard rather than considering its content or its evaluation model. However, in Indonesia higher education, there is still no national accreditation which is specifically targetting e-learning. So, national accreditation factor will be eliminated in framework design later.

Second perspective of e-learning quality is seen from four components, which are: (1) instructional design, (2) content reviewed, (3) course delivery which is monitored by staff and lecturer and (4) impact which is measured by feedback and external review (TInker, 2001). This perspective different from previous one, because of its perspective focused on internal view rather than external view. For example, monitoring course delivery by staff and lecturer is prefer to be done rather than following external standard such as national accreditation. It also focused on internal impact of e-learning for students and lecturer rather assesing students' support.

Third reviewed perspective of e-learning quality is called DDLM (Demand Driving Learning Model) which emphasize four main components in e-learning quality assurance (MacDonald & Thompson, 2005), which are: (1) structure, which includes pedagogical strategies, learning environment and evaluation, (2) content of e-learning, (3) services, which includes resources, administration and technical support, accessibility and responsiveness, also (4) outcomes that should have lower cost for learner, staff and lecturer. This perspective similar as previous one,

since that highlight better for internal view, for example, lower cost for staff and also pedagogical strategy.

3. E-LEARNING QUALITY FRAMEWORK

Based upon three different view of e-learning quality, then we should take a look one by one and try to comfort them into what really happened in Indonesia higher education environment nowadays. First of all, since that Indonesia government through Higher Education General Council (DIKTI) has not been created any national standard or accreditation for e-learning, then we can eliminate first factor from first perspective.

Still in the first perspective, we can still includes staff and learner support also interaction as quality framework components for e-learning. All of those components are considered as internal factors from e-learning and can affect e-learning performance overall. While the last component from this perspective is information and publicity online, is not necessary in Indonesia higher education. Since that most of Indonesia higher education's e-learning are still in the stage of inisiation rather than stage of publication.

Second perspective which has four components are relevant with e-learning condition in Indonesia. Such as instructional design, which is likely ignored by most lecturer when they entering e-learning. Most of lecturers merely uploadtheir course material or lecture notes' presentation and let the students downloading them. However, it should have evaluation and also assesment in it as conformance and standard in instructional process. Thus, all the components can be included in quality control framework.

Third and last perspective contains four components which are also similar from previous perspective. However, last component from this perspective has different point of view which mentioned about lower cost for e-learning outcomes. This last component is very interesting, since that most of e-learning implementation in Indonesia still considered as expensive plan for most higher education environment, while just a little amount of university consider it as cheap and easy. So, this last component definitely become one of important factor in quality framework.

After reviewing all of the perspective, we can have a simple fishbone diagram in order to justify our first attempt in quality framework proposal. The diagram shown in figure 1.

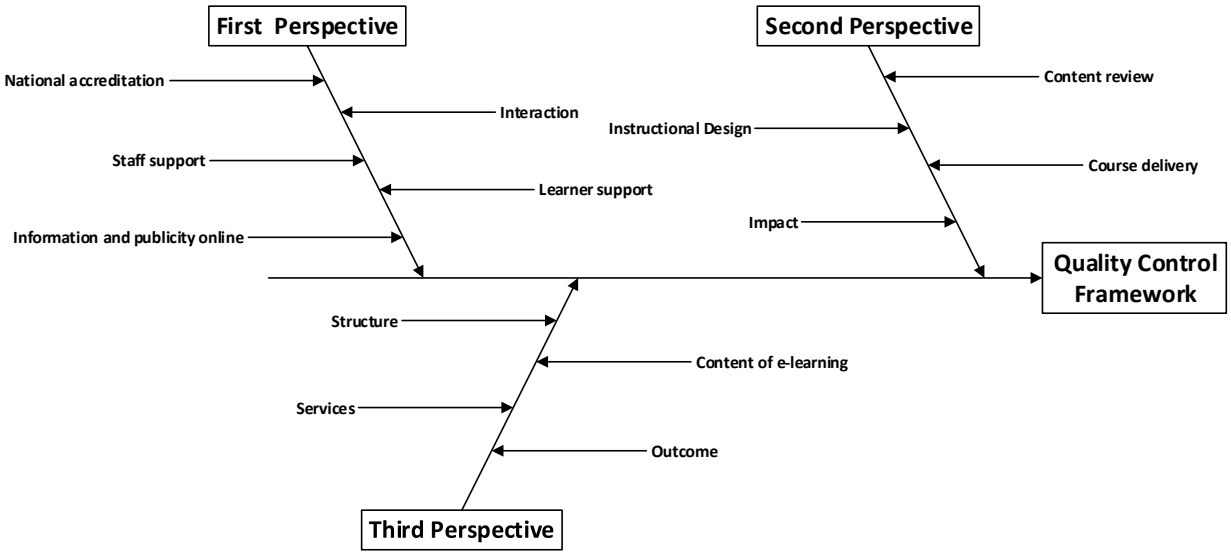


Figure 1: First Fishbone Diagram

As we can see that some of components are closely related each other and also have similar function in controlling quality of e-learning. For example is component *staff support and learner support* from first perspective are similar with *course delivery* from second perspective and *services* from third perspective. Thus, we should have another diagram to modify the first fishbone into new proposed framework as shown in figure 2.

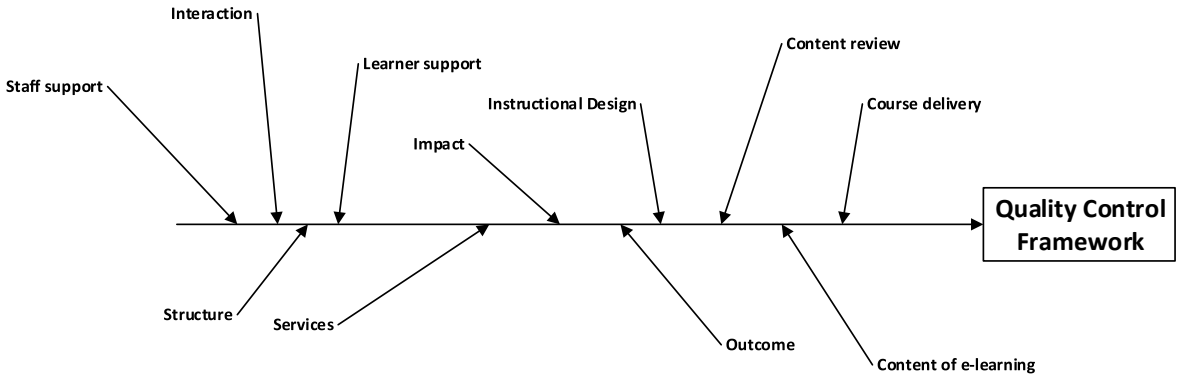


Figure 2. Modified Framework Diagram

Afterward, we can see glimpse of proposed framework which already modified into new one. Next, we will map and get more detail for this proposed framewok, based upon each major component. Whole previous perspectives have already had their own detail survey based questions. Then, we will try to combine and mix into new proposed framework.

As we can see, there are three major component in internal implementation of e-learning, which are: lecturers, students and e-learning administrator. E-learning administrator can also be lecturer who already has great awareness about IT or lecturer who has been pointed as supervisor for e-learning implementation. Thus, administrator should also become main actor in quality control activity, since that he also responsible in e-learning daily operational.

From the first major component, students, we can split modified framework diagram as four quality control components, which are: (1) student support, that should explain how student can

afford e-learning, from its access, and also scalability platform, (2) interaction, that should explain how student can be active learner in an e-learning, not merely become downloader and passive audience, (3) impact, that should explain e-learning effect during learning process for student, whether it just become supporting action, major impact or just become useless, and (4) outcome, that should explain last outcome from e-learning and it must be not in quantitative measurement, since that outcome can not only measured based upon students' grade, but it should also measured by their satisfaction.

Second component is lecturer, that can explained into these sub component: (1) lecturer support, that should explain how lecturer really can optimize e-learning rather than only uploading their course material or lecturer notes, (2) content, which explain that content in e-learning really must support and relevant with its course, (3) instructional design, that should explain what kind of instructional design which already implemented by lecturer, so e-learning really must have innovation and improvement inside it, and (4) structure, that should explain how learning environment and evaluation affect lecturer in e-learning activity, such as university infrastructure and internet connection.

Last component is administrator component, that has three sub component which are: (1) course delivery, that should explain how monitoring process done for lecturers and students in e-learning activity, (2) content review, which should explain how content being reviewed, whether only reviewing its proper format for e-learning, or it also reviewing whole content inside, and (3) services, which explain how e-learning environment and infrastructure can really supporting e-learning and how it provided by university.

All of the explanation of components and its sub component should become main cause for quality controller in e-learning to create further questions in his survey. However, since that this framework already proposed as generic, it should have different detail questions for each environment. Based upon previous explanation, we try to summarize the result into new hierarchical diagram as shown in figure 3.

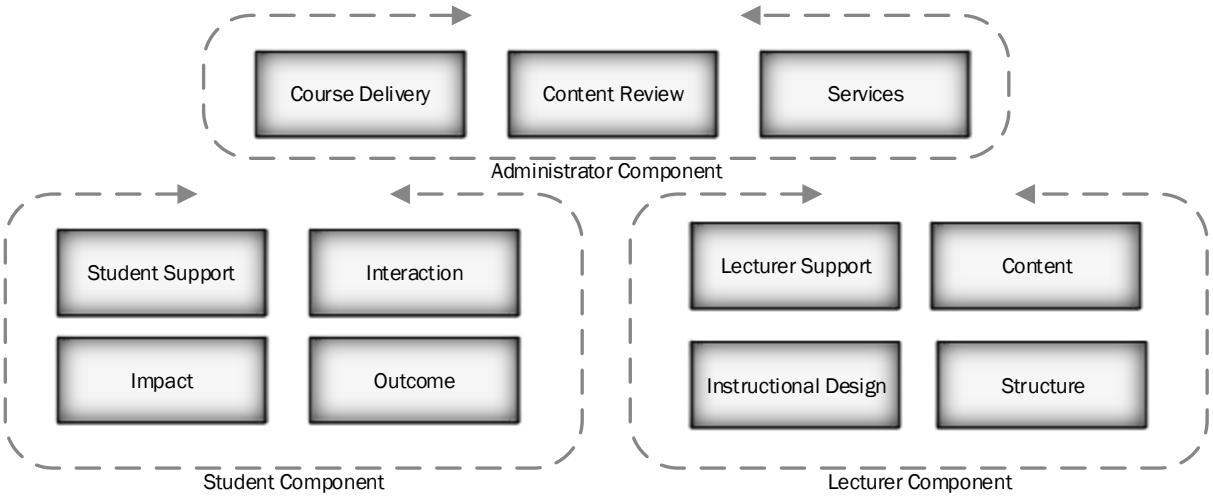


Figure 3. Quality Control Framework

4. CONCLUSION

While this study simply includes three perspective of quality control, it should have fulfil initial need of quality control framework for e-learning. Whole view which can be generically changed based upon each places condition and situation. On the other hand, this quality control framework, merely focused on internal evaluation, rather than external evaluation.

Focusing on internal need should create self awareness for e-learning administrator and actors, such as lecturer and students. Thus, it can focus improvement and also development for better e-learning in the future. This should also emphasize that quality control activity is not about judgement and punishment, however, it should create new direction if needed or overhauling what has already happened.

This framework also must be tested upon some universities in order to get better framework in the future. Empirical test will be done in the next research, since that the activity will need bigger effort. It also need another study from another perspective in order to get broader view of framework component.

REFERENCES

Al-Shboul, D. M., & Alsmadi, D. I. (2010, June). Challenges Of Utilizing E-Learning Systems In Public Universities In Jordan. *iJET, 5*(2).

Burgess, L. A. (2003). WebCT as an E-Learning Tool: A Study of Technology's Students Perception. *Journal of Technology Education, 15*(1), 6-15.

Cole, M. (2009). Using Wiki Technology to Support Student Engagement: Lessons from the Trenches. *Computer & Education, 52*, hal 141-146.

EDUCAUSE. (2012). *The 2011 ECAR National Study of Undergraduate Students and Information Technology Infographic.* Retrieved September 20, 2012, from EDUCAUSE: http://net.educause.edu/ir/library/pdf/ERS1103/EIG1103.pdf

Finger, G., Sun, P.-C. S., & Jamiesen-Proctor, R. (2010). Emerging Frontiers of Learning Online: Digital Ecosystems, Blended Learning and Implications for Adult Learning. In T. T. Kidd, & J. Keengwe, *Adult Learning in The Digital Age.* IGI Global.

Green, D. (1994). *What Is Quality in Higher Education?* Bristol: Taylor and Francis.

Ireland, J., Correia, H. M., & Griffin, T. M. (2009). Developing quality in e-learning: a framework in three parts. *Quality Assurance in Education, 17*(3), 250-263.

Jung, I. (2010). The dimensions of e-learning quality: from the learner's perspective. *Education Tech Research Dev*.

MacDonald, C. J., & Thompson, T. L. (2005, July). Structure, Content, Delivery, Service, and Outcomes: Quality e-Learning in higher education. *International Review of Research in Open and Distance Learning, 6*(2), 1-25.

Singh, G., O'Donoghue, J., & Worton, H. (2005). A Study Into The Effects Of eLearning On Higher Education. *Journal of University Teaching & Learning Practice, 2*(1), 14-24.

TInker, r. (2001). E-Learning Quality: The Concord Model for Learning from a Distance. *NASSP Bulletin, 85*(6), 36-46.

Weller, M. (2002). *Delievering Learning on the Net: the why, what & how of online education.* London: Routledge Falmer.

PRESENTER'S PAPERS

Author's Biodata

Soetam Rizky Wicaksono is a lecturer of Information System Department, Ma Chung University. He is certified in MOSM (Microsoft Office Specialist Master) and other Microsoft Certification such as MCTS, MCP and MTA. He received his Doctoral Degree for Education Technology major in State University of Malang. His major interests cover .NET programming, curriculum development, e-learning and other education technology field. soetam.rizky@machung.ac.id.

PRESENTER'S PAPERS

Effects of Problem-Posing Learning Strategies and Achievement Motivation on Students' Science Learning Outcomes in Elementary Schools of Lumajang Regency

Sukamto
Head of technical and operational units Pasirian education districts,
district Lumajang, East Java
Perumahan bumirejo permai housing block N number 2, lumajang, indonesia
Ssukamto358@gmail.com

Abstract

This study aimed to examine the effect and interaction of learning strategies (problem posing vs. traditional) and achievement motivation on student learning outcomes in terms of understanding and solving problems on the science materials in the elementary schools, Pasirian, Lumajang regency. It used a control group design. The design was chosen as the subjects of research in the experimental group and the control group was not randomly assigned. A total of 160 students of the four elementary schools in Pasirian participated in the study. 40 students of Pasirian 01 and 40 students of Pasirian 04 schools were assigned as the experimental group; whereas 40 students of Pasirian 02 and 40 students of Pasirian 03 schools were assigned as the control group. The data were then using MANOVA with SPSS 20.0 for Windows and the level of significance was 5%. The results showed: (1) there were differences in science learning achievements between the groups of students using problem-posing and those using conventional learning model in the elementary schools of Pasirian, Lumajang regency in the school year 2014/2015, (2) there were also differences in the science learning achievements between the groups of students using problem-posing and with a group of students who were using conventional learning model in the elementary schools, (3) there were differences between the groups of students who possess high achievement motivation with a group of students who have low achievement motivation on their science learning outcomes, (4) There were differences between the groups of students who have high achievement motivation and a group of students who have low motivation on their science learning outcomes (5) There was no significant interaction between models of learning and achievement motivation on students; science learning outcomes. (6) There is no significant interaction or effect between models of learning and achievement motivation on their learning outcomes at the schools.

Keywords: posing probem learning strategies, konvensinal learning strategies, achievement motivation, learning outcomes of science.

Introduction

Education is very influential on the future of a nation. Therefore, improving the quality of education is an important issue that is interesting and needs to be discussed, especially in developing countries, especially in Indonesia. In this case the teacher is very important role in the learning process because gurulah hands lies the possibility of success or failure in school education goals. The purpose of learning is working to improve and enhance the quality of learning (Degeng, 1987: 7) efforts to improve and enhance the quality of the learning process begins with improved learning method or variable because the variable method of learning is one of the variables that are important and decisive. Reiguluth (2000) also Degeng (1989) study variables consist of (1)

Variable Conditions of Learning, (2) Variable Learning Strategies and (3) Variable Learning Outcomes.

The factors that most affect the success of learning is the teacher, because the teacher plays a very important in learning. It is also in accordance with the opinion of Ardhana, et al (1990) who said that the role of the learners need teachers to prepare lesson plans, facilitate the learning process, assessing learning and learning outcomes.

Problem Posing is a model of learning which require the students to ask questions about themselves through learning (training matter) independently. Problem Posing Learning Model was developed in 1997 by Lyn D. English (in Amin, 2004: 31), and the beginning is applied in mathematics. Furthermore, this model was developed also in other disciplines, especially in science. Problem Posing in the method the teacher can start the lesson by explaining the material to students and teachers continue giving sufficient practice questions to students. After discussing the questions given by the teacher, the students were asked to submit questions then the student should be able to finish. Furthermore, randomly teachers invite students to present its findings on the matter of the class.

Step-by-step approach to learning science by using Problem Posing namely: (1) understand the problem, (2) planning step problem-solving, and (3) solved the problems. Thus the powers contained in Problem Posing method is as follows

Provide reinforcement to the accepted concept and enrich the basic concepts through independent study.Expected to train students to improve their skills in independent study. Orientation is an investigation and discovery learning which is basically problem solving.

Problem Posing learning model is an approach to learning that is adapted to the abilities of students, and in the learning process of students' cognitive structure of the building as well as to motivate students to think critically and creatively. The thought process so do the students by increasing its schemata for use in formulating questions. With the approach of Problem Posing students can experience directly in shaping its own question. Steps Pembelajaranproblem posing namely Master conveys the competency to be achieved, students are divided into groups, each group summarizes the different materials that are still in the concept of learning, the results summary was written on transparent plastic or the student worksheets, each member of the group to make inquiries in the matter which he has compiled on Sheet Problem Posing I, each group to discuss and resolve the questions made by each member of the group, each group write down 2 questions that are difficult to resolve on Sheet Problem Posing II (LPP II), LPP II handed over to another group clockwise or how another agreed upon by the community of students in the classroom, each group presented a summary and read out the questions that can not be solved by the group, the other group as an audience. Help provide answers or ask a concept, during the discussion the teacher acted as moderator, teachers help students draw conclusions.

Based on the background of the problems that have been described, the formulation of the problem in this study is Are there significant differences between the effects of the ability to understand the IPA between groups of students that learned with the learning strategy possing problem with the group that learned with conventional strategies? Is there a significant difference between the effects of the ability to understand the IPA between groups of students who have high achievement motivation category to the group with low achievement motivation kategiru? Is there an interaction effect between learning strategies and achievement motivation on the ability to understand science? Is there a significant difference between the effect of solving the problem IPA between groups of students that learned with the learning strategy possing problem with the group that learned with conventional strategies? Is there a significant difference between the effects of problem-solving skills IPA between groups of students who have high achievement motivation category to the group with low achievement motivation kategiru? Is there an interaction effect between learning strategies and achievement motivation on problem-solving skills science?

Referring to the formulation of the problem, researchers aim to get an overview of learning outcome with a problem posing approach in elementary school students Pasirian 01 district. Pasirian Kab. Lumajang. Specifically, the goal of this research is to get an idea of what the Test no differences in outcomes between students learn science get better approach to problem

posing with a group of students who received conventional learning. No differences in test what science learning outcomes for students who have high achievement motivation and low achievement motivation. No test what influence the interaction between learning strategy and problem posing achievement motivation toward science learning outcomes. Examine the effect of the significant differences between IPA solve problems between groups of students that learned with the learning strategy possing problem with the group that learned with conventional strategy. Test no significant differences between the effects of problem-solving skills IPA between groups of students who have high achievement motivation category to the group with low achievement motivation kategiru. No test the effect of the interaction between the learning strategies and achievement motivation on problem-solving skills science.

Based on the problems and research objectives to be achieved, it can be stated as follows hypothetical study no significant differences between the effects of the ability to understand the IPA between groups of students that learned with the learning strategy possing problem with the group that learned with conventional strategy. There are significant differences between the effects of the ability to understand the IPA between groups of students who have high achievement motivation category to the group with low achievement motivation kategiru.

No effect of the interaction between the learning strategies and achievement motivation on the ability to understand science. There is a significant difference between the effect of solving the problem IPA between groups of students that learned with the learning strategy possing problem with the group that learned with conventional strategy. There are significant differences between the effects of problem-solving skills IPA between groups of students who have high achievement motivation category to the group with low achievement motivation kategiru. No effect of the interaction between the learning strategies and achievement motivation on problem-solving skills IPA. Problem Posing is a term which is how to formulate the problem (question) or create questions. Words matter according Suryanto, 1987: 7 can be interpreted as a problem. Meanwhile, according to Webster's Dictionary (Merrica, 1980: 315) the problem is something that needs to be done or anything that requires craftsmanship. According Silver (in Suyanto, 1998: 8) that library science education problem posing has three terms, namely First, problem posing is formulating a matter of simple or reformulation of the problems that exist with some changes to make it more simple and can be understood in order to solve complicated problems. Meaning this is one step in problem-solving plan. Second, problem posing is the formulation of questions relating to the terms of the questions that have been solved, in order to seek other alternative solutions. The second meaning is related to reviewing the steps in the stages of problem solving. The third problem posing is to formulate or make a matter of a given situation and on the understanding that the third is used by researchers to conduct research.

Tinjauan pustaka

Wakefield (1989), defines the ability to think creatively as a person's ability to think and find a way of solving the most appropriate. Furthermore, Taylor (1988) define that creative thinking is the act of someone using new ideas to solve the problem. Both of the above statement implies that creative thinking is the activity of a person that can be used to generate a way to understand a problem or situation and to generate an appropriate way of solving. Originality is the ability to create ideas that are unique. Semiawan and Munadar (1990) suggested that creative thinking associated with cognitive processes that can be used and the potential to create new ideas and to solve new problems.

Furthermore, Piaget argued about the cognitive processes of students or students who are thinking process is nothing but a process of intellectual development of students. In cognitive psychology, Piaget (in Hudoyo: 1988) suggest that the human thinking process as a gradual development from concrete to abstract thinking intellectuals sequentially through the fourth period, namely the motor sensory period (0-2 years), pre-operational period (2- 7 years), the period

of concrete operations (7-11 / 12), and the formal period (11/12 years and over). But age is not absolute, as mentioned earlier are in periods such thinking. According to Piaget (Hudoyo: 1988) the order of the period fixed for everyone, but each person's chronological age to enter any period of higher thinking vary according to each individual.

From the foregoing, it can be said that learning with problem posing approach will lead students to the formation of critical thinking and creative ways. Is said to be critical and creative thinking for the purpose of learning is to create ideas in the form of matter. The ability to think creatively is not the same for every student of the same age, because age instead of the only one that determines a person's ability to think creatively. The ability to think creatively is also influenced by several factors, namely the experience, reading and observing the habits of the environment.

The habit of observing the environment is one of the factors that may affect the ability to think creatively because the environment is one of the sources of inspiration in developing or finding new ideas. The higher a person's appreciation for the environment will be keen sensitivity in capturing symptoms that occur in the environment. While the factors that hinder the development of the ability of creative thinking of students according to Fryer, Henry and Sparks (1965) is: Like haste, to work on a regular basis or under pressure, assume responsibility for executive or administrative, must work on time or according to the schedule, feel strange to personal problems, fearing the process or criticism, conflict or emotional turmoil.

Problem posing is a form of learning approach that emphasizes on formulating activities (create) a matter that allows to improve the ability of students to solve problems. This opinion delivered by Cars (in Sutawidjaja. 1998: 8) that in order to improve the ability to solve problems can be done in a way to familiarize students to formulate questions (problem posing).

In learning by problem posing approach will also familiarize students to formulate the problem (question) that eventually students will get used to address the problem (question). This condition will reduce students' anxiety in facing the problem to a problem.

Familiarize students in the formulation, to face and solve problems is one way to achieve good learning outcomes. This is in line also with the opinion of the flow of behaviorism (1998: 32) which says that in order to achieve good learning outcomes can be made by repeating (drill) to the problems presented.

Basically the problem posing learning is the development of learning by problem solving (problem solving). This development can be seen on the stages of the problem posing activities with problem solving (Brown and Walter, 1990: 104), Silver, E.A, Mamona Down, J., Leung, S.S. and Kenney, P.A (1996: 296) states that the problem posing a capacity for students in understanding the problem, planning steps to resolve the problem and solved the problems.

Problem Posing learning model is an approach to learning that is adapted to the abilities of students, and in the learning process of students' cognitive structure of the building as well as to motivate students to think critically and creatively. The thought process so do the students by increasing its schemata for use in formulating questions. With the approach of Problem Posing students can experience directly in shaping its own question. Lesson: Teacher conveys the competency to be achieved. Students are divided into groups. Each group summarizes the different materials that are still in the concept of learning. Results summary was written on transparent plastic. Each member of the group has made inquiries in the matter which he has compiled on Problem Posing Sheet I. Each group discuss and resolve the questions made by each member of the group. Each group wrote down 2 questions that are difficult to resolve on Problem Posing Sheet II (LPP II). LPP II handed over to another group clockwise. Each group presents a summary and read out the questions that can not be solved by the group. Another group in the audience.

Help provide answers or ask a concept. During the discussion the teacher acted as moderator. Teachers help students draw conclusions.

Key Elements of Problem Posing (Lyn, D English, 1997)

1. Understanding the structure of matter and considering the associated structures

2. Knowing the particular design problem (terspesifik) and remember the most important piece of information.

3. Ability to model and transform the structure given into building a good structure.

4. Knowing how to deal with the constitutional structure of the problem solving.

5. Able to think by looking for alternative IPA broadly.

6. Knowing as to how and when to use a process that has been achieved to come to the conclusion after thinking about all the facts

7. Able to reasoned critical in dealing with problems and experience any problems.

Description of research data in the grain section IV is intended to provide a description (picture) on the data captured in the study that includes data from questionnaires about social skills, the data of student learning outcomes in the form of understanding and ability to analyze materials science class V SD good of the experimental group who use problem posing learning strategies as well as the control group.

Data analysis

Description Data Research

Description of research data includes data questionnaire social skills

Between-Subjects Factors

		Value Label	N
Learning methods	1	Problem Possing	32
	2	Konvensional	31
Learning motivation	1	high	41
	2	low	22

Descriptive Statistics

	Learning methods	Motivasi Belajar	Mean	Std. Deviation	N

Understanding	Problem Possing	High	76.9565	4.70472	23
		Low	63.3333	5.00000	9
		Total	73.1250	7.80302	32
	Konvensional	High	62.5000	4.61774	18
		Low	45.0000	4.56435	13
		Total	55.1613	9.87285	31
	Total	High	70.6098	8.60197	41
		Low	52.5000	10.32219	22
		Total	64.2857	12.63179	63
Problem solving	Problem Possing	High	77.6087	6.19192	23
		Low	60.0000	5.00000	9
		Total	72.6563	9.91776	32
	Konvensional	High	70.0000	2.42536	18
		Low	48.8462	5.82875	13
		Total	61.1290	11.38052	31
	Total	High	74.2683	6.18071	41
		Low	53.4091	7.77456	22
		Total	66.9841	12.06634	63

Description statistics showed that the results of learning to understand the group of students that probem learning model possing diajarkandengan the students who have high motivation to learn has an average of 76.9565, the standard deviation of 4.70472 as many as 23 students. Instead a group of students who memiilki berpretsasi low motivation to have a flat-ata 63.3333, 5.00000 deviation with the standards, as many as nine people. So there is a tendency on the results of learning to understand cendeerung sisiwa dominated by groups that have a high motivation that is 23 people, so with the average.

Whereas in the group nyang students taught by conventional teaching model shows that ksiswa with high motivation to have an average of 70.6098, the standard deviation of 8.60197 as many as 18 students, while students who emmeliki low learning motivation meimiliki average 52, 6000 with stadnar deviation of 10, 32 319 as many as 13 students.

See the table that in terms of learning outcomes showed that the group of students understand that diaararkan with mmodel probelm possing show better than the group of students taught by conventional learning models.

Results learn to solve problems on a group of students who are taught by learning model possing problem shows that students who have high achievement motivation 77.6087 average, standard deviation of 6.19192 as many as 23 students, while students whose low achievement motivation memimiliki average -rata 6.0000, with a standard deviation of 5.0000 by 9 students. So it looks in the group diajatkan with possing problem there is a tendency group of students who have high achievement motivation dominates both the frequency and the average of the results of learning.

Whereas in the group of students taught by conventional learning models show students who have high achievement motivation has an average of 70.0000, the standard deviation of 2.42536 as many as 18 students. Sedankan students who have the motivation berrestasi low with an average deviation stadar 5.82875 48.8462 with as many as 13 students. Therefore the learning outcomes solving maslaah, groups of students taught by learning model possing problem is superior compared to a group of students taught by conventional learning models.

analysis:

In Box's Test of Equality of Covariance showed Box 's M = 15.457 with sig, 0.111. Nwith seen using a significance level of 0.05 turns out that 0.111> 0.05. Therefore H0 is accepted and Ha rejected, which means the matrix variant of the dependent variable is the result of learning both understand maupu solve the problem is the same (homogeneous) so Manova test can proceed

. **Multivariate Tests[b]**

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.997	8.704E3[a]	2.000	58.000	.000	.997
	Wilks' Lambda	.003	8.704E3[a]	2.000	58.000	.000	.997
	Hotelling's Trace	300.136	8.704E3[a]	2.000	58.000	.000	.997
	Roy's Largest Root	300.136	8.704E3[a]	2.000	58.000	.000	.997

Learning methods	Pillai's Trace	.781	1.031E2[a]	2.000	58.000	.000	.781
	Wilks' Lambda	.219	1.031E2[a]	2.000	58.000	.000	.781
	Hotelling's Trace	3.556	1.031E2[a]	2.000	58.000	.000	.781
	Roy's Largest Root	3.556	1.031E2[a]	2.000	58.000	.000	.781
Motivasi Berprestasi	Pillai's Trace	.852	1.665E2[a]	2.000	58.000	.000	.852
	Wilks' Lambda	.148	1.665E2[a]	2.000	58.000	.000	.852
	Hotelling's Trace	5.740	1.665E2[a]	2.000	58.000	.000	.852
	Roy's Largest Root	5.740	1.665E2[a]	2.000	58.000	.000	.852
Learning methods * Motivasi Berprestasi	Pillai's Trace	.062	1.911[a]	2.000	58.000	.157	.062
	Wilks' Lambda	.938	1.911[a]	2.000	58.000	.157	.062
	Hotelling's Trace	.066	1.911[a]	2.000	58.000	.157	.062
	Roy's Largest Root	.066	1.911[a]	2.000	58.000	.157	.062

a. Exact statistic

b. Design: Intercept + X1 + X2 + X1 * X2

Variable X1 (Learning Strategies) show Pillai's Trace, Wilks' lambda, Hotelling's Trace, and Roy's Largest Root everything below 0.05. With a significance level of 0.05 seen that 0.000 <0.05. Therefore H0 is rejected and Ha accepted means X1 gives the effect of different variables on learning outcomes for both the understanding and the results of learning outcomes solving problems. In conclusion: There is the effect of differences between the groups of students who dibelajaran with learning mpdel possing problem with a group of students who dibelajarakan with conventional learning models terhafap learning outcomes to understand science in elementary excl. Pasirian Kab. Lumajang school year 2014/2015. No effect of differences between the groups of students who dibelajaran with learning mpdel possing problem with a group of students who dibelajarakan with conventional learning models terhafap results IPA learn to solve problems in elementary excl. Pasirian Kab. Lumajang school year 2014/2015.

X2 (achievement motivation) showed Pillai's Trace, Wilks' lambda, Hotelling's Trace, and Roy's Largest Root everything below 0.05. With a significance level of 0.05 seen that 0.000 <0.05. Therefore H0 is rejected and Ha accepted means X2 gives the effect of different variables on learning outcomes for both the understanding and the results of learning outcomes solving problems. In conclusion: There is the effect of differences between the groups of students who have high motivation berrestasi with a group of students who have low motivation for learning

outcomes berrestasi understand science in elementary school district. Pasirian Kabl prlajaran Lumajang year 2014/2015. No effect of differences between the groups of students who have high motivation berrestasi with a group of students who have low motivation for learning outcomes berrestasi solve IPA in SD district. Pasirian Kabl prlajaran Lumajang year 2014/2015

Variable X1 * X2 (* Learning strategies achievement motivation) showed Pillai's Trace, Wilks' lambda, Hotelling's Trace, and Roy's Largest Root everything above 0.05. With a significance level of 0.05 seen that 0.157> 0.05. Therefore H0 is accepted and Ha rejected meaning that the variable X1 * X2 interak no effect on learning outcomes for both the understanding and the results of learning outcomes solving problems. Keseimpulannya: There is no significant interaction effect between models of learning and achievement motivation on learning outcomes to understand science in elementary schools in the district, Pasirian Kab. Lumajang school year 2014/2015. There is no significant interaction effect between models of learning and achievement motivation on learning outcomes in elementary school science solve problems in the district, Pasirian Kab. Lumajang school year 2014/2015

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
understanding	.351	3	59	.789
Problm solving	5.270	3	59	.123

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + X1 + X2 + X1 * X2

Analisys ;

Table Levene's Test of Equality of Error Variancesa seen that the learning outcomes have to understand with F 0.351 sig. 0, 789 while the yield learn to solve problems with F 5,270 have sig 0.123. Thereby, the result of learning to understand and solve the problem with a significant level of 0.5 turns everything lebh of 0.05. Therefore both the learning outcomes memeiliki homogeneous variant.

ANALISYS:

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Memahami	8593.401[a]	3	2864.467	130.057	.000	.869
	Memecahkan Masalah	7475.814[b]	3	2491.938	94.783	.000	.828

Intercept	Memahami	213885.948	1	213885.948	9.711E3	.000	.994
	Memecahkan Masalah	229106.305	1	229106.305	8.714E3	.000	.993
X1	Memahami	3745.365	1	3745.365	170.053	.000	.742
	Memecahkan Masalah	1226.305	1	1226.305	46.643	.000	.442
X2	Memahami	3374.298	1	3374.298	153.205	.000	.722
	Memecahkan Masalah	5234.072	1	5234.072	199.082	.000	.771
X1 * X2	Memahami	52.356	1	52.356	2.377	.128	.039
	Memecahkan Masalah	43.781	1	43.781	1.665	.202	.027
Error	Memahami	1299.457	59	22.025			
	Memecahkan Masalah	1551.171	59	26.291			
Total	Memahami	270250.000	63				
	Memecahkan Masalah	291700.000	63				
Corrected Total	Memahami	9892.857	62				
	Memecahkan Masalah	9026.984	62				

a. R Squared = ,869 (Adjusted R Squared = ,862)

b. R Squared = ,828 (Adjusted R Squared = ,819)

Table Tests of Between-Subjects Effects shows the effect of each variable,

For example:

X1 to understand with 0,000 sig it reinforces to reject H0

X1 to troubleshoot 0,000 it reinforces to reject H0

X2 to understand with 0,000 sig it also reinforces to reject H0

X2 to solve the problem with the sig 0,000 have also strengthened to reject H0.

X1 * X2 to understand the .128 sig also strengthened to accept H0

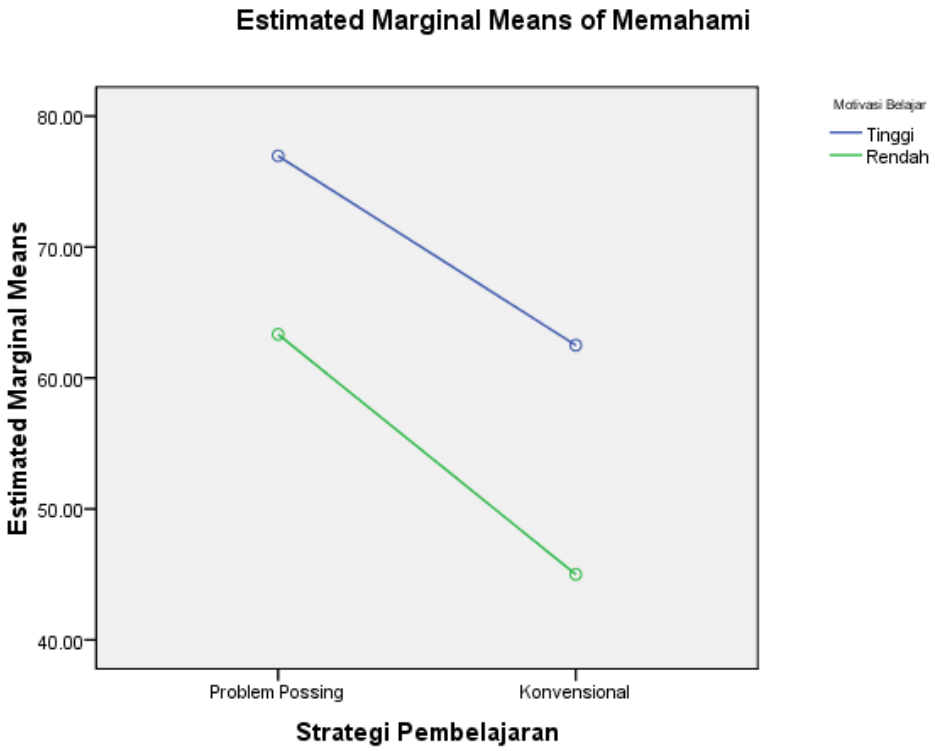
X1 * X2 to solve the problem with .202 sig also mempperkuat to accept H0.

Estimated Marginal Means

Grand Mean

Dependent Variable	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
understanding	61.947	.629	60.690	63.205
Problem solving	64.114	.687	62.739	65.488

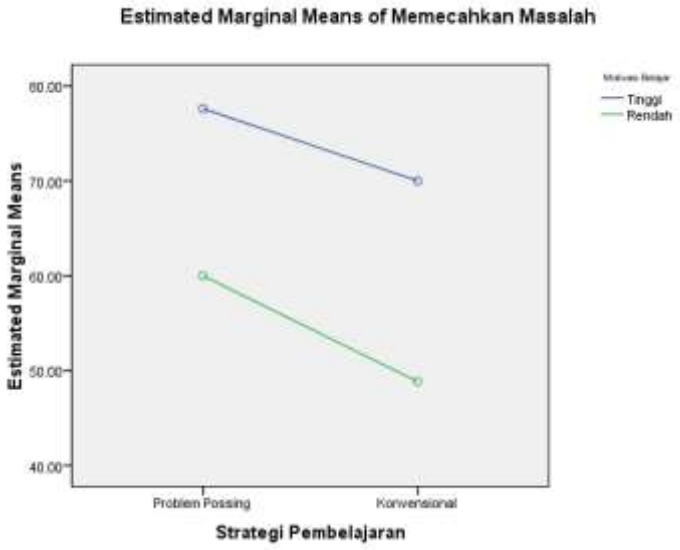
Profile Plots



Memahami

Analisis:

Profile Plots Figure shows that the model of learning and achievement motivation showed no significant effect terhadaphasil learn to understand. Thus became an image receiving evidence H0



Memecahkan Masalah

Profile Plots Figure shows that the model of learning and achievement motivation showed no significant effect terhadaphasil learn to solve problems. Thus became an image receiving evidence H0

Learning outcomes by understanding the group of students who are taught by learning model possing problem the students who have high motivation to learn has an average standard deviation 76.9565 4.70472 many as 23 students, whereas groups of students have low achievement motivation ata price 63.3333 standard deviation of 5.0004 as many as 9 people so that with these data there is a tendency on learning outcomes in terms of understanding ipa dominated by a group of students who have high motivation.

Whereas with a group of students taught by conventional learning models show that students who have high achievement motivation has average standard deviation 8.60197 70.6098 with as many as 18 students while students who have low motivation to learn has an average 52.6000 10.32319 standard deviation is counted 23 students. So also the result of the study is to solve the problem ipa results are better learners possing problem with high achievement motivation compared with a group of students learning process with conventional learning model with low achievement motivation

Reference

American Psicology Association (APA). 1999. Standards For Educational And Psicologycal Testing, Washington DC : American Educatinal Research Association.

Anderson, I.W., & Krathwohl,D.R., Airasian, P. W,. Cruikshank, K.A., Mayer, P.E., Pintrich, Raths, J., M wittrock, M.C. 2001. A Taxonomy For Learning, Teaching And Assesing : A Revision Of Blooms Taxonomy Of Educational Objectives.(Eds) Abridged Edition : New York : Longman.

Anderson, I.W., & Krathwohl,D.R. 2002. A Taxonomy For Learning, Teaching, And Assesing: A Revision Of Bloom's Of Taxonomy Of Educational Obyective. New York: Longman.

Bremh, J.W., & self,E.A.2008. The Intensity Of Motivation. Annual Review Of Educatinal Psicology,40 (2): 109-131.

Brook J.G., & Brooks,M.G.1993. In Search Of Understanding. The Case For Constructivist Classroom. Virginia, Association For Supervission And Curriculum Development.

Cheng, E.C.K. 2011. The Role Of Self Ragulated Learning In Enhauncing Learning Performance. The International Journal Of Research And Review, 6(1): 1-16

Dick, W.and carey, L.2005. The Systematic Design Of Instruction. 2nd Ed, Glenview, Illinois : Scot, Foresman And Company.

Elliot, S.N., kratcwill,T.R., cook, J.L., & traver, J.E. 2000. Educational Psycology : Effective Teaching Learning. Third Edition. Boston: Mcgraw-Hill Higher Education.

Gagne,NL. & Berliner, DC.1994. Educational Psycology,London Houghton Mifflin Company.

Gottfried,A.E.2009. Academic Instrinsic Motivation In Young Elementary School Children. Journal Of Educational Psycology.8,(3) : 525-538.

PRESENTER'S PAPERS

Gupta,M., devi, M. & pasrija,P.2012. Academic Intrinsic Motivation: A Major Factor In Determining Academic Achivement,Asian Journal Of Multidementinal Research, Vol.1 Issue 3, August 2012, ISSN 2278-4853.

Author's Biodata

Sukamto is head of technical and operational units Pasirian education districts, the district Lumajang, East Java. He is a poor state university student majoring in learning technology. sukamto358@gmail.com

PRESENTER'S PAPERS

Phenomenology Social Culture Browse Wisdom Tribe Samin as Local in The Character Building (Study in Cultural Tribe Samin Bojonegoro)

Sukisno
Universitas Islam Darul Ulum Lamongan
sukisno.sardi@gmail.com

Hadi Suryanto
STKIP PGRI Lamongan
Email: hsuryanto3@gmil.com

Abstract

Objective singer is know: (1) Know the culture samin as Local Wisdom; (2) How away 'community samin hold their culture; (3). Makes about referansi book culture and tribal patterns samin as Local Wisdom. Singer study using Ethnographic research approach is holistic, integrative, thick description through qualitative analysis. Primary Data Collection hearts Ethnographic with Observation and Participation is Open interview to review information dig information abaout tribal culture samin WITH : discuss the theme - the theme of cultural, mainly related by role and behavior hearts society. The study places is the village of Margomulyo Bojonegoro. Conclusion Research singer is (1) Culture samin rate is still upheld by society as a pattern Neighborhood And Identity 'society; (2) The social behavior of society samin as a Form A Tradition of local wisdom that a Potential hearts forming character of the nation. (3) Reference books about made cultural 'samin tribal communities as scientific hearts hearts Education World multicultural character of national culture

Keywords*: Phenomenology Social, Cultural Samin tribe, Local Wisdom and Character Building*

INTRODUCTION

Samin community is a community that has the identity and style them in everyday life. Identity is what continues to be maintained from the beginning until now. But along with the development, Samin community with a variety of uniqueness was also experiencing a change from several sides. Good self in terms of religion, livelihood, marriage and so on. Among the community Bojonegoro. Samin teachings Surosentiko principal (the original name Raden Kohar, born in the village Ploso Kedhiren, Randublatung, 1859, and died while exiled to Padang, 1914). including: (1) Religion is a weapon or a lifeline. Understand Samin does not discriminate against religion, the important thing is the character in his life. (2) Do not disturb, do not fight, do not envy and do not like taking the property of others. (3) Be patient and do not get cocky. (4) Man must understand his life, because the spirit is only one and carried on forever. (5) When the people speak, should be able to keep up, honest and respectful. Samin people forbidden to trade because there is an element of 'dishonesty' in it. Also may not accept donations in any form. Samin Society impressed innocent, even naive intense, outspoken, and smooth rough knows no boundaries in language because those actions are far more important than the fine speech. of catarrh on the above researchers have research purposes to determine: (1) know the culture cumin as local wisdom; (2) how far society samin hold their culture; (3). referansi make a book about the culture and style of tribal samin as local wisdom.

METHOD

This study uses ethnographic research approach is holistic, integrative thick description through qualitative analysis. The main data collection in ethnography is the observation participation and open interviews to gather information berbegai fenomina tribal culture cumin with: explore themes of cultural, especially those related to the role (roles) and behaviors (behaviors) in the community. The research approach is an overall way or activities performed in carrying out research from the formulation of the problem until the conclusion. This study used a quantitative approach with a case study. To determine the scope of the study subjects as the source, where to obtain information (facts), then in a quantitative research study used determination unit (Moleong, 1989: 165). Kuatitatis research aims to describe tribal peoples today samin that characterize indigenous tribes samin. The village where the research is Margomulyo Bojonegoro, with sampling with the sampling sebayak 50 randomized studies (random sampling). When the study is January to February, 2015.

Character Values in the current study is about the character and teachings samin tribe consisting of: (1) Religion is a matter of life or a weapon; (2) Understanding Samin does not discriminate against religion, what is important is the nature of his life; (3) Do not disturb, do not fight, do not be envious and do not like taking the property of others; (4) Be patient and do not be arrogant; (5) Man must understand his life, because the spirit is only one and carried on forever.

RESULTS

Individual Personality Tribal field Samin

Results of research on individual personality research data can be obtained as follows:

Table 1 Field of individual personality

No.	Question	SS	%	S	%	RR	%	TS	%
1	Do you agree with the teachings of the tribe cumin?	38	76	12	24				
2	Does it samin able to create a sense of security?	44	88	4	8	2	4		
3	Does it samin can foster a sense of mutual cooperation on high?	46	92	4	8				
4	Does it samin rate could appreciate the difference between an individual?	43	86	6	12	1	2		
5	Is samin tribal teachings to improve the quality of life in society?	35	70	4	8	11	22		
	amount	206	82,4	30	12	14	5,6		

From table 1 about the individual's personality can be seen that the question of whether there agree with the teachings of the tribe samin 38 (76%) of citizens answered strongly agreed, while 12 (24%) of citizens answered agree. The question of whether the doctrine samin able to create a sense of security, 44 (88%) of citizens answered strongly agree, 4 (8%) of citizens answered disagree and 2 (4%) of citizens answered hesitantly. The question of whether the doctrine samin rate can foster mutual cooperation were high, as many as 46 (92%) residents say strongly agree, 4 (8%) said they agree. Question Is samin tribal teachings can appreciate the differences between

individuals, as many as 43 (86%) residents say strongly agree, and 6 (12%) of citizens answered disagree and 1 (2%) of citizens answered hesitantly. The question of whether the doctrine samin rate can improve the quality of life in the community, a total of 35 (70%) of citizens answered strongly agree, 4 (8%) of citizens answered agree, and 11 (22) answered hesitantly.

Social Affairs Society

The results of the research community in the social field samin rate data obtained as follows:

Table 2 Social Affairs

No.	Question	SS	%	S	%	RR	%	TS	%
1	Do you agree with the teachings of the tribe cumin?	38	76	12	24				
2	Does it samin able to create a sense of security?	44	88	4	8	2	4		
3	Does it samin can foster a sense of mutual cooperation on high?	46	92	4	8				
4	Does it samin rate could appreciate the difference between an individual?	43	86	6	12	1	2		
5	Is samin tribal teachings to improve the quality of life in society?	35	70	4	8	11	22		
	amount	206	82,4	30	12	14	5,6		

From table 1 about the individual's personality can be seen that the question of whether there agree with the teachings of the tribe samin 38 (76%) of citizens answered strongly agreed, while 12 (24%) of citizens answered agree. The question of whether the doctrine samin able to create a sense of security, 44 (88%) of citizens answered strongly agree, 4 (8%) of citizens answered disagree and 2 (4%) of citizens answered hesitantly. The question of whether the doctrine samin rate can foster mutual cooperation were high, as many as 46 (92%) residents say strongly agree, 4 (8%) said they agree. Question Is samin tribal teachings can appreciate the differences between individuals, as many as 43 (86%) residents say strongly agree, and 6 (12%) of citizens answered disagree and 1 (2%) of citizens answered hesitantly. The question of whether the doctrine samin rate can improve the quality of life in the community, a total of 35 (70%) of citizens answered strongly agree, 4 (8%) of citizens answered agree, and 11 (22) answered hesitation

Field of Life Nation and State

Research on the life of the nation against the teaching of cumin obtained the following data:

Table 3 Field of Life Nation and State

No.	Question	SS	%	S	%	RR	%	TS	%
1	Does it samin local wisdom should become one of the nation's culture?	42	84	3	6	5	10		
2	Does it feasible samin taught in Indonesia as	32	64	11	22	7	14		

	cultural values that noble?								
3	Does it samin able to strengthen the character of the nation of Indonesia as a nation that likes peace?	40	80	6	12	4	8		
4	Is samin rate in accordance with the teachings of Pancasila and the Constitution of the State of Indonesia?	46	92	3	6	1	2		
5	Is samin in accordance with the teachings of the nation and state, If it does not agree to give a reason?	31	62	3	6	7	14	9	18
amount		191	76,4	26	10,4	24	9,6	9	3,6

The results of the research areas of national life shown in Table 3 which shows that the question Does it samin should be an indigenous one of the nation's culture, as many as 42 (84%) of citizens answered strongly agree, 3 (6%) of citizens answered disagree and 5 (10 %) doubtful. The question of whether the doctrine is taught in Indonesian decent samin as cultural values are sublime, 32 (64%) of citizens answered strongly agreed, 11 (22%) of citizens answered disagree and 7 (14%) undecided. The question of whether the doctrine samin able to strengthen the character of the nation of Indonesia as a nation that likes peace. 40 (80%) of citizens answered strongly disagree, 6 (12%) of citizens answered disagree and 8 (16%) undecided. Question. Is samin in accordance with the teachings of the nation and state, If it does not agree to give a reason. 31 (62%) of citizens answered strongly agree, 3 (6%) of citizens answered disagree and 7 (14%) undecided and 9 (18%) of citizens answered disagree.

DISCUSSION

Individual Personality Tribal field Samin

From table 1 about the individual's personality can be seen that as many as 82.4% of residents strongly agree terhaadap samin shaping personality samin tribal communities. 12% of residents agreed, 5.6% of undecided. opinion of people who doubt the teachings samin shape the personality of the community, especially on the question Are the teachings of the tribe samin able to improve the quality of life in society, it is quite reasonable because the tribe samin more closed to the outside world and are very protective of their culture from outside, especially the influence of religion that has begun samin into the tribe.

Social Affairs Society

Table 2 social areas can be explained that as many as 80.4% of local residents agree to the teachings of the tribe samin padal social life society. 10.8% of residents agree, 5.2% of undecided and 3.2% of citizens do not agree with the teachings samin social fields. There are people who do not agree on the question Are the teachings samin parts made by all citizens. indeed this time there has been a transformation of cultural values that are considered incompatible with the current developments so that there are some norms and teachings are not followed by cumin community that has a lot of interaction with the outside community samin tribe. such teachings diangga samin not religion after many tribal communities samin embraced Islam. Ijol system in the Indonesian language is translated as a barter system began to be abandoned due to adverse local community and become lading for profit alone outside the tribal communities samin by utilizing honesty. For

questions Does it samin decent taught in Indonesia as cultural values are sublime, with answers hesitation indeed there are some teachings of the tribe of cumin which also is not in accordance with the current state of such forests as heritage moyong and the reluctance of the tribal community samin pay taxes,

Field of Life Nation and State

Field research results of national and state life is shown in Table 3 which shows that 76.4% of residents strongly agree teachings samin, 10.4% agreed, 9.6% undecided and 3.6% do not agree. Of the average item questions people strongly agree with the teachings of the tribe samin only on the question whether samin in accordance with the teachings of the nation and state, If it does not agree to give a reason. 31 (62%) of citizens answered strongly agree, 3 (6%) of citizens answered disagree and 7 (14%) undecided and 9 (18%) of citizens answered disagree. there are some things they do not samin teachings changed in accordance with national and state life and is dominated by the people who had a lot of interaction with the outside world as well as the influence of cultural transformation. such as religion, they consider the teachings of the religion adam samin rate is not a religion but only cult that is not recognized by the State as a religion. Refusal to pay taxes samin tribe. This doctrine had always been against the invaders, but now the situation is different we have independence. Ijol system that is no longer relevant to the current situation where more by using the tool of exchange exchange. This study shows that many residents samin who still uphold the noble culture into local wisdom. such as peace-loving, tengang sense, mutual cooperation and others that may enhance the character of the nation's culture.

CONCLUSION

The research data that has been presented above are analyzed so as to obtain Conclusions of research as follows: (1) Culture samin tribe still firmly held by the local community as a style and identity of the community; (2) The social behavior of society samin as a tradition is a form of local wisdom that a potential in shaping the character of the nation. (3) He made a reference book about the culture of the tribal people in the world samin as science education in multicultural character of the nation's culture.

SUGGESTION

In the present study the researchers gave some suggestions as input associated with the character samin parts: (1) Doctrine samin parts can be developed into a character education in schools certainly by conducting more in-depth study; (2) Doctrine samin tribe is one of the local wisdom that deserves to receive guidance so that local knowledge can be combined in the common interest.

REFERENCE

Rinangxu. (2006). Samin Society and Anarchism. Available on http://rinangxu.wordpress.com-/2015/4/01/samin-anarchy-rebel-budaya/. Accessed on 4 January 2015

Soekanto, Soerjono. (2005). An Introduction to Sociology. Prints all 38.Jakarta. PT RadjaGrafindo Persada.

Siregar Budi Baik dan Wahono (Ed). 2002 Back to the Roots: Back to the Concept of Autonomy Indigenous Peoples. Jakarta. FPPM..

Widodo, Slamet. 2008. *Samin* Available at (http://learning-of.slametwidodo.com/). Accessed on 4 January 2015.

Moleong. L.J. (1989). Qualitative Research Methodology. Bandung Remaja. Rosda Karya

Sukmana, Oman.2003 Process of Social Change Culture Society Samin, In the traditional religion Wisdom Images Samin community and Tengger

PRESENTER'S PAPERS

Sastroatmodjo, R.P.A. Soerjanito,2003 Samin community Who Are They ? Yogyakarta

Author's Biodata

Sukisno. He is a civil servant who is a lecturer 7 Kopertis DPK Universitas Darul Ulum Lamongan with the position of associate professor of the academy. Earned undergraduate education at the university of brawijaya malang majoring in management. He holds DOCTORATE at the University of Muhammadiyah Malang, majoring in social science and political sociology.

Hadi Suryanto was Born in Lamongan on 22 november 1975 is currently a lecturer in STKIP PGRI Lamongan , elementary school SDN Kedungmentawar , then went to SMPN 1 Ngimbang graduated in 1992 continued into 1995. SMAN lamongan undergraduate education Strata 1 (S1) at UMM with majors electrical engineering graduate in 2001. the education graduate studies in UNIPA Surabaya Education Technology courses . Careers in CV Mekanika Teknik in Surabaya as a director , which is engaged in electrical goods providers . History of the organization as a member IARMI eastern Java . PGRI members Lamongan and members of the Association of Educators Indonesia Pancasila and Citizenship Education (AP3KnI) . He currently serves as Head of the Support Unit in STKIP PGRI Lamongan which oversees Laboratories computer , microteaching laboratory , and library

PRESENTER'S PAPERS

E -Learning Concepts in Educational Fun-Eco-Preneur

Suryaman
University of PGRI Adi Buana
Jl. Dukuh Menanggal XII / 4 Surabaya-Indonesia
maman_suryaman58@yahoo.co.id

Abstract

Geographical conditions are one of the causes of the unequal distribution of education in Indonesia. The government tried to overcome the system of distance learning. The consequences of d-learning are the provision of media that can be used by teachers and learners quickly, accurately, and inexpensively. Supporting distance education today is to use the internet where there are facilities to support learning, such as Bluetooth and GPRS (general packet radio system). This provides a lot of convenience where learners can receive learning packages in a relatively short time via e-mail, via the Internet also learners can communicate with teachers. The Internet makes learning activities can be carried out in front of the computer, amenities available from various service providers allows teachers to develop learning, including the use of e-learning in education fun-eco-preneur to increase the entrepreneurial spirit in children of primary school. The present paper therefore highlights the e-learning concepts in educational fun-eco-preneur.

Key words: *e-learning, fun-eco-preneur, distance learning*

1. Background

Indonesia's population of around 250 million that majority are living in rural areas with various geographical conditions. The difference natural and geographical conditions makes efforts government to promote regional be constrained by many things, including the location of the remote areas stricken which makes transportation becomes very difficult. Lack of transportation became one of the main causes of the reluctance of someone to come in and develop the area, resulting in the development of various sectors in the region cannot run well. The impact of the geographical conditions is also impact on education for people in remote areas. Education is progressing slowly due to lack of human resources who are willing to work in remote areas so that children of school age do not get a decent education, and also with a limited education budget makes the government difficult to educate its citizens.

Various attempts were made in the area of education the government to be able to run properly. Government is sending teachers to remote areas, increased allowances for teachers who are willing to serve in the area to create a distance learning system. System of distance learning is a learning model that does not require teachers face to face with the learner, the learning process is done through the media that can be used both teachers and students. Wikipedia explains that distance learning is learning by using a medium that allows the interaction between teachers and learners. The system is designed to overcome the constraints of location of residence between teachers and learners. For the creation of equity in education, the learning system is used in Indonesia by reason of geographical location in Indonesia.

The medium used to carry out distance learning system developed along with the development of technology. For instance, use of the print media that is sent to the remote areas, then evolved into the form of CDs and videos. Supporting distance education today is to use the internet where there are facilities to support learning, such as Bluetooth and GPRS (general packet radio system). This provides a lot of convenience where learners can receive learning packages in a relatively short time via e-mail, via the Internet also learners can communicate with teachers. The Internet makes learning activities can be carried out in front of the computer. In addition to providing ease of learning facilities, the Internet also has a weakness for learning activities should

be done in front of a computer. And as we all know that not all Indonesian people have a computer at home.

A phenomenon emerged in the last decade, where the development of communications technologies develops very quickly, especially mobile phone technology or cellular phones. At the beginning of 1990 the mobile phone can only be owned by a few people because the price is expensive, and even then only with limited facilities. At the beginning of year 2000 cellular phones evolve into ordinary items that can be shared by all people at affordable prices and with diverse facilities, the new era of mobile phone one can do SMS, MMS, listening to music, take pictures, record sounds and images, and even access the Internet.

Thus the rapid development of mobile phones that give rise to the idea that distance learning activities obstacle seems handled via phone. This thinking is based on the number of facts such data in 2009 the world population reached 6 billion, and in the same year along Ericson Nokia announced that the Nokia brand mobile phone users number 500 million and will increase to 1 billion in 2004. A survey conducted consistently in Australia showed that 95% of students have cell phones, 76% have access to digital cameras, 69% can use the MP3 player, 70% use mobile phones to photograph and video, and 53% do MMS. In 2008 the surveys back and it turns out 73% of students said they are interested in using mobile phones for learning.

The use of mobile devices as a medium of e-learning is not an exaggeration when we look at the following facts are written in **blog.math.uny.ac.id**,:

1. Mobile phone users in Indonesia, which reached more than 96.41 million, 36.39% with the percentage growth in mobile phone subscribers reached 28.26% per year. (Source: Balitbang Depkominfo).
2. Internet access via high-end mobile phone devices such as Blackberry, iPhone, PDA, smartphone or others become commonplace in recent years.
3. Access and transfer data using mobile phone networks are getting cheaper and faster.
4. Making applications for smartphones are getting easier, using J2ME.

This phenomenon would be a gap promising for the development of mobile learning in Indonesia. Catch a glimpse of the above facts it can be said that mobile phone technology is the fastest technology swept the world, so with all the facilities can be used for distance learning media. New challenges arise to develop d-learning into the era of mobile phones that can access the Internet.

The development of mobile phone dependency coupled with a lot of people on the mobile phone, can be used as a learning medium entrepreneurship to students throughout the region. Suryaman (2015) explains that rests on the concept of education and the demands of the changing times, education is an important part for humans to maintain and develop life. Based on these conditions, in accordance with current technological advances which Indonesia entered the era of the global market that will lead to competition in the business world will take place increasingly competitive, it is necessary to establish a person's character education that are not easily discouraged, respect others through an entrepreneurship education. Through entrepreneurship education a person gets used to communicate and work together so that the entrepreneurial spirit can be developed well. It is necessary for the technical implementation of entrepreneurship education fun, where these activities include planning, organizing, implementing, and quality control.

2. Utilization of Telecommunications Systems in Instrumentation Learning

Learning system using the internet which have been built are still static so that the dependence on computers is still very high. To optimize it needs to add a telecommunications device so that the dependence on the computer can be minimized. Telecommunications system that occurs between teachers and learners is shown in Figure 1. The presence of a teacher who is far from the learner already not an obstacle to provide learning.

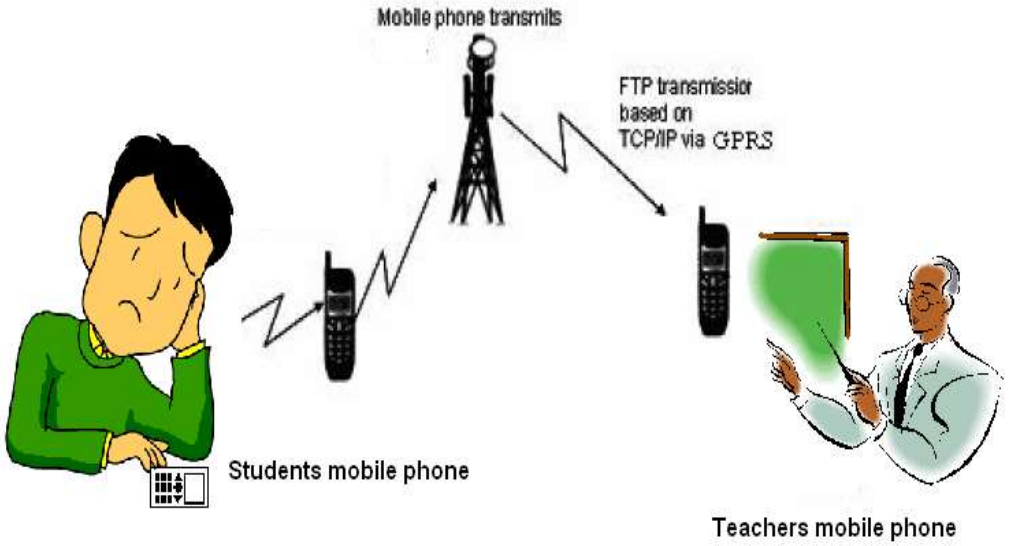


Figure 1. The telecommunication system of learning through mobile phones

1. Provision of Learning Website

Build a website that provides information about the learning will assist educators in conveying information to the public about the lessons. In addition, through this website other researchers can access the images / graphics, text and multi-media.

In order to improve the quality and equity of education and to overcome the above problems need a way of educational services to reach all the people of Indonesia, both in big cities, and in rural areas, especially for those living in the interior. M-learning system is one solution that can be applied to help overcome the obstacles of public education services, especially in the learning fun-eco-preneur. According Suryaman (2014) there are some things that need to be implemented to develop an entrepreneurial culture within the school environment include (1) discipline, (2) loyalty, (3) trust, (4) the agenda of the practice of structured, (5) management, and (6) means. Implementation of this needs to be done systematically, continuously, hard work and cooperation of students and teachers in order to form an entrepreneurial spirit that is able to (1) see business opportunities, (2) have a spirit of leadership, (3) creativity, (4) self-reliant, (5) working hard, (6) innovative and (7) dared to accept criticism.

The use of mobile phone often makes a person creative and innovative, positive effects will be felt by learners in the use of mobile learning is (1) the emergence of opportunities to the broader business, (2) an opportunity broader efforts led to a competitor more and more, so it requires learners to can enhance their creativity and innovation, and (3) dare to accept the challenge of the global market. Thirdly it will foster a sense of confidence to the learners to entrepreneurship.

Suryaman (2015) explains that entrepreneurship education can be applied since the students begin formal study. At every level of school education always has a duty to foster the entrepreneurial spirit in their students in accordance with the framework integrating entrepreneurship education in each educational unit.

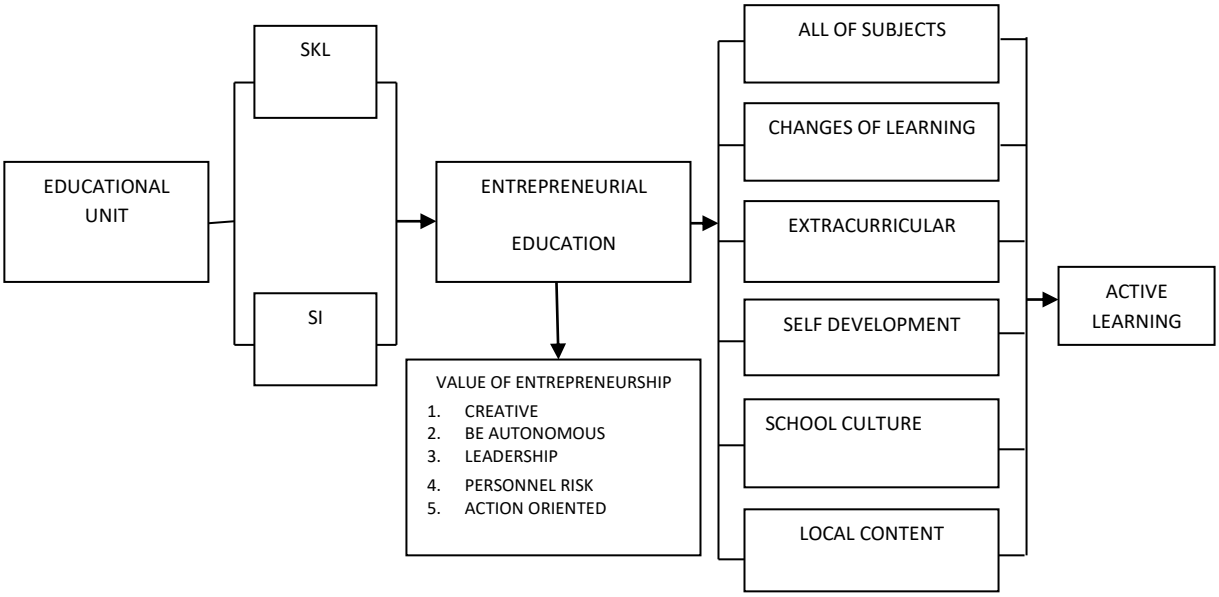


Figure 2. Framework for Integrating Entrepreneurship Education in Each Education Unit

Source: Development of Entrepreneurship Education. The Ministry of National Education Research and Development Center for Curriculum (2010)

2. Web-Based Learning (e-learning and m-learning)

Web-based learning involves the use of a computer or a mobile phone may provide information services for teaching materials. Learning through the web can be done with two devices, computers and mobile phones, that is why this model is also called the e-learning and m-learning.

E-learning involves the use of a computer or electronic equipment in a certain way to provide training materials, educational or learning. E-Learning can involve a variety of completeness in training or education online (using the Internet or Intranet). CD-ROM and DVD can be learning materials from the E-Learning. Distance education can be regarded as a base the development of e-learning. E-learning can be "on demand" and time constraints, as well as the presence of traffic / physical travel (travel).

Meanwhile, according to the site **blog.math.uny.ac.id**, in http://www.achmatim.net/search/pengertian + mobile + learning, e-learning is the foundation and the logical consequence of the development of information and communication technology. Some experts tried to decipher understanding of e-learning according to each version, including implied that this time anything can be done via phone, e-learning even though. The concept was then called mobile learning.

Hartley in Wahono (2008) states that e-Learning is a type of learning that allows delivering teaching materials for students to use media Internet, Intranet or other computer network media. E-learning according siscauksw.blogspot.com sites, e-learning is a type of learning that allows delivering teaching materials to students using the internet, intranet or other computer network media. E-Learning can also be done informally with simpler interactions including E-learning could include the use of computers in support of improving the quality of learning, including the use of:

1. Mobile technologies such as cell phones and MP3 players.

2. Also the use of web-based teaching materials and hypermedia, multimedia CD-ROM or web sites, discussion forums, e-mail, blogs, Wikipedia, Mailing list, and Facebook. The advantages of using e-learning among
    - saves time learning process
    - reduce travel costs
    - saving the cost of education as a whole (infrastructure, equipment, books)
    - reach a wider geographic area
    - train students more independent in getting science

Wahono (2008) describes the components that form e-Learning is:

1. E-Learning Infrastructure: it can be a personal computer (PC), a computer network, internet and multimedia equipment. Including teleconferencing equipment when we deliver services synchronous learning via teleconference.
2. Systems and Applications e-Learning: System software to virtualizes conventional teaching and learning process. How-class management, the manufacture of the material or the content, discussion forums, a scoring system (report cards), online examination system and all the features associated with the management of the learning process. The software system is often called the Learning Management System (LMS).
3. The e-Learning Content: Content and teaching materials on the e-Learning system (Learning Management System). Content and teaching materials can be in the form-Multimedia based Content (in the form of interactive multimedia content) or Text-based Content (text-based content such as textbooks usual) reserved in Learning Management System (LMS) that can be run by students anytime and anywhere.

    Some characteristics (basic) suggested it on a website are:

    - Features good navigation.
    - There is a good help (Help / Hint).
    - readability / clarity.
    - Enables fast download.

5. Conclusion

The entrepreneurial spirit should be established as early as possible with the aim that the learners are accustomed to have independence, creativity, innovation, and high fighting spirit. Therefore education fun-eco-preneur should be given in every subject and every level of school. Interesting learning methods need to be used so that educational fun-eco-preneur does not feel monotonous and boring. Use of media close and much liked by the learners (e.g, the Internet and mobile phones) is an effective ways for the purpose of educational fun-eco-preneur can be achieved.

REFERENCE:

Gunawardena (2001). *Distance Education.* Handbook of Research for Educational Communications and Technology. 355- 395. AECT.

Kadyte, V. (2004). *Learning can Happen anywhere : a Mobile System for Language Learning.* LearningwithMobileDevicesResearchandDevelopment. At www.LSDA.org.uk.

Mayorga,M.C and Morales,A.F. *Learning tools for Java-enabled Phones : an application dor Actuarial Studies.* Learning with Mobile Devices Research and Development. At http://www.LSDA.org.uk.

Sisca.(2009). Pengertian E-Learning. blogsiscauksw.achmatim.net/ search/ pengertian+mobile+learning

PRESENTER'S PAPERS

Suryaman.(2014).*Fun-Eco-Preneur Education :* A Concept of Multicultural Education to Strengthen Entrepreneurial Values in Indonesia. Sosiohumanika. Jurnal Pendidikan Sains Sosial dan Kemanusiaan. 2014. Pp 125-136

Suryaman.(2015).*Concept Fun Eco Preneur Education For Forming Entrepreneural Spirit on The Elementary School Students.* Academician's Research Center International Journal of Humanities Social Sciences and Education. Volume 2, Issue 5, May, 2015, Version 2, page 199-205. ISSN (PRINT) 2349-0373. ISSN (ONLINE) 2349-0381

Triwahyuni.(2009). Utilization of Information Technology (Pemanfaatan Teknologi Informas)i.blogmath.uny. achmatim.net/ search/ pengertian+mobile+learning

Wahono,R.S.(2008). Straighten One use On E-Learning. http://www. krp2.krpdiy.org/artikel%206.htm

Author's Biodata

Suryaman is lecturer in University of PGRI Adi Buana Surabaya
maman_suryaman58@yahoo.co.id

PRESENTER'S PAPERS

The Values Clarification Learning Strategy in Scientific Approach on Civic Education

Shofiyatul Azmi
Wisnuwardhana Universit Malang
Email:shofiyatulazmi@gmail.com

I Wayan Ardhana
State University of Malang

Prof. Dr. I Nyoman SudanaI Degeng
State University of Malang

Waras Kamdi
State University of Malang

Abstract

The Civic Education has a very important role as it aims to create a good Indonesian citizens who practice the lofty values of Pancasila (State's Philosophy). The Civic Education intended to establish students to be people who have a sense of nationalism and patriotism. The noble role of Civic Education requires a teacher or lecturer of Civic Education to look for appropriate learning strategy. Likewise, the importance of choosing learning strategy of national values carried by the learners of Civic Education. It is done to obtain an efficient and effective way to provide knowledge about the life of the state and internalize the values and moral of nationality. Many values of education strategies that have been developed in the Civic Education subject, such as values clarification technique (VCT) in the Indonesian written with the values clarification strategy which its characters are Louis Raths, Merrill Harmin, and Sidney Simon. With the implementation of the 2013 curriculum with a scientific approach for all subjects, causing some teachers argue whether this approach could be used in subjects other than science, including Civic Education subject. The scientific approach as intended includes five steps: observe, question, reason, try, and form a network. One of the delivery strategies for Civic Education subject is the values of clarification. This strategy has long been known and done by teachers in Indonesia. In practicing this strategy can be applied in scientific approach to the Civic Education subject. Three stages consisting of seven sub stages on the values clarification strategy can be in the mix with the five stages of the scientific approach, so that students in the learning of Civic Education were more than happy and proud to be able to choose the values of the good life to be practiced in daily life.

Keywords: ***values clarification, civic education, scientific approach***

INTRODUCTION

Conceptually, the CivicEeducation is an multi-dimentionally integrated knowledge system twhich has a mission is to develop the students' potential in order to have a civic intelligence, civic participation, and civic responsibility as citizens of Indonesia in the context of the character and civilization of Indonesia based on values of Pancasila (Winataputra, 2001, 2006). As the study, one of them is the value of education, citizenship education is expected to infuse and transform the values, morals and norms that are considered both by the state and nation to the students, thereby supporting the formation of character (nation and character building) Winataputra (1999). It is suitable with the thinking Tisch (2007) in Winataputra (2006) stated "we define civic learning outcomes, as the knowledge, skills and values individual need to be effective

active citizens." That results of civic education subject are the knowledge, skills and values required by active citizens which is effective

In general, the public hope the nation gives contribution to value of education. The tendency of this country reflects public expectations that the school be a place where children get support for building value (Nucci and Narvaez, 2008) such as honesty (97%), respect for others (94%), democracy (93%), respect to various races and background (93%). The schools should promote and inculcate values such as honesty and tolerance towards others. It is very importance to choose national values learning strategy which is carried out by the teacher and lecturer of Civic Education. It is done to obtain an efficient and effective way to provide knowledge about the life of the state and the values and morals of nationality. Many value education strategies that have been developed in the Civic Education subject, such as Values clarification technique (VCT), its character is Louis Raths, Merrill Harmin, and Sidney Simon.

The results of study showed that the advantages of this strategy, among others (Sudrajat 2011) Lauren Teboho (2002) about the impact of values clarification in critical thinking, Gibson and Michell (1981), a conflict of values in society can be minimized with values clarification. The relevant of implementation of value clarification strategy related to the approach advocated by the curriculum in 2013 i.e. the scientific approach, with steps, as follows: (1) observing, questioning, associating, trying experimenting, and creating networking. The values clarification strategy is considered suitable to be used in teaching Civic Education that its one of domain is the affective.

The pattern of VCT is considered superior to the effective learning because (1) be able to develope and personalized values of moral, (2) able to clarify and reveal the content of value-moral message which is being delivered. (3) be able to clarify and assess the quality of moral value of students in real life, (4) be able to invite, engage, build, and develop the potential of students, especially their potential of attitude, (5) be able to provide a learning experience in a variety of life, (6) able to ward off, negate, intervened and subversive various values of naive moral that exist in the values system and moral that exist in a person, (7) leading and motivating a proper life and high moral.

DISCUSSION

A. The values Clarifiation Learning Startegy

1. The Definition of Values Clarification Learning Strategy

The Values Clarification Strategy in foreign language is called Value Clarification Technique (VCT), its characters are Louis Raths, Merrill Harmin, and Sidney Simon. namely a learning strategy related to social life, especially for affective learning that fostering attitude or moral value. The Values Clarification Strategy (VCT) is one of the teaching strategy to assist learners in looking for and determining a value which is considered good in facing a problem through the process of analyzing the existing value and inveterated learners selves (Sanjaya, 2007). These values clarification strategy does not present any new values but clarifying the old values that have lived in the community and to be carried out with the grounds that according to students' mind. In learning of this Value Clarification Technique (VCT), the teachers expect learners are active in developing and understanding to the personal values, making a decisions, and actng in accordance with the decision taken, encouraging the students with questions to develop students' skills in process of assessing, looking for and reinforcing the values which is possessed by the students.

The value clarification Strategy or Values Clarification Technique (VCT) is a method of learning with the multiplication techniques to clarify values, various types and forms of learning developed in accordance with the need and characteristic and the goals of education. According to Taniredja (2011: 88), the purpose of the use of VCT, among others, (a) to understand and measure the level of students' awareness to a value, so it can serve as a base to determine the target of value that will be achieved, (b) to create the students' awareness about

values owned both the level and nature of the positive or negative then built toward the improvement and the achievement of the values, (c) to build certain values to students through a regional method (logical) and received by the students, so that in the end the value will be belongs to the students as a process of moral consciousness not a moral obligation, (d) to train students in accepting their value and the value position of others, accept and take a decision on anything related to their social problems in everyday life.

2. The Step in the Values Clarification Learning

The Learning steps of VCT according to Djahiri (1985: 51-52), among others: (a) determining the dilemmatic stimulus, (b) presentating stimulus through demonstration, reading, or asking for help the students to demonstrate, which result activities include: disclosuring issue, identifying the facts contained stimulus, determining the similarity of a necessary understanding, determining the main problems will be solved by VCT, (c) determinig position / selection / opinion through:

Determining individual's choice, determining the selection of a group of class, the classifying these options, (d) examining reason, including the following activities: requesting argumentation of students / groups / class, strengthening the argument through: contrasting argument by argument, applying occurrences by analogy, examining the effects of the application, examining the probability of the fact, (e) concluding and guidance, through: the conclusion of the students / group /class, inference and guidance of teachers, (f) follow-up, including: remediation or enrichment activities, extra /exercise / field test activities. Harmin, Rath, and Simon as a pioneer of value clarification technique (VCT) or values clarification strategy explained the steps of VCT with seven steps in three stages / phases, namely (Reimer, et al., 1983: 9):

Table 1.1 Main phases in values clarification method

No.	Phase	Sub-Phase
1.	Choosing (cognitive)	1. Choosing freely. 2. Choosing from a variety of alternatives. 3. Choosing from a variety of alternatives to consider the its consequences.
2.	Prizing (affective)	1. There is a pleasure feeling and reward (mengahrgai) , proud to his/her choice. 2. Affirming value which is chosen and admit it publicly.
3.	Acting (Conative / behavioral)	1. Behaving, carrying out according to his/her choice. 2. Repeating the behavior of his/her choice, until it became a pattern of behavior of life.

1) Choosing or Selecting Phase

Choosing freely, it means that in choosing is free from all forms of compulsion. The environments usually demanding to perform a deed that is not in accordance with our beliefs. It is not a value yet, due to the nature of real value is the value that we choose freely. The values that is built in childhood is not considered as real value yet, referred to as a new indicator or a value that can develop into real value. Choosing freely assumes there are a variety of alternatives, if there isn't alternative, then there is not freedom of choice. The sub-third phase is choosen from various alternatives after considering the consequence of each alternative. Selecting a value means determining the anything after considering consequence of all the alternatives. Not knowing the result of an alternative means not knowing what will happen, so it is not free to accept the consequences more. Knowing the consequences of some alternatives that exist, then people can make the right choice.

2) Prizing Phase

Appreciating and feeling happy with his/her choice. The value is something that is considered as positive, appreciated, respected, revered, honored and cared. The values can make people happy and excited and grateful. When a person had determined a choice, and after doing a person's behavior becomes excited, then he/she has found a value for him/her. Conversely, when a person becomes moody and sad after executing he/her choice then it means he/she has made a mistake in determining his/her choice. So when someone has decided to select a value then he/she should be happy with his/her choice, and keep it as something precious to him/her. This sub-phase is contiouned by boldly uphold his choice in publicly. When a value cherished, appreciated and can make a person happy, then he/she would be willing to recognize and communicate it to others.

3) Acting Phase

Behaving in accordance with the selection. In order to it is really become a value, so the action of person must conform or based on the value that is followed, in other words, a value should be realized in his/her behavior, when a value has not reflected in behavior, or someone has not acted in accordance with his/her choice, so the something has not been called a real value, it is only assumed as a desire, an idea, or a dream. The quality of a value can be measured by how much time, how many efforts, and how many materials that be sacrificed for the value be believed. The last sub-stage is repeating the suitable behavior, and eventually it becomes a pattern of behavior in life. In order to the something really be a value, so the person's action in different situations should also be in accordance with the value. Appropriate behavior should continue to be done repeatedly so that it becomes a lifestyle.

The Excess of Values Clarification Strategy is the involvement of learners in determining values which are selected then be implemented. Thus, the learner will have the freedom to choose what kind of values and morality to be taken and done. Their hopeness, values and morality that be choosed develop into a habit that eventually became a cultural. Thus, the moral education through values clarification is expected to create a culture that is rooted in values and noble morality and virtuous. The main task of teacher in the value clarification strategy is to guide and lead the learners in determining the choice of values and attitudes. Thus, the teachers should provide insights broadly to values will be chosen by the students. He should be able to answer questions about the effect of the value chosen, explaining the perspective of cultures and morality associated with the value of life that is being faced by his/her learners.

According to Taniredja (2011: 88), the purpose of using the values clarification strategy, among others, (a) to determine and measuring the level of students' awareness of a value, so it can be becomed as a foundation to determine the target of value will be achieved, (b) to build awareness of students about the values which is owned both the level and nature of the positive or negative to be built toward the improvement and the achievement of the values, (C) to build certain values to students by logical way and received by the students, so that eventually the value will become a posession of the students as a process of moral consciousness is not a moral obligation, (d) to train students in accepting his/her value self and position of the value of others, accepting and taking decisions on matters related to his/her social and daly life.

B. The Nature of Civic Education Learning

The Civic Education is essentially an education that leads to build good citizens and responsible based on the values and the Pancasila state ideology. Conceptually-epistemological, civic education is a multi-dimentional integrated knowledge system whose mission is to cultivate students' potentials to have a civic intelligence and civic participation and civic responsibility as citizens of Indonesia in the context of the character and civilization of the Indonesian nation based on values Pancasila (Winataputra, 2001, 2006). In

Law Number 20 in 2003 about National Education System at article 37, Civic Education is placed as a compulsory subject for primary and secondary education curriculum and compulsory subject for higher education curriculum. In this part of the explanation it was reaffirmed that "Civic Education intended to build students to be people who have a sense of nationalism and patriotism." If we look at article 37 of the Education Law, so the civic education holds a central role in educating humans of Indonesia become good citizens that respects differences of ethnicity, religion, race, and language. This is suitable with the goals of national education in law of national education system at article 1, paragraph 1: Education is a conscious and deliberate effort to create a condition of learning and the learning process so that learners develop their potential actively to have the spiritual power of religion, self-control, personality, intelligence, noble character, and skills which are needed by them, society, nation and state.

The Civic Education is the subject has a mission to establish a national identity, namely it is as conscious effort in "nation and character building." In this context, the role of Civic Education for the continuity of the state and nation are very strategic. A democratic state must ultimately rely on the knowledge, skills and virtues of its citizens and the people who are choosed to hold public office. The Civic Education aimed to prepare students to be good and smart citizens who have a strong commitment to keep diversity and national integrity in Indonesia. The Civic Education must be addressed and treated as a field of study of science education that focuses on the development of intelligent, democratic, and religious citizens. In this case, the civic education should be seen as a movement of social-civic culture that is done synergistically to build the civic virtue and civic civic culture, which in reality is able to understand the differences, and resolve the problems of life democratically, intelligently and religiously.

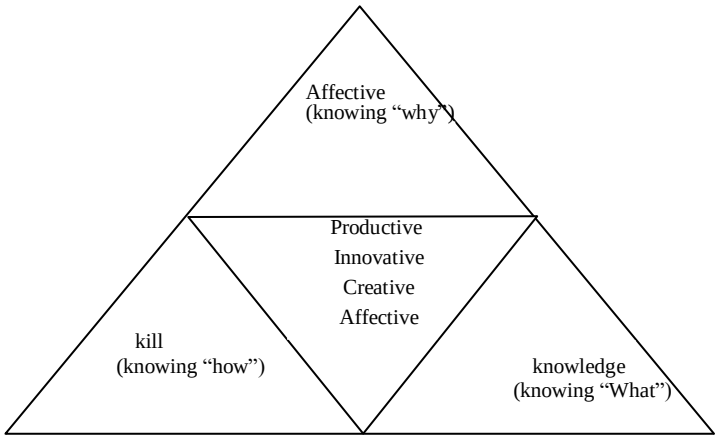
C. The Civic Education Strategy in Curriculum 2013

Since the academic in 2013/2014, the Ministry of Education and Culture has imposed Curriculum 2013. He Curriculum in 2013 is the development and refinement of the curriculum in 2006. Curriculum 2013 is designed with the aim to prepare the Indonesian that have an ability to live as a person and a citizen who believed, productive, creative, innovative, and affective and able to contribute to the society, nation, state and world civilization. The curriculum is an instrument of education to be able to bring the Indonesian who have the competence of attitude, knowledge, and skills that can be personalized and productive citizens, creative, innovative, and affective. The learning process is conducted in an interactive, fun, challenge, inspirative, motivating the students to participate actively and provide enough space for innovation, creativity and independence in accordance with their talent, interest, ability, and development of physical and learners' psychological (Permendikbud No. 103 years 2014). Strategy is the ways will be selected and used by teachers to deliver materials of learning, so it will facilitate learners to achieve learning objectives. In Civics Education, the teachers are required to find and implement strategy of implementation of civic education learning effectively. The Civic Educaton teachers are required to develop the learning process to make it more interesting, fun, challenge, and develop learners to think critically and constructively. The civic education teacher should be able to present the material of learning contextually, linking the material of learning to the real condition in the field. Linking between theory and practice, between expectation and reality, identify the problem that occur, and encourage students to create alternative solutions to solve problem.

Basically, the underlying the learning activities to the curriculum 2013 is the saintific approach, although it is actually not new, because the scientific approach in the previous curriculum i.e the curriculum based on competency or curriculum of level education, but only its term is different. The objective of scientific approach to the curriculum 2013 is expected to (1) encourage and inspire students to think hypothetically in seeing the differences,

similarities, and link to one another of the learning materials. (2) encourage and inspire students are able to understand, implement, and develop ways of thinking rationally and objectively in responsing to learning materials.

The scientific approach in learning include observing, questioning, reasoning , trying, forming a network for all subjects. While the learning process include three domains, namely the attitude, knowledge and skill as illustrated in the following scheme (darft of socialization of curriculum in 2013).



The outcome of learning create the productive, creative, innovative,
and affective students towards build affective, skills, and integgrated knowledge

Figure 1: scheme of the learning process of the curriculum 2013.

C. The Values Clarification Strategy in Scientific Approach

The first step of a scientific approach is observing the activities carried out by the senses (reading, listening, seeing, watching, and so on) with or without tool. The purpose of observation is to collect data / information that is observed from the facts. At this stage can be adjusted with the first phase of values clacification ie the stage of closing or choosing. The students' activities can choose freely the values known from the observe activity without forcing from any parties, followed by selecting the the value of fact from the various alternatives. The second step of a scientific approach is questioning as making stage and asking a question and answer, discussing about the information that has not understood, the additional information which they want to know, or as a clarification. The students ask questions both among the fellow of students and teachers so that the selection of alternatives that have been determined will get consideration with the consequences of the value that has been selected, it is the application of the first phase of the sub-third phase of value clarification strategy, namely choosing from various alternatives to consider the its consequence.

The third step of scientific approach is associating, the students exploring, trying, discussing, demonstrating, imitating the form, collecting data from sources through questioner, interviewing, and modify, adding or developing, as well as linking the value of which have been selected with facts in society, especially the pros and kindness of value that has been selected so not shy and admit proudly in publicly. The students can make a hypothesis if a good value according to themselves is not done, it can cause unwanted circumstances in society. This activity is the second phase of the value clarification strategy includes two sub-phases, namely, their feelings of pleasure and appreciate, and proud of their choice, and underscore the value to be chosen and admit in publicly by using scientific reasoning.

The fourth step scientific approach is to try (experimenting), the fourth step is a continuation of measures to reason, its application is very suitable in science subjects, however

for social subjects including Civics, design of experiments is not The real but merely tries activities, simulations, demonstrating, or playing the role of good values that have been choosen, and can also trying the of antagonist value that role-playing or simulation that is done by the students to choose a good selection and a bad selection can answer the hypothesis of both the behavior between good and bad. Seeing the relationship of variables, analyzing, comparing, and syntheses on relationship of variable of good deeds and that is not good.

The fifth step of scientific approach in terms of creating a networking, the activities carried out is processing the information that has been collected, analyzing the data in the form of creating category, associating or connecting phenomena / information that is relevant in order to find a pattern and concluded. the matching of values clarification strategy is a continuation of trial activity to a good and not good of students' behavior make generalizations (conclusion) of acceptance or rejection towards the action which is performed or simulated. Creating a new network in social issues can be concluded and a commitment to themselves or together with friends to behave, and carry out the good behavior suitable with their choice until it becomes a pattern of behavior that lives in students selves.

CONCLUSION

The civic ducation has a very important role in buliding the values of nationalism and patriotism and to build character of national to create the life of society, nation and state in accordance with the values of Pancasila. The learning process of Civics Education should be developed in order to interesting and more inspirative and participation of students with emphasis on the involvement of the student select and define national values to be practiced by students in daily life, so it is very suitable when the value clarification (VCT) strategy as an alternative learning of Civic Education. Enacted the curriculum in 2013 with the learning activities with a scientific approach, includes the steps: observing, questioning, reasoning, trying, making networking. The values clarification (VCT) Learning strategy with three stages and the seven sub-stages, is one of strategy that relevant to apply in civic education learning and can be applied in a scientific approach. The application of scientific approaches , with values clarification strategy can be used as an alternative of civic eduction learning.

REFERENCES

Djahiri, K.A, 1985. *Strategi Pengajaran Afektif-Nilai- Moral VCT dan Games dalam VCT*. Bandung: PMPKN FPIPS IKIP Bandung.

Haris Fairizah.2013. *Penerapan Model Pembelajaran VCT Untuk Meningkatkan Kesadaran NilaiMenghargai Jasa Pahlawan Pada Siswa SD*. Journal PGSD Unesa Vol 1 Nomor 02 tahun 2013. Accessed June 22, 2014.

Nucci, L dan Narvaez, D. 2008. *Handbook Of Moral and Character Education*: New York: RouledgrTylor and Francis

Rheta, V. & Zan, B. 1994. Moral Classrooms, Moral Children, Columbia University, Teachers College Press.

Reimer, Joseph., Paolitto, Diana Pritchard., & Hersh, Richard H,. (1983). *Promoting Moral Growth: From Piaget to Kohlberg.* New York: Longman In.

Republik Indonesia (2003) Undang-Undang RI No. 20 tahun 2003, tentang Sistem Pendidikan Nasional(Sisdiknas), Jakarta: Fokus Media.

_____(2013) Peraturan Pemerintah No.32 tahun 2013 tentang "Standar Pendidikan Nasional" Jakarta.

_____(2013) Materi Sosiolisasi Kurikulum 2013, Depdiknas, Jakarta

_____(2014) Permendikbud No. 103 tahun 2014 tentang "Pembelajaran Pada Pendidikan Dasar dan Pendidikan Menengah".

Sanjaya, Wina. 2007. *Strategi Pembelajaran: Berorientasi Standar Proses Pendidikan*. Jakarta, : Kencana Prenada Media Group

Simon, B Sidney. Dkk. 1972. A Hanbook of Pratical Strategies for Terachers and Students. New

York: Hart Publishing Company, Inc.
Sudrajat .2011. Mewujudkan insan Cendekia mandiri dan bernurani Melalui metode Values Clarification Technique Dalam Matakuliah Sejarah Lokal, Journal of SOCIA edition Mei 2011, diakses Juni 2014.
Sumarsono, S. dkk. 2002. *Pendidikan Kewarganegaraan* . Jakarta: PT Gramedia Pusta Utama.
Taniredja, Tukiran dan Efi Miftah. 2011. *Model-model Pembelajaran Inovatif*. Bandung: Alfabeta Winataputra, H. Udin S. 1999. *Perkembangan PKn sebagai wahana Pendidikan Demokrasi diIndonesia*, Makalah, Bandung.
_____2001. Jatidiri Pendidikan Kewarganegaraan sebagai Wahana Pendidikan Demokrasi. *Disertasi*. Bandung: universitas Pendidikan Indonesia.
_____2003 *"Pendidikan Kewarganegaraan Sebagai Wahana Sistematik Perndidikan Demokrasi: Paradigma Baru Dalam EraReformasi"* . Makalah Seminar Nasional Jurusan PPKn FIP Universitas Negeri Malang.
_____2005. *Konsep dan Strategi Pendidikan Kewarganegaraan di Perguruan Tinggi: Tinjauan Psiko-Pedagogis dan Sosioandragogis*. Jakarta: Dijen Pendidikan Tinggi (Bahan SUSCADOS Dikwar)
_____2006. *Konsep dan Strategi Pendidikan Kewarganegaraan di Sekolah: Tinjauan Psiko- Pedagogis*. Jakarta: Panitia Semiloka Pembudayaan Nilai Pancasila, Dit. Dikdas, Ditjen Mandikdasmen (Makalah)

Author's Biodata

Shofiyatul Azmi is a lecturer at the civic education department of Wisnuwardhana University of Malang. Graduated from Pancasila Moral Education at Malang Teachers' Training College in 1990, graduated Magister of Instructionl Technology, State University of Malang in 2007. Now, studying at the doctoral program of Instructional Technology. Teaching Curriculum Study and Materials of Civic Education subjects and the planning of Civic Education learning. shofiyatulazmi@gmail.com.

I Wayan Ardhana is professor at State University of Malang.

I Nyoman Sudana Degeng is professor at State University of Malang.

Waras Kamdi is lecturer in State University of Malang.

PRESENTER'S PAPERS

The Effect of Learning Strategy and Achievement Motivation on the Natural Science Learning Outcomes and Scientific Attitude of Grade VII Students of Junior High School in Mojokerto

Sunarijah
Supervisory SD / MI Department of Education Mojokerto City
Jl. Surodinawan Grand Site A / 9, Mojokerto, Indonesia
sunarijah@yahoo.com

I Nyoman Sudana Degeng
State University of Malang

I Wayan Ardhana
State University of Malang

Sulton
State University of Malang

Abstract

This study aimed to test the advantages of guided discovery learning strategies as well as to determine the significance of the interaction between the learning strategies and achievement motivation on learning outcomes of science and scientific attitude of students. This study used a quasi-experimental pre-test and post-test nonequivalent control-group design. The study population was a grade VIII students of the junior high school in Mojokerto in the academic year 2014/2015. The samples were assigned by using random cluster sampling technique. The samples were State junior high school 4 and State junior high school 6 with a total of 144 students. The research instruments used were test, questionnaire achievement motivation, and scientific attitudes questionnaire. The data were analyzed using MANOVA factorial design with the help of SPSS Version 20. The study concluded that: (1) There are differences in the results to learn science and scientific attitude significantly between groups of students who use guided discovery learning strategy with a group of students who use the strategy of expository; (2) There are differences in the results to learn science and scientific attitude of students significantly between groups of students who have high achievement motivation with a group of students who have low achievement motivation; and (3) There is no significant interaction effect between learning strategies and achievement motivation on learning outcomes of science and scientific attitude of students.

Keywords: *guided discovery, expository, achievement motivation, learning outcomes, and scientific attitude*

PRELIMINARY

National Research Council (in Zubaidah et al, 2013) suggests that to learn science has several characteristics, namely: (1) Science learning process involves all the sensory organs, the whole process of thinking, and a wide variety of muscle movements; (2) to learn science is done by using a variety of ways, for example, observation, exploration, and experimentation; (3) learn science requires a wide range of tools and materials, especially to aid in the assessment; (4) Science learning often involves the activities of the scientific meeting, the study of literature, visit an object, and others; and (5) Science learning is an active process.

One model of learning that correspond to the characteristics of science and science teaching, and student characteristics such as has been described is a discovery learning (discovery learning). Learning invention directs students to understand the concepts, meanings, and relationships, through an intuitive process to finally come to a conclusion. The discovery of the concept is not

presented in its final form, but students are encouraged to identify what they want to know and continue to seek information themselves and then organize or construct what they know and understand in a final form.

Based on the nature of science and science learning as we mentioned at the beginning, the research findings show that learning science is not yet fully carried forward the science achievement of learning objectives in terms of products, processes, and scientific attitude. Learning science at school is focused on achieving the objectives in terms of products, the mastery of knowledge in the form of a set of facts, concepts, principles, theories and laws alone. Lack of teachers' attention in cultivating a scientific attitude in learning science cannot be separated from less to get used to it students work scientifically or with the scientific method.

In addition to the learning strategy, there are a number of factors that also affect learning outcomes. Teachers must pay attention to the students' characteristics, such as: talent, enthusiasm, achievement motivation, cognitive style, intelligence, and more. This is because these variables influence the learning outcomes. Internal factors are influential and closely linked to learning outcomes, among which is the achievement motivation of the students. In other words, the success of the learning process also depends on how an instructional materials delivered and there are other variables that are indispensable to the successful achievement of learning is motivation.

Based on the description of the background of the above problems, it seems necessary to improve the learning outcomes of science and scientific attitude of students in junior high. Therefore, this study aimed to examine the advantages of learning strategies among the learning strategy guided discovery (guided discovery learning) versus strategy expository (Expository learning), as well as to determine the significance of the interaction between the learning strategies and achievement motivation on learning outcomes of science and scientific attitude graders VIII junior high school in Mojokerto.

METHOD

The study population was all students of grade VIII junior high school in Mojokerto in the academic year 2014/2015, that there are nine junior high school. As for determining the sample, used cluster random sampling (random sampling technique group). The sample classes are: VIII-1 and VIII-4 (located in junior high schoolN 6) as an experimental class; and grade 8-C and (4) class of 8-H (located at junior high schoolN 4) as the control class. Fourth grade is given a pre-test to measure the equivalence or equality groups. From the pre-test is conducted different test average score tests using t-test (t-test).

This study used two types of research instruments as a means of data collection, namely: (1) the test instrument, and (2) a questionnaire, consisting of: (a) achievement motivation questionnaire, and (b) scientific attitude questionnaire. Shaped instrument objective multiple choice test with four alternative answers. The test instrument in this research is divided into two, namely: the instruments pre-test and post-test.

Instruments achievement motivation questionnaire prepared by the indicators: (1) work hard, (2) expectations for success, (3) fear of failure, and (4) competition. Achievement motivation questionnaire used in this study using a Likert type attitude scale with four options / alternative answers developed by Robinson (in Cohen, 1976), and adapted by Degeng (1991). This scientific attitude questionnaire given at the end of treatment with the goal to be known scientific attitude of students after receiving treatment. Dimensions scientific attitudes were measured: (a) curiosity, (b) open-minded, (c) respect for the facts / evidence, and (d) critical thinking. These instruments scientific attitude adopted by the dimensions of scientific attitude developed by Harlen and Gega (in Sudarma, 2012).

Trial of instruments intended to determine the level of validity (accuracy) and reliability (regularity) instrument. Experiments conducted at 40 research instrument of class IX student of junior high schoolN 9 Mojokerto in the academic year 2014/2015. Instruments in the field trials conducted after approval by the validity of the research instrument content (content) based on rational consideration of the expert (expert judgment). natural science (IPA) expert field of study that is believed to give such consideration is a lecturer in Education Studies Program natural

science (IPA) / Science State University of Malang. While learning expert who asked for consideration is the supervisor of investigators.

Then, to determine the validity of each item / items can be viewed through value corrected item-total correlation in statistics total grains. To determine the construct validity achievement motivation questionnaire and scientific attitude used a factor analysis. As for calculating the coefficient of reliability of the instrument, used Cronbach alpha formula. Test validity, construct validity and reliability of research instrument is done with the help of IBM SPSS Statistics 20 program for Windows.

Before testing the hypothesis, it is necessary to test the assumptions or test data analysis requirements, namely: (1) The outlier test data by displaying a graph of data in the form of box plots; (2) The data normality using the Kolmogorov-Smirnov test; and (3) the homogeneity of variance-covariance matrix with Lavene test; while homogeneity of variance-covariance matrix is jointly used Boxa € ™ s M. To test the effects or differences between the learning strategies and achievement motivation on learning outcomes and student scientific attitude is MANOVA factorial design (Santoso, 2004: 221). Test assumptions and analyzes data using a support program IBM SPSS Statistics 20 for Windows.

RESULT

Data were analyzed by MANOVA techniques to test hypotheses main influence and the influence of the interaction variable learning strategies and achievement motivation on outcome variables learn science and scientific attitude is calculated with the help of an application program IBM SPSS Statistics 20 for Windows are presented in Table 1 below.

Table 1. Effect of Test Results Top (Tests of Between-Subjects Effects)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Learning_outcomes	5979,179[a]	3	1993,060	27,478	0,000
	Scientific_attitude	3985,088[b]	3	1328,363	58,761	0,000
Intercept	Learning_outcomes	640530,229	1	640530,229	8830,802	0,000
	Scientific_attitude	522433,389	1	522433,389	23110,318	0,000
Learning_strategy	Learning_outcomes	1628,839	1	1628,839	22,456	0,000
	Scientific_attitude	2488,774	1	2488,774	110,093	0,000
Achievement_motivation	Learning_outcomes	3798,877	1	3798,877	52,374	0,000
	Scientific_attitude	1281,528	1	1281,528	56,690	0,000
Learning_strategy * Achievement_motivation	Learning_outcomes	162,962	1	162,962	2,247	0,136
	Scientific_attitude	0,066	1	0,066	0,003	0,957
Error	Learning_outcomes	10154,710	140	72,534		
	Scientific_attitude	3164,849	140	22,606		
Total	Learning_outcomes	652406,000	144			
	Scientific_attitude	528073,000	144			
Corrected Total	Learning_outcomes	16133,889	143			
	Scientific_attitude	7149,937	143			

a. R Squared =0 ,371 (Adjusted R Squared = 0,357)

b. R Squared = 0,557 (Adjusted R Squared = 0,548)

Hypothesis Testing 1:

MANOVA test different techniques obtained probability value (sig.) Calculations for = 0.00 <0.05, mean Ho1 rejected. It can be concluded there are differences in learning outcomes natural science (IPA) significantly between groups of students use learning strategies guided discovery and expository.

Hypothesis Testing 2:

MANOVA test different techniques found that the probability value (sig.) Calculations for = 0.00 <0.05. This means that the Ho2 rejected. It can be concluded There are differences in learning outcomes natural science (IPA) significantly between groups of students who have high achievement motivation and low achievement motivation.

Hypothesis Testing 3:

MANOVA test different techniques found that the probability value (sig.) Calculations for = 0.316> 0.05. This means that the Ho3 received. It can be concluded no significant interaction effect between learning strategies and achievement motivation on learning outcomes natural science (IPA).

Hypothesis Testing 4:

MANOVA test different techniques found that the probability value (sig.) Calculation = 0.00 <0.05. This means that the Ho4 rejected. It can be concluded Ada difference significant scientific attitude among the group of students who use the learning strategy guided discovery and expository.

Hypothesis Testing 5:

MANOVA test different techniques found that the probability value (sig.) Calculation = 0.00 <0.05. This means that the Ho5 rejected. It can be concluded Ada difference significant scientific attitude among the group of students who have high achievement motivation and low achievement motivation.

Hypothesis Testing 6:

MANOVA test different techniques found that the probability value (sig.) Calculation = 0.957> 0.05. This means that the Ho6 accepted. It can be concluded no significant interaction effect between learning strategies and achievement motivation on scientific attitude eighth grade students junior high school.

DISCUSSION

Influence of Learning Strategies on Yield Science Class

Based on the results of hypothesis testing to-1 can be shown that there are differences in learning outcomes natural science (IPA) significantly between groups of students who were treated with guided discovery learning strategies and student groups treated with expository teaching strategy. Differences natural science (IPA) significant learning outcomes between the two treatment groups showed that the learning outcomes natural science (IPA) influenced by learning strategies used. In other words, it can be interpreted that the application of guided discovery learning strategy is more effective in the acquisition of science learning outcomes rather than expository strategy implementation. This finding is consistent with research that has been done before by Udo; Ugwuadu; and Akinbobolaa & Afolabib (2010), Ozomadu (2011), Abdisa & Getinet; and Smitha (2012), Akanmu & Fajemidagba (2013), AKANBI & Kolawole (2014), and Bamiro (2015).

Influence Achievement Motivation towards Science Learning Outcomes

Based on the results of hypothesis testing to-2 can be concluded that there are significant differences in learning outcomes between students who have high achievement motivation and who have low achievement motivation. The results of descriptive statistical analysis showed that the group of students who have high achievement motivation earn mean better learning outcomes than the group of students who have low achievement motivation. Differences in Science learning outcomes significantly in both groups of students showed that the level of student achievement motivation affect the acquisition of student learning outcomes. The findings of this study are consistent with previous studies conducted by Singh; Bakhtiarvand et.al; Cavas; and Cloud et.al. (2011), Chetri (2014).

Effect of Interaction between Learning Strategies and Achievement Motivation towards Science Learning Outcomes

On the results of hypothesis testing to-3 has been shown that no significant interaction effect between learning strategies and achievement motivation toward science learning outcomes in grade VIII junior high school. This is shown by the results of the analysis technique MANOVA, obtained F count = 2.247 and a significance level of 0.136> 0.05. The absence of interactions among the two independent variables, namely learning strategies and achievement motivation showed that each of the independent variables gives a strong influence on the dependent variable, ie learning outcomes separately and independently (separately). Results of research Salu (2013), and Susanti (2014) showed that there was no significant interaction effect between learning strategies and achievement motivation on the acquisition of student learning outcomes.

Influence of Learning Strategies on Students Scientific Attitude

Hypothesis test results 4th with MANOVA techniques obtained F count = 110.093 with significance (p) = 0.00 <0.05. It can be concluded that there are significant differences in scientific attitude among the group of students who are taught by learning strategies guided discovery and groups of students who are taught by expository strategy. The study's findings are consistent with the theoretical and empirical studies. Previous research on the effect of different learning strategies to the scientific attitude of students conducted by Ergul et al. (2011), Al Rabadi et al. (2013), and Afrida (2014).

Achievement Motivation Influence on Scientific Attitude Students

Based on the results of hypothesis testing to-5 with MANOVA techniques, found that the value of F count = 56.690 and the significance (p) = 0.00. So it is concluded that there are significant differences in scientific attitude among the group of students who have high achievement motivation with a group of students who have low achievement motivation in grade VIIIjunior high school. The big difference between the two groups of scientific attitude of students with different levels of achievement motivation showed that achievement motivation significantly affect the scientific attitude of students. The influence of achievement motivation on scientific attitude of students supported by theoretical and empirical studies through research findings obtained by Simatupang (2011), Cavas (2011), as well as Pyari & Shrama (2013). Students who have high achievement motivation have better scientific attitude.

Effect of Interaction between Learning Strategies and Achievement Motivation of the Students Scientific Attitude

Based on the results of hypothesis testing to-6 indicated that no significant interaction effect between learning strategies and achievement motivation on scientific attitude eighth grade students of junior high school. This is supported by the results of the analysis with MANOVA technique, which is obtained F count = 0.003 and significance (p) = 0.956> 0.05.

The absence of interactions among the two independent variables, namely learning strategies and achievement motivation on scientific attitude shows that each independent variable that gives a strong influence on the outcome variable studied separately and independently (separately). As revealed by Hair et al. (1995) that the interaction does not occur if more than one independent variable consequences for the primary (main effect) apart on the dependent variable. The influence of each variable learning strategies and achievement motivation is equally strong against the scientific attitude of students, the interaction effect of the two independent variables on the dependent variable is expected weak and insignificant.

CONCLUSIONS & SUGGESTIONS

Conclusion

Based on the analysis of research data, it can be concluded that: (1) There are differences in learning outcomes natural science (IPA) significantly between groups of students who use guided discovery learning strategy with a group of students who use the strategy of expository grade students of junior high school; (2) There are differences in learning outcomes natural science (IPA) significantly between groups of students who have high achievement motivation with a group of students who have low achievement motivation in grade VIIIjunior high school; (3) There is no significant interaction effect between learning strategies and achievement motivation on learning outcomes Junior High School eighth grade science students; (4) There is a significant difference in the scientific attitude among the group of students who use guided discovery learning strategy with a group of students who use the strategy of expository grade students of junior high school; (5) There are significant differences in scientific attitude among the group of students who have high achievement motivation with a group of students who have low achievement motivation in grade VIIIjunior high school; and (6) There is no significant interaction effect between learning strategies and achievement motivation on scientific attitude eighth grade students of junior high school.

Suggestion

Based on the research results and conclusions, some suggestions are given are: (1) For the junior high school science teachers, particularly grade VIII suggested to use learning strategies in a guided discovery learning to the learning outcomes of students' science and scientific attitude can be improved. Characteristics of guided discovery learning support science learning achievement and scientific attitude of students; and (2) For further research, it is advisable to conduct studies related study in the form of classroom action research (PTK). This is important because PTK prefer the process in order to achieve learning success criteria. With PTK is possible to be able to see how far the process quality and effectiveness of learning strategies guided discovery to the achievement of the learning success criteria.

BIBLIOGRAPHY

Abdisa, G., & Getinet, T. 2012. The Effect of Guided Discovery on Students' Physics Achievement. *Latin-American Journal of Physics Education*, 6(4): 530-537.

Afrida, H. 2014. *Pengaruh Strategi Problem Solving, Guided discovery, dan Konvensional terhadap Sikap Ilmiah, Hasil Belajar Biologi, dan Kemampuan Berpikir Kritis Siswa di SMAN 3 Langsa*. Tesis tidak diterbitkan. Medan: PPs Unimed.

Akanmu, M. A., & Fajemidagba, M. O. 2013. Guided-discovery Learning Strategy and Senior School Students Performance in Mathematics in Ejigbo, Nigeria. *Journal of Education and Practice*, 4(12): 82-89.

Akanbi, A. A. and Kolawole, C. B. 2014. Effects of Guided-Discovery and Self-Learning Strategies on Senior Secondary School Students' Achievement in Biology. *Journal of Education and Leadership Development*, 6(1): 19-42.

PRESENTER'S PAPERS

Akinbobolaa, A. O. & Afolabi, F. 2010. Constructivist Practices through Guided Discovery Approach: The effect on Students' Cognitive Achievement in Nigerian Senior Secondary School Physics. *Eurasian Journal Physics and Chemistry Education*, 2(1): 16-25.

Al Rabadi, I. G., Al Momani, H. O. S., & Al Rabadi, K. I. S. 2013. The Effect of Using Process Approach on Science Achievement and Scientific Attitudes among Jordanian Basic Stage Students. *Journal of Education and Practice*, 4(20): 136-150.

Awan, R. U. N., Noureen, G., & Naz, A. 2011. A Study of Relationship between Achievement Motivation, Self Concept and Achievement in English and Mathematics at Secondary. *International Education Studies*, 4(3): 72-79.

Bakhtiarvand, F., Ahmadian, S., Delrooz, K., & Farahani, H. A. 2011. The Moderating Effect of Achievement Motivation on Relationship of Learning Approaches and Academic Achievement. *Procedia - Social and Behavioral Sciences*, 28: 486 – 488.

Bamiro, A. O. 2015. Effects of Guided Discovery and Think-Pair-Share Strategies on Secondary School Students' Achievement in Chemistry. *SAGE Open*, January-March 2015: 1–7.

Cavas, P. 2011. Factors Affecting the Motivation of Turkish Primary Students for Science Learning. *Science Education International*, 22(1): 31-42.

Chetri, S. 2014. Achievement Motivation of Adolescents and Its Relationship with Academic Achievement. *International Journal of Humanities and Social Science Invention*, 3(6): 8-15.

Ergul, R., Simsekli, Y., Calis, S., Ozdilek, Z., Gocmencelebi, S., & Sanli, M. 2011. The Effects of Inquiry-Based Science Teaching on Elementary School Students' Science Process Skills and Science Attitudes.Bulgarian Journal of Science and Education Policy (BJSEP), 5(1): 48-68.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. 1995. *Multivariate data Analysis with Reading (4th editions)*. New Jersey: Prentice Hall, Inc.

Ozomadu, E. A. 2011. *Effectiveness of Guided Discovery and Expository Methods on Students' Achievement in Senior Secondary Shool Mathematics.* Enugu-Afrika: Godfrey Okoye University.

Pyari, D., & Shrama, I. 2013. Impact of Psycho-Socio and Biographical Variables on Scientific Attitude of Secondary School Students.*International Journal of Advanced Research*, 1(6): 554-574.

Al Rabadi, I. G., Al Momani, H. O. S., & Al Rabadi, K. I. S. 2013. The Effect of Using Process Approach on Science Achievement and Scientific Attitudes among Jordanian Basic Stage Students. *Journal of Education and Practice*, 4(20): 136-150.

Salu, B. 2013. Pengaruh strategi Penemuan Terbimbing terhadap Motivasi dan Hasil Belajar IPA Siswa Kelas IV SDN Rantepao I Kabupaten Toraja Utara. *Jurnal Pendidikan Sains*, 1(1): 85-91.

Simatupang, R. 2011. *Pengaruh Strategi Pembelajaran Berbasis Masalah dan Motivasi Berprestasi terhadap Sikap Ilmiah dan Kemampuan Berpikir Tingkat Tinggi Biologi SMA Negeri 17 Medan*. Tesis tidak Diterbitkan. PPS Universitas Negeri Medan. (Online), http://digilib.unimed.ac.id/public/ UNIMED-Master-1208-081188910028%20Abstrak.pdf diakses tanggal 12 September 2015.

Singh, K. 2011. Study of Achievement Motivation in Relation to Academic Achievement of Students. *International Journal of Educational Planning & Administration*, 1(2): 161-171.

Smitha, V. P. 2012. *Inquiry Training Model and Guided Discovery Learning for Fostering Critical Thinking and Scientific Attitude (1st Edition).* London: Vilavath Publications, Kozhikode. (Online), http://www.lulu.com/shop/ smitha-vp/inquiry-training-model-and-guided-discovery-learning-for-fostering-critical-thinking-and-scientific-attitude/paperback/product-20308765.html. diakses 25 Feb 2016.

Susanti, L. 2014. *Pengaruh Strategi Pembelajaran dan Motivasi Berprestasi terhadap Hasil Belajar Keterampilan Intelektual Biologi Siswa SMA Kelas X*. Disertasi tidak diterbitkan. Malang: PPs UM.

Udo, M. E. 2010. Effect of Guided-Discovery, Student-Centred Demonstration and the Expository Instructional Strategies on Students' Performance in Chemistry. *African Research Review*, 4(4): 389-398.

PRESENTER'S PAPERS

Ugwuadu, O. R. 2010. The Effect of Guided Inquiry and Lecture Methods on Students' Academic Achievement in Biology: A Case Study of Yola North Local Government Area of Adamawa State. *Knowledge Review*, 21(1), 107-114.

Author's Biodata

Sunarijah was born on 05 July 1962 in the district of Ngimbang Lamongan district. She is a Supervisor of primary schools (SD/MI) of Ministry of Education of Mojokerto City branch. She earned her Master's degree of Education (M Ed) from University of PGRI Adi Buana, Surabaya, and is now studying at the Doctorate Program of Instructional Technology at the State University of Malang.

I Nyoman Sudana Degeng is professor at State University of Malang.

Wayan Ardhana is professor at State University of Malang.

Sulton is lecturer in State University of Malang

PRESENTER'S PAPERS

Future Education by Mastering Technology

Tetty Rihardini
Midwifery Departement, University of Adi Buana Surabaya
Sertu Karjalim street Kebaron village of Tulangan, Sidoarjo, Indonesia
tettyrihardini@gmail.com

Abstract

In human life education is the most important aspect. It would lead man to private civilized, moral, justice, wisdom, and uphold the truth of reality. Conversely, without education, it would be arrogant and against the truth, or in other words, remains in humanity many wrong and forget. To that end, education is done right, it will lead to the improvement of the livelihood humans both individuals and groups. No reform in education can work without high quality staff. Standards cannot be raised without the skills and commitment of our teachers. We cannot flourish as a nation without giving each and every child the best possible start in life. And we cannot do that without the help of all those who work in our schools. Our teachers and school staff are a national asset of priceless value.It is right that we ask more of our schools and teachers. But at the same time we must address the questions of how teachers are enabled to do their vital work.Then it is a must for a teacher to improve himself by mastering the technology education. Technology is not just a modern tool that helps the educational process, but rather an increase in the methods and the ability for the improvement in education. This paper highlights the importance of mastering technology in education since technology in the field of education can be a powerful tool.

Keywords: education, teaching technology

1. INTRODUCTION

Education is an attempt to change the mindset, attitudes and behavior of learners, from negative to positive.The changes can be observed in daily activities, the extent to which a person wants to think, act and behave positively in life's problems solving, and its presence is able to give as much as possible for the benefit of mankind. He not only lives, but can support other, not only engaged but motivate, not only fought but more fight for others.

Teacher is a professional job, which requires a special expertise. Because of its expertise is specific, teachers have a very important role and strategic learning activities, which will determine the quality of education in an educational unit. Therefore, in the system of adult education and learning is the position of teachers in the learning process in schools can't be replaced by any sophisticated tools or machines. Special expertise that is what distinguishes the teaching profession with other professions. Where the main differences between the teaching professions with other professions lies in their duties and responsibilities. The duties and responsibilities is closely related with the capabilities required to assume the profession. The basic ability is none other than the competence of teachers.

Advances in science and technology, social and cultural development, change perceptions and aspirations, in addition to a very fast growing, often also very fundamental, are not easy to follow the traditional science education. As the philosophers say, that the world is always evolving. People have become very dynamic, evolving science more intense. Educational system also needs to be reviewed and harmonized.Thus, to be referred to as a professional, every teacher must perform continuous competence development. And teachers must condition himself with evolving technology, should be able to accompany the rapid pace of the times. Mastering the technology does not mean its activities rely on advanced equipment, but rather to apply the good ideas in teaching activities. Must have proven strategies in dealing with learners.

Technology is one of the things that can't be separated in a period which is too advanced and the technology will be growing with the times and with the many needs arise in human life.

Advances in technology are not only used in the fields of economics, politics or industry but also in the field of education, especially in Islamic religious education. Because the technology can be applied in many aspects of education, such as in the aspect of development, implementation aspects and also aspects of evaluation. Technology is the development of tools to facilitate the work of man. Technology also as a tool for utilization of knowledge and science. Technology also enter various fields of human life to improve the effectiveness of a production or activity to users. The world of education was not immune from technology integration in the framework of the effectiveness and efficiency of learning technology in education should also be developed well for the realization of intelligent life of the nation as stipulated in the 1945 Constitution.

Intelligent nation means lead to the quality of human resources. Qualified human resources is rooted in the quality of education are also qualified. Because essentially to develop human beings need education in order to become a man of quality and useful for the community, nation, and state.

Education has a broad concept and understanding and the limits to be studied more deeply. One important task of the educator is to know, understand and be able to generate and apply science about the concept of education.

Technology is one of the world problem solving in education, because it can penetrate the boundary, space, and time. Integration is even more powerful in the age of globalization technology can be a means of education providers in Indonesia very own various islands are far apart and separated as well as cultural diversity. Solving these problems is one of the interests of the educational technology.

ESSENCE OF LEARNING TECHNOLOGY

On the issue of the nature of educational technology is no different from learning technology, which both hope to be more successful an education or learning process (Made, 1997).In defining learning technology, there are some opinions which are:

1. Learning technology is the systematic application of strategies and techniques drawn from behavioral science concepts and physical sciences, as well as other knowledge for the purposes of learning problem solving.
2. Learning technology is the development, implementation and assessment systems, techniques and tools to improve and enhance the human learning process.
3. Learning technology is a systematic thinking about education, implementation, methods of problem solving in education, which can be done with the tools of modern communication, also without those tools.
4. Learning technology is a method or a method used by educators in guiding learners to achieve educational goals either using a media or referred to hardware and more important than that of software, so as to educate the students they can accept the material provided by educators with a sense of fun and not forced.
5. Learning technology is a very rapid communication are used in education, while in communication which is the preferred medium of communication in the form of technology tools called hardware.
6. According to Miarso (2011) that the technology derived from the word technic which means it is art, how and creativity to be taken by an educator in transferring knowledge to the learners.[1] In other words, that a teacher must have the means or expertise in educating learners.

From the definition above it can be concluded that the advanced electronic education is a systematic way or method that is expected later learners can receive Islamic religious education materials better, with pleasure and without any coercion.

PRESENTER'S PAPERS

Learning technologies are part of the educational technology. It is based on the concept that teaching is part of education. Teaching technology is a set of integrated processes involving people, procedures, ideas, tools and organizational and management ways of solving the problems of education contained in a learning situation that purpose.

Various Education Technology

In educational innovation can't escape the problems of the revolution methods, innovative curriculum, technology and human resources critical to be able to generate creativity and school results as a form of educational change. Schools must have customers who have a business orientation global competitiveness. For that there are four new technologies that can create a better education system, namely:

1. Systems thinking

Systems thinking makes us to be more careful with the advent of each mode in the world of education. This is to anticipate the changes we want. Without the system we think it would be difficult to hold a real improvement in education. So systems thinking presents the concept of a common system, where various things are interrelated.

2. Design system

The system design is the technology to design and build the new system. Changes in question is the rapid changes that increase expectations. The system design gives us the tools to create a new system and a strategy for change.

3. The quality of knowledge

Quality of knowledge is a technology that produces a product or service / services that match the expectations and customers. The science of quality has become an invaluable tool in the innovation education / school.

4. Change Management

Change management is a way to guide the creative energy towards positive change. May also mean a system of thought that apply to aspects of innovation management course is oriented to the POAC (Planning, Organization, Actualization and Control). Learning technologies there are two parts: Students of the first electronic equipment (computer, multimedia, Internet, telecommunications), The second lesson is designed, methods and strategies needed to create an effective electronic equipment. Electronic lesson learned is changing the way of communicating (Web.2). So the learning technology is a system of thought that apply to instruction and learning.

TEACHER PROFESSIONALISM

In undertaking as a teacher, one must know their role and function as a teacher. Must understand who and what he, thinking patterns, patterned behavior to act like a real teacher. In the sense that teachers should have the power in their field of competence. Professional is not only a mastery of the subject matter, but rather the role and function of the teacher as the holder of an important role in education.

Teacher Professionalism - According to the expert, professionalism gives emphasis to the mastery of knowledge or an ability of management to strategy implementation. The professionalism of teachers not just knowledge of technology and management, but more of an attitude and professional development, more than a technician does not only have a high skill but may behave as required. If teachers in Indonesia already meet professional standards of teachers as is the case in other countries are more advanced then the quality of Indonesian human resources will increase. To become a professional teachers are required to have five things (Web.2)

The first teacher must have a commitment to students and their learning. Second, teachers must master in depth material what they learn and how to teach it, the third teacher is responsible

for monitoring student learning outcomes through various means of evaluation, the four teachers must be able to think systematically accomplishments and learn from his experience and the fifth is teachers should be part of a learning community within the profession.

Indonesia to build a professional teacher professionalism, the requirement is expected to have a strong science base as a manifestation of the technological society and the scientific community in this century. Teachers also must have mastery of tips profession based on research and science education educational praxis in which science is the science of praxis is not only a mere concept.

The teaching profession is a profession that is growing continuously and sustainably. The existence of the requirements of professionalism of teachers is the need for a new paradigm to bear the profile of Indonesian teachers were really professional. Professional teachers should have a mature personality and developed, with a strong mastery of knowledge and skills to generate learners to science and technology and continuous professional development.

Four aspects are a unified whole that can't be separated and coupled with other businesses that contributed to the professional development of the teaching profession. Professional development of teachers of concern globally. This is because teachers have a duty and role is not only to provide information on science and technology but also to shape the attitude and spirit that can survive in the hypercompetition era.

A teacher is required to be creative in carrying out its duties, the teacher is not only a bare minimum of what he had learned for the students - his students. Teachers should be skilled in modifying the delivery of knowledge to learners. Must know the characteristics of students encountered, must be dynamic in all aspects. Dynamic is full of vigor and energy that moves quickly and easily adapt to circumstances and so forth and contains dynamics. Then the teacher should have a custom high power for what and who he faced. Spirit and power has a high fighting spirit in each doing the job, the spirit must also have a focus.

A teacher should be directly involved in the dynamics of their students in order to understand the conditions of learners and understand the direction of education map. And it requires the will to see, hear and be directly involved in the dynamics of life learners. Educating not only with the briefings or speeches, but working directly various assignments, training, habituation, escort and exemplary even through the depth of calling and appreciation (Zarkasyi, 2011).

Many provisions have to be prepared at once possessed by a teacher , because faced not just the material things, which can be arranged with mechanical ability, but more complicated is that is non-material, that mindset, attitudes and human behavior. Every time people can change and evolve, it is necessary for excellent strength, namely thrust, durability, adaptability and creative power.

The thrust is necessary for the teacher, because the thrust is a strong effort to develop themselves by continuing a lifelong education. A successful teacher who has the willpower to continue to improve and unleash the potential peak. But this power is not just for himself, but more important is the ability to support other people to do as planned. The second strength is the durability. Resistance to various difficulties and challenges. Surviving good is to attack. That is a problem or a challenge still facing and look for solutions. So the attack was the work of, and tasks and teachers do not deserve to complain and give up. Next is an adaptability, it is the ability of a teacher to be flexible, not frontal in the face of all kinds of people, but using soft power. The creative power of a teacher must be high, that should have art educational. This allows teachers to engage, fill and lead to the planned. When education is passive, static, uncreative it will bring boredom. Whoever most creative then he will win and be able to survive.

A teacher should have the intelligence, because this is very important in managing the totality of education. This intelligence includes intelligence to see, hear, evaluate, assess, decide and get it done.

Intelligence see not only linked with the visible thing, phenomena and incidents in the neighborhood with the naked eye, but look beyond what happens on learners. Intelligence listen closely associated with the intelligence to filter information, based on true facts. Evaluating

intelligence is also important, and is closely related to intelligence in view of various deficiencies, irregularities or excess in the implementation of a program or activity. As for assessing intelligence is associated with the ability to analyze, because the judge must understand the positive and negative sides in a case. Intelligence decide is associated with courage in taking steps. Deciding not easy, because it should be considered with full justice. But the decision can't be postponed because of the quick decision created a dynamic fast life anyway. The highlight of this intelligence is intelligence resolve various problems in educational activities.

A good teacher should also has a good communication. In the life of any ability to communicate one of the keys to success, let alone a teacher, this capability is an absolute requirement of success in educating. Although a genius if it is not good practice to communicate, it will not be able to transfer ideas to others. Communication can be trained with a strong will, train yourself so that talks could be better, systematic, logical, unbiased, easily accepted by others**.**

CONCLUSSION

Being a professional teacher should be able to master the technology education. Technology does not mean the device to support education, but rather the ability of individuals to improve themselves so as to have a high capacity technological mastery. Because in the world of education, methods are important to achieve educational goals.

So in addition to improving the curriculum or educational material, there needs to be an increase in the quality of teachers. Teachers will determine a successful process of transfer of educational materials to students. Moreover soul teacher, strongly supports the establishment of a personal teacher in educating all out. Soul of a good teacher is detected with their high spirits and of calling to participate fully in education. Teachers must have a self-development, which is an attempt to manipulate themselves to be both developed and developing, by putting themselves in accordance with their roles and functions for the benefit of education. For that we need of calling themselves, understand the goal of becoming a teacher. Self-improvement not only in cognitive, or thinking, not only in mastering high-tech devices, but an increase in moral and mental aspects.

Urgency of a teacher immensely to the success of the educational process, the importance of teachers exceed importance of educational material itself. Even a method does not work without the quality of the teachers who implement it. *A method's position is more important than the material, and the teacher is more important than the method, but the soul of the teacher is more important than teachers themselves.*

REFERENCES

Harefa, Andrias, *Pembelajaran di Era Serba Otonomi,* Kompas, Jakarta 2001
(Web-1) http://www.infodiknas.com/109definisi-teknologi-pembelajaran-tahun-1994
(Web-2) http://www.informasi-pendidikan.com/2013/07/profesionalisme-guru.html
(Web-3)http://www.kompasiana.com/ahmadturmuzi/pengembangan-kompetensi-guru-menuju-pelaksanaan-dan-tanggung-jawab-secara-profesional
Pidarta Made, *"Landasan Kependidikan"* Rineka Cipta, Jakarta: 1997
Suharto, Ahmad, *Menggali Mutiara Perjuangan Gontor,* Perc. pribadi, Ngawi Jatim 2014
Tirtarahardja, Umar dan S.L.La Sulo, *"Pengantar Pendidikan"* Rineka Cipta, Jakarta: 2005
Yusufhadi Miarso, *"Menyamai Benih Teknologi Pendidikan"* Kencana Prenada Media, Jakarta: 2011
Zarkasyi, Abdullah Syukri Dr, *Bekal Untuk Pemimpin*, Trimurti Press : Ponorogo Jatim 2011

Author's Biodata

Tetty Rihardini is a lecturer of Midwifery Department, University of Adi Buana Surabaya. She is certified as Midwife from 2002. She received her Midwifery Master Degree in Brawijaya University. Her major interests cover teaching methodology andthe development of the profession of midwifery.Email: tettyrihardini@gmail.com

PRESENTER'S PAPERS

Didactic Design to Decrease the PGSD Students' Barriers in Learning Geometry

Via Yustitia
Program Studi Pendidikan Guru Sekolah Dasar Universitas PGRI Adi Buana Surabaya
Jl. DukuhMenanggal XII, Surabaya; via.yustitia@yahoo.com

Susi Hermin Rusminati
Program Studi Pendidikan Guru Sekolah Dasar Universitas PGRI AdiBuana Surabaya
Jl. DukuhMenanggal XII, Surabaya; susihermin@gmail.com

Abstract

For students majoring in Primary School Teacher Education (PGSD), one of the barriers to learning the basic concepts of geometry is ephistemological learning barrier. The students know the material only on a certain context, so when they are faced to the other context, they would be in trouble. The learning equipments used do not facilitate teachers to anticipate students' diverse response possibilities in the courses. The teaching materials used do not load many kinds of questions that could lead students to build their own knowledge. Therefore, the learning design process required as the first learning step should minimize the learning barriers. Didactic design is developed based on the theory of didactic triangle among students, teachers, and materials that cover Didactic Relationship, Pedagogic Relationship, and Pedagogic Anticipation. Didactic design in this research is developed based on the nature concept that would be presented by considering the identified learning barriers. This article is the results of literature review. Through this article it is expected that teachers get clearly and comprehensive understanding about didactic design, so it could decrease the learning barrier of PGSD students on geometric material.

Keywords: *pedagogic-didactic design, learning barrier, geometry*

1. Introduction

Geometry is one of the concept of basic learned student in the study program Education Teachers Elementary (PGSD), the University of Adi Buana Surabaya. Geometry includes the concept of on point, the line, the field, and objects space and sifat-sifatnya. Geometry is also part of the math close to everyday life, because almost all the object visual is around us is the object geometry (Safriana et al, 2014). The concepts is very important especially as a preparation to be a elementary school teacher.

The writer often found a mistake the concept of basic presented students, for example of giving the name of waking up the flat or not sequence (false), classification each wake up is often wrong, like the cube and block saying wake up flat, trapezoid said wake up the room, not he explained the difference traits each wake up. In the solve a problem geometry, students tend to use the same way with taught by faculty. This suggests that there are barriers learn students PGSD on geometry material.

One of the obstacles learn students PGSD on geometry material in the course of the concept of basic math is barriers to learn that are epistemology. The student simply understand one of the material limited in certain context, so that when he was faced with the context of different it will be experienced adversity. The learning used not to facilitate lecturer to prepare anticipation against the possibility of various response students in the learning. Materials impertinent used not contains a variety of capable guide students to build knowledge. Therefore, the necessary for the process of planning learning as the initial steps of learning that can reduce the obstacles to learn. Didactic design is the design of the food ingredients rude. This design developed on the basis of the theory triangle didactic among students, the teacher and material that includes Didactic Relations (DR),

Pedagogic Relations (PR) and Didactic Anticipation -Pedagogical (DAP). The design didactic in writing this developed based on the nature of the concept that will be presented with consider barriers to learn that been identified.

From the description of the above, the authors interested to develop design didaktis to reduce the obstacles to learn that been identified. Through this article is expected to lecturer have understanding of the more clearly and comprehensive about the design didactic so can reduce the obstacles learn students PGSD on geometry material.

2. The obstacles Learning Student PGSD on Geometry

2.1.1 The obstacles goals

The purpose of learning math in the study program Faculty PGSD is so that students actualize learning at the highest level. However, Ciltas and Tatar (2011: 462) argued that most of the students have trouble in learning. To identify and eliminate trouble learn as well as to help and guide students during the learning process is not just a responsibility faculty. Therefore, faculty should be aware of the difficulty experienced by the student in the learning math to do the activities of learning effectively in the learning and develop as well as the design the learning.

In the study math should gradually and chronological, because of the material in math composed ranging from the material basic towards the material next more complex, therefore should through stage certain that every stage should be controlled before heading stage that the level of trouble higher. Learning math better begins with the consider input and output first before moved on the internal processing. On learning geometry, for example wake up flat. Faculty want the results of the students who are able to apply the concept of in set of problem complex, then the learning process should designed in such a way that is able to reach the results of the desired. In a class, possible, just happened the concept of received students with each other students. This is because the difference perception about the concepts in introduced by faculty with the concept was introduced by faculty with the concept that formed in beak students. Tall and Vinner (in Juter, 2005: 11) about the concept image and concept definition as follows.

> *The concept image is the total cognitive structure associated with a concept. It can be a visualitation of theconcept or experiences of it or both. The concept image is individual and in different contexts the same name can evoke different concept image. The concept definition is a form of words used by the learner to define the concept. It can be a personal re-construction of a definition to fit in with the person's mental structure.*

Some students more like to think it is visually and have illustration in mind, while students who else more adept at using symbols or examples. One of the concept of can is represented in some way so that caused the conflict in a different. If not each representation of each other contradiction so students can understand the relationship between representation of with each other. The more connection between representation there, the student will be increasingly understood will be the concept. This applies versa.

According to the Prediger (2008), the change in the framework of thinking has become the most important to explain the trouble of students in the learning the concept of science and mathematics. As the theory proposed by Piaget that learning is not always is a collection of from a variety of the knowledge that added to in the knowledge before aenrichment process. More than that, learning is reconstruction of knowledge before when dealing with the experience and challenge new.

The problem changes conceptually could arise when the knowledge of the beginning of students in accordance with the concepts just needed. Therefore, in this perspective, the fact that the establishment of the concept of students don't always in accordance with the concept of science is meant to be described with the influence of the establishment of the concept of the beginning and the process is perfect from reconstruction them.

Exposure to above is the possibilities of the obstacles to learn, so before do learning, lecturer should be able to identify the obstacles. According to the KBBI, barriers is obstancleor the obstacles. The obstacles have the significance important when someone carry out the activities or carry out the task. Based on what has outlined, barriers learning is things that happen in the learning resulted in the student trouble understanding of the material or wrong in making perception regarding the matter.

According to the Brousseau (2002) there are three factor that resulted in college students have barriers learned that the ontogeniobstacles (the readiness mental children's learning), the obstacles didaktic (teaching), and barriers epistemology (the knowledge of students who have the context of apps limited). In this article focus writer is associated with the obstacles epistimologis or epistimological obstacle in reality is the knowledge of someone who is only limited in certain context, so that when he was faced with a different situation can lead to the knowledge that owned be can not be used or having trouble in use it. The epistemology obstacles this is the obstacles learn (learning obstacle) derived from the themselves students. Each student has an opportunity to the same to experience the epistemology obstacles.

3. The obstacles Learning Student PGSD on Geometry

Tall (in Ciltas & Taltar, 2011: 462) said the obstacles learn students in general is: (1) Learning the concept of the basis of the lack of adequate; (2) The inability in trying to mathematical formulate orally; (3) lack of skills algebra, geometry, and trigonometry. The trouble or barriers experienced students can happen when students learned the concept of any including on one of the concept of important in math, namely geometry.

Geometry is one of the concept of basic learned in courses math basic II in the study program Education Teachers Elementary (PGSD) FKIP University PGRI Adi Buana Surabaya. The material taught covering the concept of point, the line, and the field of as well as a each other, the concept of triangle, the concept of the circle. The concepts is very important and basic to be able to understand the concepts geometry. Associated with the concept of geometry learned in Elementary School (SD) also very closely, where the concept of wake up flat and waking up the learned also includes wake up, the elements as well as traits that applies to every waking learned. Discussion of learning materials or geometry for learning math elementary school is discussed in the course of math basic II.

In practice, often writer found problems the concept of basic geometry presented students, such as refer to wake up flat or wake up the room with a flat and buildings space, giving the name of waking up the flat or not sequence (wrong), classification each wake up is often wrong, like the cube and block saying wake up flat, trapezoid said to wake up the room, not he explained the difference traits each wake up, and determine formula volume with formula widely the surface, said example wake up flat. For example, when the lecturer ask example rectangle to students, then the answer to the student is blackboards, the book wrote an example of a rectangle, but if understood further examples is worth wrong. According to David Glover (2007: 10) said that got up the flat is waking up the average that can be cut from a paper. David (2007: 20) also stated that wake up flat had two dimensions, namely long and wide but do not have high.

When they go into the teacher in elementary school, is expected to they do not deliver problems about geometry material, especially about and waking up the flat. In a wide and around for example, usually the elementary school teacher still confused if the students ask the teacher about the origin of the formula wide and around. This suggests that needed planting the concept of wide and around to prospective elementary school teachers. Determine the concept of wide and around it was not easy to learn. Prospective elementary school teachers must also know that many discoveries where students combining the concept of around with the concept of widespread. This kind of thing not in spite of the role of teachers in guide students so mistake in using the concept of can minimalization.

During this time the author assume that the problems arises because the student nervous appear and in the learning process of being a teacher. Because of the problem is always comes up for every force that follow the course courses math basic II, the new author questioned about the

ability to geometry students about the concept geometry learned in elementary school is to give the test. It was the result is very unexpectedly writer, where the average student just understanding between 40-50% of course the concepts geometry material math in elementary school. Still occurred several construct, such as refer to wake up flat with the building flat, gave the name of plane, point in lower case, etc. This indicates that the student PGSD University PGRI Adi Buana Surabaya still require the process of planting concepts for all geometry material learned that can master it.

Based on the results of the analysis of the author as lecturer courses the concept of math basic, the writers identify some barriers learn students PGSD on geometry material as follows.

Table 1. The obstacles Learning Student PGSD on Geometry

No.	The type of Barriers to learn	Indicator
1	The obstancles to learn about concept image	Students couldn't see firmly, said the name of plane flat and determine base, high or components other in the wake flat shown on about when plane flat is presented different from the introduced to students.
2	The obstancles about the context of a variety of information on question	Students deceived with information on the question
3	The obstacles to learn about the relationship around and broad between rectangular with each other	Can't find the relationship between around and broad rectangular with each other without the information on the matter
4	The obstacles to learn about the connection concept wide and around and the rectangular with the mathematic concept another	Don't be able to resolve the issue of around or wide area rectangular related to the mathematic concept another
5	The obstacles learn associated with the ability to student in solving problems up the geometry to construct	Can't solve the problem of geometry to construct

4. The design Didaktis to Decrease The Learning Barrier

Pegagogic and didactic is two a term describing a the learning process. The science of education or often called pedagogic is translation of English, namely pedagogics. Pedagogics comes from the Greek namely "pais" which means that the child, and "again" which means that guide (Sagala, 2012: 2). According to the Piaget in Arends (2008: 46-47), pedagogics good it should be involved offer a variety of a situation where children can experimenting various things to see what happened, manipulate objects, manipulate of symbols, threw questions and looking for his own response, what a reconciliation the discovery of at a time with what the discovery of on time another, comparing with the findings other children.

Didactic comes from the word didaksein in Greek means of teaching and didaktikos which means that good teaching. Both are one unity so can not be separated in the learning process. Lecturer professional will be able to develop pedagogik and didactic so learning will take place in optimally. The teacher professional should be able to create a teacher, students, and the material impertinent integrated well.

A teacher, students, the material described by kansenen into a triangle didaktis. Triangle didactic this then modified because just described the relationship pedagogic (PR) between teachers and students and relationships didaktic (DR) among students and material. After modified

triangle didactic describe the relationship pedagogic (HP) between teachers and students and relationships didaktic among students and material called anticipation didactic and pedagogic (ADP).

The connection should be used as a material consideration in the design of learning. The relationship pedagogic (PR) reflected in the style, engineering, or methods used in the learning. The relationship didactic (DR) reflected in the ability to lecturer design worksheets students, the test, and the task. Anticipation didactic reflected in the materials impertinent prepared lecturer or giving an assignment professors about the depth and keluasan material rude, anticipation conducted lecturer against the response students at the time of learning, anticipation this made when the design of learning based its prediction response students.

Suryadi (2011: 4) said that the role of the most important lecturer in the context of triangle didactic is:

> Create a situation didactic so that happened the learning process in themselves students. This means that a teacher in addition to master the material rude, also need to have the knowledge of other associated with the students and able to create a situation didactic prompted the learning process in optimally.

In the develop situation didactic teachers should be fit with the environment so that students have the opportunity to initiate the activity of learning in individual. Next in the face ofadversity learning, interaktivitas developed lecturer should be adapted to the need students in achieving potential.

In the learning process the response given a student of the situation didactic faced, demanding lecturer to act didaktis for scaffolding technique varying so created some situation didaktis different. The complexities of the situation didactic is a challenge for teachers to be able to create a situation pedagogic appropriate so interactivity growing able to support the process of achievement the ability of potential each student (Suryadi, 2011: 8).

According to the Brousseau (2002) to create a situation didactic and pedagogic appropriate, in devised a plan learning lecturer need looked at the situation learning as a whole as an object. The situation didactic and pedagogic in the learning process is complex so lecturer should be able to develop the ability to looked at the learning process as a whole.

Based on the description of the above, design didactic is the design of the food ingredients impertinent. The design didactic in this article developed based on the nature of the concept that will be presented with consider barriers to learn that been identified. The design didactic is designed to can reduce the obstacles learn students PGSD on geometry material.

5. The conclusion

Act of buttoning this article as follows.

1. One of the obstacles learn students PGSD on geometry material in the course of the concept of basic math is barriers to learn that are epistemologic. The student simply understand one of the material limited in certain context, so that when he was faced with the context of different it will be experienced adversity. Based on the obstacles to learn that has been identified, is expected to compose the learning consisting of study, Detailed Learning Semester, as well as prediction response and anticipation didactic.
2. The design didactic in this article developed based on the nature of the concept that will be presented with consider barriers to learn that been identified. The design didactic is designed to can reduce the obstacles learn students PGSD on geometry material.

REFERENCES

Arends. 2008. *Belajar untuk Mengajar*.Yogyakarta: Pustaka Belajar.

PRESENTER'S PAPERS

Brousseau, Guy. 2002. *Theory of Didactical Situation in Mathematics*. New York: Kluwer Academic Publisher.

Ciltas, A & Tatar, E. 2011. *Diagnosing Learning Difficulties Related to the Equation and Inequality that Contain Terms with Absolute Value.* International Online Journal of Educational Sciense. Diakses pada tanggal 29 Januari 2016.

David Glover. 2007. *Apa dan Bagaimana Matematika*. Jakarta: PT Gading Inti Prima.

Safrina, K., Ikhsan M., & Ahmad (2014). Peningkatan Kemampuan Pemecahan Masalah Geometri melalui Pembelajaran Kooperatif Berbasis Teori Van Hiele. *Jurnal Didaktik Matematika*. 1(10): 10.

Sagala, Saiful. 2010. *Konsep dan Makna Pembelajaran*. Bandung: Alfhabeta.

Suryadi, Didi. (2011). *Didactical Design Research (DDR) dalam Pengembangan Pembelajaran Matematika*. Makalah Disajikan pada Joint- Conference UPI-UiTM, 25 April 2011.

Author's Biodata

Via Yustitia is a lecturer of Departement, University of PGRI Adi Buana Surabaya. She received her Master Degree in Sebelas Maret University. via.yustitia@yahoo.com

Susi Hermin Rusminati is a lecturer of Departement, University of PGRI Adi Buana Surabaya. She received her Master Degree in Surabaya State University. susihermin@gmail.com

PRESENTER'S PAPERS

Implementation of Learning Tool of Problem Based Reforming Hair Do Up Style to Improve Learning Outcomes of University of PGRI Adi Buana's Students

Vony F.S Hartini Hippj
Fakultas Keguruan dan Ilmu Pendidikan Konsentrasi Tata Rias
Universitas Adi Buana Surabaya
Email: vonnyhippy@yahoo.com

Abstract

Developments in science and technology require qualified human resources. Teachers are able to develop and master the science technology through learning activities that can improve student learning outcomes in the cognitive, affective and psychomotor domains which automatically take the role of tools and learning models. One type of learning models that can meet the needs for human resources capable of developing science and technology is a learning model based on the problem. The design used in this research was the development of research design pattern and post-test one group pretest design. In this study the development of statistical hypothesis test results were obtained using a sign test grades count ≥ h table. Mastery learning outcomes of students in each school with a learning model based on the problem gained mastery of 79.98% at class experimental and 76.69% at class control in University of PGRI Adi Buana Surabaya with KKM value by 70%. From the completeness of the results obtained, it can be concluded that the results of the implementation of the development of a learning device based on the competency issue are to improve student learning outcomes well.

Keywords: *learning tool, problem based instruction, mastery learning*

PRELIMINARY

The development of science and technology requires qualified human resources . The human resources required are capable of developing a master of science and technology through teaching activities . This is certainly very related to education.

Education is an attempt to develop the potential of human resources (HR) . The understanding of education according Nursalim , et al (2007 : 2) "Education in the national education system is a conscious effort to prepare students through counseling , teaching or training and its role in the future " .Pendidikan good not only prepares students for a profession or occupation , but also to develop the ability to solve problems in everyday life . For the sake of fluency in a process of education , we need a curriculum . Educational unit level curriculum (SBC) at the level of special vocational Tata Beauty has a lot of competence in it , one of them in the curriculum and competency to organize the bun up style .

According Rostamalis (2009 : 80) expert hair stylist , that the problems that often arise in the wider community while doing the grooming is not paying attention to the factors that may affect the results of the arrangement. One representing the arguments the public regarding the arrangement is Kusumadewi (1999 : 150) states that " the adjustment arrangement with personality is one of the important factors of the most difficult , whereas once the pattern of the arrangement in accordance with the nature of the personality of the customer then the style of the arrangement will be able to survive as a trend .

Based on the above problems, the researchers want to explore the creativity of students is manifested in the forms of modern arrangement or who are favored by the market / consumer with composing model of applied learning. Learning model that researchers want to apply is problem based learning model. Selection of materials based on the consideration that the material related to the skills required by the industry, so as to facilitate the selection of contextual used as the first step in problem-based learning that is associated with the arrangement of the material up style bun.

The arrangement in the narrow sense has the sense of an action beautify hair shape as the final stage of the grooming process. Structuring bun up style is a form of action beautify hair styling at the rear (back), top (top), and the front (front) by adding a wig of hair piece, fir flattened or lungseng accordance trend and desire. In general arrangement up style chignon bun called a modern arrangement which is divided into three patterns of arrangement, namely: (a) pattern back style arrangement, (b) the pattern of the arrangement of the top style, (c) the arrangement pattern style front.

Here's an explanation of the arrangement pattern bun up style:

Structuring the pattern of back style is a pattern arrangement carried on the back or neck, exactly starting earlobe top to the bottom line of hair growth. This arrangement pattern is usually applied on the occasion of commemorating national days with the national dress or formal.

Pattern Arrangement bun Back Style

Top style arrangement pattern is a pattern arrangement is focused on the crown of the head. The aim of this arrangement pattern gives the impression of height for the user and luxury, making it suitable to be used on models that have a physical form that is not too high with a round face shape. Bun shape is normally applied to the bride or bridal europe.

Setup bun Top Pattern Style

The pattern of structuring front style that is focused on the front. This arrangement pattern is normally applied to the dramatic theme, futuristic and retro. Hhasil arrangement has the

main characteristic that is beyond the line of the front of the hair growth rather exceed the forehead but not to cover the eyebrows.

Structuring bun Front Style

METHOD

Based on the objectives, this research is research with development category. Research development that is meant is that research conducted to produce learning tools for vocational bun up style beauty governance oriented learning model based on those problems. This study begins with the development of learning tools such as Learning Implementation Plan (RPP), the Student Worksheet (LKS), and test results for Learning (THB).

The software development refers to the model 4-D, proposed by Thiagarajan, Semmel (1974: 5). The study consists of four stages, namely (1) the preparation phase, (2) phase of implementation, (3) stage of development, (4) Phase deployment. With the design of the study one group pretest and posttes design. Pretest and posttes form and content alike.

Pre Tes	Perlakuan	Post Tes
O_1	$\longrightarrow$ X $\longrightarrow$	O_2

Gambar:*One Group Pretest-Posttes Design*

(Sukmadinata, 2009:208)

Keterangan gambar:

O_1 = tes awal
O_2 = tes akhir
X = perlakuan

Tes awal dan tes akhir bentuk dan isinya sama.

Instrument or tool of research is the means by which the researcher to obtain or collect data. Instruments that researchers use in this case that the validation sheet instruments and instrument observation sheet . Referring to the problem to be studied, the data collection

techniques used in this research include analysis of outcome data validation and analysis of the observed data .

Analysis of the data validation results . Validation results are collected after the validator provides a learning tool as well as an assessment of the research instruments that have been developed researcher. Assessment consists of 4 categories , ie less good (score 1) , pretty good (score 2) , good (score 3) , excellent (score 4) . Various input , comments , and suggestions of validators used as guidance in making revisions to the learning and research instruments were developed.

$$skor\ ideal = \frac{skor\ \ hasil\ validasi}{skor\ tertinggi}\ x\ 100\%$$

Analysis of observation data management classes. Capturing data is performed by two observers : one mahamahasiswa S1 and one teacher partners . Learning management Data were analyzed by calculating the average score ratings by two observers using interval score of 1 to 4. With kriterian as follows : 1 = done, less appropriate , unsystematic and imprecise , 2 = done, accordingly, is not systematically and imprecise , 3 = implemented , as appropriate, systematic and less precise , 4 = implemented , as appropriate, systematic and precise .

$$P\ = \frac{skor\ \ hasil\ pengamatan}{skor\ tertinggi}\ x\ 100\%$$

Analysis of student activity data . The technique of taking the students during the learning activities is by providing a √ mark on the numbers of students activity categories that appear along the learning activities take place at 3-minute intervals .

The technique used to analyze the student activity data observed , using the technique of the percentage (%) , ie the number of frequency of the activity that appears divided and multiplied by 100 % overall activity .The equation can be written as follows :

$$AM\ = \frac{skor\ \ hasil\ pengamatan}{skor\ tertinggi}\ x\ 100\%$$

Analysis of student response data . Response is intended to solicit student opinion to the learning process , LKS what he had done , as well as the books students have been studied carefully to help master the learning materials .

Data obtained from filling the questionnaire distributed after learning activities persetasenya quantitatively analyzed ,ie the number of responses for each student obtained through the questionnaire were analyzed using descriptive statistics on the percentage.

$$R\ = \frac{jumlah\ skor\ respon\ mahasiswa}{jumlah\ skor\ tertinggi}\ x\ 100\%$$

The data analysis of learning outcomes. Student results data using a pre-test and post-test , following the analysis of the instrument pre-test and post-test :

Mastery learning. Mastery learning is analyzed to obtain the percentage of completeness student results. Student results is said to be completed or if a student does not achieve mastery learning outcomes ≥ 75 % and a class is said to be complete when in the classroom has reached ≥ 85 % of students have achieved mastery learning . In order to get the mastery over the researchers used the equations below (Trianto , 2009: 241).

$$KB = \frac{T}{T1} x\ 100\%$$

Information :

KB = Mastery learning

T = Number of scores obtained by students

T1 = Total score total

Normality test. After testing and it is known that the instruments are valid and reliable research , the researchers conducted tests of normality and homogeneity of the research subjects that will serve as the object of research . To test for normality used the quadratic formula or Chi Chi Square.

$$X2 = \sum \frac{(fo - fe)2}{fe}$$

Homogeneity test . To test homogentitas variance F test with the following formula :

$$F\ hitung = \frac{varians\ terbesar}{varian\ terkecil}$$

Homogeneity test . To test homogentitas variance F test. Furthermore, the price of F arithmetic compared with F table with dk price numerator (n1-1) and dk denominator (n2-1).

Hypothesis testing. Test the hypothesis that researchers use in this research is the mark test . Test marks are often used in research to compare the results of two treatments . Sign test will be conducted by the sign ,ie + and - obtained from the difference observations. The observation of x and y respectively occurred due to treatment A and B. The difference in the form of formula (Sudjana , 2005: 448) The (xi - yi) . If xi >yi then marked + (positive) , and if xi <yi then labeled - (negative) . So that testing can be determined the outcome , it would require at least n = 6 .

If the formula Ha sentence reads : is not equal to (≠) , then Ho reads the sentence : equal (=) . This test uses two test parties is associative . In this study the authors formulate hypotheses statistical model : Ha : p ≠ 0

Ho : p = 0.

RESULTS AND DISCUSSION

Based on the theory study includes learning model based issues, structuring bun up style and the results of student learning, the researchers determined the variables in this study, namely (1) the learning model based problems as independent variables, (2) classroom management, student activities, response students and student learning outcomes as the dependent variable, (3) the teacher, the student and the type of arrangement style bun up as a control variable.

Based on the above description, the description of the results of the implementation of development perangkatanbe explained as follows:

Effectiveness of learning tools developed to be reviewed based on the results of the implementation of learning using learning tools up style bun. Implementation of the learning device was conducted in March with three times face meetings, learning tools developed in this study was measured through four indicators, yakti ability of teachers to manage the classroom or enforceability phase of problem-based learning, student activities, student response, as well as student learning outcomes are seen before and after using the bun up learning style.

Implementation of the learning phase is a teacher's ability to manage learning by using learning tools up style bun. Here the teacher in question is the researcher. Data about classroom management is derived from two observers at the time of learning. The observer eye dalahpengampu teacher learning style bun up. Based on the analysis and discussion of the data, the conclusion can be drawn that the score of the classroom management or enforceability of the learning phase at the first meeting at 7.25. Score is the second meeting of 7.4 and score the third meeting by 7.52 with an average index well, meaning RPP developed can be applied in learning.

Student activity observed was student activities at the meeting of the first, second and third. To observe the activities of students during the learning activity, observers have noted every category of student activities were implemented. Average student activity at the first meeting of 69.58 and 77.5 as well as the second meeting of the third meeting of 86.75, with a mean index of 77.95 into the category of good, meaning that students are very enthusiastic and interested in learning device developed.

The next activity was a student questionnaire responses. Questionnaire responses diberkan students after learning style bun up. Questionnaire responses given to the students to determine the response of students to the learning tools developed. Based on data analysis and the results of the discussion, the students who responded yes to the learning style bun up for 279 with the average percentage of 73.80 student response. Positive responses were given with regard to all aspects of student learning device. The positive response of students in this case confirms that students are very interested in learning device developed.

Student learning test is used to determine the success of the learning process using the learning device bun up style developed. Achievement test conducted twice each meeting, which is a test to determine the ability of students before the beginning of using the learning device (pre-test) and final tests are carried out after using the learning device (post-test). Based on data analysis and discussion of the results, the average student results 79.9 and included in the category of good or complete because the students' scores on 61-68 (Riduwan, 2006: 88).

Based on the above analysis , the four indicators of the development of the overall learning devices categorized properly so obtained device hypothesis valid and reliable learning can improve learning outcomes among students in managing the bun up style .

COVER

Conclusions . Based on the purpose of research , data analysis and discussion of the results of research on the development of learning tools structuring bun up style that is based on a model of problem-based learning (PBM) , it can be concluded that the process of developing learning tools bun up style refers to the model 4 - D according to Thiagarajan , Semmel and Semmel . Learning tools include Learning Implementation Plan (RPP) , Student Activity Sheet (LKS) , and the Student Module . Based on the analysis and observation , learning devices bun up style applied obtained the following results :

a. Classroom management conducted by the teacher is as much as three times the meeting. The first meeting obtained a score of 7.25. The second meeting obtained a score of 7.38 and the third meeting obtained a score of 7.52. The mean score of votes obtained a score of 7.37 in both categories, meaning that the teacher is able to manage classes corresponding phases of problem-based learning.
b. Student activity observed three meetings. The first meeting obtained a score of 69.58. The second meeting obtained a score of 77.5 and the third meeting obtained a score of 86.75. The mean index of the meeting obtained a score of 77.94 with good category, meaning that students enthusiastically accept the learning model based problems.
c. The percentage of positive responses given by students of 73.80%, this confirms that the students are interested in learning devices bun up style developed.
d. The average student results are 79.9 and is said to be completed, meaning that the learning process by the learning device up chignon style is effective to improve student results.
From the above results it can be concluded that the device is a valid and reliable learning can improve learning outcomes among students in managing the bun up style.
Suggestion. Based on the conclusion, presented some suggestions as follows :
1. Learning style bun up using learning tools developed could add insight to students about the techniques of making up chignon style , therefore teachers should try to model -based learning as an alternative learning problems in other basic competencies .
2. Seeing the positive student response is necessary to develop a device -oriented learning on the learning model based on other material problems .

DAFTAR PUSTAKA

Arikunto, Suharsimi. 2008. *Dasar – dasarEvaluasiPendidikan*. Jakarta :BumiAksara.

Arikunto, Suharsimi. 2006. *Prosedurpenelitiansuatupendekatanpraktik*. Jakarta : PT RinekaCipta

Alias Bin Masek 2012. *"THE EFFECTS OF PROBLEM BASED LEARNINGON KNOWLEDGE ACQUISITION, CRITICAL THINKING, AND INTRINSICMOTIVATION OF ELECTRICAL ENGINEERING STUDENTS".* https://docs.google.com/viewer?a=v&q=cache:sxyMXvkieVIJ:eprints.uthm.edu.my/2912/1/ALIAS_BIN_MASEK_1.pdf.Diakses 20 Februari 2013

Conway, J. 1, Chen, S.E.2 and Jefferies, M.C. 2. *"Assessment of ProfessionalCompetence inProblem Based Learning Settings:Two Case StudiesJuni2011"*.https://docs.google.com/viewer?a=v&q=cache:Bg5i00xqgt4J:citeseerx.ist.psu.edu/viewdoc/download?doi%3D10.1.1.201.5553%26rep%3Drep1%26type%3Dpdf. Diakses 21 Februari 2013

Dalyono. 2005. *Psikologi Pendidikan*.Jakarta: PT Asdi Mahasatya

Depdiknas, 2006.*KTSP danSilabus SMK*. Jakarta: Depdiknas

Harahap, Suhartini,dkk. 2002. *Tata KecantikanRambutTerampil*. Jakarta :MeutiaCiptaSarana.

Harsanto, Radno. 2007. *Pengelolaan Kelas Yang Dinamis*. Yogyakarta: Penerbit Kanisius

Ibrahim, Muslimin. 2005. *PembelajaranBerdasarkanMasalah*. Surabaya : UNESA University Press.

Ibrahim, Muslimin. 2005. *AsesmenBerkelanjutan*. Surabaya : UNESA University Press.

PRESENTER'S PAPERS

_____. 2010. *JuknisPenetapan KKM SMK.* Jakarta: DirektoratPembinaan SMK

Kusumadewi, dkk. 1999. *PengetahuandanSeni Tata Rambut Modern Tingkat Mahir*. Jakarta Selatan : PT Carina Indah Utama.

Kusuma, W, Hapsari. 2004. *Modulpenataansanggul modern pola back style*.: Depdiknas.

_____.2004. *Modulpenataansanggul modern pola front style* :Depdiknas.

Emily J. Summers and Gail Dickinson. 2012.*A Longitudinal Investigation of Project–based Instruction andStudent Achievement in High School Social Studies*. Interdisciplinary Journal of Problem-based Learning.Volume 6 | Issue 1 Article 6. 3-27-2012.http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1313&context=ijpbl. Diakses 19 Juni2012.

Marnodan M. Idris. 2008. *StrategidanMetodePengajaran*. Yogyakarta : AR- RUZZ MEDIA.

MudjionodanDimyati.2002.*BelajardanPembelajaran*.Jakarta: RinekaCipta

Mulyasa, E. 2006.*Kurikulum Tingkat SatuanPendidikan*. Bandung : PT RemajaRosdakarya.

Nasution, S. 1993. *PengembanganKurikulum*. Bandung : PT CITRA ADITYA BAKTI.

Nursalim, Mochamad, dkk. 2007. *PsikologiPendidikan.* Surabaya : UNESA University Press.

Nur, Muhammad & Wikandari, 2008, *Pengajaran Berpusat pada Mahasiswa dan Pendekatan Konstruktivis Dalam Pengajaran*, Surabaya, Pusat Sains dan Matematika sekolah Unesa

Philip Hallinger and Jiafang Lu, 2012.Overcoming the WalmartSyndrome:*AdaptingProblem-based Management Education in EastAsia*.Interdisciplinary Journal of Problem-based Learning.Volume 6 | Issue 1 Article 4. 3-27-2012http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1311&context=ijpblDiakses19 Juni2012.

Pei-Di Shen 1 Tsang-Hsiung Lee 2 and Chia-Wen Tsai. *"Applying Web-Enabled Problem-Based Learning and Self-RegulatedLearning to Enhance Computing Skills of Taiwan's Vocational Students:a Quasi-Experimental Study of a Short-Term Module 2007".* https://docs.google.com/viewer?a=v&q=cache:yAqa2BnULO8J:www.ejel.org/issue/download.html?idArticle%3D46+problembased+learning+research+journals. Diakses 20 Februari 2013

Ron Chuen Yeh, Yi-Cheng Chen, Sheng-Huang Kuo & Pansy Chung. *"The effect of problem-based learning on enhancing students' workforceCompetence 2008".* https://docs.google.com/viewer?a=v&q=cache:ufgnVSSAvsIJ:www.wiete.cm.au/journals/WTE%26TE/Pages/Vol.9,%2520No.4%2520%282011%29/06-09-YehRC.pdf. Diakses 20 Februari 2013.

Ramlee Mustapha & Zaharatul Laila Abdul Rahim1 2011. *"Problem-Based Learningin Malaysian Technical School".*https://docs.google.com/viewer?a=v&q=cache:NmnnoIkNhbIJ:www.educareijes.com/educarefiles/File/04.ramlee.co.upsi.my.pdf. Diakses 20 Februari 2013

Riduwan. 2006. MetodedanTeknikMenyusunTesis. Bandung : ALFABETA.

Riduwan. 2009.*VariablePengukuranPenelitian*. Bandung : ALFABETA.

Riduwan. 2009. *SkalaPengukuranVariabel – variabelPenelitian*. Bandung : ALFABETA.

Riyanto, H. Yatim. 2009. *Paradigmabarupembelajaran*. Jakarta :KencanaPrenada Media Group.

PRESENTER'S PAPERS

Rostamailis, dkk. 2009. *Tata KecantikanRambutJilid 2*. DirektoratPembinaanSekolahMenengahKejuruan.

Siobhan Murphy, MSc, BSc, RNT, RGN, Irene Hartigan, MSc, RNT, HDip, BSc, Dip inNursing, RGN, Nuala Walshe, Dip in Higher Education, RN, MN, Angela V. Flynn,´2010. "*Merging Problem-Based Learning and Simulation as anInnovative Pedagogy in Nurse Education"*.https://docs.google.com/viewer?a=v&q=cache:f2QCbFw8C_sJ:202.114.89.42/resource/pdf/4986.pdf.Diakses 20 Februari 2013

Santoso, Gempur. 2007. *Metodologipenelitiankuantitatifdankualitatif*. Jakarta :BumiAksara.

Slameto.2003. *Belajardanfaktor - faktor yang mempengaruhinya*.Jakarta : PT RINEKA CIPTA.

Soekamto, ToetidanUdinSaripudinWinataputra. 1997. *Teoribelajardan model–model pembelajaran*. Jakarta : P2T Universitas Terbuka. Depdikbud.

Soetopo, HendiyatdanWastySoemanto. 1993. *PembinaandanPengembanganKurikulum*. Jakarta : PT BumiAksara.

Sudjana. 2005. *Metodastatistika*. Bandung :TARSITO.

Sudjana, Nana. 2006. *Penilaianhasil proses belajarmengajar*. Bandung : PT RemajaRosdakarya.

Sudjana, Nana. 2009. *Penilaianhasil proses belajarmengajar*. Bandung : PT RemajaRosdakarya.

_____.1989. *Cara belajarmahasiswaaktifdalam proses belajarmengajar*. Bandung :PenerbitSinarBaru.

Sugiyono. 2009. *Statistikauntukpenelitian*. Bandung : ALFABETA.

Suryabrata, Sumadi. 1984. *Psikologipendidikan*. Yogyakarta : UNESA University Press.

Sutrisno, Joko. 2008. *Teknispenyusunan RPP padasekolahmenengahkejuruan*. Jakarta :Depdiknas.

Sung Hee Park and Peggy A. Ertmer. "*Examining barriers in technology-enhancedproblem-based learning: Using a performance supportsystems approach"* https://docs.google.com/viewer?a=v&q=cache:oAu_qRBeBUJ:futurescholars.rutgers.edu/FutureScholars/Learning.pdf. Diakses 14 Februari 2013

Trianto, 2007, *Model Pembelajaran Terpadu Dalam Teori dan Praktek* Jakarta: Prestasi Pustaka.

Trianto, 2007. *Model-model Pembelajaran Inovatif Berorientasi Konstruktivistik.* Jakarta: Prestasi Pustaka.

Trianto. 2009. *Mendesain model pembelajaraninovatifprogresif*. Jakarta :Kencana Prenada Media Group.

Thiagarajan, Semmel, D.S dan Semmel, M.I (1974). *Intrucional Development for Training Teachers of Exceptional Children*. Minnesota: University of Minnesota.

Wirjokusumo, Iskandar, dkk. 2009. *Pengantarmetodepenelitiankuantitatif*. Surabaya : UNESA University Press.

Author's Biodata

Vony F.S Hartini Hippj is a lecturer of Midwifery Department of University of PGRI Adi Buana Surabaya. vonnyhippy@yahoo.com

PRESENTER'S PAPERS

Artificial Neural Network for Predicting Undergraduate Electrical Engineering Success: A Study

Widodo
Department of Electrical Engineering , Faculty of Industrial Engineering,
Universitas PGRI Adi Buana Surabaya
Jalan Dukuh Menanggal XII, Surabaya, Indonesia
widodo.adibuana@gmail.com

Sri Rahmawati Fitriatien
Department of Mathematics Education , Faculty of Teacher Training and Education,
Universitas PGRI Adi Buana Surabaya
Jalan Ngagel Dadi III / 37, Surabaya, Indonesia
rahmawatien.srf@gmail.com

Abstract

Nowadays, facile access to information and advancements in processing power unfold opportunities for new decision support techniques used for predicting. This paper examines various neural network technologies for predicting using artificial neural network. Artificial neural networks are machine learning techniques which integrate a series of features upholding their use in electrical engineering. Having flexibility in dealing with various types of data and high accuracy in making predictions, these techniques bring about substantial benefits to predicting undergraduate electrical engineering. Results highlight that neural networks have a good discriminatory power, generally providing better results comparing to the traditional discriminant analysis.

Keywords: electricity demand, artificial neural network, electricload, forecasting

1. INTRODUCTION

Energy has important role in the human life. All of human activities need energy. Based on the fuel type,electricity has been the most used after the oil [1]. One of many reasons because of the electricity does not produce emission when it used [2]. Others advantages of electricity are easy to transmitted, easy to use and a lot of devices on earth need electricity as power source, electricity also related to economic sector [3].

Various techniques for power system load forecasting have been proposed in the few decades. Load forecasting with lead-times, from a few minutes to several days, helps the system operator to efficiently schedule spinning reserve allocation. In additional, load forecasting can provide information which is able to be used for possible energy interchange with other utilities. In addition to these economical reasons, load forecasting is also useful for system security. If applied to the system security assessment problem, it can provide valuable information to detect many vulnerable situation in advance [4].

In order to supply electric energy to the customer in a secure economic manner, an electric company faces many economical and technical challenges in operation. Among these challenges scheduling, load flow analysis, palnning and control of electric energy system are most prominent. Load forecasting may be defined as the measure of exactness of thedifference between the actual and predicted value of future load demand. Forecasting of electricity demand will help in optimizing the start-up cost of generating units, and can also able to save the investment in the construction of required number of power facilities. It can also help to check the risky operation, fluctuating demand, demand of spinning reserve and vulnerability to failures. Load forecasting

provides the most important information for power delivery and planning. It also plays an important role in energy management system [5].

This paper focuses in forecasting short term hourly load with a forecasting of one day, two days or one week using artificial neural network based method. The main example of artificial neural network usually a black-box scheme where no physical correspondence with the underlying physical systems is preserved. In others approaches, expert information, system's structure and the underlying physical phenomena can be incorporated to the increase the forecasting accuracy.

2. INTRODUCTION TO ARTIFICIAL NEURAL NETWORK

Artificial neural network can be defined as a higly connected array of elementary processors called neurons and complete description of it may be found in [6][7]. It resembles its origin from human braint that has large number of neurons interconnected in ahighly complex, non linear and forming highly massive parallel network. An artificial neural network with input layer, one or more hidden layer and one output layer is known as multilayer perceptron. Each layer consists of several neurons and each neuron in a layer is connected to adjacent layer with some weights known as synaptic weights [5]. The training of an artificial neural network is done by minimizing the cost function, usually a quadratic function of output error. A network having no hidden layer is called single layer neural network. The least mean squares and backpropagation algorithm are generally applied to train single layer and multilayer neural network respectively.

3. RELATED WORK

Hybridization of different technique with artificial neural network that has bee successfully applied to short term load forecasting. Artificial neural network with backpropagation algorithm from the previous research work published, a backpropagation algorithm has always been considered as the conventional training of neural network for load forecasting problems [5]. Yu-Jun He at al. Have used similarity degree parameter to identifythe appropriate histirical load data as training set of neural network [8]. A neural network with backpropagation momentum training algorithm was also proposed in the aforementioned paper for load forecasting in order to reduce training time and to improve convergence speed. M.B. Abdul Hamid and T.K. Abdul Rahman presented an artificial neural network trained by the artificial immune system (AIS) learning algorithm for short term load forecasting model [9]. This algorithm has specific benefits such as accuracy, speed of convergence, economic and historical data requirement for training etc. The major benefit of this algorithm over backpropagation algorithm is in terms of improvement in mean average percentage error (MAPE) [5].

4.METHODOLOGY

Artificial neural network are computational techniques modeled on the learning processes of the human cognitive system and the neurological function of the brain. Recently, there has been considerable interest in the development of artificial neural network for solving a wide range of problems from different fields. Neural network are distributed information processing systems composed of many simple computational elements interacting across weightd connection. Inspired by the architecture of the human brain, neural networks exhibit certain features such as the ability to learn complex patterns of information and generalize the learned information. Neural networks are simply parameterized non-linear functions that can be fitted to data for prediction purposes [10].

Artificial neural network can be classified into several categories based on supervised and unsupervised learning methods and feed-forward and feedback recall architectures. A backpropagation neural network uses a supervised learning method and feed-forward architecture. A backpropagation is one of the most frequently utilized neural network technique for classification and prediction [11].

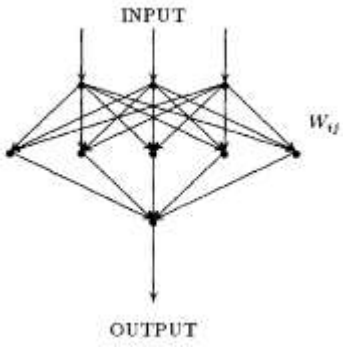


Figure 1. Structure of a Three-Layered Perceptron Type Artificial Neural Network

4.1 Architecture An Artificial Neural Network

An artificial neural network can be defined as a higly connected array of elementary processors called

neurons. A widely used model called the multi-layer perceptron is shown in Figure 1 [4]. The multi layer perceptron type artificial neural network consists of one input layer, one or more dihhen layer and one output layer. Each layer employes several neurons and each neuron in a layer is connected to the neurons in the adjacent layer, pass through the hidden layers, and arrive at the outout layer. With the exception of the input layer, each neuron receives signals from the neurons of the previous layer linearly weighted by the interconnect values between neurons. The neuron then produces its output signal by passing the summed signal through a sigmoid function [4].

4.2 Artificial Neural Network Training

In this paper, the generalized delta rule [12]is used to train a layered perceptron type artificial neural network. An output vector is produced by representing an input pettern to the network. According to the difference between the produced and target outputs, the network's weight $\{W_{ij}\}$ are adjusted to reduce the output error. The error at the output layer propagates backward to the hidden layer, until it reaches the input layer. Because of backward propagation of error, the generalized delta rule is also called error backpropagation algorithm [4].

The output from neuron i, O_i, is connected to the input of neuron j through the interconnection weight W_{ij}. Unless neuron k is one of the input neurons, the state of the neuron k is :

$$O_k = f(\Sigma_i W_{ik} O_i) \quad (1)$$

where $f(x) = 1/(1 + e^{-x})$, and the sum is over al neurons in the adjacent layer. Let the target state of the output neuron be t. Thus, the error at the output neuron can be defined as

$$E = \frac{1}{2}(t_k - O_k)^2 \quad (2)$$

where neuron k is the output neuron.

The gradient descent algorithm adapts the weights according to the gradient error,

$$\Delta W_{ij} \propto -\frac{\partial E}{\partial w_{ij}} = -\frac{\partial E}{\partial O_j}\frac{\partial O_j}{\partial w_{ij}} \quad (3)$$

Specifically, we define the error signal as

$$\partial_j = -\frac{\partial E}{\partial O_j} \quad (4)$$

With some manipulation, we can get the following generalized delta rule:

$$\Delta W_{ij} = \epsilon \delta_j O_i \quad (5)$$

where ϵ is an adaptation gain. δ_j is computed based on whether or not neuron j is in the output layer. If neuron j is one of the output neurons,

$$\delta_j = (t - O_j) O_j (1 - O_j) \quad (6)$$

If neuron j is not in the output layer,

$$\delta_j = O_j (1 - O_j) \Sigma_k \delta_k W_{jk} \quad (7)$$

In order to improve the convergence characteristics, we can introduce a momentum term with momentum gain α to Equation 5.

$$\Delta W_{ij}(n+1) = \epsilon \delta_j O_i + \alpha \Delta W_{ij}(n) \quad (8)$$

where n represents the iteration.

Once the neural network is training produces very fast output for a given input data. If only requires a few multiplications, additions, and calculations of sigmoid function [4].

To evaluate the result of artificial neural network performance, the following percentage error measure is employed [13]

$$error = \frac{|actualload - forecastedload|}{actualload} x\ 100 \quad (9)$$

b. RESULTS AND DISCUSSION

Results of electricity demand forecasting are presented in Table 1.The results can be compared to electicity demand forecasting by the state electricity company (PT PLN) in 2016. By following

Table 1 Electricity Demand February – July 2016

Sector	Electricity Demand (KWh)					
	Feb	March	Apr	May	June	July
Household	11,829	16,291	24,037	37,948	49,829	69,735
Public	2,947	4,819	7,178	9,839	13,291	18,827
Total	14,776	21,11	31,215	47,787	63,12	88,562
Average	7,388	10,555	15,608	23,894	31,56	44,281

that references and guidence, efforts to supply electricity needs should be efficient and well-planned. Targets intended to be achieved within ten month ahead.

Electricity demand as being resulted in this paper are not differ too much compared to PT PLN result in February until May 2016. However, started from June 2016 the results would have significant difference.

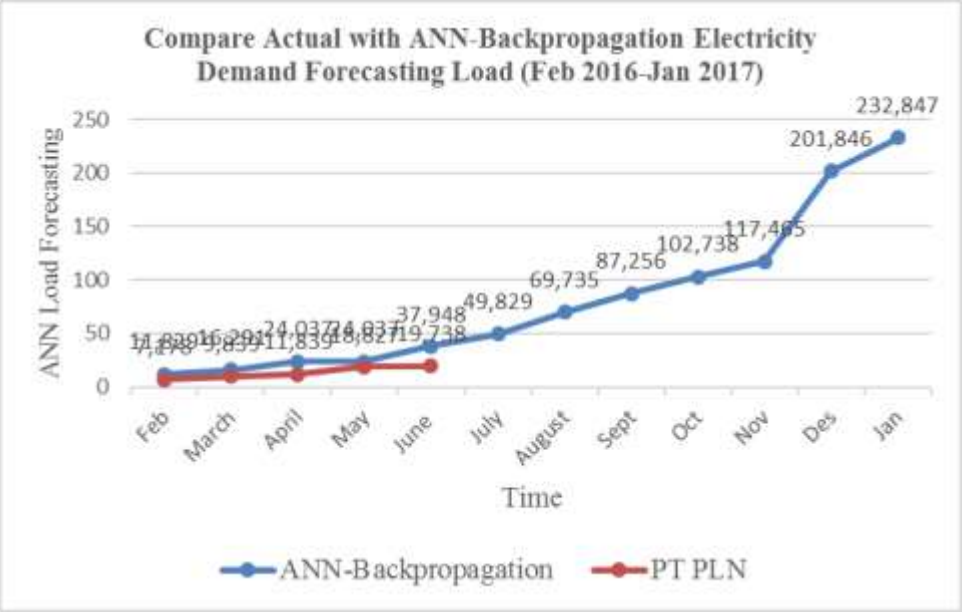


Figure 2. Resulted Electricity Demand Forecasting Compare to PT PLN

According, Table 2 show the error (%) of proposed load forecasting models. As shown artificial neural network method results in profound small error.

Table 2 Error (%) of Peak Load Forecasting with Artificial Neural Network

Time	2016											2017
	Feb	March	Apr	May	June	July	August	Sept	Oct	Nov	Des	Jan
ANN Error	0,08	0,15	0,28	0,12	0,72	0,38	0,88	0,87	0,63	0,79	0,54	0,43

6.CONCLUSION

In this paper we use artificial neural network to electricity demand forecasting in the next month using the previous history of data about electricity demand. Using neural network of backpropagation algorithm to train neural network is a viable approach.

REFERENCES

[1] "Key World Energy Statistics 2015 - KeyWorld_Statistics_2015.pdf." [Online]. Available: https://www.iea.org/publications/freepublications/publication/KeyWorld_Statistics_2015.pdf. [Accessed: 21-Feb-2016].

[2] "Long-term Electricity Demand Forecasting of Sumatera System Based on Electricity Consumption Intensity and Indonesia Population Projection 2010-2035." [Online]. Available: http://www.sciencedirect.com/science/article/pii/S1876610215005834. [Accessed: 21-Feb-2016].

[3] "Microsoft Word - Bekhet and Othman pdf 2 - article1379674624_Bekhet and Othman.pdf." [Online]. Available: http://www.academicjournals.org/article/article1379674624_Bekhet%20and%20Othman.pdf. [Accessed: 21-Feb-2016].

[4] "Electric load forecasting using an artificial neural network - Power Systems, IEEE Transactions on - 1991-05_ElectricLoadForecasting.pdf." [Online]. Available: http://robertmarks.org/REPRINTS/1991-05_ElectricLoadForecasting.pdf. [Accessed: 21-Feb-2016].

[5] "A Review of Short Term Load Forecasting using Artificial Neural Network Models - 1-s2.0-S1877050915006699-main.pdf." [Online]. Available: http://ac.els-cdn.com/S1877050915006699/1-s2.0-S1877050915006699-main.pdf?_tid=a99db440-d872-11e5-a56e-00000aacb35d&acdnat=1456042448_b3d8ffb360a1cf25b8bd003a87f22787. [Accessed: 21-Feb-2016].

[6] "Neural_Networks_for_Pattern_Recognition_-_Christopher_Bishop.pdf." [Online]. Available: http://cs.du.edu/~mitchell/mario_books/Neural_Networks_for_Pattern_Recognition_-_Christopher_Bishop.pdf. [Accessed: 21-Feb-2016].

[7] S. Haykin, *Neural Networks: A Comprehensive Foundation*, 2nd ed. Upper Saddle River, NJ, USA: Prentice Hall PTR, 1998.

[8] Y.-J. He, Y.-C. Zhu, J.-C. Gu, and C.-Q. Yin, "Similar day selecting based neural network model and its application in short-term load forecasting," in *Proceedings of 2005 International Conference on Machine Learning and Cybernetics, 2005*, 2005, vol. 8, pp. 4760–4763 Vol. 8.

[9] M. B. A. Hamid and T. K. A. Rahman, "Short Term Load Forecasting Using an Artificial Neural Network Trained by Artificial Immune System Learning Algorithm," in *Proceedings of the 2010 12th International Conference on Computer Modelling and Simulation*, Washington, DC, USA, 2010, pp. 408–413.

[10] "Forecasting Electricity Consumption with Neural Networks and Support Vector Regression - 1-s2.0-S187704281204606X-main.pdf." [Online]. Available: http://ac.els-cdn.com/S187704281204606X/1-s2.0-S187704281204606X-main.pdf?_tid=08c08b3c-d873-11e5-885f-00000aacb35e&acdnat=1456042608_4489541a13ce972f61a980defce84267. [Accessed: 21-Feb-2016].

[11] *Forecasting with Univariate Box - Jenkins Models: Concepts and Cases*, 1 edition. New York: Wiley, 1983.

[12] Y.-H. Pao, *Adaptive Pattern Recognition and Neural Networks*. Boston, MA, USA: Addison-Wesley Longman Publishing Co., Inc., 1989.

[13] A. Badri, Z. Ameli, and A. M. Birjandi, "Application of Artificial Neural Networks and Fuzzy logic Methods for Short Term Load Forecasting," *Energy Procedia*, vol. 14, pp. 1883–1888, 2012.

Author's Biodata

Widodo is a lecturer at the Department of Electrical Engineering, Faculty of Industrial Engineering, Universitas PGRI Adi Buana Surabaya. Most ofresearch interest in this areas are Artificial Intelligent Technique for Power System, Power Electronics, and Energy Efficiency. widodo@gmail.com

Sri Rahmawati Fitriatien is a lecturer at the Department of Mathematics Education , Faculty of Teacher Training and Education, Universitas PGRI Adi Buana Surabaya. His recent work has been in the areas of Mathematics, Mathematics Education, AppliedMathematics, Artificial Neural Network, Fuzzy Logic,Multi Criteria Decision Making, and Bioinformatics. rahmawatien.srf@gmail.com

PRESENTER'S PAPERS

Effect of Method of Point Counter Point on Students' Interest and Learning Outcomes in Students of Education Policy Course Of PIPS of STKIP PGRI Lamongan

-

Yayuk Chayatun Machsunah
STKIP PGRI LAMONGAN
Email: yayuk_chayatun@yahoo.co.id

Abstract

The purpose of this action research was (1) to find out how to increase learning outcomes of the Education Policy course by using point counter point to the students. (2) to determine how students' interest in the Education policy course with the adoption of a point counter point. The research was conducted at STKIP PGRI Lamongan in the fifth semester of 2015. The subjects were 35 students majoring in Civics and Economics. It was carried from the beginning of October until the end of November in 2015. The results revealed that the students' learning achievements increased. Before Cycle the average score was 56.67. In Cycle 1 the average score was 64.85. In Cycle 2, it reached 88.65. In terms of students' interest, it also increased cycle by cycle. Before Cycle the average score was 24.73. In Cycle 2 the average score was 44.74.

Keywords : *Point Counter Point , interest, learning outcomes*

INTRODUCTION

Learning is an urgent problem in the nation, building a national character, formed a noble character. Education is very important because as a vehicle to prepare the next generation of high quality, which starts from childhood to adulthood. The implementation of differentiated education and learning at every level and stage, judging from the age of mental and intellectual development. Each portion must be distinguished wisely. Learning in college, for example, learners are adult and have a world of its own, then the task of educators must be able to create learning according to their level of maturity.

The world of education requires people to change and change terori education and implementation of learning activities prove that teachers and lecturers must change the old teaching paradigm. Educational institutions, especially higher education learning in developing and implementing new ideas or alternative ideas. Lecturer challenged to organize professional learning, ie learning using learning approach andragogis to implement strategies of active and participatory learning.

In the teaching and learning methods and processes used in scientific masyatakat (student) is different from the process used by junior and senior directives that are more (courses). Lecturers and students as an academic society in the development of science over nature (discourses). The characteristics of the scientific community Hidalgo (2000: 11) says: "critical, objective, analytical, creative and constructive, free from prejudice, kesejawatan / partnerships, especially among academicians, dialogue, own and uphold the norms and moral academic and traditions scientific, dynamic future-oriented and so forth ".

Likewise with learning. One of lecture material if taught by a lecturer / tutor different would be perceived by the students with different flavors. Moreover, the lecturers at the college. Why College? Because of the assumption that college students are adults who are able to think critically, and be able to distinguish between what is good and not good for them. In addition, students can also use their brains to learn without being forced. Based on the above reasons, a faculty can deliver lecture materials with varying strategies, and of course the students are actively

involved. This is done so that students have a spirit of independence in learning and if it can be cultivated to foster creativity.

Methods Point Conter Point is a method of learning that relies on teamwork to discuss an issue discussed by the group itself after which the group would argue, compare the opinion of the group with other groups that have a view / perspective different from an issue discussed with the group. This strategy is a great technique to stimulate discussion and gain a deeper understanding of the issues are complex. The format is similar to a debate, but not too formal and run faster.
Therefore in this study will be presented learning method point counter point that will be applied to the subject that the author ampu Education Policy at the Department of Economics student PPKn and STKIP PGRI Lamongan

The purpose of this study include: (1) To find out how to increase learning outcomes of the course Education policy by using point counterpoint to students STKIP PGRI Lamongan; (2) To determine how active the students in the subject of Education policy with the adoption of point counterpoint.

METHOD

The research was conducted on the campus PGRI STKIP Lamongan Odd 2015. Exactly half of the study conducted on students Civics and Economics Semester V and starting from the beginning of the month of December 2015 to January 2016. The number of students 36 children. This research material is subject Education Policy. When the study was accompanied by a collaborator in this case peers Hadi Suryanto, ST, M.Pd. To clarify the research, first proposed the notion of and samples. The population is the entire population ysng referred for investigation "Hadi Sutrisno (1987: 220).

One way to measure the success of the learning subjects Education policy, assessment is done in two ways, namely the assessment process and outcome assessment study. Rate lecture conducted during lectures take place. Lecturers measure how far the success rate of lectures through formative tests in following lectures. Assessment is done by using a check list on the observation sheet. lectures can be said to be successful if the student has the interest and attention that is high enough to respond and participate actively (proactive) in following the lecture Education Policy.

Assessment results Policy Education lectures conducted if the course has been completed. This assessment can be done through a written test mapun oral test. The success of the lecture can be demonstrated by the increasing student achievement at certain periods shown in the formative test scores. If the value of students increased, then it is an indication that the lecture courses Educational Policy has been successful. Conversely, when the value of the student does not increase even declining, it is an indication that the course subjects Education Policy unsuccessful.

Here the instrument is used as a tool to measure the results to be achieved, while the instrument in this study such as: (1) Sheet questionnaire motivation of students to the lecture material; (2) Sheet questionnaire responses of students to the lecture activities; (3) Observation sheet student activity in learning activities; (4) Observation sheet student activity in learning activities; (5) Field Notes and (6) Problems Post Test

RESULTS

first cycle

Observations were carried out by researchers observed an increase learning outcomes that are applied by the method of point counter point to the subjects the student's education policies and the results are as follows:

Table 1 Data Results In study Pre Cycle and Cycle I

NO	NAME	Value	
		Pre cycle	First cycle
01	Sri Wahyu Ningsih	55	65
02	Lana Fatma Safitri	60	70
03	Mita Ayu PRD	60	70
04	Wardianto	55	60
05	Ernawati Nurwahyu N	60	65
06	Nur Zuliana	55	60
07	Naimatul Azizah	60	70
08	Masrihah	50	60
09	Levia Novita Sari	55	60
10	Delvia Paramudita	60	70
11	Widyawati N	60	65
12	Dwi Ambarsari	50	60
13	Siti Laela Zumrotin	55	60
14	Lailatus Sofiyah	50	65
15	Lilin Amalina	45	55
16	Affrelia Diah W	50	55
17	Nur Zuliani	55	60
18	Siti Nur'ainiyah	50	60
19	Emilia Nurdiansari	60	65
20	Taufan Aulia W	60	70
21	Shofi Rohmawati	50	60
22	Imro'atul Muniroh	55	60
23	Windiani Budiarti	50	60

24	Khusnul Khotimah	60	70
25	Mingsri	60	75
26	Rois Anwar	55	60
27	Nevi Ayu Candra	60	70
28	Winda Afif Suryani	60	65
29	Antonia Ganul	50	60
30	Moch. Ali Shodikin	55	70
31	Enik Rahayu N	60	70
32	Ika Vita Yulianti	50	60
33	Rizky Rahma Damayanti	60	65
34	Tardi	60	70
35	Bunga Yulita	60	70
36	Melynda Septi D.L	55	65
	Amount	2005	2315
	Average	55,69	64,3

Table 2 Interest in Learning Students in Pre Cycle and Cycle I

NO	NAME	Value	
		Pre cycle	First cycle
01	Sri Wahyu Ningsih	27	41
02	Lana Fatma Safitri	24	41
03	Mita Ayu PRD	21	32
04	Wardianto	21	33
05	Ernawati Nurwahyu N	22	34
06	Nur Zuliana	24	40
07	Naimatul Azizah	21	33

PRESENTER'S PAPERS

08	Masrihah	21	34
09	Levia Novita Sari	25	39
10	Delvia Paramudita	27	41
11	Widyawati N	25	40
12	Dwi Ambarsari	28	42
13	Siti Laela Zumrotin	24	38
14	Lailatus Sofiyah	22	33
15	Lilin Amalina	26	41
16	Affrelia Diah W	23	38
17	Nur Zuliani	22	38
18	Siti Nur'ainiyah	25	41
19	Emilia Nurdiansari	28	42
20	Taufan Aulia W	24	38
21	Shofi Rohmawati	29	40
22	Imro'atul Muniroh	23	40
23	Windiani Budiarti	22	42
24	Khusnul Khotimah	22	38
25	Mingsri	27	41
26	Rois Anwar	28	45
27	Nevi Ayu Candra	29	45
28	Winda Afif Suryani	27	44
29	Antonia Ganul	26	44
30	Moch. Ali Shodikin	26	43
31	Enik Rahayu N	26	42
32	Ika Vita Yulianti	26	43
33	Rizky Rahma D.	22	38

34	Tardi	25	43
35	Bunga Yulita	24	41
36	Melynda Septi D.L	28	38
	Amount	890	1388
	Average	24,7	38,5

Reflection

Perform data analysis of the processes, problems and obstacles encountered followed by a reflection of the impact of the implementation of the action

Cycle II

Implementation of the second cycle based on the results of the reflection on the first cycle, the second cycle was held improvements to the deficiencies in cycle I. Target achievement in cycle IIadalah data on the activity of learning and better student learning outcomes from the data obtained in the first cycle

Table 3 Data Results Learning in Cycle I and Cycle II

NO	NAME	Value	
		Pre cycle	First cycle
01	Sri Wahyu Ningsih	65	85
02	Lana Fatma Safitri	70	100
03	Mita Ayu PRD	70	95
04	Wardianto	60	85
05	Ernawati Nurwahyu N	65	80
06	Nur Zuliana	60	85
07	Naimatul Azizah	70	90
08	Masrihah	60	90
09	Levia Novita Sari	60	90
10	Delvia Paramudita	70	95
11	Widyawati N	65	90

12	Dwi Ambarsari	60	80
13	Siti Laela Zumrotin	60	95
14	Lailatus Sofiyah	65	85
15	Lilin Amalina	55	80
16	Affrelia Diah W	55	85
17	Nur Zuliani	60	90
18	Siti Nur'ainiyah	60	90
19	Emilia Nurdiansari	65	90
20	Taufan Aulia W	70	95
21	Shofi Rohmawati	60	80
22	Imro'atul Muniroh	60	90
23	Windiani Budiarti	60	80
24	Khusnul Khotimah	70	95
25	Mingsri	75	95
26	Rois Anwar	60	85
27	Nevi Ayu Candra	70	95
28	Winda Afif Suryani	65	90
29	Antonia Ganul	60	80
30	Moch. Ali Shodikin	70	95
31	Enik Rahayu N	70	90
32	Ika Vita Yulianti	60	80
33	Rizky Rahma Damayanti	65	85
34	Tardi	70	95
35	Bunga Yulita	70	90
36	Melynda Septi D.L	65	90
	Amount	2315	3190
	Average	64,3	88,6

Table 4 Interest in Learning Students in Cycle I and Cycle II

NO	NAME	Value	
		Pre cycle	First cycle
01	Sri Wahyu Ningsih	41	43
02	Lana Fatma Safitri	41	41
03	Mita Ayu PRD	32	45
04	Wardianto	33	40
05	Ernawati Nurwahyu N	34	40
06	Nur Zuliana	40	39
07	Naimatul Azizah	33	43
08	Masrihah	34	45
09	Levia Novita Sari	39	46
10	Delvia Paramudita	41	47
11	Widyawati N	40	37
12	Dwi Ambarsari	42	41
13	Siti Laela Zumrotin	38	41
14	Lailatus Sofiyah	33	43
15	Lilin Amalina	41	44
16	Affrelia Diah W	38	45
17	Nur Zuliani	38	44
18	Siti Nur'ainiyah	41	46
19	Emilia Nurdiansari	42	49
20	Taufan Aulia W	38	46
21	Shofi Rohmawati	40	43

22	Imro'atul Muniroh	40	44
23	Windiani Budiarti	42	48
24	Khusnul Khotimah	38	48
25	Mingsri	41	47
26	Rois Anwar	45	47
27	Nevi Ayu Candra	45	48
28	Winda Afif Suryani	44	48
29	Antonia Ganul	44	47
30	Moch. Ali Shodikin	43	48
31	Enik Rahayu N	42	47
32	Ika Vita Yulianti	43	48
33	Rizky Rahma D.	38	48
34	Tardi	43	45
35	Bunga Yulita	41	44
36	Melynda Septi D.L	38	46
	Amount	1388	1611
	Average	38,55	44,75

Reflection

Perform data analysis of the processes, problems and obstacles encountered followed by a reflection of the impact of the implementation of the action

DISCUSSION

From the results of the average value in the course of education policy with the learning method point counter point to demonstrate achievement of learning outcomes of students is increasing every cycle. it can be seen that the average value of the results of students in before the cycle: 55.69; Cycle I: 64.3; and the second cycle: 88.6; This indicates the achievement of learning outcomes. As for the learning interest of students also increased from each cycle. It can be known that the average value of an interest in prior cycles: 24.7; Cycle I: 38.5; and the second cycle: 44.75; The data showed an increase in interest in learning subjects the student's education policies

students PPKn and Economics students STKIP PGRI Lamongan Year 2015/2016 and this research can be said to be successful.

CONCLUSION

Research that has been done this, by analyzing data in the data about the increasing mastery learning outcomes of a course of education policy through the method of point counterpoint PPKn students and Economics students STKIP PGRI Lamongan Year 2015/2016 can be concluded as follows: (1) The use of the method point counterpoint learning can improve student learning outcomes; (2) Method of learning point counte point may increase the interest of student learning; (3) Application of point counterpoint course on educational policy can be an alternative choice in the teaching methods of learning so much dancing and varied.

SUGGESTIONS

Based on the experience - personal experience as an educator and feel their success in teaching is something we want to convey the advice of fellow lecters to modify teaching techniques is very much expected to have a practical innovation, creativity is just as important as creating the work (this study).

REFERENCES

Agus Suprijono, *Cooperative Learning Teori & Aplikasi PAIKEM,* Yogyakarta: Pustaka belajar, 2013)

Hadi, Sutrisno, 1987, *Metodologi Reseach,* Jakarta : Rineka Cipta

Syaiful Bahri Djarmajah. 2006. Teaching And Learning Strategies Jakarta: Rineka Cipta

Rama Yulis, 2006. *Metodologi Islam Education,* Jakarta: Nusa Media

Wina Sanjaya. 2008. Standard Process Oriented Learning Strategy Education Jakarta: Kencana

Author's Biodata

Yayuk Chayatun Machsunah, Born on November 5, 1975. Passed undergraduate education at the UNITOMO Surabaya in 1999, then in 2014 graduated Master of Instructional Technology at the University of Adi Buana Surabaya. She is a lecturer at STKIP PGRI Lamongan and owner TAMAN PINTAR, *Sahabat Sekolah Anak* Lamongan.

The Relevance and Effectiveness of Implementing Problem-Based Learning in Technical Vocational Education. Any Difference in the Learning Outcome?

Yusof Ahmad
Yanbu Technical Institute (YTI),
Royal Commission Yanbu Colleges and Institutes (RCYCI),
Yanbu Al Sinaiyah, Kingdom of Saudi Arabia.
ahmady@rcyci.edu.sa

Mahaya Anom Ahmad
Yanbu University College (YUC) Female Campus,
Royal Commission Yanbu Colleges and Institutes (RCYCI),
Yanbu Al Sinaiyah, Kingdom of Saudi Arabia.
ahmadma@rcyci.edu.sa

Abstract

The common pedagogy for technical education still remains the practice of "chalk and talk" or in the later days also known as "marker pen and talk", although the main research around this method demonstrates its ineffectiveness. In recent years, the technical profession and the immediate organization or bodies responsible for accrediting technical programs have decided on making changes. This paper will discuss the relevance and effectiveness of implementing problem-based learning in technical education and examines the learning outcome. It also reviews some examples of the implementation of PBL used to date and further discusses the relevance and effectiveness applies in technical vocational engineering education courses. Other areas of information will also include the approach of PBL in the method of presenting and introducing research system activities, not depending entirely on the practical experiences or teaching expertise. This paper also will look into the basic fundamental redesigning of the curriculum in the technical vocational education programs.

Keywords: *Relevance, Effectiveness, Learning Outcome, Problem-Based Learning, Technical Vocational Education*

1. Introduction

CHALLENGES AND DEMANDS OF THE ENGINEERING AND TECHNICAL PROFESSIONS.

The current modern technologies in engineering and technical education professions, encounter problem, incomplete data and often conflicting demands from governments bodies and agencies, and also from general public. Human skills along with technical competencies have always been in higher demand, thus these skills need to be incorporated into their knowledge and practices, furthermore technical profession need to cope with continual update in technological approach.

Apart from these challenges, the practices of "chalk and talk" which was in 1950's, using large classes involvement, lecture-based delivery of teaching are particularly done in the early years as a

norm. In addition, the student-centered learning such as problem-based and project-based learning have small impact on technical education in engineering. This paper starts by examining the critical issues for technical education and their impact on requirements towards quality learning outcome. It also looks into the relevance and effectiveness of implementing problem-based learning in technical courses at higher learning institutions.

2. CURRENT TREND OF APPROACH FOR TECHNICAL EDUCATION

In recent years, some studies have been conducted to determine the abilities in terms of technical and personal requirement of technical professions according to current industrial needs. The trend is for career and technical education programs to rethink their mission by asking how they can prepare students with high-level academic skills and the broad-based transferable skills and technical skills required. In technical vocational education programs to flourish in the early twentieth century's test-driven school environment, they must: firstly, find ways to continue to prepare students with the skills and knowledge needed in the increasingly sophisticated demanding workplace; secondly, embed, develop, and reinforce the academic standards/benchmarks that are tested on the state-mandated assessments; and thirdly, teach the essential skills that all students need for success in life. ("Vocational and Technical Education", n.d.)

It is clear that the profession, the industry, employers, and students are calling for significant changes to the existing delivery of technical education. Now the question is, what are the critical issues needs to be addressed? These can be summarized as follows (B. Lucas, 2012):

1. The effectiveness of all education systems depends critically on the quality of teaching and learning in the classrooms, workshops, laboratories and other spaces in which the education takes place.

2. While teachers (including lecturers, trainers, tutors, and coaches), engaged students, well-designed courses, facilities which are fit for purpose, and a good level of resources are necessary.

3. Improving outcomes from vocational education lie in the 'classroom', in understanding the many decisions 'teachers' take as they interact with students.

4. Understand more precisely how best engage to different learners to undertake the particular kind of learning activities on which they embark to achieve desired vocational outcomes.

A qualifications framework is an instrument for the development and classification of qualifications. In their most basic sense of NQFs (National Quality Frameworks) can be understood as classifiers specifying the relationship – horizontally and vertically - between different qualifications within a national system. A comprehensive qualifications framework is one that covers all levels and types of education, both academic and vocational. The NQF provides a way to compare qualifications and to describe the relation between the different levels of a national educational system, and the level, workload and learning outcomes of specific qualifications. ("European Area of Recognition Manual", n.d.)

The solution proposed generally is to overcome the issue involving the basic fundamental redesigning of the curriculum in the technical vocational education programs. Therefore, revising the course accreditation and determining the criteria through qualification framework such as ABET, City & Guilds, ENQA and also IEEE will definitely mean that all the technical vocational education courses in the Europe, USA, UK and others will need to revise their programs and course structures as well as qualities, competency and skills in the future. Some

constrains will be around the financial considerations, expertise and experience of their faculty members. This will probably be going towards the shifting of fundamental basis of their existing approach to a more problem-based or project-based learning model. The question now will be, why use the problem-based learning approach in technical vocational education? If we examine the 4 issues highlighted earlier, then the problem-based learning approach can be applied directly to numbers 1 to 4 and on top of that, more awareness amongst students must be considered. In addition, to this approach a method of presenting and introducing promotion system that rewards research activities and not entirely on the practical experiences or even teaching expertise. Possibly, there are also student-centered teaching strategies which could also promote these points thus, therefore what is the relevance and effectiveness of implementing problem-based learning in technical vocational education?

3. PROBLEM-BASED LEARNING IN TECHNICAL VOCATIONAL EDUCATION

Problem based learning represents a major and widespread change in educational practice within higher education [4]. The relevance of PBL is reflected in its spread through professional education from the 1960s in medical schools and across disciplines to the current era, where PBL is practiced in such areas as education and science. Modern insights on learning emphasize four elements of learning: that learning should be constructive, self-directed, collaborative and contextual (Dolamns, D. H., De Grave, W., Wolfhagen, E. H. & Van Der Vleuten, C. P., 2005). Problem based learning is 'problem first learning' (Spencer, J. A. & Jordan, R. K., 1999). It is the problem which defines and aims at what is to be learned. Instructors design problem scenarios to represent authentic, real world situations or issues likely to be addressed in the work place when students enter the workforce. When students engage with PBL there is a greater occurrence learning of deep rather than surface learning due to the alignment of teaching and learning activities, curriculum objectives and assessment tasks (Biggs, J., 1999). PBL is 'an approach to learning that is characterized by flexibility and diversity in the sense that it can be implemented in a variety of ways in different subjects and disciplines in diverse contexts' (Savin-Baden, M., 2001).

There are many similarities with the problem-based learning strategy for teaching design as practiced in technical vocational programs for many years. Therefore, it would be logical for the used of problem-based learning to be extended in technical vocational education such as in engineering programs. Some examples of existing problem-based learning, in technical vocational education in engineering programs is in Chemical Engineering program at McMaster University, by Don Woods (Woods, D. R., Boud, D., 1997). The problem-based learning approach as being implemented in Chemical Engineering department is used in TWO courses only, one in sophomore level and the other is a senior design project course. In most engineering course, the students will work in groups of 4 to 5 but the teacher or instructor will only be present as facilitator. McMaster University uses the "Problem Solving Programs" method (Woods, D. R., Hrymak, A.N., Marshall, R.R., Wood, P.E., Crowe, C.M., Hoffman, T.W., Wright, J.D., Taylor, P.A., Woodhouse, K.A., & Bouchard, C.G.K., 1997), in order to have a complete discussion of this course. A series of workshops were done throughout the year and these workshops help the students to develop problem-solving skills and team effort skills which enable them to undertake the problem-based learning processes in groups. McMaster University successfully incorporated the curriculum developments of the program across and also the student-centered teaching strategies for which problem-based learning being one of the components.

Another look instance of problem-based learning approach is at Monash University, Australia. PBL implemented in several courses in the civil engineering degree programs initiated by

Roger Hadgraft. He incorporated PBL into the second year computing and surveying (Hadgraft, R., 1991); a third year course in systems engineering and a post-graduate course in Surface Water Modeling (Hadgraft, R., 1992); and a fourth year course in Civil Engineering Computer Applications (Hadgraft, R., 1997). The application of PBL by Roger Hadgraft into 4 different levels of courses and study proves that PBL can be implemented in most areas of engineering, maths, Business Management & Sciences departments.

4. Does Problem-Based Learning in Technical Vocational Education really work?

Various qualitative research were found on students in courses where they have prepared adequately and sufficiently for the problem-based learning environment at Mc Master University and also some in courses in Monash University (Hadgraft, R., 1997). There are also positive response in the evaluations from McMaster University "Problem Solving Programs" (Woods, D. R., Hrymak, A.N., Marshall, R.R., Wood, P.E., Crowe, C.M., Hoffman, T.W., Wright, J.D., Taylor, P.A., Woodhouse, K.A., & Bouchard, C.G.K., 1997), but the PBL role in gathering these outcomes could not be determined due to the multifaceted skill development efforts which the program have been studied.

Considering the wider perspective of the question - "Does Problem-Based Learning in Technical Vocational Education really work?" - It is really clear that the application of PBL up to date faces obstacles in its implementation across the entire engineering program. Recently, the suitability of PBL has been published (Perrenet, J.C., Bouhuijs, P.A.J. & Smits, J.G.M.M., 2000), which includes that "PBL has its certain limitations, which is less suitable as an overall strategy for engineering education". Constructivist philosophy behind PBL to apply concepts which they learn during their education at university to solve problems beyond the experience they acquired in the course.

In PBL, some topics are overlooked as the students themselves learned partly defined topics which they should learned. Most of the topics must be taught through other means – via lectures, presentations, flipped classroom in a certain manner. Some missing essential parts will result in misunderstanding and failure to learn in later concepts. No matter how good their students' metacognitive skills are, this can be a problem because they could not fully compensate for missed topics as a result of using PBL method.

Another issue relates to the culture of the technical vocational engineering professions, which remain male-dominated, conservative and technically focused (Perrenet, J.C., Bouhuijs, P.A.J. & Smits, J.G.M.M., 2000). The adaptation of innovative educational methods may be quite difficult to be implemented in technical vocational engineering programs due to problems like faculty resistance. Therefore, PBL may be partly the answer for resolving certain critical issues in technical vocational education, mostly to demonstrate the application of the context in the initial stages of the curriculum. Other active learning and student centered methods may be appropriate and acceptable for technical vocational education. The closest method would be the Project-Based Learning.

5. CONCLUSION

The relevance and benefit of Problem-Based Learning (PBL) will be clearly evident on the expected learning outcomes. Technical Vocational Education specifically in programs which could develop the hands-on skills, and development skills such as critical thinking, problem solving, learning, and social skills. There is also the need to find the combination of the traditional approach of teaching using the "chalk and talk" method and the PBL approach in developing hands-on skills in technical vocational education. The significance of PBL is to provide the learning outcome that will guide and help in increasing the effect, development, and implementation. The students' learning and hands-on skills to prepare them for a challenging work environment.

References:

Vocational and Technical Education - Current Trends - Students, Skills, Career, and Academic - StateUniversity.com. Retrieved from http://education.stateuniversity.com/pages/2533/Vocational-Technical-Education-CURRENT-TRENDS.html#ixzz3zeiEe3uS

How to teach vocational education: A theory of vocational pedagogy by B. Lucas (2012). Retrieved from: www.skillsdevelopment.org/PDF/How-to-teach-vocational-education.pdf

European Area of Recognition Manual; Practical guidelines for fair recognition of qualifications. Retrieved from: www.eurorecognition.eu/manual/ear_manual_v_1.0.pdf

Dolmans, D. H., De Grave, W., Wolfhagen, E. H. & van der Vleuten, C. P. (2005). Problem-based learning: Future challenges for educational practice and research. Medical Education, 39, 732-741.

Spencer, J. A. & Jordan, R.K. (1999). Learner centered approaches in medical education. British Medical Journal, 318, 1280-1283.

Biggs, J. (1999). What the student does: Teaching for enhanced learning. Higher Education Research & Development, 18(1), 57-75.

Savin-Baden, M. (2001). The problem-based learning landscape. Planet – Special Edition Two, November 2001, 4-6.

Woods, D.R., Issues in implementation in an otherwise conventional programme. In Boud, D. & Feletti, G.I. (eds.) The challenge of problem-based learning, 2nd ed, Kogan Page, London. 173-180, (1997).

Woods, D. R., Hrymak, A.N., Marshall, R.R., Wood, P.E., Crowe, C.M., Hoffman, T.W., Wright, J.D., Taylor, P.A., Woodhouse, K.A., & Bouchard, C.G.K., Developing problem solving skills: The McMaster problem solving program. Journal of Engineering Education, 86, 2, 75-91, (1997).

Hadgraft, R.G., Experiences of Two Problem-Oriented Courses in Civil Engineering. In Agnew, J.B. and Cresswell, C. (eds) Broadening horizons in engineering education, 3rd Annual Conference of the Australasian Association for Engineering Education. University of Adelaide, 292-297, (1991).

Hadgraft, R., Problem-based learning - making it work. In Simmons, J.M., Radcliffe, D.F. & Wallace, K.B. (Eds.) New opportunities and challenges for engineering education. 4th Annual Conference of the Australasian Association for Engineering Education. University of Queensland, 134-139, (1992).

Hadgraft, R., Student reactions to a problem-based fourth year computing elective in civil engineering. European journal of engineering education, 22, 2, 115-123, (1997).

Perrenet, J.C., Bouhuijs, P.A.J. & Smits, J.G.M.M., The suitability of problem-based learning for engineering education: theory and practice. Teaching in higher education, 5, 3, 345-358, (2000).

PRESENTER'S PAPERS

Author's Biodata

Yusof Bin Ahmad is an instructor/trainer at Electronics Instrumentation Engineering Skills Department (EIESD), Yanbu Technical Institute (YTI), Royal Commission Yanbu, Colleges & Institutes (RCYCI), and also attached to Technology Transfer Center (TTC) in Kingdom of Saudi Arabia. He received his Master Degree in Information Communication Technology Management from Asia-E University, Kuala Lumpur., Malaysia. He has been teaching in technical vocational institutions for over 20 years. His major interests cover electronics, computer engineering, IT related courses and other engineering courses in IT, Instrumentation Process Control and Electronics. Email: ahmady@rcyci.edu.sa Alternate email: yusofgmi@yahoo.com

Not Available

Mahaya Anom Binti Ahmad is an EFL instructor with the English Language Center at Royal Commission Yanbu, Colleges & Institutes (RCYCI) in Kingdom of Saudi Arabia. She's been teaching for almost 20 years. Research interest includes ELT, educational psychology, technology in education, assessment and educational management. Email: ahmadma@rcyci.edu.sa
Alternate email: mahaya.ahmad@gmail.com

PRESENTER'S PAPERS

Cooperative Learning Strategy through Blended Learning for Function Linear Material to Increase the Concept Understanding

Yunia Mulyani Azis Enjang
STIE Ekuitas
Jl. PHH. Mustopa No. 31 Bandung-Indonesia
yuniams@yahoo.com

Enjang Akhmad Juanda
Indonesian Education University
Jl. Setiabudi No. 221 Bandung-Indonesia
njangwe@gmail.com

Abstract

This research aimed to discover the effects of blended learning instructional strategies (individual vs. group) on the students' ability of understanding the concept of a linear function material. The research carried out at STIE Ekuitas of Bandung. The study sample accounted for 83 students divided into two classes: 43 as control class applying learning individually the blended learning strategies, and 40 people as an experimental class implementing with blended learning strategies in groups. The research data were collected by conducting pre-test and post test and observations at each meeting. The techniques of analysis used SPSS version 17 for Windows, with the testing of hypotheses on significance level of 5%. The results showed that there were differences in the ability in understanding the concept of significance between individual blended learning and blended learning group, where learning through blended learning groups provided better effect than the individual blended learning.

Keywords: *cooperative learning, blended learning, and understanding of the concept.*

1. Background

Education is the right of all the people of Indonesia, therefore, education must be given equally to the Indonesian population spread across urban and rural areas. Delivery of education to the population located in urban areas is not a major obstacle to the government. Major obstacles found when governments have to deliver education to the rural population. Geographical constraints are the most important constraint, where Indonesia is an archipelago shaped so that the problem of transport and the distance is a major problem inhibiting the teacher to teach. Difficult transportation and long distances made the government is expected to spend more expensive so that education can be obtained by Indonesian citizens living in the islands other than Java.

Various attempts were made to solve this problem such as by sending teachers to teach in elementary and junior high school in the archipelago, sending textbooks, send students who excel learn Java to then return pass and be required to develop the regions. In addition to the efforts made over, another attempt by the government is to utilize technology to facilitate the development of educational equity.

It has been a long time the government made a distance education program (ODL). Some characteristics of ODL according Soekartawi (2006) is,

1. The separate learning activities with teaching learning activities.
2. During the learning process of students as learners and teachers as educators separated by a space, geographical distance and time, or a combination of all three.
3. Communication between students and teachers can be done either by way of one or two-way communication. Examples of two-way communication, such as teleconferencing, video-conferencing, and so on).

4. During the learning activities, students tend to form study groups, although it is not permanent and is not mandatory. Group activities needed to facilitate student learning.
5. The teacher's role more as facilitators and students to act as participant.

Based on observations of researchers in the implementation of ODL encountered several obstacles including the lack of the number of face-to-face between students and teachers and students are not familiar self-learning. Constraints faced by the greatly affect student learning outcomes, especially in math. Student learning outcomes is still very low due to the time to ask very little teacher and math materials cannot or rarely can be studied independently. To overcome these problems will require the efforts of teachers to use other teaching strategies, one of which is to utilize information technology and face-to-face. This strategy is commonly known as blended learning instructional strategies.

Blended learning instructional strategies implemented with the aim to complement each learning strategy, because both of these learning strategies, of course, has advantages and disadvantages. The advantages of face-to-face learning is the strong interaction between the teacher with the learner, while the disadvantage is that not all learners have the speed and the same learning style. While online learning has the advantages of learning resources provided are not limited, while the weakness is the weakness of the interaction between teachers with learners. Yunia (2013) explains that even though it's not mandatory, but to improve learning outcomes in blended learning strategies learners should design the group of learners with a view to the construction of knowledge and skills through the process of understanding the concept of social or social interaction with others.

Hudojo in Yunia (2012) suggested that in the process of learning mathematics, learning principles must first be selected, so as to learn mathematics teaching and learning can take place smoothly, for example, learn the concepts and basing on the concept A, learners need to understand first the concept of A. without understanding the concept A, learners may not understand the concept of B. This means studying mathematics should be gradual and sequential as well as basing on the learning experience. So that when the teacher explains the new concept, learners have been able to understand the issues being discussed. Understanding the concept of sustainable expected to increase interest and achievements of learners of mathematics. Lack of understanding causes low learner's ability to apply mathematical concepts, so that the overall result of the problems mentioned above is the low learning outcomes.

2. Population and Sample

The study population is students of management courses in private colleges, while the sample taken as many as 83 people in which the sample is divided into two classes, namely the control class (individual blended learning class) and the experimental class (blended learning groups class). For the experimental group each group consisting of 2 or 3 students. Research carried out cannot be separated from the moderator variables expected to affect the results of the research, moderator variables were taken in this study is the beginning of knowledge variable. Initial knowledge was taken on the grounds of these variables strongly influence the human learning process and also be a major cornerstone in understanding a thing.

3. The Reasons of Alternative Decision to use Blended Learning

Some of the reasons a cornerstone of use learning strategies blended learning, including proposed Osguthorpe and Graham in Bonk & Graham (2006), which identified six grounds in selecting the design and use of learning strategies blended learning, namely, (1) enrich the learning management, (2) access to knowledge , (3) social interaction, (4) personal agency, (5) the cost-effectiveness, and (6) ease of revision. While Graham, Allen, and Ure also in Bonk (2006)

revealed that the main reason is the use of blended learning (1) improvisation in learning, (2) increased access and flexibility, and (3) an increase in cost-effectiveness. While Yendri (2003) describe three benefits that can be obtained from the blended learning: (1) improve learning outcomes through distance education, (2) increase the ease of learning so that students become complacent in studying through distance education, and (3) reduce the cost of learning

4. Ability to Understand Concept

Understanding the concept according to Bloom's taxonomy in Yunia (2013) is the absorption of the meaning of the material being studied, understanding the concepts in the taxonomy of Bloom is at the cognitive level. Revised Bloom's taxonomy of knowledge dimension includes three aspects, namely,

a. The factual knowledge
b. Conceptual knowledge that includes classify and categorize knowledge, knowledge of principles and generalizations, and knowledge of theories, models and structures.
c. Procedural knowledge that includes knowledge of specific material skills (subject-specific) and algorithms, knowledge of the techniques and methods of specific material (subject-specific), the knowledge of when to use the criteria to ensure proper procedures.

Herdiana (2010) stated that in order to understand an object in depth one must know,

1. The object itself
2. The relation is with other similar objects
3. The relation is with other objects that are not similar
4. Relationship-dual with similar objects
5. Relations with other objects in theory

It is expected to grasp an object learners can understand the ideas of the material being studied and could use some of the relevant rules.

5. Research Result

Table 1 below describes the validity of the test results of understanding the concept of a linear function.

Table 1. Results of Validity Test Item from the Results of Capabilities Concept Learning Materials Linear Functions

Item	r_{count}	r_{table}	*result*
1	*0,533*	*0,367*	*valid*
2	*0,756*	*0,367*	*valid*
3	*0,788*	*0,367*	*valid*
4	*0,627*	*0,367*	*valid*
5	*0,641*	*0,367*	*valid*

Calculation of test reliability coefficients above by 0.73 to understanding the concept of a linear function so that it can be concluded that the instrument of understanding of the concept of a linear function eligible reliability. Test for normality by Kolmogorov-Smirnov test and Shapiro- Wilk obtained calculation results as follows,

Table 2. Normality Test Scores Linear Functions Concept

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Learning Strategy	Statistic	df	Sig.	Statistic	Df	Sig.
Understanding Concept	BL-Individual	.111	43	.200*	.940	43	.026
	BL-Group	.125	44	.081	.953	44	.071

Based on test results that the majority have a significance level greater than 0.05, it can be said that the score data capability of understanding the concept of a linear function of normal distribution based learning strategies.

Table 3. Variance Homogeneity Test Scores Linear Functions Concept

		Levene Statistic	Sig.
UNDERSTANDING CONCEPT	Based on Mean	4.501	.087
	Based on Median	3.555	.063
	Based on Median and with adjusted df	3.555	.063
	Based on trimmed mean	4.421	.038

The testing process for homogeneity using,

H_0: both homogeneous variance
H_1: the variances are not homogeneous
The test criteria are,
- If sig> 0.05, H0 is accepted
- If sig <0.05, H0 is rejected

The conclusion from the above calculation is data derived from populations having the same variance (homogeneous).

Table 4. Normality Test Scores Linear Functions Concept

Tests of Normality

	EARLY KNOWLEDGE	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
UNDERSTANDING CONCEPT	HIGH	.166	44	.094	.911	44	.092
	LOW	.118	43	.146	.961	43	.152

Based on test results that the majority have a significance level greater than 0.05, it can be said that the score data capability of understanding the concept of a linear function based on prior knowledge of normal distribution.

Table 5. Variance Homogeneity Test Scores Understanding Linear Functions Concept based on Knowledge Early

		Levene Statistic	Sig.
UNDERSTANDING CONCEPT	Based on Mean	.001	.982
	Based on Median	.015	.904
	Based on Median and with adjusted df	.015	.904
	Based on trimmed mean	.012	.914

The conclusion from the above calculation is data derived from populations having the same variance (homogeneous). Results of test calculations of normal distribution and homogeneity based on learning strategies and prior knowledge, all have normal distribution and homogeneous. The next step is to test the hypothesis by using ANOVA based on the following criteria,

H_0: There is no significant difference the ability of understanding mathematical concepts between class of individual blended learning strategies and blended learning group instructional strategies.

H_1: There is a significant difference the ability of understanding mathematical concepts between class of individual blended learning strategies and blended learning group instructional strategies.

Table 6. Calculation Results of Anova Effect on Learning Strategy towards Understanding Concept

Tests of Between-Subjects Effects

Dependent Variable:NILAI PK

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	139.331[a]	1	139.331	13.398	.000
Intercept	14942.918	1	14942.918	1436.928	.000
SP	139.331	1	139.331	13.398	.000
Error	883.933	73	10.399		
Total	15935.000	75			
Corrected Total	1023.264	74			

a. R Squared = ,136 (Adjusted R Squared = ,126)

Analysis of test results presented in Table 6 shows the test results showed the significance of 0.000, because sig <0.05 means that H0 is rejected, it showed no significant difference to the ability of understanding the concept of a linear function between classes with individual learning strategies and blended learning classes with blended learning instructional strategies group.

6. Conclusion

The conclusion of this research are as follow:

a.There are significant differences in the ability of understanding mathematical concepts between class of individual blended learning strategies and blended learning group instructional strategies.

b. There are significant differences in the ability of understanding mathematical concepts among students who have early knowledge of students with high and low early knowledge about linear functions.

c.There is an interaction between individual learning blended learning strategies and blended learning teaching strategy group, early knowledge on the ability of understanding mathematical concepts material linear function.

REFERENCES

Bonk, C.J. & Graham, C.R. (2006). *The Handbook of Blended Learning. Global Perspectives, Local Design.* www.pfeiffer.com.

Driscoll, M. 2002. *Blended learning: Let's get beyond the hype. e-learning.* http://www.ltimagazine.com/ltimagazine/article/articleDetail.jsp?id=11755

PRESENTER'S PAPERS

Gunawardena. 2001. *Distance Education.* Handbook of Research for Educational Communications and Technology. 355- 395. AECT.

Hawkridge. 2009. *Tutoring at a distance, online tutoring and tutoring in Second Life*. European Journal of Open, Distance and E-Learning.

Heinich, R.,Molendah, M., & Russell, J. 2003. *Learningal Media and the New Technologies of Learning*. Fourth Edition. New York ; MacMillan Publishing Company.

Hudoyo, H. 2003. *Learning Theory in Mathematics Teaching Process*. Jakarta. Depdikbud.

Johnson. S.D. & Aragon, S.R. 2002. *A Learning Strategy Framework for Online Learning Environments.* Proceedings of the Academy for Human Resource Development (pp. 1022-1029). Bowling Green, OH: AHRD. University of Illinois.

Jonassen & Gabrowski. 2006. *On the Role Concept in Learning and Learningal Design*. ETR & D.54(2),177-196.

Kartimi. 2005. *Model Development of Computer Based Interactive Learning Forum for Education For Students of Junior High School*. STAIN Cirebon

Mardika,N. 2007. *Educational Basics Theory for Online Learning*.

http://mardikanyom.tripod.com/Online%20Learning.pdf

Semler, S. 2005. *Use Blended Learning to Increase Learner Engagement and Reduce Training Cost* (http://www.learningsim.com/content/lsnews/ blended_learning1.html)..

Setyosari, P. & Sihkabuden. 2005. *Instructional Media*.. Elang Mas. Malang

Sinaga, P. 2010. *Application of Laboratory Maya in Interactive Physics Conceptual Learning to Improve Understanding and Developing Scientific Concept Skill*. Prosiding Seminar Nasional Fisika 2010. ISBN : 978-979-98010-6-7

Soekartawi. 2006. Blended e-Learning : *Alternative Model Distance Learning*. National Seminar on Information Technology Applications in 2006. (SNATI 2006) Yogyakarta

Wahono,R.S. 2008. *Straighten misguided About Online Learning***.** http://www.krp2.krpdiy.org/artikel%206.htm

Yung, H.I. 2009. *Effects of an Animated Pedagogical Agent with Learningal Strategies in Multimedia Learning*. Journal of Education Multimedia and Hypermedia. 453-466

Author's Biodata

Yunia Mulyani Azis is a lecturer of Institute of Economic Science Ekuitas in Bandung. Doctorate learning technologies in Malang University. From 2009 to concentrate on research in the field of blended learning , particularly in the subject of mathematics.

Enjang Akhmad Juanda is a lecturer of STIE Ekuitas of Bandung. njangwe@gmail.com

PRESENTER'S PAPERS

Developing Madurese Kapotean Batik Pattern using Corel Draw

Atiqoh
University of Adi Buana Surabaya
DukuhMenanggal XII, Surabaya
atiqnasor@gmail.com

Abstract

Batik is the one of Indonesia precious heritage that should be maintained and is very famous in Indonesia. Word batik is come from word 'tik', means 'dots', this word refers to how to make batik, that is from dots on the white cotton. Batik can become a precious commodity.This research will focus on Madurese batik development, first writers will observe where Kepotean batik come from, that is Pamekasan Madurese.This research aimed to develop batik pattern by using Corel Draw software and its standard from panelists opinion about the result of batik design by Corel Draw.There are two ways to approach, there are decide the variable, conclude its data resources. Data resources refers to the panelists, that consists of 10 Pamekasan batik artist, batik culturist, UNIPA and UK Petra art and design lecturers, behaestex batik designer, textile instructure of ARVA School of Fashion Surabaya and editor of Jawa Pos. They will fill a questioner, and the data will be analyzed by qualitative descriptive approach. The conclusion is corel draw can be used for Pamekasan Kepotehan batik design well. By this software, people can used it for modify Pamekasan Kepotehan batik design.

Keyword : Batik, Pattern Design, Corel Draw

1. INTRODUCTION

At first, batik is king and his family clothes, but soon common people use batik in their daily life. Now, there are some kind of batik that only king and his family can wear it. Although, batik is related with Javanese culture, but now batik is well-known as Indonesia national clothes. Batik is a precious national heritagethat should be concerned.

Batik has many kind of pattern. Classic batik has its own basic pattern, mostly pattern is flower and animal. When Netherlands came to Indonesia, it also affected Indonesia batik, some batik pattern has Europe classic things. For example, we can find batik with flower bouquet, flower arrangements, cannon, and so on.

There are some ways to develop Indonesia batik, such as collect classic batik pattern, make a new design based on classic design but use computer to do, such in Madura batik pattern. We can use manual design making or use corel draw to help us create more detailed batik pattern.

If you are going to use computer for designing batik pattern, you should know weather the picture is vector or bitmap. In graphic design, vector is a group of object that forms certain line or certain shape, can be described mathematically, has color and picture revolution because if we enlarge the picture, the resolution is not changed. Some of vector data are Adobe Ilustrator, fh (Macromedia Freehand), .crd (Corel Draw), .wmf (Windows Meta File), .eps (Encapsulated PostScript), .cgm (Computer Graphic Metafile) and so on.

Bitmap is graphic object that is formed by pixel. Each pixel or called bit in the object that contains information about object's color. Bitmap is different with vector, bitmap has its constant picture resolution, so if we enlarge the picture, the resolution decreases. For example, JPEG, TIFF, GIF, PNG, PICT, BMP and so on.

Researcher chose Madura Batik because Madura batik has lots of batik pattern. In the process, Madura batik can be done manually or digitally, but in this research, the researchers try to modify Madura batik design by using Corel Draw, but it will not destroy its original batik pattern.

Thus, researcher hopes by using Corel Draw, the process of designing pattern batik will be more efficient, so can produce more and more Kapotean batik pattern without losing its original batik pattern. From background above, there are some problems that will be discussed. 1) how to make Madura Kapotean batik pattern using Corel Draw, 2) how is Madura Kapotean batik pattern design properness by Corel Draw?, 3) Can we use Corel Draw to modify Madura Kapotean batik design?.Scope of problem 1) Pamekasan written batik called Kapotean, 2) Pattern that will be modified is flower pattern, 3) Using corel draw as modify batik pattern design media.The purpose of research, 1) to know the process of designing kapotean batik pattern, 2) to know the result of designing kapotean batik design by using Corel Draw, 3) to know the properness of kapotean batik pattern design using Corel Draw.

2. RESEARCH METHODS

This research is qualitative research, by the data is from kapotean batik pattern design and data source is panelists, who are 1) Pamekasan batik craftsmen, 2) a humanist of Surabaya culture association, 3) designer of Behaestex batik and textile instructor of ARVA School of Fashion Surabaya, 4) editor of Jawa Post, 5) lecturer of art department of Surabaya AdiBuana University.

Technic of collecting data is filling the open questionnaire, those 5 panelists will answer the questionnaire. Descriptive qualitative data will be collected by some methods, such as interview, document analysis, focused discussion, or observation that will be written in essay, not in number.

This research development is based on four D-model's adaptation from Thianggarajan, Sammel and Semmel, 1974). This 4D model has 4 stages, there are define, design, develop and disseminate. But in this research, dessiminate stages will be occurred only if the result of research is proper and can be used as Madura batik pattern.

3. RESULT AND DISCUSSION

(Picture 4.1) Original pattern of Madura Kapotean Batik

(Picture 4.2) Modified Madura Kapotean Batik by Corel Draw

(Picture 4.3) Modified the color, line, shape of design by Corel Draw

The original batik pattern (Picture 4.1), the characteristic of the pattern is decorative and more abstract, but it shows the characteristic of Madura batik that handwritten, so the basic of shape and line is not identical.

Red color is given to the corner of fabric, or one side of leaves. Isen-isen detailed is not identically the same, there are straight line, wavy line, dots, and so on. The picture seems rough and unplanned. The craftsmen decides how to make the design when he or she holds canting and starts to hand-writing the pattern.

Modified batik (Picture 4.2), is modified the pattern using Corel Draw but only changed the color and pattern, so the design seems more refined then the original pattern.

Modified the color, line, shape of pattern (Picture 4.3), this new batik pattern, based on art perspective does not show the characteristic of Kapotean pattern, but based on fashion perspective this pattern looks more attractive for young people because its bright color. This statement is based on the craftsmen.

4. CONCLUSION AND DISCUSSION

This research concludes that 1) the process of using Corel Draw to modify Kapotean pattern is easy to do, 2) using Corel Draw is proper to design Kapotean pattern, 3) Corel Draw can be used to modify Kapotean pattern.

Research suggests batik craftsmen to 1) ease the process of designing batik pattern, 2) enrich kapotean pattern, 3) make a pattern's standard so can make sarimbit pattern. For fashion world, 1) inspire designers to use or modify Kapotean pattern to be known outside Madura, 2) create new technic that more simple or can inspire new batik pattern.

References

Suharsimi, Arikunto. (2010).*Practical Approach of Research Methods*, Jakarta:RinekaCipta.

Vocational Education Departement.(1998).*Design Factor*. Jakarta: Education and Vocational Departement.

Pulukadang, WasiaRusbani. (2004)*Decorating clothes*. Bandung: Angkasa editor.

Vocational Educational Departmen. (1999). Basic Design. Jakarta: Education and Vocational Department.

http://static.flickr.com/88/247178173-a0596e4a29.jpg

Wikimedia.org/wiki/joint- Photographic- Experts-Groupdika

Widagdo, Aryani, Rinarti, Agustine. *Fashion Design*. Surabaya: Arva Studio

Batik picture and domination, 2009,CorelDRAW, dari Wikimedia bahasa Indonesia, ensiklopediabebas

Author of Biodata

Atiqoh is a lecturer of Educational and Vocational Department, University of AdiBuana Surabaya. She is got her bachelor and master of education in University of Adi Buana Surabaya. She is now currently pursued doctoral degree in University of Surabaya, major in Education Technology. Email: atiqnasor@gmail.com

DEVELOP THE STUDENT SELF MOTIVATION IN LEARNING TO ACHIEVE LEARNING ACHIEVEMENT

Retno Danu Rusmawati
Universitas PGRI AdiBuana Surabaya
retnodanu@ymail.com/

Zulidyana
Educultural Specialist
zulidyana@gmail.com

Abstract

Develop students' motivation to do self-regulated learning is an activity which givesstudentsthe freedom to choose and determine the ways of learning to achieve learning goals. These things were needed in the learning process as well as the results. Self-regulated learning determines the acquisition of student learning objectives. Develop students' motivation to learn self-regulation are determined by the student themselves. Motivation is a part of self-regulated learning that consists of metacognition, motivation, and behavior. These are used for self-study at all academic levels that needs to be developed, taught, studied and controlled. Students who considered success in the school, are students that able to organize themselves in learning. They develop motivation as leading the individual students that includes, cultural perceptions of self efficacy, competence and autonomy in learning activities, in this case students acculturated to have intrinsic motivation, self-autonomy, and self-confidence. Develop students' motivation to learn independency to organize themselves, need to be applied as an alternative to build an independent fun learning according to their characteristics as an individual student. Therefore, the achievement in learning can be succeeded achievedbased on the students' purpose.

Keywords: develop, motivation, students, self-regulated learning

A. Introduction

Learning is currently centered on students, and must be supported by teachers to achieve the goal of learning and expect better quality for the process and learning outcomes. This requires a strategy of its own so that students have the eagerness in learning process. Many strategies that can be adopted in the learning process, but by inviting and make the students have the ability to set their own learning is something more important. However, this is a challenge to do, because that authors use this opportunity to present one part of self-regulation that focuses on the students' learning motivation. The motivation is one of the part or domain on self-regulation that aremetacognition learning, motivation, and behavior. (Zimmerman (1989: 329).

On this ICETA 7 the author presents the realm of motivation, which is one part of self-regulation of student learning in order to have the independence to learn throughout life. For the metacognition part had presented bythe author in ICETA to 6. Motivation is a process that explains the intensity, direction, and persistence of an individual to achieve his goal.

The three main elements in this definition include the intensity, direction, and persistence.Based on Abraham Maslow's hierarchy of needs theory, theory X and theory Y Douglas McGregor and contemporary theories of motivation, sense of motivation is a 'reason' that drivean act committed by an individual. Someone said to have high motivation can be mean that the person has a very strong reason to achieve what he/she wanted to do his/her current job. In

contrast to motivation, in the sense that develops in people who are often equated with 'courage', as an example in a conversation "I want my son to have a high motivation". This statement can be interpreted that the parents want their children to have the encourage of learning. Thus, it should be understood that there is a difference in the community use of the term motivation. Some peopledefine motivation as a reason, and some also interpret motivation as courage. (Https://id.wikipedia.org/wiki/Motivasi)

Motivation as courage, it is deeply embedded in educators / teachers , especially in the implementation of the learning process to always be given to students throughout the learning process in order to afford their students' motivation for his own students in learning achievement.

B. Self-Regulated Learning

Self-regulated learning has been proclaimed by Zimmerman. Understanding the concept of Self-Regulated Learning (SRL) is very important for teachers, until now, the discussion only about students, while the students themselves certainly cannot be separated by teachers and learning. Self-Regulated Learning integrates many things and related about how effective is learning. Knowledge, motivation, and self-discipline or self-willingness is important factors that can affect the self-regulated learning as an integrated learning process. These also consist of developing a set of constructive behavior that affects a person's learning. The process is planned and adapted to support personal goals in a changing learning environment. Learners with a high degree of self-regulation have a good control to achieve their goals. Self-regulated requires learners to focus on the process of how to acquire these skills.

According to Zimmerman (1989), Self-Regulated Learning involves three common aspects of academic learning. First, rules of conduct involving the active control of the various resources the learners have available to them, such as their time, their environments (for example, a place where they learn), and other such as peers and faculty members to help them (Garcia &Pintrich, 1994; Pintrich, Smith, Garcia, &McKeachie, 1993). Second, self-regulated and motivation affect involves controlling and converting motivations such as self-efficacy and goal orientation, so that learners can adapt to the demands of the course. In addition, learners can learn how to control emotions and affect (such as anxiety) in ways that enhance their learning. Third, regulation of cognition involves the control of cognitive strategies for learning, such as the use of deep processing strategies that produce better learning and performance of learners.(Garcia &Pintrich, 1994; Pintrich, Smith, Garcia, &McKeachie, 1993).

C. Student Learning Motivation

In a study behavior we can find the motivation to learn. Motivation is a push that encourages a person to keep the courage and have the energy as well as the strength to perform an activity or behavior. Each person must have a specific purpose in doing an activity. These purposes can be achieved, along with the sincerely and vigorously used. That courage can arise if a good motivation inside and outside individuals are existing. There are two kind of motivation to learn, intrinsic motivation and extrinsic motivation. Strengthening the motivations of study are in the hands of educators and other community members. Teachers as an educator have a role to strengthen the students' motivation. While, parents role is strengthen the motivation of lifelong learning. Teachers make students who have intrinsic motivation. Motivation to learn can arise due to intrinsic factors, such as desire and sense of learning needs, as well as the expectations. Whereas extrinsic factor is respect, a conducive learning environment and interesting learning activities. These will be explained further about extrinsic motivation and intrinsic motivation;

1. Extrinsic Motivation

The encouragement that comes from outside and push an individual in performing an activity is an external motivation. The encouragements can be come from Teachers, friends,

parents, as well as the environment around the individual. Teachers have an important role in raising students' motivation. For example, students are happy to learn Indonesian because they want to get better scores. Motivation is closely related with needs, so the teacher always convince students that the lessons they learned from the school are very important and gives benefits for students. With satisfactory academic results it will be easier for students to achieve their success. In addition, praiseworthy attitudes for learning outcomes are also necessary for making a harmonious life and social environment. The most important thing is the result of learning such as the skills that are required students in society and find a good job.

A teacher must know how the conditions of the students and what students would like. Teachers should always create a sense of fun that becomes increasingly unpopular as well as what the students in relation to the subject matters. In the real world, many students are not happy with a lesson from teachers who are not creative in delivering the materials. For example, students do not like math because the way the teachers present the material is not comfortable and feels tense. Teachers should always present all subjects to students with a pleasant disposition, so that the lessons are delivered by teachers can remain in the students mind and the studentswould likethe lesson.

2. Intrinsic Motivation

Motivation is the push that led to a deed or action. The act of learning occurs because of the motivation that drives a person to do the act of learning. The push that can arise from learning in the subject which come from certain requirements who want to get satisfied.Motivation that arise from the needs of the student is considered better than the motivation caused by external stimuli. However, in real situation, often motivated from the inside it does not exist, or has not been raised. This situation needs stimuli from the outside to raise the motivation to learn. Intrinsic motivation, referring to factors from within, either implied in the task itself or on students. Most modern education theory took intrinsic motivation as a stimulus for activity in education and in solving problems. This is not surprising, because the desire to increase knowledge and to track an intrinsic factor in everyone.

Motivation to learn is internal and external encouragement to students who are learning to hold a behavior change. It has a big role in a person's success in learning. Students Motivation positively associated with self-regulation of learning. Motivation takes the students to implement strategies that will influence the learning process. Students tend to be more efficiently and effectively manage his time in learning if they have the motivation to learn.

Self-regulated learning underlines the importance of autonomy and personal responsibility in learning activities. In the learning process, students have to learn to build self-regulated learning objectives, attempting to regulate and control their cognition, motivation, and behavior to achieve the goals that have been made. Motivational management is a very important part of the management of students with interaction learning, it will be useful to increase students' motivation.

Motivation can be seen as a mental boost that drives and directs human behavior, including students. Contained in the motivation of their desire to enable, promote, distribute and direct the attitudes and behavior of students.

There are three components of the motivation is the need, encouragement and purpose. Motivation to learn is important for students and teachers. For students aware of his position at the start of learning process, the process itself and the learning outcomes, inform the effort of learning, direct the learning activities, encouraging learning, awareness in learning process and work. For Teachers, to raise, maintain the courage of learning students to succeed, know and understand the students' motivation in class is multifarious, such as indifferent, difficult to focus, uneager to learn, hard to improve. These are affected teachers to choose one of several roles: advisor , facilitators, instructors, friends discussions, encouragement, gift givers or educators,

"performance" pedagogical engineering: all students succeed, "change" uninterested in becoming an eager student to learn, intelligent students who are not interested, becomes passionate about learning.

Motivation is the driving force of a person's desire to manifest. The propulsive energy of the order whatever we want can be realized. Motivation to learn is the urge to do something to change the process by which an organism's behavior as a result of an experience, this impulse could come from the individual itself and encouragement for their stimulus from outside the individual. Motivation intimately linked with the desire and ambition, if it does not exist, the motivation will not arise. Many students who have the desire and ambition, but lacked of the initiative and willingness to take steps to achieve. It shows a lack of propulsive energy from within themselves or lack of motivation. Motivation will strengthen ambition, increase initiative and will assist in directing one's energy to achieve what is desired. With the right motivation, the student will be closer to his wishes. Teachers have a strategic role to be an important part in building the character of students. This can be achieved through the participation of teachers optimally in the process of preparation of students who have character as stated in Law No. 20 of 2003 Chapter II, Article 3 of the function and purpose of national education. The character and mentality of a nation's human capital will be the foundation of the nation's values. At the operational level, real efforts in establishing and maintaining the character and mentality can be done by a professional teacher figure. Given the strategic role of the teacher in the effort to build the nation's character, then developing the professionalism of teachers focused on the four core competencies of the pedagogical competence, personal competence, social competence and professional competence should be guided by the concepts and approaches in values education. So the teacher is able to be the best model, and performed as a whole person who'samid efforts in carrying out tasks to formal learning.

The motivation will be stronger and more stable when compared with the motivation that comes from outside (extrinsic). However it does not mean the motivation from outside (extrinsic) is not important. The second type of motivation is important in the learning process. Students sometimes are motivated to learn by both. For example, they expect the fulfillment on his curiosity to study hard, but they also expect a reward (reward) from outside the achievements that they have achieved.

Motivational aspects related to the ability of students to push themselves convinced themselves, and concentrate on the purpose of achievement and able to manage emotions and affection so that students can adapt to the demands of the task. Indicator in this motivational factor is the ability to be intrinsically motivated, self-confidence, to concentrate on the goal and the ability to manage emotions and affections in achieving goals.

In the process of learning, appreciation or praise the good works of the students is very necessary, so as to reward or praise it is expected that students will continue to strive to do better. For example Master smile or say good words to students who can do a good homework will be a great influence on students. Students will feel satisfied and feel welcome on the results that have been achieved, and the other students are expected to do such things.

Students are learners who are most interested in learning. There are some students who have been eager to gain experience, skills and knowledge since childhood. The students have the intrinsic motivation. Other students who have the desire, gain experience, skills and knowledge thanks to his peers. They have extrinsic motivation. In the process of teaching and learning, educating teachers perform actions such as giving gifts, praise, and reprimand or give advice. The teacher action means reinforce intrinsic motivation, these actions are also meant to encourage students to learn, a strengthening of intrinsic motivation. Students interested in learning because they want to get reward or avoid punishment. In this case ofthe motivation Students appreciate the intrinsic or extrinsic, and grew eager to learn. Quality learning depends on student motivation and

creativity of teachers. Teachers who have high motivation is supported by teachers who are able to facilitate these motivations will lead to the successful achievement of learning targets. Target learning can be measured through changes in attitudes and abilities of students through the learning process. Good learning design, supported by adequate facilities, coupled with creativity Teachers will make it easier to achieve the target student learning.

D. Closing

The motivation for the students to learn self-regulation is a driver (drive) that is in the perception of the individual which includes self-efficacy, competence and autonomy in learning activities. So the motivation factor in setting student learning encourages students as learners to increase self-confidence and enhance the spirit of learning of students in learning. The most useful motivation is intrinsic motivation. Motivation comes from within oneself tends to be positive, and the students also need to factor in the motivation that comes from outside in the form of reward. With the factors intrinsic and extrinsic motivation of students will be motivated to improve the quality of academic achievement and have high confidence to be able to show him the best in the learning process and results. Thus students more easily to explore him into the motivation of students to be independent in their learning and this is very helpful to improve the quality of learning processes and outcomes.

To present the mapping of motivation, the writer adopted motivational cone as follows:

Source:https://id.wikipedia.org/wiki/Motivasi

Bibliography

Cobb, Robert. (2003). *The relationship between self regulated learning behaviorsand academic perfomance in web-based courses*. The Faculty of VirginiaPolytechnic Institute and State University : Dissertation.

Degeng, I Nyoman Sudana. 1997. *Strategi Pembelajaran Mengorganisasi Isi dengan Model Elaborasi.* Malang IKIPdan IPTDI

Degeng, I Nyoman Sudana. 2013. *Ilmu Pembelajaran: Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian*. Bandung: Aras Media (Kalam Hidup).

Depdikbud. 1995. *Pedoman Proses Belajar Mengajar di SMA dan MA*. Jakarta: proyek Pembinaan Sekolah Menengah Atas dan Madarasah Aliyah.

Effeney, Gerard., Carroll, Annemaree& Bahr, Nan. 2013. *Self-Regulated Learning: Key strategies and*
their sources in a sample of adolescent males. Australian Journal of Educational &

PRESENTER'S PAPERS

Developmental Psychology.Vol 13, 2013, pp. 58-74.

Farida, Ida. 2012. *Model pendidikanKarakter di PerguruanTinggi: LangkahStrategisdan Implementasinya di Universitas.*JurnalIlmiahAdministrasiPublikdan Pembangunan. Vol.3, No.1, Januari – Juni 2012.

Lowe, A. 1995. *The Basic Social processes of entrepreneurial inovation,*International journal of entrepreneurial Behaviour and research.

Montalvo, F.T., dan Torres, M.C.G. (2004). *Self-regulated Learning: Current and Future Direction*.

Electronic Journal Research in Educational Psychology. 2. 1. 145-156

Mulyasa, E. 2007.*KurikulumTingkatSatuanPendidikan*. Bandung: RemajaRosdaKarya.

Mynard&Sorflaten, 2002, *Independent Learning InYour Classroom*,http://ilearn.20m.com/research/zuinde.htm

Nicol, David J. dan Macfarlane-Dick, Debra. 2006. *Formative assessment and self-regulatedlearning: a model and sevenprinciples of good feedback practice*. Studies in Higher Education Journal, Vol. 31, No.2, April 2006.

Parkay, Forrest W. Dan Stanford, Beverly Harscastle. 2008. *Becoming a Teacher, 7 th Edition (Menjadi seorang Guru edisi ketujuh)* diterjemahkan oleh Dani Dharyanti. Jakarta: Indeks.

Pidarta, 1997. *Landasan Kependidikan Stimulus Ilmu Pendidikan Bercorak Indonesia*. Jakarta: PT. Bina Rineka Cipta.

Pintrich, P. R. &Schunk, D. H. 2002. *Motivation in education* (2nd ed). UpperSaddle River, NJ: Prentice Hall.

Pintrich, P.R & De Groot, E.V. 1990. *Motivational and Self-Regulated Learning Components of Classroom Academic Performance.*Jounal of Ecucational Psychology, 1990. Vol.82, No.1, 33-40.

Purdie, N., Hattie, J., & Douglas, G. 1996. *Student conceptionof learning andtheir use of self regulated learning strategies : A cross-culturalcomparison.Journal of Educational Psychology, 88,* 87-100.

Putrayasa, I.B. 2008. *Guru: Digugu dan ditiru.* ditulis dalam Jurnal Pendidikan dan Pengajaran Undhiksha edisi khusus tahun XXXI.

Poerwandari, K..2001. *PenelitianKualitatifuntukPenelitianPerilakuManusia*.Jakarta: LembagaPengembanganSaranaPengukurandanPendidikanPsikologi (LPSP3) Universitas Indonesia.

Sardiman. 2003. *InteraksidanMotivasiBelajarMengajar*. Jakarta: Raja Grafindo Persada.

Schunk, D.H & Zimmerman.B.J. 1998.*Self-regulated lerarning and performance :Issuesand educational applications*. Hillsdale, NJ. Lawrence Er Erlbaum Associates, Inc.

Schuck, Dale H. 2012. *Learning Theories An Educational Perspective Sixth Edition.* Boston: Pearson Education.

Schuck, Dale H. 2005. *Self-Regulated Learning: The Educational Legacy of Paul R. Pintrich.*Educational Psychology, 40 (2), 85-94. Lawrence Erlbaum Associates, Inc.

Slemato. 1995. *Belajar dan Faktor-faktor yang mempengaruhinya*. Edisi Revisi. Jakarta: PT. Rineka Cipta.

Sudjana, Hana. 2004. *Dasar-Dasar Proses BelajarMengajar*. Bandung: SinarBaruAlgesindo.

Soetjipto, Raflis Kosasi. 1999. *Profesi Keguruan*. Jakarta: Rineka Cipta

Walters, C.A. 2010. *Self-Regulated Learning and the 21st Century Competencies.*Departemen of Educational psychology, University of Houston.

Zimmerman & Martinez-Pons. 2001. Students Differences in Self Regulated Learning:Relating Grade, Sex, and Giftedness to Self Efficacy and Strategy Use. *Journal ofEducational Psychology.*82 (1), 51-59.

Zimmerman, B.J. 2008. *Investigating Self-Regulation and Motivation: Historical Background, Methodological developments, and Future Prospects.*American Educational Research Journal.Month 2008, Vol.45, No.1. pp. 166-183.

PRESENTER'S PAPERS

Zumbrunn, Sharon danTadlock, Joseph. 2011. *Encouraging Self-Regulated Learning in the Classroom: A Review of the Literature.* Virginia Commonwealth University.MERC.

http://endonesa.wordpress.com/ajaran-pembelajaran-Bahasa Indonesia.
(http://news.okezone.com).
http://www.mpib-berlin.mpg.de/pisa/pdfs/CCengl.pdf
https://id.wikipedia.org/wiki/Motivasi

Author's Biodata

Name : DR. RETNO DANU RUSMAWATI, M.PD
Affiliation : PBSI-FKIP-UNIPA SURABAYA
Email Address : retnodanu@ymail.com / pambayun61@gmail.com
Telephone : 031-5915316
Mobile phone : 081330638961

Name : ZULIDYANA DR, S.HUM., M.HUM
Affiliation : EDUCULTURAL SPECIALIST
Email Address : zulidyana@gmail.com
Mobile phone : 085649446656

Character Education

Abd. Cholid
University of PGRI Adi Buana Surabaya
Jl. Dukuh Menanggal No. XII/4 Surabaya
abdcholid.coach@gmail.com

Abstracs

Character education refers to Thomas Lickona is the effort to help someone, so he can understand, pay attention, and do the ethics. Character education refers to Suyanto (2009), define character is the way to think and do characteristic person to live and to cooperate in family, society, nation and state. Character education refers to psychology dictionary is personality reviewed from ethic or moral, for example the honesty, related to permanent character. Character education refers to Kertajaya (2010) is the charateristic which are owned by person or thing. The characteristic is origin to personality and as a machine to push person to act, speak and respond to something.
http://belajarpsikologi.com/pengertian-pendidikan-karakter
Supriyoko (2014) said that characteristic can be changed, formed or developed, as well as skills, while the intellectual and temperament is very difficult to change. Therefore, people who are not good character can be developed into a good person, the person whose character is less concerned with others can be converted to care for others. In this case it is clear that the character of any human being or group of human beings can be developed, therefore the effort to build the character of young people becomes a very realistic. But the character has more value than that or Character building is a never ending process.
Character education for individuals intended to make
• Recognize different kind of human character.
• Able to interpret and explain the various characters.
• Show examples of character behavior in everyday life.
• Understand the good side character behavior.
https://id.wikipedia.org/wiki/Pendidikan_karakter

Keyword: Character, Education

A. Pendidikan karakter

Pendidikan Karakter Menurut Thomas Lickona adalah suatu usaha yang disengaja untuk membantu seseorang, sehingga ia dapat memahami, memperhatikan, dan melakukan nilai-nilai etika yang inti,

Pendidikan Karakter menurut **Suyanto** (2009) ***mendefinisikan karakter*** sebagai cara berpikir dan berperilaku yang menjadi ciri khas tiap individu untuk hidup dan bekerja sama, baik dalam lingkup keluarga, masyarakat, bangsa, maupun negara.

Pendidikan Karakter Menurut Kamus Psikologi adalah kepribadian ditinjau dari titik tolak etis atau moral, misalnya kejujuran seseorang, dan biasanya berkaitan dengan sifat-sifat yang relatif tetap (Dali Gulo, 1982: p.29),

Pendidikan Karakter Menurut Kertajaya (2010), adalah ciri khas yang dimiliki oleh suatu benda atau individu. Ciri khas tersebut adalah asli dan mengakar pada kepribadian benda atau individu tersebut, serta merupakan "mesin" yang mendorong bagaimana seorang bertindak,

bersikap, berucap, dan merespon sesuatu. http://belajarpsikologi.com/pengertian-pendidikan-karakter.

Ki Hajar Dewantara dalam Supriyoko, 2014 Mengatakan, pendidikan merupakan daya upaya untuk memajukan bertumbuhnya budi pekerti (kekuatan bathin atau karakter). Karakter adalah watak, yaitu pengembangan jati diri manusia itu sendiri, sikap santun kepada orang lain lebih menunjukkan karakter seseorang dari pada fisiknya yang gagah. Karakter merupakan aspek kepribadian manusia, sedangkan aspek kepribadian yang lain adalah intelektual, temperamen, dan keterampilan.

Pendidikan menurut Cholik Mutohir, (dalam Gilang Ilham, 2013) mengatakan makna pendidikan secara sederhana dapat diartikan sebagai usaha manusia untuk membina kepribadiannya sesuai dengan nilai-nilai di dalam masyarakat dan kebudayaannya. Bagaimanapun sesederhananya peradaban suatu masyarakat di dalamnya terjadi atau berlangsung suatu proses pendidikan, karena itulah sering dinyatakan pendidikan telah ada sepanjang peradaban manusia.

Supriyoko (2014), mengatakan pada dasarnya karakter seseorang itu dapat dirubah, dibentuk atau dikembangkan, demikian juga dengan keterampilan, sementara intelektual dan temperamen sangat sulit diubah. Oleh karena itu orang yang karakternya tidak baik bisa dikembangkan menjadi orang baik, orang yang karakternya kurang peduli kepada orang lain dapat diubah menjadi peduli kepada orang lain. Dalam hal ini jelas bahwa karakter setiap manusia atau sekelompok manusia bisa dikembangkan, oleh karena itu usaha untuk membangun karakter generasi muda menjadi suatu yang sangat realistis. Tetapi karakter memiliki nilai lebih dari pada itu atau *Character building is a never ending process.* Artinya membangun karakter manusia itu merupakan suatu proses yang tiada pernah

B. Tujuan Pendidikan Karakter

Tujuan Pendidikan Karakter sebagai sebuah usaha untuk menghidupkan **spiritual** yang ideal. **Foerster** seorang ilmuan pernah mengatakan bahwa tujuan utama dari **pendidikan** adalah untuk membentuk **karakter**, karena **karakter** merupakan suatu evaluasi seorang pribadi atau individu serta **karakter** pun dapat memberi kesatuan atas kekuatan dalam mengambil sikap di setiap situasi Pendidikan karakter pun dapat dijadikan sebagai strategi untuk mengatasi pengalaman yang selalu berubah, sehingga mampu membentuk identitas yang kokoh dari setiap individu dalam hal ini dapat dilihat bahwa tujuan pendidikan karakter ialah untuk membentuk sikap yang dapat membawa kita kearah kemajuan tanpa harus bertentangan dengan **norma** yang berlaku. Pendidikan karakter pun dijadikan sebagai wahana sosialisasi **karakter** yang patut dimiliki setiap individu agar menjadikan mereka sebagai individu yang bermanfaat seluas-luasnya bagi **lingkungan** sekitar.

Sedangkan Pendidikan karakter bagi individu bertujuan agar

- Mengetahui berbagai karakter baik manusia.
- Dapat mengartikan dan menjelaskan berbagai karakter.
- Menunjukkan contoh prilaku berkarakter dalam kehidupan sehari-hari.
- Memahami sisi baik menjalankan prilaku berkarakter.
  https://id.wikipedia.org/wiki/Pendidikan_karakter

Soemarno S, dalam Supriyoko, 2014, ada 6 hal yang perlu diperhatikan dalam membentuk karakter seseorang, (1)Kejujuran, (2) Keterbukaan, (3) Keberanian mengambil resiko, (4)Bertanggung jawab, (5) Memenuhi komitmen, (6) kemampuan berbagi (*Sharing*), James K, Barry, dalam Supriyoko 2014, ada 4 hal yang perlu mendapat perhatian dalam membentuk karakter seseorang, (1) Kejujuran *(honesty),* (2) Orintasi kedepan *(future orientation),* (3) Penginspirasian *(inspiring)* (4) Kompetensi *(Competence)*, Majalah Poesara dalam Supriyoko, 2014, Ki hajar Dewantara menyatakan budi pekerti wajib disampaikan kepada siswa oleh semua guru.

Selanjutnya Ki Hajar Dewantara, Menjabarkan konsepnya 4 tingkatan dalam menanamkan budi pekerti kepada anak didik yaitu (1) syari'lang 1033 at, (2) Hakikat, (3) Tarikat, dan (4) Makrifat.

Berikut ini beberapa karakter yang biasa ditemui dalam kehidupan di Masyarakat yaitu; Pemarah, penyabar, ceria, pemaaf, percaya diri, tidak percaya diri, bijaksana, pendiam, pendendam, pengkhianat, penyayang, penakut, pembenci, pemalas, rajin, sombong, cuek, penghina, m, Jujur, licik, egois, iri, tamak, setia, buas, jinak, eksentrik, hemat, boros, pelit.

Nilai-nilai dalam pendidikan karakter

Ada 18 butir *nilai-nilai pendidikan karakter* yaitu , Religius, Jujur, Toleransi, Disiplin, Kerja Keras, Kreatif, Mandiri, Demokratis, Rasa Ingin Tahu, Semangat Kebangsaan, Cinta tanah air, Menghargai prestasi, Bersahabat/komunikatif,Cinta Damai, Gemar membaca, Peduli lingkungan, Peduli social, Tanggung jawab. Lebih jelas tentang *nilai-nilai pendidikan karakter* dapat di lihat pada bagan dibawah ini

18 Nilai Pendidikan Karakter

Pendidikan karakter telah menjadi perhatian berbagai negara dalam rangka mempersiapkan generasi yang berkualitas, bukan hanya untuk kepentingan individu warga negara, tetapi juga untuk warga masyarakat secara keseluruhan. *Pendidikan karakter* dapat diartikan sebagai *the deliberate us of all dimensions of school life to foster optimal character development* (usaha kita secara sengaja dari seluruh dimensi kehidupan sekolah/madrasah untuk membantu pembentukan karakter secara optimal).

Pendidikan di samping terjadi di masyarakat secara luas pendidikan terjadi pula di tempat-tempat yang formal yakni di sekolah-sekolah, yang mana terjadi interaksi antara guru dan muridnya atau dosen dengan mahasiswanya. Guru adalah orang yang patut *digugu* dan *ditiru*, perilaku yang patut digugu dan ditiru adalah perilaku yang mengandung keteladan. Seorang guru harus menjadi teladan bagi anak didiknya. Dalam Undang-Undang RI No 20 Tahun 2003 tentang Sistem Pendidikan Nasional pasal 40 ayat 2, dikemukan bahwa guru sebagai pendidik dan tenaga kependidikan berkewajiban :

Pertama, Menciptakan suasana pendidikan yang bermakna, menyenangkan , kreatif, dinamis dan dialogis, Kedua, Mempunyai komitmen secara professional untuk meningkatkan mutu pendidikan, Ketiga, Memberi teladan dan menjaga nama baik lembaga, profesi dan kedudukan sesuai dengan kepercayaan yang diberikan kepadanya.

Dedi Supriadi, mengungkapkan, guru merupakan sentral dari semua upaya kegiatan pendidikan dan agen dalam pembaharuan pendidikan. Belajar adalah suatu proses perubahan. Sebagai orang yang patut digugu dan ditiru, maka guru harus memiliki sikap dan perilaku yang harus diteladani dan dapat memberikan perubahan sikap dan perilaku bagi anak didiknya. Keteladanan dalam proses pendidikan merupakan metode yang sangat tepat untuk menjadikan seseorang menjadi manusia yang berakhlak mulia (berakhlaqul Karimah). Keteladan adalah landasan utama untuk menjadi seorang guru yang professional. Seorang guru professional menurut Uzer Usman adalah ; "Dia guru akan memperkaya diri dengan berbagai ilmu pengetahuan untuk melaksanakan tugasnya sebagai pengajar dalam intraksi belajar mengajar, sehingga dengan kemampuannya baik dalam hal metode mengajar, gaya mengajar ataupun penyampaian materi pelajaraan bisa menyukseskan intraksi belajar mengajar atau pun proses belajar mengajar"

Dewasa ini perubahan sikap dan perilaku harus menjadi sasaran utama pembaharuan pendidikan, karena merosotnya nilai moral dan akhlak, menyebabkan keterbelakangan bangsa ini menduduki posisi terendah di bidang pendidikan. Era globalisasi memberikan dampak yang sangat luas bagi pergaulan generasi muda, diantaranya dampak negatif dengan berkurangnya nilai-nilai etika dalam perilaku sosial di masyarakat, pergaulan bebas, narkoba, geng motor, tawuran dan sebagainya menimbulkan keresahan yang sangat besar di tengah masyarakat, mengganggu ketenteraman lingkungan, oleh karena itu agar kemerosotan moral anak-anak kita tidak terlalu jauh terperosok di dalam jurang yang menyesatkan, maka kita sebagai pendidik harus memberi teladan yang baik kepada mereka, di samping kita beri pelajaran dan teladan-teladan yang baik, mari kita arahkan anak-anak tersebut pada kegiatan-kegiatan yang positif salah satunya adalah kegiatan berolahraga.

Menurut Cholik Mutohir dalam Gilang Ilham 2013, mengatakan olahraga adalah proses sistematik yang berupa segala kegiatan atau usaha yang dapat mendorong, mengembangkan, dan membina potensi-potensi jasmani dan rohaniah seseorang, sebagai perorangan atau anggota masyarakat dalam bentuk permainan, perlombaan dan prestasi puncak dalam pembentukan manusia Indonesia seutuhnya yang berkualitas berdasarkan pancasila.

Hanggono 2014, mengatakan pendidikan olahraga adalah pendidikan yang dilaksanakan sebagai bagian proses pendidikan untuk mengembangkan, dan membina potensi jasmaniah dan rohaniah seseorang sebagai perorangan atau anggota masyarakat dalam bentuk permainan, perlombaan, pertandingan, dan kegiatan jasmani yang intensif untuk memperoleh rekreasi, kemenangan, dan prestasi puncak dalam rangka pembentukan manusia yang sportif, jujur, dan sehat.

Oleh karena itu berdasarkan uraian-uraian diatas maka membangun karakter dapat dilakukan melalui pendidikan/ pembinaan olahraga, karena didalam olahraga terdapat unsur-unsur karakter berupa : penyabar, pemarah, ceria, pemaaf, percaya diri, bijaksana, pendiam, penyayang, penakut, pembenci, pemalas, rajin, sombong, cuek, Jujur, disiplin, sportif, dan sehat.

DAFTAR PUSTAKA

Cholik Mutohir, dalam Gilang Ilham, 2013, http://gilangilhamfitriyanto.blogspot.com/2013/04/hakikat-dan-manfaat-olahraga-menurut.html, diakses 13 Februari 2016.

Hanggono,2014, https://www.scribd.com/doc/67285274/ Pengertian-Pendidikan-Olahraga-Dan-Tujuan, diakses 13 Februari 2016

Supriyoko, 2014, Meningkatkan kualitas pendidikan melalui penanaman karakter dan pemanfaatan internet, orasi ilmiah, Wisuda Pascasarjana Unipa Surabaya.

http://ikamulus.blogspot.com/search/label/Pendidikan diakses 11 Februari 2016

http://id.wikipedia.org/wiki/Karakter,diakses 13 Februari 2016

https://id.wikipedia.org/wiki/Pendidikan_karakter, diakses 13 Februari 2013

http://belajarpsikologi.com/pengertian-pendidikan-karakter, diakses 13 Februari 2016

Author's Biodata

Abd.Cholid is lecturer in University of PGRI Adi Buana Surabaya.

.

Variability of non-native English speakers as factor of L2 pragmatic competence: an overview

Nunung Nurjati
University of PGRI Adi Buana Surabaya
nunung.nurjati@gmail.com

Harsono
State University of Surabaya
kangharsono@yahoo.co.au

Abstract

Common understandings between speaker and hearer are things that must be accomplished in interactions. Speaker's intended meaning will not necessarily be the same as it is understood by the hearer. There are factors affecting their understandings. This study reviews some underlying theories and researches related to the topic discussed, as such are Ellis (2008 and 2012) for second language learners, Smith and Nelson (2006) for variability of non-native English speakers, for politeness theories which are reviewed from Labov (1972), Lakoff (1973), Leech (1983), Brown and Levinson (1987). From pragmatic competence point of view some research is also viewed as the grounding basis of review of literatures, they are Bachman (1990), Kasper (1997), and Taguchi (2009).

Key words: ***non-native English speakers, variability, pragmatic competence***

INTRODUCTION

Second language (L2) learners during their acquisition period do not consistently perform a single form or pattern, but they perform difference preferences for the use of one form or pattern during the same period (Ellis, 2012). A variability that L2 learners show is a feature (phonological, lexical, or grammatical) that is performed linguistically in different way. When L2 learners try to communicate in the target language, their language production will show systematic variability across the above mentioned linguistic domains. In his paper, Rahimpour (2006) says that this variation can be attributed to some factors such as interlocutors, topic familiarity, prior knowledge, task condition, planning time and tasks types. Tarone (1979) argues that language varies with a light change of situation. She proposes that the interlanguage of L2 should be viewed as a variable system, a system that changes when a linguistic environment changes. She then reports that performance of second language learners on a written grammar test varied from their performance when attempting to communicate orally. She continues that learners perform differently in a grammaticality judgment task and in oral production.

Non-native English's variability

Ellis (2008) describes 'a good second language learner' by how learners' learning styles vary. He also quotes from the last fifteen years has seen a number of studies of the 'good language learner' (e.g. Rubin, 1973; Stern, 1975; Naiman et al, 1978; Reiss, 1985; Abraham and Vann, 1987). These provide a remarkably consistent picture of the tactics used by successful language learners. Ellis continues that the studies point to four key aspects:

(1) A concern for language form. The good language learner pays attention to form. Indeed, according to Reiss' (1985) study, learning tactics reflecting this approach came out on top in a group of 98 college students studying a foreign language at an elementary or intermediate level. The two strategies the learners reported using most frequently were monitoring and attending to form. Other researchers have also found form-focussing tactics a regular feature of the successful

language learner. Naiman et al (1978), for instance, mention that learners who treat language as a system engage in effective cross-lingual comparisons, analyze the target-language and make frequent use of reference books. These learners also tried to learn from their errors by asking native speakers to correct them.

(2) A concern for communication. Good learners also attend to meaning. Attention to form and to meaning is not mutually exclusive. Learners seem to benefit from alternating between the two. Gerardo, the more successful of the two learners investigated by Abraham and Vann (1987), is a good example. He took a broad view of language, paying attention sometimes to form and sometimes to meaning. In contrast, Pedro, the less successful, was more or less exclusively concerned with meaning and getting by in conversations. All the good language studies have found that successful learners search for meaning and try to engage in real communication by seeking out opportunities for natural use. They make efforts to get their meanings across using a variety of communication strategies.

(3) An active task approach. Good learners are active in their approach. This can manifest itself in different ways. Active learners take charge of their own learning, rather than relying exclusively on the teacher. They are persistent in pursuing goals. In conversation, the active learner introduces new topics and tries to control the direction the discourse follows. But being an active learner does not mean participating in terms of language production. Reiss (1985) emphasizes that her successful learners were typically 'silent speakers'. They listened closely in class and mentally answered questions whether called upon to do so or not. They listened to other students and mentally corrected their errors. They tried to apply new material while silently speaking to themselves.

(4) Awareness of the learning process. Finally, good language learners demonstrate considerable awareness of the learning process and of themselves in relation to this process. They are thoughtful learners who make conscious decisions about what to study and what tactics to employ. They are likely to have a well-developed metacognitive language for talking about their learning and this helps them to monitor how they are progressing. Reiss found that her good language learners were able to give very specific descriptions of how they would approach different learning tasks, while the less successful were often vague and imprecise. Metacognitive knowledge is important because it enables learners to assess their needs, evaluate their progress and give overall direction to their learning.

Learners vary according to whether they lean towards learning experientially or learning stoically. They also vary according to how active they are in their approach. There are many ways of learning an L2 and doubtlessly a learner's approach will reflect what he/she wants to achieve. A learner who wants to be fluent and is not bothered too much with accuracy will elect to learn experientially if he/she can. A learner who wants to pass exams and to achieve a high level of proficiency will probably be more diligent. There are obvious dangers in suggesting that one learning style is better than another. However, the evidence of the good language learner research suggests that to be successful (in the sense of achieving both accuracy and fluency) learners need to pay attention to both form and meaning, to be active (particularly in attending to input) and to take charge of their own learning. The successful learner—in some absolute sense-therefore will try to strike a balance between experiencing and studying the language and will be active, both in the sense of being highly responsive to input and in being self-directed. There may, however, be many ways of achieving a balance and learners may grow to be active as learning proceeds.

Intelligibility, Comprehensibility, and Interpretability

English as international language becomes a foreign or second language has variety the way to sound it. As it is wide spread around the globe, English has been communicated by non-native speakers (NNSs). They are considered either foreign speakers or second language speaker of English has to be understood by its listeners and speakers. When English is learned by NNSs as a foreign or second language it creates identity as bilingual speakers of English (Li in Sharifian, 2009:81). Their identity of bilingual English speakers can be affected by their cultural and geographical featured. It has been known that there are specific featured of NNSs in several areas

of English speakers which bear their own identity as bilingual speaker of English by their accent, pronunciation, grammatical correctness, and discourse-pragmatic appropriacy. To exemplify of this kind is Indian, Singaporean, Chinese, or Japanese English. To standardize English as basic norm for its millions of bilingual speakers, the NNSs seek English basic model regarded British English and American English to be the only two standards (Hu, 2004:31 in Sharifian, 2009:81). More studies investigating the appropriate pedagogic model of English. Based on what Timmis (2002:240-249) investigation on 580 completed questionnaires from 400 responses from students of 14 countries, and 180 teachers from 45 countries, he found out that 67% of the respondents preferred native-speaker pronunciation. Moreover, 68% of all students preferred to be able to use the grammar rule that native-speakers use, even the informal native-speakers use. However students from three inner circle countries: Pakistan, India, and South Africa of which 64% of participants indicated a wish to retain the accent of their countries. Other research conducted by Kirkpatrick and Xu (2002) of 171 Chinese students concluded that few educated Chinese appeared happy to sound Chinese when speaking English even though Chinese English did not seem to be socially acceptable.

As English has been widespread across the globe as an international language, it creates variety of English among its speakers. At this point the concept of intelligibility, comprehensibility, and interpretability has emerged. According to Smith (1992) in Nazari, the term of intelligibility should be defined clearly compared to comprehensibility and interpretability however they are also interchangeably in use (Atechi in Nazari). Intelligibility in a broad sense deals with speaker and listener factors (Li in Sharifian, 2009:105). Intelligibility comes from variety of Englishes around the world (Nazari; Li in Sharifian, 2009; Kachru et al, 2006) which contain meaning that the listeners of English recognize the words or utterance, while comprehensibility refers to words or utterances' meaning and interpretability is the meaning behind the words or utterances. Further, Smith, L. & Nelson, C. E. (2006, 428-445) defines that:

> "This example shows that successful communication in English is assured by the participants exhibiting good pronunciation – the focus of so much attention in ESL and EFL teaching and learning – or even good lexis or grammar; utterances have pragmatic effects which cannot be interpreted without situational, social and cultural awareness. These three categories - intelligibility, comprehensibility, and interpretability – may be thought of as degree of understanding on a continuum of complexity of variables, from phonological to pragmatic with intelligibility being lowest and interpretability being highest"

In a broad sense according to Smith and Nelson that the problems of intelligibility, comprehensibility, and interpretability are due to some combination of speaker and listener factors.

There are some experimental studies concerning intelligibility, comprehensibility, and interpretability in NNSs speaker and listener. One study conducted by Major et al (in Sharifian, 2009) which he proposes modeling on listening material on TOEFL test. The subject of the study is university students in Tokyo and is the potential TOEFL test takers. The result shows that shared native between L2 talkers and listeners would not make the talkers' verbal input more intelligible but L2 listeners perform better by NS talker than by NNS talker.

Pragmatic Competence in Communication

It has been known much previously that second language acquisition has paid attention to pragmatic aspects of language learners. This is from the belief that a full understanding of how formal properties are learnt will not be achieved without examining the way in which these properties are used in actual communication. In this regards the goal of SLA research is to describe and explain learners' Linguistic Competence and Pragmatic Competence (Ellis, 2012).

Pragmatics is the way we convey the meaning through the communication. The meaning includes verbal and non verbal elements and it varies according to the context, to the relationship between speakers, also to many other social factors. Its dynamic growth makes English an international language that connects people all around the world. As a consequence, English can be regarded as the common focus of all English speakers who do not share a language or a culture. As a matter of fact, English is spoken in different settings

and levels of intercommunication. As a result, speakers must know many pragmatic elements in order to avoid inaccuracies and misunderstandings during communication.

Experts in pragmatic define the term differently. Yule (1996: 3), for example, mentions four pragmatic definition, namely (1) the field that examines the meaning of the speaker; (2) field that examines the meanings according to the context; (3) field, exceeding the study of the meaning of the uttered, examines the meaning is communicated or communicated by the speaker; and (4) field that examines forms of expression according to the social distance that limits the participants involved in a particular conversation. Thomas (1995: 22) mentions two tendencies in pragmatics is divided into two parts, first, by using a social point of view, connecting with the pragmatic meaning of the speaker (speaker meaning); and secondly, by using a cognitive standpoint, connecting with the pragmatic interpretation of utterances (utterance interpretation). Furthermore, Thomas (1995: 22), assuming that the meaning of a dynamic process that involves negotiations between the speaker and the listener as well as the context of the speech (physical, social, and linguistic) and the potential meaning of an utterance may, defines pragmatics as a field that examines the meaning the interaction (meaning in interaction.

Leech (1993:9) sees pragmatics as a field of study in linguistics that is concerned with the semantics. His views links which he called semantisisme, which saw the pragmatic as part of semantics; pragmatisms, which saw semantics as part of pragmatics; and complementarisme, or look at the semantics and pragmatics as two complementary fields. Austin (in Thomas 1995: 31) argues that one way to make a good distinction is not a right or wrong according to levels, but by how language is used daily. Through his hypothesis, on which the theory of follow-speech (speech act), Austin argues that the language we do not just say something (to makes statements), but also do something (perform actions). Speech which aims to describe something called connotative and speech aimed at doing something called performative. The first subject to the requirements of truth (truth condition) and the latter is subject to the terms of validity (felicity condition) (Gunarwan 2004: 8).

Pragmatic competence is a critical component in the communicative spectrum due to its attention to the role of the hearer in the communicative process. Widdowson (1978) notes that although students may have learned the rules of linguistic usage, they are often unable to use the language in context. Effective communication, then, can only take place when the message conveyed by the speaker is interpreted appropriately and understood by the hearer (Savignon 1997). In response to the various shortcomings of previous methods and approaches, Communicative Language Teaching (CLT) then emerged as an approach that reflected pragmatic competence through recognition of the interdependence of language and communication. This approach emphasizes language meaning in addition to language form, placing profound emphasis on contextualized communication in the target language. Currently, it serves as the most widely accepted and commonly used approach in the United States. Through the use of authentic materials and small-group work, learners are given the opportunity to use meaningful, purposeful language pertaining to real-world topics (Larsen-Freeman, 2000). More importantly, however, is the acknowledgement of pragmatic competence as an essential component to achieve proficiency in the L2.

Pragmatic competence covers diversity of qualification focused on the use and interpretation of language in contexts. Bialystok (1993) constructs three kinds of abilities covering pragmatic competence: 1) speaker's ability to use language for different purposes – to request, to instruct, to effect change, 2) listener's ability to get past the language and understand the speaker's real intention, particularly at a time the intentions are not directly delivered in the forms of indirect request, irony and sarcasm, and 3) command of the rules by which utterances are strung together to produce discourse and further to create coherence speech by which turn-taking, cooperation and cohesion are its components.

CONCLUSION

As a lingua franca, English which spoken globally, creates variability among its speakers around the globe. As Ellis mentions that variability of L2 learners show is a feature (phonological,

lexical, or grammatical) that is performed linguistically in different way. Not only that, she continuous that when L2 learners try to communicate in the target language, their language production will show systematic variability across the linguistic domains. *While pragmatics is the way we convey the meaning through the communication. The meaning includes verbal and non verbal elements and it varies according to the context, to the relationship between speakers, also to many other social factors. English is spoken in different settings and levels of intercommunication. As a result, speakers must know many pragmatic elements in order to avoid inaccuracies and misunderstandings during communication.* In L2 interaction, pragmatic competence which covers diversity of qualification focused on the use and interpretation of language in contexts needs the three abilities constructed by Bialystok (1993): 1) speaker's ability to use language for different purposes – to request, to instruct, to effect change, 2) listener's ability to get past the language and understand the speaker's real intention, particularly at a time the intentions are not directly delivered in the forms of indirect request, irony and sarcasm, and 3) command of the rules by which utterances are strung together to produce discourse and further to create coherence speech by which turn-taking, cooperation and cohesion are its components.

ACKNOWLEDGEMENT

This paper is part of what has been being discussed and has integral concept with the writer's doctoral dissertation. The publication can be realized with the help of several parties. Sincere appreciation should be delivered to Ministry of Research, Technology, and Higher Education who assists the writer with sufficient funding to get advisory from overseas advisor to enrich the references to get the paper published.

REFERENCES

Bardovi-Harlig, K. 1996. Pragmatics and language teaching: Bringing pragmatics and pedagogy together. In L. F. Bouton (Ed.), *Pragmatics and language learning* Vol. 7 (pp. 21-39). Urbana, IL: University of Illinois at Urbana-Champaign.

Bardovi-Harlig, K., & Dörnyei, Z. 1997. *Pragmatic awareness and instructed L2 learning: An empirical investigation*. Paper presented at the AAAL 1997 Conference, Orlando, March.

Bardovi-Harlig, K., & Hartford, B. 1993. Learning the rules of academic talk: A longitudinal study of pragmatic development. Studies in *Second Language Acquisition, 15*, 279-304

Bialystok, E. 1993. Symbolic representation and attentional control in pragmatic competence. In G. Kasper & S. Blum-Kulka (Eds.), *Interlanguage pragmatics* (pp. 43-59). New York: Oxford University Press.

Cohen, A. 1997. *In search of pragmatic competence: Insights from intensive study of Japanese*. Paper presented at ESL Lecture Series, University of Hawai`i, February.

Cummings, L. 2005. Pragmatics: A Multidisciplinary Perspective. Edinburg: Edinburg University Press Ltd

Ellis, R. 2012. The Study of Second Language Acquisition. Second Edition. Oxford: Oxford University Press

Ellis, R. 2008. *Second Language Learning and Second Language Learners: Growth and Diversity*. TESL Canada Journal/Reue TESL du Canada, Vol.7. No.1. November 1989. http://files.eric.ed.gov/fulltext/EJ404016.pdf (downloaded 16-02-2015)

Gunarwan, Asim. 2004. Dari Pragmatik ke Pengajaran Bahasa (Makalah Seminar Bahasa dan Sastra Indonesia dan Daerah). IKIP Singaraja

Hasbůn, L.H. 2004. Linguistic and Pragmatic Competence: Development Issues. *Filologia y Linguistica* XXX (1): 263-278, 2004

Hymes, D.

Ifantidou, E., & Tzane, A. 2010. Level of pragmatic competence in an ESL academic context: a tool for assessment. *4th International Conference Intercultural Pragmatic*, 2010. http://conference.clancorpus.net/?p=1349 (Accessed on 17 September 2014)

Ishihara, N. & Cohen, A. C. 2010. *Teaching and Learning Pragmatics: Where Language and Culture Meet*. Edinburg: Pearson

PRESENTER'S PAPERS

Kachru, B. B., Kachru, Y., & Nelso, C. L. (Eds.). 2006. The Handbook of World Englishes. Oxford: Blackwell Publishing

Kasper, G. 1997. *Can Pragmatic Competence be Taught?* (NetWorks)[HTML document]. Honolulu University of Hawai'i, Second Language Teaching & Curriculum Center. http://www.nflrc.hawaii.edu/NetWorks/NW06/ downloaded on January 23rd 2014

Kirkpatrick, A. and Xu, Z.C. 2002. Chinese pragmatic norms and China English. World Englishes 21 (2), 268-280

Krisnawati, I. 2011. Pragmatic Competence in the Spoken English Classroom. *CONAPLIN Journal. Indonesian Journal of Applied Linguistics.* Vol.1, No.1. (July 2011)

Leech, G. 1993. The Principles of Pragmatic. London: Longman Group Limited

Li, David.C.S. 2009. Researching Non-native Speakers' Views Toward Intelligibility and Identity: Bridging the Gap Between Moral High Grounds and Down-to-Earth Concerns. In *English as an international language: perspectives and pedagogical issues*. Sharifian, F. (Eds.) Bristol: Multilingual Matters

Nazari, M. Intelligibility and Listeners' Attitude in the EIL Context http://confbank.um.ac.ir/modules/conf_display/conferences/llt/cd30.pdf (downloaded 18-02-2015)

*Rahimpour, M. 2006. Task Complexity and Variation in L2 Learners's Oral Discourse.*https://www.library.uq.edu.au/ojs/index.php/uqwpl/article/.../14/15 *(accessed 18 February 2015)*

Sarifian, F (Eds.). 2009. English as an international language: perspectives and pedagogical issues. Bristol: Multilingual Matters

Savignon, S.J. 1983. *Communicative Competence: Theory and Classroom Practice. Texts and Contexts in Second Language Learning.* United States of America: Addison-Wesley Publishing Company

Scarcela. R. C., Andersen, E. S., & Krashen, S. (Eds). 1990. *Developing Communicative Competence in a Second Language*. Series on Issues in Second Language Research. Boston: Heinle & Heinle Publisher

Smith, L. & Nelson, C. E. 2006. World Englishes and Issues of Intelligibility. In *The Handbook of World Englishes*, edited by Kachru, B. B., Kachru, Y., & Nelso, C. L. 2006. Oxford: Blackwell Publishing

Taguchi, N. (Eds). 2009. *Pragmatic Competence*. Berlin: Mouton de Gruyter

Tarone E. 1979. *Interlanguage as chameleon*. Language Learning, 29, 181-191

Timmis, I. 2002. Native-speaker norms and international English: A classroom view. ELT Journal 56 (2), 240-249

Thomas, J. 1995. *Meaning in Interaction: Introduction to Pragmatics*. London: Longman Group Limited

Yule, G. 1996. *Pragmatics*. Oxford: Oxford University Press

Wijayanto, A. 2014. Variability of refusal in L2: evidence of L1 pragmalinguistic transfer and learner's idiosyncratic usage. *International Journal of Applied Linguistics*. Edited By: Janina Brutt-Griffler and Daniel Perrin. First published 16 October 2014. Online ISSN: 1473-4192

Author's Biodata

Nunung Nurjati, currently is a lecturer of English Education Department, University PGRI Adi Buana Surabaya. Her research areas of interest are not limited in *teaching translation* which has been presented in several conferences and seminars, but also in other areas such as *language assessment* and *pragmatics*. She is now pursuing her doctoral study in State University of Surabaya.

PRESENTER'S PAPERS

Education and Training for Sustainable Competencies in Increasing Teachers' Productivity

M. Subandowo
University of PGRI Adi Buana Surabaya
Email: subadindi@gmail.com

Abstract

Improving teachers' productivity has been of importance and become a necessity for a teacher who has been certified and its implementation relies on the education and training that is efficient, effective and sustainable. Teacher competence is dynamic. It is because of what teachers have previously learned are not necessarily relevant to today's and future development. Increased productivity of teachers is undeniably a necessity. Education and training is the systematic development of knowledge, skills and attitudes needed by someone to perform a task or job. Teacher development programs are a strategic policy to ensure the quality of education in Indonesia. With this program the teacher productivity can be achieved to the fullest along with the development of globalization. The productivity of the teacher in this instance includes pedagogical, personality, social, and professional competencies. Based on the results of this study, the teachers' development brings about a significant contribution to their productivity.

Key words: education and training, productivity

INTRODUCTION

One of the ways to boost the independence and competitiveness of Indonesians in the era of globalization is to develop human resources to compete. Current changes at the global level deal with regulations that are reflected in the establishments of forums, for instance, WTO, APEC, NAFTA, AFTA, and so forth. In response to those changes, we have to convey our readiness to welcome the free trade, which will definitely take place at the level of an increasingly tight competition. Sahlberg (2007) cites that a modern economy with labor market demands people's skills and knowledge which cannot be developed in schools of low quality.

The world community spurs the quality of human resources because those who are able to run fastest are those who will win the competition. Those who fail to produce quality human resource will eventually be spectators (Roza, 2007). Human quality is largely determined by education, and the main actor is a teacher. The superior quality of teachers and their competitiveness will result in survivors in the era of globalization.

Qualified human resources are those who have the knowledge, ability, skills and good attitude in the workplace. Nowadays Indonesia is facing the implementation of the free market of Southeast Asia or commonly known as the ASEAN Economic Community (AEC), which started in 2015. Various government policies have been developed to work on improving the quality of education. They include Law No. 20/2003 concerning the national education system, Law No.14/2005 on Teachers and Lecturers, Minister of National Education Act No. 16/2007 on Standards for Teachers' Qualifications and Competences.

Since Indonesia embarked upon program of decentralization or 'regional autonomy', there has been an increasing demand for local governments to be more oriented to increase their performance. This gives local governments the 'broadest autonomy' not reserved for the central government, in order to 'increase the prosperity of the community, public services and regional competitiveness (Utomo, 2002). Consequently, teachers are slowly demanded to increase their productivity including pedagogic, personal, social, and professional competences. The overall competences are holistic and integrative in teacher's performance. Under the Act the certification

must be completed in 10 years after its enactment. This means that 2015 was the final deadline. However, ironically in 2016 there are still 72,082 teachers in Indonesia who have not been certified. Further facts the certified teacher educators are competing to reach the required maximum hours by the certification. This is not balanced with the competences teachers should continuously develop. In addition, the results of the 2015 teacher competency test (popularly known as UKG) administered by the Ministry of Education and Culture revealed that in terms of the pedagogic and professional competences only 0.2% of the provinces in Indonesia reached the minimum competency standards (popularly known as SKM) nationally-targeted, i.e. average score of 55. This means they used the certification only to improve the quality of physical life. There is no awareness of educating themselves and improving productivity. Therefore, by obtaining a certificate of educators as a whole cannot guarantee that the teacher has had the four minimum competencies as set out in the Act. Therefore there must be education and continuous training to adapt to the development of globalization and the problems that arise in the world of education which is multidimensional as it is now.

However, education in Indonesia still has not made a great contribution to the life of the nation. One factor is the low competences of teachers in exploring the potentials of learners. A learner will have high competences if his or her teacher has high competences. From this context it can be seen that the main problem lies in the productivity of teachers in different levels of education.

LITERATURE REVIEW

Human Resources

According to Jauhar and Subekhi (2012: 1), Human Resource Management (HRM) is part of the management function. If management emphasizes "how to achieve a common goal with others", then the HRM focuses on "good people as subjects or actors as well as the object of the perpetrator". It therefore deals with how to manage people in the organization that are planned (planning), organized (organizing), implemented (directing), and controlled (controlling) in order to achieve organizational goals and obtain results optimally, efficiently, and effectively. According Rival and Sagala (2011: 1), Human Resources Management (HRM) is one of the areas of general management that includes aspects of planning, organizing, implementing, and controlling.

Since 2015 the government has attempted to implement Law No. 20 of 2003, Act No. 14 of 2005, but it seems the government still faces many obstacles to improving the competences through traditional forms of upgrading the teachers. This, however, has various drawbacks. They are inefficient, and often do not have an impact on improvement of teacher performance. Whichever the case is, the increasing demands of teachers' qualifications should still be pursued. Conversely, the productivity of teachers who have been certified is still far from expectations thereby the effectiveness of education and training needs to be studied and better developed.

In order to achieve these objectives a teacher should take part in developing the capability, character, and civilization of the nation for enhancing its intellectual capacity. The teacher is the main actor in the education process in schools. Teacher professionalism is built through mastery of the competencies obviously required in completing the work. Teacher's essential competencies are competences in the field of study, the areas of learning, education and guidance values, and relations and community service. Therefore, an increase in the productivity of a teacher is needed in order to develop and improve the quality of education in Indonesia. Things can be done to improve the quality of a profession, in particular the teaching profession. It can be done in various ways, for istance by conducting workshops, education in the office, comparative studies, and various other academic activities (Soetjipto & Kosasi, 2004: 46).

Education and Training

One of the operational functions of human resource management is to provide trainings. Teacher's competences obtained must be developed in line with the changing times. For instance, through the provision of education and training fo teachers on a competence to be possessed, a teacher can keep up and do a better job in accordance with the national education goals.

Hasibuan (2009: 69) cited that training is an attempt to improve the job satisfaction (technical, theoretical, and conceptual aspects), and morale of employees according their job requirements. Rival and Sagala (2011: 212) further stated that training is a systematic process that can change the behavior, capabilities and expertise of employees in executing a job retention in accordance with the objectives of the organization.

According to Hariandja (2002: 169), there are in general three requirements that must be met in order for an activity may be referred to as training. They are: (1) Training should help employees to enhance their abilities, (2) Training should result in a change in the work habits of employees in his attitude towards work, in the information and knowledge that is applied in everyday work, and (3) Training must relate to a specific job.

Training is therefore intended to increase competencies and skills to do a particular job. According to Dessler (2006: 280), "Training is the process of teaching employees the skills needed to do their jobs". From some previous definitions of the training, it is now clear that the training is held as part of efforts to increase the performance of human resources. It is a cycle that must be done continuously.

Productivity

Productivity according to Nasution (2002: 203) is the ratio between the results of the (output) and all the sacrifices (cost) to achieve results (input). Thus, the value of the output ratio is made to be larger by an increase in one output at a constant level of inputs, reducing the use of inputs, or a combination of both. Furthermore, according to Render and Heizer (2002: 14) "Productivity is a ratio between the amount of resources used (input) with the amount of goods and services produced" Meanwhile, Herjanto (1999: 11) explains that: "Productivity is a measure of how well a resource is regulated and utilized to achieve the expected results ".

Productivity has two dimensions. The former dimension is the activity that leads to the achievement of maximum performance, namely the achievement of targets relating to the quality, quantity, and time. The latter is the efficiency related to attempts to compare the input actually used or how the work is performed (Umar, 2009).

Basically productivity is what a teacher does in such a way that affects how much their contribution is to the intellectual life of the nation. To increase the quality of teachers in the organization can be done through education and training. Many factors affect the productivity of teachers, including the competence/ability of teachers to manage the learning process. Competence is the basic characteristics that can be attributed to an increase in the performance of individuals and teams. Competences can be broken down into knowledge, skills, and abilities (Mathis & Jackson 2002: 238). From this sense it can be inferred competence will be associated with improved performance. If performance increases, teacher's productivity is also likely to increase as well. In accordance with the Act, the productivity of teachers should be improved is the pedagogical competence, personality competence, social competence, professional competence.

Pedagogical competencies include understanding of the learners, the design and implementation of learning, evaluation of learning outcomes, and the development of learners to actualize various potentials. In detail each subcompetence is manifested into essential indicators as follows. (1) The subcompetence of profound understanding of learners has the essential indicators: understandinging learners by utilizing the principles of cognitive development; understanding learners by utilizing the principles of personality; and identify entry behaviors of learners. (2) Designing learning, including understanding the educational foundation for learning. This Subcompetence has essential indicators: understanding the foundation of education; applying the theory of teaching and learning; determining the learning strategies based on the characteristics of learners, competency to be achieved, and teaching materials; and developing a lesson plan based on the strategy chosen. (3) The subcompetences of implementing learning has an essential indicator: arranging learning setting; and implementing a conducive learning. (4) The subcompetence of designing and implementing learning evaluation has essential indicators: designing and implementing evaluation (assessment) process and learning outcomes on an ongoing basis by various methods; analyzing the results of the evaluation process and learning outcomes to

determine the level of mastery learning; and utilizing the results of assessment of learning to improve the quality of learning programs in general. (5) The subcompetence of developing learners to actualize his potentials has the indicators: facilitating learners to develop various academic potentials; and facilitating learners to develop a range of nonacademic potentials.

Personality competencies. A teacher is an important factor for the success of students learning. Based on what Darajat (in Shah 2000: 225-226), Surya (2003: 138), Anwar (2004: 63), and Arikunto (1993: 239) have suggested, it can be concluded that personality competence is related to the attitudes, orally or deed which can be used an example or role model as a teacher having consistency in action and speak. Because teachers are the second parents of a student, the teacher must have the excellent softskills or personality of noble, wise, authoritative, source of inspiration and a role model for learners ". The indicators of of the subcompetence are: (1) attitudes, and (2) exemplary.

Social competencies are the ability of teachers to communicate and interact harmoniously with students, fellow teachers, staff, parents/guardians of students and the surrounding community. The indicators are that teachers are able to communicate and get along harmoniously students, fellow educators, and staff, as well as their parents/guardians of students and the surrounding community. The components of indications of social competence are suggested by Adam (2003), La Fontana and Cillesen (2002), Rydell et al. (1997), (Waters et al in Rydell, 1997). It can be concluded that the aspects of social competence is an aspect of prosocial orientation (prosocial behavior) consisting of philanthropy (generosity), empathy, understanding others, conflict resolution (conflik handling), and helpfulness as well as the social aspects (social intiative) consisting of being active to take the initiative in social situations and behaviors that attract (withdrawal behavior) in certain situations.

Professional competencies. A teacher must have the essential competences they require in order to be effective in the classroom. It is work that is professional and a job that can only be done by those who are specifically prepared for that and not the work done by those who, unable to obtain another job (Usman, 1995: 14). Meanwhile, according to the Government Regulation (PP) No. 18 Year 2007 on Teachers Professional competence in question in this case is the ability of teachers in the mastery of subject matter, broad and deep, for instance, having the ability to master the science at appropriate educational levels and types.

Barlow (1985: 132) states that teacher competence is "the ability of teacher with responsibility to perform his or her duties appropriately,while the Ministry of Education (1982: 51) states that the competence refers to the ability to implement what is acquired through education or training. Therefore, to improve the productivity of teachers needs sustainable educational and training stages.

RESULTS AND DISCUSSION

Education and Training

Education and training are an integral part of teacher professionalism development to increase the four competences. Education and training seeks to develop intellectual abilities and personality of the teacher. Furthermore, according Nitisemito (1996: 122), education and training is an activity that aims to improve attitudes, behavior, skills and knowledge of teachers or employees in accordance with the goals of a company. Evaluation of education and training is essential for individuals or organizations. The purpose of this evaluation is to determine the extent to which education and training activities have reached the goal. Productivity comes to the end result that is how big the final results obtained in the production process. In this case it cannot be separated from efficiency and effectiveness. Speaking of productivity cannot be separated from two things. Further development of the competence of teachers is not just a slogan and discourse alone, but it in fact can be a vehicle for improving the quality of education in general.

Grifone, (1978) Ajibade, (1993) Adeniyi, (1995) and Arikunto (1999) have attracted much attention due to the impacts of education and training. It is a way to gain more new knowledge. While Akintayo (1996), Oguntimehin (2001) and Graig (1976) have identified several training functions as follows: increasing productivity, improving quality of work; improving the skills,

knowledge, understanding and attitudes; increasing the use of tools and machinery; reducing waste, accidents, turnover, tardiness, absenteeism and other overhead costs, eliminating obsolesce in skills, technology, methods, products, and capital management, etc.

Education and training constitutes to be an alternative teacher qualification improvement more likely to be implemented through education and training. Variety of operational work that can be implemented for the development of teacher competence covers a wide range of activities, including: (1) upgrading (conventional), (2) seminars and workshops, (3) the pre and in-service, (4) lesson study, (5) further studies; (6) certification, (7) education and pre-service and in-service training, (8) the evaluation of performance, and (9) the supervision and oversight.

Each of these efforts requires a well-planned setup by maximizing potential and minimizing weaknesses. Related to education and training programs, orientation to the achievement of the competencies expected to be completely implemented in a comprehensive and systemic way. The demand for teachers to be proactive and anticipatory of a variety of educational innovation requires effective efforts and efficient development of competence and knowledge of teachers on an ongoing basis through various forms of training.

Professional development of teachers includes increased competence, productivity and welfare. Teachers as professionals are required to continuously improve the ability, insight, and creativity.

The image of the teacher as a profession in order to gain public trust needs the improved quality of productivity. The strength of a professional existence depends on public confidence. People believe that education in schools can only be acquired from the teachers. Public confidence is a key factor to strengthen the identity of the profession and allow members of the teaching profession to perform its functions in a professional way. This is consistent with the purpose of the certification of teachers, namely: (1) determining the eligibility of a person in performing the duties of a learning agent; (2) improving the quality of the process and outcomes of education; and (3) improving the professionalism of teachers (Dikti, 2006).

This reflects a large amount of the load and costs is to be incurred by the Government of Indonesia to improve the quality of education. Ironically, the government's efforts would be in vain when the performance of teachers who have been certified cannot be better than the performance of teachers before being certified. This can happen when, after the certification, the teacher performanceis declined because it is no longer rated and there are no sanctions. Therefore it is necessary to evaluate the performance of the teachers who have been certified sustainably.

It is in accordance with the Law of the Republic of Indonesia Number 20 Year 2003 on National Education System. It states that the position of teachers as educators are professional positions. To that end, professional teachers are required to continually evolve with the times, science and technology, as well as community needs, including the need for qualified human resources. They have the capability to be able to compete in regional, national, or international forums. This is reaffirmed by the Law of the Republic of Indonesia Number 14 Year 2005 on Teachers and Lecturers which regards teaching as a profession that is aligned with the lecturers at the college level.

Training has several long-term benefits that help employees have a greater responsibility in the future. Employees should be trained and developed in specific areas to reduce and eliminate the ugly little habits or to learn new skills to improve their work performance.

Implementation of education and training is not an activity of which the outcomes can be directly perceived since training is a process of positive habits. It should always be started again if we want the training materials internalized within the individual. According to Gomes and Balkin (2002: 135) training is any attempt to improve performance in a particular job being in charge of.

Training is defined as a joint activity between experts and learners working together in order to effectively transfer information from experts to learners to improve their knowledge, attitudes and skills in order that the learners can perform a better job in the future. Training is usually categorized into on the job and off the job. On the job training is usually effective for jobs requiring expertise. Off-the-job training would be more effective for training on concepts and ideas. Furthermore Hariandja (2002: 184-185) points out that there are two forms of training

method. They are (1) on the job training to train someone for a job while working and in the work setting, and (2) off the job training, which is done outside of the work setting or on location or facilities.

Education and training helps produce the right quality and quantity in generating skills in the world of industry. Skills are a key to technological development (Thee, 1998; Lall, 1996). Basically, education and training aims at enhancing the capabilities and expertise of teachers so that they have the competence to accomplish their work. There is a fact, in relation to the activities of teachers in schools, shows that education and training have a significant effect on job performance. Studies conducted by Mayer and Schermorhorn (2003) revealed that the empowerment of member organizations through education is one determinant of the continuance commitment. Similarly, with the opportunity to participate in work with a high level of involvement is one determinant of the value of commitment. Lam and Zhang (2003) in their study showed that the training and development opportunities on an ongoing basis, especially for new members, made them continue to grow to pursue ambitions and their dreams and ultimately made them more independent in attachment to work It was also a very important factor to improve their work performance towards the organization and the work that was involved. Lee et al. (2006) in his study also indicated that when a member had the opportunity to participate in the organization and was given training in accordance with the field work and in the end he or she had the required competence for the work. The study findings by Tharenou et.al (2007), Singh and Mohanty (2012), Thang & Drik (2008), Olaniyan & Lucas (2008), Bowra et al., (2011) showed that education and training had a positive impact on productivity. More teachers are well trained and have more experience tended to produce students who have greater ability and with fewer discipline problems (Clotfelter et al., 2006; Feng, 2005).

Theoretically there are some views on the relationship between the implementation of a training program and productivity. Among others, according to Nasution (1994: 70) "with an increase in expertise, knowledge, and insight into, the attitude of the employees on his duties with the knowledge gained in education and training will change behavior, in order to obtain high productivity ". Kussriyanto (1993: 10) further explained as follows: "education and training to increase the experience and improve job skills have the most direct impact on productivity. These development activities are promising growth in productivity continuously ".

Based on the above explainations, it can be concluded that continuing education and training programs aims to improve the knowledge, skills and attitudes for the better achievement of teacher job performance. The goals to be achieved by a school are to improve teacher effectiveness and maintain stability. In order to meet the demands and the current task and especially to answer the challenges of the future, education and training is a must.

According Zamroni and Jalal (2006) the provision of education and training for teachers can be distinguished based on the type of education and training as well as its implementation, namely:

1. Education and training for the professionalism of teachers is intended for the provision of knowledge and skills related to classroom teaching and learning situation for education in accordance with the Law on National Education System. Their organizers range from the local, provincial to national level.
2. Education and training of professionalism subjects-teachers constitutes the provision of knowledge and skills that can add insight knowledge of the field of study or subjects and can be applied to students through teaching and learning. The organizers also range the local, provincial to national level.

In connection with the trainings of teachers, according to Zamroni and Jalal (2006), it may be carried out through a variety of programs:

1. Training through Education and Teacher Training Program (PPPG) and Institutions
2. Education Quality Assurance (LPMP).
3. Guidance through Subject Teachers Council (MGMPs).
4. Empowerment for Subject Teachers Association.
5. The awarding and protection for teachers.

6. Completion of the Decree of the Minister of Education on the number of credits for a teacher.
7. Increasing the frequency of teacher ratings of credit rate.
8. Development of teacher professional development activities.
9. Improving the understanding of teachers towards the School-Based Curriculum (KTSP).

The purpose of education and training according to Simamora in Sulistiyani & Rosidah (2003: 174), namely: (1) improving performance; (2) updating the expertise of employees in line with advances in technology; (3) helping resolve operational issues; (4) orienting employee towards organization; (5) meeting the needs of personal growth; (6) improving the efficiency and effectiveness of employees in achieving predetermined targets. With the implementation of sustainable teacher development programs productivity can be improved as teachers through trainings at the Institute for Education Quality Assurance (LPMP) and Subject Teacher Council (MGMPs), as well as giving insight to teachers about the curriculum.

CONCLUSION

Education and training of teachers for their continuing competency can increase the productivity of teachers. This is due to the fact that the education and training of teachers have seen the weaknesses and the potential to optimize them so that they can contribute to the intellectual life of the Nation and to be able to compete on in the era of globalization. This requires the full support of the central and local government for sustainable competence development of quality and so that the productivity of teachers is in line with expectations and the teachers will learn a lifetime to teach a lifetime. This should be supported by appropriate training methods. The essence of the training itself is relevant to the needs of teachers for the intellectual life of the Nation, and by training instructors who have professional capabilities and competences in the implementation of the trainings.

REFERENCES

Mangkunegara, A.A.A.P. (2004). *Manajemen Sumber Daya Manusia Perusahaan*, Bandung: PT. Remaja Rosdakarya.

Adam, S. (2003). *Teori Pertumbuhan Ekonomi Perencanaan dan Pembangunan*. Jakarta: PT. Raja Grafindo Pustaka. Jakarta.

Adeniyi, O. I. (1995). Staff training and development. In Ejiogu, A; Achumba, I. Asika (eds). *Reading in Organizational Behaviour in Nigeria*. Lagos: Malthouse Press Ltd, p.p. 159-167.

Ajibade, E. S. (1993). Staff development and in-service for teachers. In Ajibade Emia (Ed). *Nigerian Educational issues policies and practice in the eighties and beyond*. Publication, p.p. 147-157.

Arikewuyo, M. O. (1999). Improving teachers' productivity in Nigeria. In Adesemowo, P. O. (Ed). *Basic of Education*, Lagos Triumph Books Publishers, p.p. 102–109.

Arikunto,. 1993. *Manajemen Mengajar Secara Manusiawi*. Jakarta: Rineksa. Cipta

Barlow, D. L.(1985). *Psychology: The Teaching Learning Process*. Moody Publishers

Barlow. (1985). *Supervision and Teacher: A Private Coldwar*. Berkeley.

Bowra, Z. A., Sharif, B. & Niazi, M. K. (2011). Impact of human resource practices on employee perceived performance in banking sector of Pakistan. *African Journal of Business Management*, 6(1): 323-332.

Clotfelter, C. T., Ladd, H. F. & Vigdor, J. L. (2006). Teacher-student Matching and the Assessment of Teacher Effectiveness. *Journal of Human Resources*, University of Wisconsin Press, 41(4).

Depdiknas, *Undang Undang Nasional RI No. 20 Tahun 2003. Tentang sistem Pendidikan nasional*, Jakarta: Depdiknas.

Depdiknas, *Undang-undang Nomor 14 tahun 2005 tentang Guru dan dosen*, Jakarta: Depdiknas.

Dessler, G. (1997). *Manajemen personalia*. Edisi Ketiga (Terjemahan dari Agus Dharma). Jakarta: Erlangga.

PRESENTER'S PAPERS

Feng, L. (2005). *Hire Today, Gone Tomorrow: The Determinants of Attrition among Public School Teachers*. Retrieved from http://files.eric.ed.gov/fulltext/ED493836. pdf on 15 Desember 2015

Gomez-Meija, L.R., & Balkin D. B. (2002). *Compensation, organizationa; strategy and firm performance*. Cincinnati: South-Western Publishing Co.

Grifon. (1978). *Review of Penitentiary Education and Training, 1978-1979: Douglas K. Griffin*. Ontario Institute for Studies in Education.

Hadis, A. (2006) . *Manajemen Mutu Pendidikan*, Jakarta: Alfabeta

Hariandja. (2002). *Teori motivasi dan aplikasinya*. Jakarta: Rineka Cipta.

Hasibuan, M. S.P. (2009). *Manajemen Sumber Daya Manusia*, Jakarta: PT Bumi Askara.

Herjanto, E. (1999). *Manajemen Produksi Dan Operasi*. Jakarta: PT.Gramedia Widiasarana Indonesia.

Keputusan Menteri Pendidikan Nasional Nomor 16 tahun 2007 mengatur tentang standar kualifikasi dan kompetensi guru.

Kussriyanto, B. (1993). *Meningkatkan Produktivitas Karyawan*. Jakarta: LPPM dan Pustaka Binaan Pressindo

Lall, S. (1996). *Learning from the Asian Tigers: Studies in Technology and Industrial Policy*. London: Macmillan Press.

Lam, T., and Zhang H.Q. (2003). *Job satisfaction and organizational commitment in the hongkong fast food industry. International Journal of Contemporary Hospitallity Management.* P. p. 214-220. MCB UP Limited (ISSN 0959-6119).

Lee, Y. K., Nam F. H., Park D. H., & Lee K. A. 2006. What factors influence customer-oriented prosocial of customer-contact employees? *Journal of Service Marketing*, 20(4), p. p. 251-264.

Mathis, R. L dan Jackson J, H. (2002). *Human Resoursce Management,* Jakarta: Salemba Empat.

Nasution, M. (1994). *Manajemen Personalia*, Jakarta : Djambatan.

Nasution. (2009). *Metode Research*. Jakarta: Bumi Aksara.

Nitisemito. (1996). Kepemimpinan dan pengaruhnya terhadap perilaku citizenship (OCB), kepuasan kerja dan perilaku organisasional (Penelitian empiris pada Kabupaten Kebumen). *Jurnal Riset Ekonomi dan Manajemen*, 2 (2), p.p.34-52.

Olaniyan, D. A. & Ojo, L. B. (2008). Staff Training and Development: A Vital Tool for organizational Effectiveness. *European Journal of Scientific Research*, 24(3), p.p. 326-331.

Render, B. & Heizer, J. (2002). *Prinsip-Prinsip Manajemen Operasi*. Jakarta: Salemba Empat.

Rivai, Veithzal & Sagala, E. J. (2011). *Manajemen Sumber Daya Manusia Untuk Perusahaan*. Jakarta: PT Raja Grafindo Persada.

Roza, P. (2007). *Pendidikan dan mutu manusia. Jurnal Sosioteknologi*. Edition 12 Year 6, Desember.

Rydell. A.M., et. al. (1997). Measurement of Two Social Competence Aspect. In Middle Childhood. *Journal of Development Psychology*. 33 (05), p.p. 824-833.

Sahlberg, P. (2007). Education policies for raising student learning: the Finnish approach. *Journal of Education Policy*, 22 (2), March 2007, p. p. 147–171.

Schermerhorn. (2003). Employee intentions to quit: implication for employee attitude surveys. *Journal of Voctional Behaviour*. p. p. 1-3.

Sidi, I. D. (2001). *Menuju Masyarakat Belajar Menggagas Paradigma Baru Pendidikan* Jakarta: Penerbit Paramadina and PT. Logos Wacana Ilmu.

Singh, R. & Mohanty, M. (2012) .Impact of Training Practices on Employee Productivity: A zomparative Study.*Interscience Management Review*, 2(2), p.p. 2231-1513.

Soetjipto, K. R. (2009). *Profesi Keguruan*. Jakarta: Rineka Cipta.

Subekhi, A. & Jauhar, M. (2012). *Pengantar Manajemen Sumber Daya Manusia (MSDM)*. Jakarta: Prestasi Pustaka.

Sulistyani, A. T. & Rosidah. (2003). *Manajemen Sumber Daya Manusia*. Yogyakarta: Graha Ilmu.

Surya, M. (2003). *Psikologi Pembelajaran dan Pengajaran*. Bandung: Yayasan Bhakti Winaya.

PRESENTER'S PAPERS

Syah, M. (2001). Psikologi Pendidikan Dengan Pendekatan Baru. Bandung: PT. Remaja Rosdakarya.

Thang, N. N., & Buyens, D. (2008). *Working paper training, organizational strategy, and firm performance*. Economics & International Business Research Conference, 1-31.

Tharenou, P., Saks, A. M. & Moore, C. (2007). A review and critique of research on training and organizational-level outcomes. *Human Resource Management Review* 17 (3), p.p. 251-273.

Thee K. W. (1998). Determinants of Indonesia's Industrial Technology Development. In H. Hill and Thee K. W.(eds.). *Indonesia's Technological Challenge.* Singapore: Institute of Southeast Asian Studies.

Umar, H. (2009). *Metode Penelitian untuk Skripsi dan Tesis Bisnis*. Jakarta: Rajawali Pers.

User, U. (1995). *Menjadi Guru Profesional*. Bandung: Remaja Rosdakarya.

Utomo H. (2002). *Kebijakan Dunia Pendidikan di Indonesia*. Bandung: Rineka Cipta.

Zamroni & Jalal, F. (2006). Paper Presented on National Seminar on Teachers' Competences and Professionalism on 7 November 2006.

Author's Biodata

M. Subandowo, currently is a lecturer of University PGRI Adi Buana Surabaya.

PRESENTER'S PAPERS

The Development of M-Learning for Mathematics Subject

Hartanto Sunardi
University of PGRI Adi Buana`
Jl. Ngagel Dadi II, Surabaya, Indonesia
Email: hartanto.unipasby@gmail.com

Abstract

Mathematics is one of the subjects taught from primary to higher education. This fact should make the students familiar with the material taught and understand the subject well. But the fact is that the subject is not much in demand by students for being elusive, even frightening. This is due to the nature of its materials is hierarchical. The nature of this hierarchy requires students to have the early ability to learn the math materials. The problem is that the early ability of learners is rarely handled well. And with no prior knowledge of learners, learners will not be able to follow the further study of the materials. Therefore, ways must be found so that the problems of learners' early ability and mastery of teaching materials can be handled properly. One way of handling this is by providing media that can be used independently by students to (1) detect and improve the early ability, (2) control of learning materials, and (3) to detect whether a learner has mastered the teaching materials. Before the m-learning was tested, the feasibility of materials and media were tested by subject matter experts. At the time of the trial, the assessment was conducted by teachers and students as the users. The expert assessment and user of the materials were analyzed using the Likert scale. Based on this scale it is concluded that (1) the subject matter experts assessed that m-learning produced was very feasible for use as a medium of learning, (2) the students found out with this medium that they can know and be able to increase the early ability it has, so that confidence and interest in participating in the learning of mathematics is increasing, (3) the educators found m-learning media is helpful in increasing the effectiveness of learning mathematics. This is because all of the stages of learning were included in this media, so the media can be used to supplement the learning process in the classroom.

Keywords: Effectiveness of Learning, Interest in Learning, M-Learning, Likert scale, Mathematics

INTRODUCTION

Mathematics is one of the important subjects in various levels of education, from primary and secondary education, to higher education. It can be seen from the fact that mathematics is one of the test materials at each entrance test at every level of schooling. The fact that mathematics is taught at every level of schooling should make students familiar with the materials of mathematics and understand it well, but in reality the subject is not much in demand by students for being elusive, even frightening. The hierarchical nature of the mathematical materials is a double-edged knife. One side will cause difficulties which are difficult to overcome, if the teaching material prerequisites are not controlled (influence of mastery of the material prerequisites can be seen in Astutim, 2015; Ahmadi, 2015; Grace et al., 2016), and Fadila, 2015).

On the other hand the hierarchical nature is a natural event that a man could run before he should be able to walk and before they can walk he should be able to stand. Thus, the actual hierarchical nature is something that has been running naturally in human life. Each child has been learning about something that is hierarchical and every adult has made learning about something that is hierarchical. Thus, the hierarchical nature of the mathematical material is very beneficial for educators and learners who have experienced and do the same things in everyday life. To reap the

benefits of the nature of the hierarchical materials of mathematics, educators and learners should study mathematics as a study material about running, i.e. do it step by step from mastery of the prerequisite to the material that will be studied. The difficulty in mastery of mathematics is often triggered by the detection of the early ability of the material as the prerequisites of learners. This results in the ineffectiveness of failure even in mathematics. Therefore, before delivering the teaching materials, educators must first determine the extent to which students have mastered the prerequisites material. If the detection is done, the educators can start the lesson of the initial knowledge of learners. The problem that then arises is how about the early ability of learners is rather far from the required early capabilities. This poses a big dilemma that if there is improvement of the early ability of learners, the curriculum demands are not met, otherwise if the early ability is not handled, students will not master the teaching materials well. To overcome this, the educator as a facilitator is required to find media that can overcome this situation (influence of media on learning products can be seen in Aemi et al., 2015; Setiawan et al., 2013; and Hirtanto et al., 2013).

Other problems are frequently encountered during the learning, educators usually are very dominating the activities in the classroom and the students are in a passive position. They will be active if educators ask them to perform certain activities, such as answering questions asked or told what problem is on the board. They rarely ask questions and do the problems on their own initiative. This habit of passivity of learners is not something that arises suddenly, but a habit that has been nurtured since they were in the previous education level. This passivity is usually caused by lack of trust of learners in mastering teaching materials. Therefore, in order to familiarize the students to be more active in learning is to improve the mastery of teaching materials by learners. Thus the media that can be used learners to improve mastery of materials are required. The mathematics learning can be given in the following phases: (1) the ability to detect early ability of learners and it is required to do repairs on prior knowledge of learners, (2) to motivate learning, (3) to instill the concept of teaching material, and (4) Evaluation of concept mastery of teaching materials.

If all the above stages of learning are conducted in the classroom, educators will have difficulty regulating the learning time because the time available would not be sufficient. It required media that can take some of the steps above. At this time a lot of media that can be used are both offline and online. The use of Macromedia Flash-based learning and the power point has been widely used offline, while e-learning is one of the online learning (the effect of using power point towards learning can be seen in Setiawan et al., 2013). Media that is currently being widely discussed is the m-learning, i.e. learning by using a mobile phone as a learning tool. Learning by m-learning allows learners to study teaching materials without having limited space and time. In addition, the use of m-learning will reduce the negative use of mobile phones by learners.

Based on the preliminary studies in SMPN 48 Surabaya it was found out that learning model implemented by educators in the classroom is still conventional despite using PowerPoint software. The use of software power point is still passive, in the sense that it is not accompanied by activities which allow learners to use the media as a means of self-learning. Integrating the media with power point software into media that can be used independently and the media put in a cell phone, learners will be able to use it as a means of self-learning.

Based on the discussion above, the authors are interested in using the m-learning model with software of learning by power point. The election of this power point is because educators are very familiar with this software, making it easier for educators to use it. Thus educators only think about how to structure a systematic teaching of materials that can facilitate learners to master the

materials The product of development of this model would be tested for the Mathematics lesson in Class VIII of SMPN 48 Surabaya.

Research Methodology

The research procedure is described as follows:

Research Design

The present study aimed to develop a model of learning with m-learning for mathematics and be done with the following steps:

a. Designing a learning model by using *m-learning*.
b. Testing the M-learning models took two stages: i.e test of the use of the model and test by experts. The expert test was conducted to determine the suitability of the product of development with the content and instructional design. While testing the product of development is to determine the level of the attractiveness and usefulness of the product. The process of testing the use of product development is to use the design by Dick & Carey. With this design, the study was conducted in a group with one treatment. The effect of treatment is the level of the attractiveness and usability level of the learning model of m-learning.

Research Subjects

The subjects were the learning experts who examined the validity of the learning model of m-learning, ten students of class VIII F of SMPN 48 Surabaya, and educators in SMPN 48 Surabaya that tested the attractiveness and usability of the m-learning teaching model. Experts of learning materials of Bachelor's Degree Program is a lecturer of Mathematics, University of Airlangga. While educators in SMPN 48 Surabaya are the researchers themselves as educators in SMPN 48 Surabaya and Dra. Saptriana as a teacher of mathematics at SMPN 48 Surabaya. The ten students were drawn randomly from class VIII F in academic year 2015/2016.

Model and Procedure of Development

The model was developed using seven stages procedures and test of product development, they are described as follows: (1) analysis of needs, (2) identification of resources that meet the needs, (3) identification of specifications of the product desired by users, (4) product development, (5) internal test : test of specifications and test of operation of the product (6) external test: test of the usefulness of products by the users, and (7) product

The development procedure is done through five stages namely: (1) determine the model that will be developed, (2) identify the syllabus subjects, (3) the preparation of development by following the model by Dick & Carey, (4) development of a prototype which comprises: (a) instructions, (b) competency standards, (c) basic competences, (d) competence achievement indicators, (e) description of contents, (f) example/exercise/assignment, and (g) test of competences, and (5) design and conduct formative evaluation consisting of: (a) a review of content by design and model experts, (2) individual testing, and (3) the group trials.

Try-out of Product

The product trials were conducted after the product was made. The product testing aimed to determine whether the resulting product fit for use or not. The product trials also looked at the extent to which the product was made to be in line with the goals and objectives were achieved.

The results produced should meet the instructional and performance criteria (presentation criteria). The experiments were performed three times: (1) tests by experts (2) test conducted on small groups as users of the product; (3) field testing. With these trials, the quality of product developed has been tested empirically.

Form of Data

In the trials, the data were used as the basis for determining the effectiveness, efficiency and attractiveness of the product. The types of data collected were customized with the information needed about the products that are developed and the learning objectives to be achieved.

Presentation of the data is associated with the design of M-Learning media and the subject of specific tests. The data regarding the content and presentation of M-Learning is made for the subject matter experts, while the usefulness of M-Learning is done by the users of the product, i.e. educators and learners.

Technique of Data Collection and Instrument

The techniques of collecting data included interviews and questionnaires with the instruments developed by the researcher.

Technique of Data Analysis

The data analysis technique used the Likert scale with the following procedures:

1) Specifying the maximum score (denoted by M)
2) Calculating the total score of the questionnaire results (denoted by TS)
3) Calculating the index% (denoted by I_%) with the formula

$$I_{\%} = \frac{TS}{M} \times 100$$

The qualification of the questionnaire results is summarized in Table 1.

Table 1. Qualification of Questionnaire Result

Range of scores	Qualification
$I_{\%} < 20$	Very poor
$20 \leq I_{\%} < 40$	Poor
$40 \leq I_{\%} < 60$	Fair
$60 \leq I_{\%} < 80$	Good
$I_{\%} \geq 80$	Very good

Discussion

Analysis of Test of Materials

Analysis of Test of Materials was done using the Likert scale. The results of questionnaires earned a value of I%. The I% value obtained was used as the basis for determining the classification of expert assessment of the material as contained in the following table.

Table 2 Data of Quality of Materials of *M-Learning* Model by Validation of Experts

No	Types of Device	Aspects to evaluate	Expert 1	Expert 2	Total
1	Materials in *M-Learning*	Relevance with syllabus, particularly basic competences, and competence achievement indicators	5	5	10
		Relevance with learning strategies in the Lesson Implementation Plan (RPP)	5	5	10
		Truthfulness of content	4	5	9
		Clarity of content	5	4	9
		Sequence of content	5	5	10
		Comprehensibility	5	5	10
		Completeness of content	5	5	10
		Adequacy of learning resources	4	4	8
		Total	38	38	76
		I %	95	95	95
		Classification	VG	VG	VG

Based on the calculation and classification in Table 2, it shows that the classification of the m-learning is 'very good'.

Table 3 Data of Quality of Learning Media of *M-Learning* by Validation of Experts

No	Types of Device	Aspects to evaluate	Expert 1	Expert 2	Total
1	Media of *M-Learning*	Clarity of instructions for use	4	5	9
		Presentation	4	4	8
		Coloring	5	4	9
		Use of fonts	4	5	9
		Effectiveness of use of audio	5	4	9

No	Types of Device	Aspects to evaluate	Expert 1	Expert 2	Total
1	Media of *M-Learning*	Effectiveness of use of images	5	5	10
		Standards and clarity of language	5	5	10

No	Types of Device	Aspects to evaluate	Expert 1	Expert 2	Total
		Inter-page relations	5	4	9
		Total	37	36	73
		I %	92.5	90	91.25
		Classification	VG	VG	Vg

Based on the calculation and classification in Table 3, it shows that the classification of media of m-learning is very good, so it is worth using.

Analysis of Data of Evaluation of *M-Learning* Model by Learners and Educators

The analysis of data of validation of *M-Learning* Model by learners and educators is described in the following table.

Table 4. Data of Evaluation by Learners Regarding the *M-Learning* Model

Questionnaire Item No.	Learners' Item Responses										Total
	Stage I					Stage II					
	1	2	3	4	5	6	7	8	9	10	
1	5	5	5	5	5	4	5	4	5	5	48
2	4	4	4	4	5	4	4	4	5	4	42
3	5	5	5	2	5	5	5	5	2	5	44
4	5	4	5	5	2	5	5	4	2	4	41
5	5	2	5	4	4	4	5	4	5	5	43
6	5	4	2	4	4	2	4	2	5	2	34
7	5	5	5	4	5	4	4	5	5	5	47
Total	34	29	31	28	30	28	32	28	29	30	299
I %	97.1	82.9	88.6	80.0	85.7	80.0	91.4	80.0	82.9	85.7	85.4
Classification	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA

Notes: SA = strongly agree

Based on the results of the calculations in Table 4, it indicates that the assessment of learners on the m-learning media at the trial phase I and phase II are very amenable, so the m-learning is very interesting and may increase the interest of learners

Table 5 Data of Evaluation by Educators on the Use of *M-Learning* Model

Questionnaire Item No.	Educators' Item Responses		Total
	1	2	
1	5	5	10
2	5	5	10
3	4	5	9
4	5	4	9
5	5	5	10
Total	24	24	48
I %	96	96	96
Qualification	SA	SA	SA

Notes: SA = strongly agree

Based on the calculation and classification in Table 5, it shows that the assessment of the m-learning media by educators is very amenable, so the media m-learning is very helpful for the task of educators to improve the effectiveness of learning mathematics.

Conclusion

Based on the results of the discussion, it can be concluded that the m-learning model by using power point software:

a. attractive to learners in class VIII of SMPN 48 Surabaya

b. assisting the educators to improve the effectiveness of learning in SMPN 48 Surabaya

REFERENCES

Aemi, S., Dantes, N., and Candiasa, M., 2015. *Pengaruh Penggunaan Media VCD dalam Pembelajaran terhadap Motivasi dan Prestasi Belajar Matematika Siswa Kelas I SDLB.B Negeri Sidakarya Denpasar*, e-Journal Program Pascasarjana Universitas Pendidikan Ganesha Program Studi Penelitian dan Evaluasi Pendidikan, Vol. 5, No. 1. p.p. 1 – 8.

Astuti, S. P., 2015. *Pengaruh Kemampuan Awal dan Minat Belajar Terhadap Prestasi Belajar Fisika*, Jurnal Formatif, Vol.5, No. 1. p.p. 68-75

Budiningsih, C. A. 2003. *Desain pesan pembelajaran.* eprints.uny.ac.id. Retrieved on 5 May 2015

Depkes RI, 2009.*Profil Kesehatan Indonesia 2009*, Jakarta: Departemen Kesehatan Republik Indonesia

Dwipiyogo, W. D. 2013, *Media Pembelajaran*, Winekamedia, Malang

Ebbutt, S., & Straker, A. 1995. *Children and Mathematics*: A Handbook for Teacher.

PRESENTER'S PAPERS

Fadila, A. 2015.*Eksperimentasi Pendekatan Realistik dengan Pemberian Tugas Ditinjau dari Kemampuan Awal Terhadap Hasil Belajar Matematika*, Jurnal e-DuMath, Vol. 1, No. 2. p.p. 114-121

Hirtanto, M., and Sujadi, I.. 2015.*Eksperimentasi Pembelajaran Matematika Menggunakan Media Komputer pada Materi Pokok Persamaan Garis Lurus Ditinjau dari Motivasi Belajar Siswa Kelas VIII SMP Surakarta Tahun Ajaran 2011/2012*, Jurnal Elektronik Pembelajaran Matematika, Vol. 3 No. 8. p.p. 824-836.

Hujono, H. 1988. *Mengajar Belajar Matematika*, Departemen Matematika dan Kebudayaan Direktorat Jenderal Pendidikan Tinggi Proyek Pengembangan Lembaga Pendidikan Tenaga Kependidikan, Jakarta.

Maryatun, 2015, *Pengaruh Penggunaan Media Program Microsoft Power Point Terhadap Hasil Belajar Strategi Promosi Pemasaran Mahasiswa Semester 2 Program Studi Pendidikan Ekonomi Universitas Muhammadiyah Metro Tahun Ajaran 2014/2015*, Jurnal Pendidikan Ekonomi UM Metro, Vol. 3, No. 1. p.p. 1 – 14

Peraturan Pemerintahan Republik Indonesia Nomor 19 Tahun 2005 Tentang *Standar Pendidikan Nasional*

Permendikbud Nomor 103 Tahun 2014 Tentang *Pembelajaran Pada Pendidikan Dasar dan Pendidikan Menengah*

Quinn, T. C., Wawer, M. J., Sewankambo, N., Serwadda, D., Li, C., Wabwire-Mangen, F., and Gray, R. H. 2000. *Viral load and heterosexual transmission of human immunodeficiency virus type 1*. New England journal of medicine, Vol. 342, No. 13. p.p. 921-929.

Rumini, S., M. Dimyati Mahmud, Siti Sundari H.S, Danuri, R. Suharno, Nurbani Yusuf S, D. Tiala, and Yulia Aryza. 1995. *Psikologi Pendidikan*. Yogyakarta: FIP Universitas Negeri Yogyakarta.

Setiawan, A., Mulyoto, and Yutmini, S., 2013. *Pengaruh Media OHP dan Power Point terhadap Hasil Belajar Matematika pada Materi Persamaan Garis Lurus Ditinjau dari Kreatifitas Belajar*, Jurnal Teknologi Pendidikan dan Pembelajaran, Vol 1 No. 3. p.p75 – 288,

Sugiyono, 2010, *Metode Penelitian Kuantitatif Kualitatif dan R & D*, Bandung: Alfabeta.

Biodata

Hartono Sunardi is a professor at Universitas PGRI Adi Buana Surabaya

PRESENTER'S PAPERS

The Implementation of the Group Counseling with Role Playing to Increase Students' Self-Esteem

Suhari, I Wayan Arsana, Hartono
Adi Buana University
Jl. Ngagel Dadi II, Surabaya, Indonesia
suhari.unipasby@gmail.com

Abstract

The present study aimed to test the effectiveness of group counseling with role playing method to increase the self-esteem of the high-school students of Class X of SMAN 1 Sooko and SMAN 1 Puri Mojokerto. This study used a pre-experimental design using the one group pre-test and post-test design. To gather the data, a questionnaire was used to find out the students of less self-esteem. The subjects were 16 students of Class X of SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto who have low self-esteem category. The data analysis technique used was a non-parametric statistical analysis using Wilcoxon Signed Ranks Test. The analysis showed that N=16 gained an average rank=8.50 and the number of positive rankings=136, p=0.00 with a significance level of 5%. The hypothesis proposed "implementation of group counseling with role playing effective method to increase the confidence of class X SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto" was not accepted. It can be concluded that the counseling group with role playing was an effective method to increase the self-esteem of the students of class X SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto.

Keywords: counseling group, role-playing, self-esteem

INTRODUCTION

Problems of self-esteem can happen to anyone and at any age but mostly this problem occurs to adolescence. Agustiani (2006) has cites that adolescence is a period of transition from childhood into adulthood in which adolescence have the emotional, social, physical and psychological maturity. Adolescents are in transition and are seeking self-identity and therefore cannot be separated from the problems that accompany the growth period. In the case of self, in addition to the community, the school also brings about much influence in shaping the personality and mindset of a teenager. Because they spend lot of time, one of them is in the school environment.

The facts reveal that the high school students lack of self-esteem. The data and information were obtained from interviews with the counseling teachers at the high schools. These matters require more attention from the school in helping students to improve self-confidence. In addition, based on the results of large-scale deployment of the self-esteem votes on 20 high school students showed that there are 30% or as much as six students whose levels of self-esteem was low. This may imply that more than 25% of the students have low self-esteem. It may therefore constitute barriers to student learning. If left unchecked, it can be possible that more than 25% and the number of students that have poor performance will of course affect the graduation rate of students at the schools.

Self-esteem means one's confidence in ability to complete a job and problems. With self-esteem a person feels himself worthy and has ability to cope with life, considering the various options and makes his own decisions (Lie, 2003). It is frequently associated with the relationship

with other people but is closely related to the individual. The confidence will determine one's success in achieving mental health.

Self-esteem is one of the aspects of personality that is very important in human life. Thantaway (2005) defines self-esteem is a person's mental or psychological condition that gives a strong conviction on him to do or perform some actions. People who do not believe in themselves have a negative self-concept, lack of confidence in their ability, because they do not seek the company of others. Conversely those who have high confidence, they have positive feelings toward themselves, have strong convictions against him and have accurate knowledge of the capabilities.

The wrong views of individuals in providing a negative assessment and uncertainty about themselves basically occur due to certain weaknesses that exist in the various aspects of an individual's personality. Judge (2002) stated that lack of self-esteem is a person's negative belief to the deficiencies that exist in various aspects of his personality which leads to his failure in achieving the goal of his life. According to Judge (2002) the characteristics of people who lack confidence are prone to anxiety in the face of problems, have physical and mental weakness, stand aloof from the group thinking more of him, easily discouraged, tend to be easily distracted, often react negatively and be nervous and sometimes stutter.

The observation of guidance and counseling in high schools indicates that classical and group counseling services with a lecture by the teacher of Guidance and Counseling is less suitable for the students, because the lecture method is generally only in the form of advice that the students only listen to is without understanding how the actual implementation is. Of these issues an effort needs to be pursued to overcome them, because if they are not immediately given treatment, it will inhibit the development of individuals in achieving optimal development.

One type of guidance and counseling services appropriate in helping students to increase self-esteem is through group counseling. According Kursin (2005) a group counseling service for the relief effort can solve the problem by using group dynamics. In group counseling services using interactional approach, the approach focuses on the interaction or reciprocal relationship between members, members and leader (group leader) and vice versa, which will emerge in group dynamics.

In group counseling the role playing method is used. Piaget (in Hurlock, 2002) considers a play as a method that increases the child's cognitive development. A more varied method in question, for example, is the use of role playing. In this instance, students can practice directly how to express themselves in accordance with their roles. The role playing is expected to benefit student counseling services.

According to Komara (2009) in his research addressing role playing in participatory learning, role-playing can serve as mastery learning materials through students' development of internalization and imagination. Role playing is a learning model geared towards solving the problems dealing with human relations (interpersonal relationship), especially concerning the lives of learners. The learning experience obtained from the application of this method includes cooperation, communication and interpretation of an event.

Through role playing, students tried to explore the inter-personal relationships by demonstrating and discussing it, so that together the learners explore feelings, attitudes, values and various problem-solving strategies. In role playing students are assigned to play a role/other students who are facing a problem. This study aimed to test the effectiveness of the application of group counseling with the role playing to improve high school students' self-esteem.

Research Methodology

This pre-experimental study employed the pre-test and post-test one group design. The experimental research gave treatment to the experimental group (Sukmadinata, 2013). It used the initial test (pre-test) and final test (post-test), so the magnitude of the effect of the experiment can be known with certainty. According Sugiyono (2010) the results of the treatment can be determined more accurately, because it can be compared to the situation before being treated.

This design was carried out on a group of subjects. The questionnaires were administered twice: before and after the experiment. The study population included X.IIS.4 grade students of SMA Negeri 1 Sooko and of X.IIS.3 SMAN 1 Puri Mojokerto who had low self-esteem. The sample in this study was partly X.IIS.4 grade students of SMA Negeri 1 Sooko Kabupaten Mojokerto many as nine students and classes X.IIS.3 SMAN 1 Puri Mojokerto as many as seven students who had low self-esteem filling out the questionnaires.

Table 1. ***The Pre-Eksperimental Design***

Pre-Test	*Treatment*	*Post-Test*
O1	X	O2

Notes:

O1: The first measurement of the students' self-esteem level before the group counseling service with role playing.
X: The implementation of group counseling service with role playing.
O2: The second measurement of the students' self-esteem level confidence after the group counseling services with role playing.

The variables examined included: 1) the independent variable, in the form of group counseling with the method of role playing, one of the learning models led towards yang efforts on problem solving related to interpersonal relationship, especially concerning the lives of learners. The learning experience obtained from the application of this method include the ability to work, communicative and interpret an event; and 2) the dependent variable, such as self-esteem is the students' belief held that he was able to develop a positive assessment of the self and the environment or the situation facing so he was able to achieve success in their studies by standing on his own efforts.

The method used to collect data in this study was questionnaires. This study used a selection of closed questionnaires directly provide to be checked (√). The respondents just chose the answers provided and can immediately provide an answer in accordance with their' factual situations. The questionnaires had four multiple-choice items. The alternative answers to be selected were: 1) Strongly Agree; 2) Agree; 3) Disagree; 4). Each respondent obtained a score by summing the scores for each item. The overall score is a way to determine the level of confidence with the category of high, medium and low.

The try-out was conducted for the instruments to determine their validity and reliability. The validity is used to measure the degree of accuracy in every question item the questionnaire, the questions in the questionnaire can be said to be valid if the questions are able to reveal what will

be measured by the questionnaire and if the value of the correlation count (r count) is greater than the value of the correlation table (r table). The r count is the values in the column "Correlations" on a sheet of SPSS output. If the total value of column correlations> r table (df = n-k-1), then the item in question can be said to be valid. Test Reliability is an index indicating the extent to which the gauges are reliable. Reliability test is used to measure the statutes or the consistency of an instrument. The questionnaire can be said to be reliable (reliably) if the value of r and r positive alpha > 0.6, meaning that the questions or variables are reliable.

In this study, the data analysis method used was the statistical analysis. This is due to the data collected in the form of numbers or (quantitative). Because the data presented were in the ordinal forms (data of low and high rating or ranking) and the normal distribution, which means that the subjects in this study were less than 25, that there were 16 subjects to be treated. This study therefore used the non--parametric statistic data analysis technique.

The non-parametric analysis technique used to test the hypothesis in this study was Wilcoxon signed rank test which is a refinement of the Sign test. The data were analyzed by comparing the scores of confidence in pre-test with a score of confidence in post-test. The results of the study were significant at $\alpha = 0.05$. When the value of significance was $\leq 5\%$ so Ha was accepted, if the 5% significance value was > then Ho was accepted. The data were processed using SPSS 13.0 version for Windows.

Data analysis

The results of the data analysis on the study can be seen in Table 2 as follows:

Table 2. Category Classification of Students' Self-Esteem

No.	Kategori	Sum of Students
1.	High Self-esteem	18
2.	Medium Self-esteem	29
3.	Low Self-esteem	16
	Total	**63**

Table 2 reveals that there were 18 students who had the high self-esteem category, 29 students had the medium category, and 16 students had the low category. Thus there were 16 out of 63 students who had low self-confidence or lack of confidence. From Table 2, it can be determined by using a standard deviation that there were three categories of self-esteem is the high, medium and low levels. It can be seen from the calculation as follows:

- High category = M + 1 SD higher
  = 114.603 + 1 (22.030) higher
  = 136.633 higher
- Medium category = M – 1 SD up to M + 1 SD
  =114.603 -1(22.030) up to 114.603 + 1 (22.030)
  = 92.572 up to 136.633
- Low category = M – 1 SD lower
  = 114.603 -1(22.030) lower
  = 92.72 lower

Thus the results of the analysis of questionnaires on the self-esteem categorization show that the low self-esteem score was 83-92, with a mean of 114.603 and a standard deviation of 22.030. The students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto therefore still had low confidence or did not have high confidence that can be seen in Table 3 below:

Table 3. Results of *Pre-Test* Analysis

No.	Subjects Codes	Scores	Category
1	AJ	92	Low
2	SD	85	Low
3	IM	87	Low
4	FE	91	Low
5	AG	85	Low
6	AY	91	Low
7	FR	89	Low
8	AD	91	Low
9	HR	85	Low
10	RS	86	Low
11	NF	91	Low
12	DN	91	Low
13	BY	89	Low
14	SG	83	Low
15	RR	90	Low
16	BR	88	Low

Furthermore, the students were treated by the group counseling with role playing through the nine stages. After the treatment, i.e. the application of group counseling with the next role playing then given a post-test was administered. The results can be seen in Table 4 below:

Table 4. The Results of *Post-test* Analysis

No.	Subjects	Scores	Category
1	AJ	141	High
2	SD	143	High
3	IM	144	High
4	FE	142	High
5	AG	123	Medium
6	AY	142	High
7	FR	138	High
8	AD	131	Medium
9	HR	132	Medium
10	RS	141	High

11	NF	132	Medium
12	DN	135	Medium
13	BY	141	High
14	SG	137	High
15	RR	142	High
16	BR	138	High

Table 4 shows that the post-test administered to the subjects obtained an increase from the prior given group counseling with role playing and after a given treatment, i.e. the group counseling with the role playing, it can be seen that the subjects' self-esteem increased from the low category to the medium and high categories. The category of self-esteem scores was 93 – 136; while the category of high self-esteem score was 137-144, with a mean of 114.603 and a standard deviation of 22.030. Thus, the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto had high confidence.

Based on the pre-test and post-test showed that there is a difference in scores of each subject studies showing the effectiveness of the implementation of group counseling with the method of role playing to increase the confidence of the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto which can be seen in Table 5 below:

Table 5. The Results of *Wilcoxon Signed Ranks Test*

		N	Mean Rank	Sum of Ranks
Post_Test – Pre_Test	Negative Ranks	0[a]	.00	.00
	Positive Ranks	16[b]	8.50	136.00
	Ties	0[c]		
	Total	16		

	Post_Test – Pre_Test
Z	-3,517[a]
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks

b. Wilcoxon Signed Ranks Test

The results as illustrated in Table 5 showed that the differences in the self-esteem during the pre-test and the post test was positive for16 subjects, or in other words, there were 16 subjects in the post test attained higher results than ones in the pre-test with an average ranking = 8.50 and positive = 136. This means that the ranking of all students has increased with an average increase of 8.50

Table 6. The Results of *Pre-test* and *Post-test*

No	Subyek	*Pre-test*		*Post-test*	
		Average score	Total score	Average Score	Total Score
1	AJ	2.3	92	3.53	141
2	SD	2.125	85	3.58	143
3	IM	2.175	87	3.60	144
4	FE	2,275	91	3,55	142
5	AG	2.125	85	3.08	123
6	AY	2.275	91	3.55	142

7	FR	2.225	89	3.45	138
8	AD	2.275	91	3.28	131
9	HR	2.125	85	3.30	132
10	RS	2.15	86	3.53	141
11	NF	2.275	91	3.30	132
12	DN	2.275	91	3.38	135
13	BY	2.225	89	3.53	141
14	SG	2.075	83	3.43	137
15	RR	2.25	90	3.55	142
16	BR	2.2	88	3.45	138

The result of non-parametric statistical analysis using Wilcoxon test showed that the value of p= 0.00 significance level of 5%, this means that there are significant differences between the pre-test and post-test on the students' self-esteem levels.

Discussion

The self-esteem of class X SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto before the application of group counseling with role playing

The research results of the application of group counseling with role playing showed that the self-esteem level of the high school students at the pre experiment was that there were 16 out of 63 students who had low self-esteem or lack of confidence. Of the 16 students are AJ got a score of 92, SD got a score of 85, IM got a score of 87, FE got a score of 91, AG got a score of 85, AY got a score of 91, FR got a score of 89, AD gets a score of 91, HR got a score of 85, RS got a score of 86, NF got a score of 91, DN got a score of 91, BY got a score of 89, SG got a score of 83, RR got a score of 90, and BR got a score of 88. Thus, the students still had low self-esteem.

This is in accordance with Judge (2005) who identified a range of behavioral symptoms of not having self-esteem among teenagers, especially school-aged, among others: a) afraid of repetition; b) draw attention to the way that is less fair; c) did not dare to ask and express opinions; d) awkward or nervous when performing in front of the class; e) incurred excessive shyness; f) the growth of cowardice; g) often cheating when taking a test; h) prone to anxiety in the face of the situation; i) awkwardly in dealing with opposite sex and; j) brawl and join massive fight.

Those 16 students would be given the treatment using the group counseling with role playing method consisting of nine stages. During the implementation of the group counseling with role playing method, in general, the subjects were able to follow the course of group counseling with role playing though initially only a few subjects that could follow it.

After the third treatment and so the subjects began to understand the implementation of group counseling with role playing. This happened due to a change of any given treatment so that the longer the treatment, the more subjects to follow and understand the course of group counseling with role playing.

PRESENTER'S PAPERS

The self-esteem of class X SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto after the application of group counseling with role playing

The research results of the application of the group counseling through role playing indicated that the level of self-esteem of class X of SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto at the stage of post-experiment increased in terms of the confidence scores. The data regarding the post-test conducted on the subjects indicated the improvement comparing the one before the given group counseling with role playing to the group counseling after the treatment showing that the subjects increased from the low to the high category.

The 16 students are as follows: AJ got a score of 141, SD got a score of 143, IM got a score of 144, FE got a score of 142, AG got a score of 123, AY got a score of 142, FR got a score of 138, AD got a score of 131, HR got a score of 132, RS got a score of 141, NF got a score of 132, DN got a score of 135, BY got a score of 141, SG got a score of 137, RR got a score of 142, and BR got a score of 138.

This is consistent with what Fatimah (2006) suggests that the traits or characteristics of individuals who have proportional self-confidence are as follows: a) believe in their own ability or competence and thus do not need praise, recognition, acceptance or respect of others; b) not be compelled to show conformist attitude for the sake of being accepted by another person or group; c) dare to accept and face the rejection of others, dare to be themselves; d) have a good self-control; e) have an internal locus of control (in viewing the success or failure, depending on their own business and not easily surrender to fate or circumstances and do not rely on or expect help from others); f) have a positive outlook about themselves, other people and situations outside themselves; and g) have realistic expectations of themselves, and when hope is realized,

Furthermore, according to Justice (2005), the characteristics of people who have self-confidence, among others are: a) always calm in doing something; b) have the sufficient potential and capability; c) able to neutralize the tensions that arise in various situations; d) adapt and communicate in various situations; e) have the mental and physical conditions sufficient to support his appearance; f) have sufficient intelligence; g) have a sufficient level of formal education; h) have expertise or other skills to support life; i) have the ability to socialize; j) has the educational background of a good family; k) have a life experience led to be mentally strong and resistant in the face of life's trials; l) always react positively in facing various trials of life; and m) always react positively in the face of various problems, for example remaining strong in facing various life problems.

The effectiveness of the application of group counseling with role playing to increase the self-esteem of class X SMA Negeri 1 Sooko and SMAN 1 Puri Mojokerto

The results of the analysis in this study indicate that the counseling group with role playing was an effective method to increase the students' self-esteem. This shows that there was a positive difference in the self-esteem of students, i.e. the higher self-esteem of students after the application of the group counseling with role playing.

There was a difference from the beginning which is known to have from a low self-esteem to a high one. This proves that the students who had doubt in expressing opinions, was nervous when

giving their opinions and afraid to answer questions given by the teacher in the classroom. The overall the students were able to follow the stages in the counseling group with role playing. The treatment of group counseling with role playing as nine-times meeting constituted an effective method that can be used to teach students how to be more confident. Through role playing, the students were assigned to play a role/other students who were facing a problem of confidence.

Thus the research hypothesis that proposes "the group counseling with role playing was an effective method to increase the self-esteem of the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto" was accepted.

The results of this study are supported by what Huda (2013) put forward that role playing is a way of mastery learning materials through the development of imagination and appreciation of students. The development of imagination and appreciation was done by the students by acting it out as a character living or inanimate. This game is generally played by more than one persons, depending on what is played.

Fogg (in Huda, 2013) cites that role playing is a kind of motion game in which there are goals, rules and at the same time involves an element of fun. In role-playing students are conditioned to certain situations outside the classroom, even though the learning takes place in the classroom. In addition, role playing is often intended as a form of learning activity which they imagine themselves as if they were outside the classroom and played the role of others.

Role playing can also be used to reduce feelings and avoidance behaviors in a person associated with activities and alarming situation. This method is also used to form the students to gather and organize social issues, develop empathy for others and try to improve social skills. In this method the students are guided to solve various conflicts, learn to take the role of others and observe social behavior. With a variety of adjustments, this method can be used for various fields of study and students of various ages (Huda, 2013).

The application of group counseling with role playing is not only carried out to help students be more confident, but it can also be used as an alternative to help students solve other problems. The weakness that occurred at the time of execution of the research was that each treatment measurement developed in the study was only done during thepre-test and post-test only, so this may be an input for further researchers.

In broad outline of each treatment, all the students who participated as subjects of the study believed that the counseling group with role playing was very useful to help boost their self-esteem. Therefore they become a person who is more confident and able to establish communication with the social environment more effectively.

Conclusion

The self-esteem level of the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto in pre-stage experiment was 25% having an average total score of 88.37 on the self-esteem. Thus, the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto still had low confidence or did not have high confidence.

The self-esteem level of the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto in the earlier stage of the experiment had an average total score of 137.62 confidence. Thus, the

students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto had high self-esteem after the treatment and administration of the post-test.

The Counseling group with role playing was an effective method to increase the self-esteem of the students of Class X SMAN 1 Sooko and SMAN 1 Puri Mojokerto. It is evident from the Wilcoxon test that produced a positive value with an average ranking of 8.50 and was evidenced by the probability (Sig) of 0.00 that was smaller than the specified error limit of 0.05. Thus it can be seen that there is a significant difference in scores of the students' self-esteem before and after getting the treatment, i.e. the group counseling with role playing. Although every student increased their self-esteem scores differently.

REFERENCES

Agustiani, H. 2006. *Psikologi Perkembangan*. Bandung: PT. Refika Aditama.

Fatimah, E. 2006. *Psikologi Perkembangan Peserta Didik*. Bandung: CV. Pustaka Setia.

Hakim, T. 2005. *Mengatasi Rasa Tidak Percaya Diri*. Jakarta: Puspa Swara.

Huda, M. 2013. *Model-Model Pengajaran dan Pembelajaran*. Yogyakarta: Pustaka Pelajar.

Hurlock, E, B. 2002. *Psikologi Perkembangan*. Jakarta: Erlangga.

Komara, E, H. 2009. *Model Bermain Peran*. [Online]. Retrieved in May 2014.

Kursin. 2005. *Keefektifan Layanan Konseling Kelompok Dalam Mengurangi Perilaku Agresif Siswa Panti Pamardi Putra Mandiri Semarang*. Tesis Magister Pendidikan. Semarang: Universitas Negeri Semarang.

Lie, A. 2003. *1001 Cara Menumbuhkan Rasa Percaya Diri Anak.* Jakarta: PT. Elex Media Komputindo.

Sugiyono. 2010. *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: CV. Alfabeta.

Sukmadinata, N, S. 2013. *Metode Penelitian Pendidikan*. Bandung: PT. Remaja Rosda Karya.

Thantaway. 2005. *Kamus Istilah Bimbingan dan Konseling*. [Online]. http://ilmupsikologi.com.

PRESENTER'S PAPERS

Author's Biodata

Suhari is a faculty member of Universitas PGRI Adi Buana Surabaya.

I Wayan Arsana is a faculty member of Universitas PGRI Adi Buana Surabaya.

Hartono is a faculty member of Universitas PGRI Adi Buana Surabaya.

PRESENTER'S PAPERS

The Development of Productive Multimedia Tutorial CD as Learning Media on Using Adobe Photoshop Autorun Software

Sugito, I Wayan Arsana, Ibut Priono Leksono
University of PGRI Adi Buana
Jl. Ngagel Dadi II, Surabaya, Indonesia
sugito.unipasby@gmail.com

Abstract

One way to improve the quality of education is to increase students' independence to learn. Independence is reflected on stability in achieving the objectives to be realized. If self-learning (especially at home) can be done, then the learning goal will be achieved with maximum results. However, many students have complained of having difficulties to study independently. Learning media is one of the elements that affect students' learning success. Proper selection of media can help students understand the materials and create a pleasant atmosphere. One form of media used is a tutorial video. The advantages of tutorial videos as a medium of learning include the easily-followed presentation of materials, practicality as it can be played on any media player, as well as joyful teaching and learning activities. The development of CD tutorial as instructional media followed the model by Borg & Gall. This design model took ten steps, namely (1) Research and Information Collecting, (2) Planning, (3) Developing a preliminary form of the product, (4) Preliminary field testing, (5) Main product revision, (6) Main field testing, (7) Operational product revision, (8) Operational field testing, (9) Final product revision, (10) Dissemination and implementation. To produce a quality product development, the authors used questionnaire a data collection instrument. The questionnaire is intended to collect information on the efficiency, effectiveness, convenience, and attractiveness of learning media by professional experts. The questionnaire was also used to determine the students or volunteers' comments on the media in question. The results of field trials showed that the Creative Productive Multimedia CD Tutorial on Adobe Photoshop had high validity because it was interactive and communicative with the results of the percentage of 90.19% of design experts, 81.25% of contents/materials experts, 90.76% of colleagues, 85.60%, of piloting a small group of 85.60%, and of 93.40%of small-scale field testing.

Keywords: Productive Learning Media, Multimedia, Autorun Software

INTRODUCTION

Education is a vital and fundamental aspect of life as education plays a very important role in determining aspects of life. The process of education, especially in Indonesia has always undergone improvements that will result in quality educational outcomes. Its managers have run a good education in order to improve the learning outcomes of students. This is the first step to obtain the quality of human resources. The low quality of education can be seen from many students who get high scores but less able to apply it in the form of acquisition of knowledge, skills and attitudes. As part of the learning resources, teaching materials can be obtained from various references. According to the understanding of learning resources from AECT and Banks in Komalasari (2010: 108) who stated that one of the components of learning resources is materials. Materials are a software containing messages of learning, which usually serves using certain

equipment. Examples of instructional materials are texts, modules, films, transparency (OHP), audio cassette programs, and video programs.

One way to improve the quality of education is to increase the independence of students to learn. Independence is reflected in stability in achieving the objectives to be realized. Self-reliance can also be interpreted as a person's freedom to determine their own future. It indicates that the person in his life is determined by the plan itself. Independent people will always try to pursue achievement, perseverance, planning and realizing his hopes as progressions and tenacious attitude. Independence in learning can be seen from the student not relying entirely on the teacher. Students who tend to search for information related to lessons being learned on their own. We need to realize that time for learning in school is very limited and most time is spent just outside the school. Given the meeting to learn in the classroom with the teacher hindered by the availability of time, the growing interest in learning self-reliant needs therefore to be improved. If the self-learning (especially at home) can be done, then the learning goal will be achieved with maximum results. However, many students complained of having difficulties to study independently. This makes students tend to rely on face-to-face learning in front of the class with the teacher because of the limitations of teaching materials that can be used by students to learn independently.

Learning media is one of the elements that influence the success of student learning. Selection of appropriate media can help students understand the materials and create a pleasant atmosphere. One form of media used is a tutorial video. The advantages of tutorial videos as a learning media are that the materials presented makes easy to understand tutorial videos; it is practical because it can be played on any media player, and it creates fun teaching and learning. The use of tutorial videos as learning media can make the teacher's role more positive and productive. Teachers can share the role with the media so as to have more time to pay attention to other educational aspects, such as helping students' learning difficulties, the building of personality, motivation to learn, and others.

Understanding Learning Media

One way to improve student learning is to utilize learning media. By utilizing the media, classroom teaching and learning process can be more interesting and fun, comparing to conventional approaches that use only lectures. The word media is the plural of medium, which is derived from the Latin word medius meaning middle. While in Indonesian, the word can be interpreted as a medium between or moderate, so the media can lead to a sense of something dropping or forwarding the message information between the source message giver and the recipient (Sadiman et al: 1986: 6).

Learning media based on senses involved are classified into three types, namely:

a. Audio media
   Audio media only involve the senses of hearing and only able to manipulate voice capabilities only. From the nature of the message received audio media have received the verbal and non-verbal message. The audio verbal messages include spoken language or words and the non-verbal audio messages are sounds and vocalizations, like nagging, muttered, music, and so forth.
b. Visual media
   Visual media are media that involve only the sense of sight. This type of media includes print-verbal, graphic-print media, visual and non-print media. First, the visual-verbal media is a

visual medium that contains verbal message (linguistic message in the form of writing). Second, non-verbal visual graphic media is a visual medium that contains messages in the form of non-verbal visual symbols or graphic elements, such as pictures (sketches, paintings and photographs), charts, diagrams, charts, and maps. Third, non-verbal visual media are three-dimensional visual media that have three dimensions, in the form of models, such as miniature, mock up, specimen, and dioramas.

c. Audio visual media

Audio-visual media involve the senses of hearing and sight at the same time in a process. The nature of the message can be routed through the media can be not only in the form of verbal and non-verbal message sounding like visual media, but also verbal message that sound like the above audio media. Such visual message can be presented through audio-visual programs such as documentaries, drama, and others.

Understanding Photoshop CS

Photoshop software is used to modify images or photos professionally covering modification of the simple to difficult objects or problems. Photoshop is a useful software for bitmap-based image processing, which has the tool and complete effect so as to produce a high quality image or photo. The complete existing features in Photoshop are what ultimately makes this software widely used by professional graphic designers. And perhaps also to this day there has still been no other graphic design software that could match the completeness of features in Photoshop. It is designed as attractive as possible to facilitate its use, i.e. to use icons as a key to open a page, every page uses the same background color and makes it into an elegant media. Elements of artistic value are also considered by the researchers in every page design and packaging so that these media users will be convenient and interested. With the accompaniment of musical instruments the users can feel more relaxed and not saturated in studying the overall content of the material along with tutorial videos. Ease of understanding and use is a major requirement in any design of this medium, as well as an application that has a tooltip to explain that each cursor is at the point of a button or something can be executed with a click of the mouse. And every page has a button tool and the same function at the bottom of the page, which makes it easy to control every page.

Research Methodology

The model of development of CD Tutorial instructional media employed the development model by Borg & Gall, this design model takes ten steps. The steps include (1) Research and Information Collecting, (2) Planning, (3) Develop a preliminary form of the product, (4) Preliminary field testing, (5) Main product revision, (6) Main field testing, (7) Operational product revision, (8) Operational field testing, (9) Final product revision, (10) Dissemination and implementation.

Research and development is defined by Borg & Gall as a process used to develop and validate educational products (Punaji, 2010: 194). According to Borg and Gall (1989: 624), educational research and development is a process used to develop and validate educational product. Or it can mean that the educational research development is a process used to develop and validate a product of education. The results of the research and development are not only the development of an existing product but also to provide practical answers to the problems of knowledge. Methods of research and development are also defined as a research method that is used to produce a particular product, and test the effectiveness of the product (Sugiyono, 2011: 297). Furthermore, developmental research or research and development (R & D) is a powerful strategy or method of research to improve practice (Sukmadinata, 2009). Research and

Development is also defined as a process or steps to develop a new product or improve existing products that can be justified (Sujadi, 2003: 164). In line with this, according to Richey and Klein (2007: 1), the development is the process of converting the design specifications into physical form relating to the design of systematic learning, development and evaluation process intended to establish an empirical basis for the creation of learning products and non-learning development of new or enhance existing models. To be able to produce certain products that use needs analysis research to examine the effectiveness of these products in order to function considerably in society, a research to test the effectiveness of the product is needed.

Forms of Data

The type of data to be collected from the trials was qualitative data. The qualitative data were obtained from the questionnaire. The questionnaire was given to experts as well as students or volunteers, while the special tests were given to the students.

Data Collection Instrument

The data collection instrument used was a questionnaire (open and mixed). The questionnaire was intended to collect information on the efficiency, effectiveness, convenience, and attractiveness of learning media in the prediction of professional experts. The questionnaire was also used to determine the students or volunteers' comments on the media being used. The questionnaires are attached in the appendix at the end of this paper.

Discussion

Based on the results of validation of media expert, the value was obtained by using the following formula:

$$\frac{\text{Number of the selected item}}{\text{Maximum score}} \times 100 = \frac{46}{51} \times 100 = 90.19\ \%$$

Evaluation Criteria:

1. 1% - 33% = not appropriate
2. 34% - 66% = less appropriate
3. 67% - 100% = appropriate

The results of the validation indicated the value of 90.19%, it can be said that the product of development of productive multimedia as instructional media on Adobe Photoshop for class X of SMK was exciting and fun because it is interactive. The users would not therefore feel bored. The media were also equipped with video images and interesting conversations that can be used as a means of learning anywhere and anytime without being bound to time. The results of expert validation on content/material earned a percentage value of 81.25%, it can be said that the development of products of productive multimedia for learning Adobe Photoshop subjects in class X of SMK is feasible to be further developed.

The results of the validation of peers showed the percentage of 90.76%. It was because the media were in accordance with the Standards of Competence and Basic Competence to be delivered, and their indicators and subject matters to be presented. They were also easy to learn and to understand, and support the achievement of competence. So basically this product was suitable and interesting to be developed as a teaching material for students of class X of SMK Mahardhika Surabaya.

The results obtained from the small group trial revealed an average percentage, i.e. 85.6%. The small group trial can be used as a basis for improving the product development of learning materials before entering the stage of field trials.

There were things to be revised and improved, such as the instructions or guidelines that were less obvious, the font types that were not appropriate, as well as the color matching based on the feedbacks, criticisms, and suggestions on the learning content from the experts of instructional design, testing individuals and small groups. So the next step was to conduct a field trial of the 60 students intended to determine the quality of product development.

The field test results showed the percentage of 93.40%, so the results of the revision of the product from the small groups testing provided better results. So basically this product was expected to be developed as a Multimedia productive learning media on Adobe Photoshop independently for vocational school students of class X of SMK Mahardhika Surabaya.

Conclusion

a. The material development of CD Tutorial as instructional media for learning Adobe Photoshop for the students of class X of SMK Mahardhika Surabaya was conducted through some consideration and responses. With the results of the validation by the design experts, i.e. percentage of 90.19% of and the results of the validation of the experts on the content/material with a percentage of 81.25%, it can be said that this product deserve to be further developed because it has high validity and is interactive and communicative to be able to apply as teaching material for the students of class X of SMK Mahardhika Surabaya.
b. The results of the validation of peers shows the percentage of 90.76%. It is due to the fact that the media were in accordance with the Standards of Competence and Basic Competence to be delivered, and indicators and subject matters to be presented. Furthermore, the media are easy to learn and understand, and support the achievement of competence. Basically this product is therefore suitable and interesting to be developed as a teaching material for students of class X of SMK Mahardhika Surabaya.
c. The results of the small group testing showed a percentage of 85.60%. There were the things that had to be revised and improved. They are: the instructions or guidelines that were less clear, the types of fonts that were not appropriate, as well as color matching. Therefore the improvements and revisions were then made in order to achieve a high score for the test in the field test. And the field test results showed the percentage of 93.40%, so the results of the revision of the test of the product on the small groups were better. Accordingly, this product is basically expected to be developed as a productive multimedia as learning media on Adobe Photoshop independently for the vocational school students of class X.

REFERENCES

Borg, W.R. & Gall, M.D. Gall. (1989). *Educational Research: An Introduction, Fifth Edition*. New York: Longman.

Komalasari, K. (2010). Pembelajaran Kontekstual: Konsep dan Aplikasi. Bandung: Refika Aditama

Sadiman, A. S., Raharjo, R., Haryono, A., & Rahardjito. (2009). *Media pendidikanpengertian, pengembangan, danpemanfaatannya*. Jakarta: Raja Grafindo Persada.

Sugiyono. (2011). *Metode Penelitian Kuantitatif Kualitatif dan R&D.* Bandung. Alfabeta.

Sujadi. (2002). *Metodologi Penelitian Pendidikan*. Jakarta: Rineka Cipta

Sukmadinata, N. S. (2009). *Metode Penelitian Pendidikan*. Bandung: Rosda Karya.

PRESENTER'S PAPERS

Biodata

Sugito is a faculty member of Universitas PGRI Adi Buana Surabaya

I Wayan Arsana is a faculty member of Universitas PGRI Adi Buana Surabaya

Ibut Priono Leksono is a faculty member of Universitas PGRI Adi Buana Surabaya

PRESENTER'S PAPERS

Development of Video Game for The Improvement of Engineering Volleyball Game Techniques

M. Muhyi
Harwanto
Yoso Wiyarno
University of PGRI Adi Buana
Jl. Ngagel Dadi II, Surabaya, Indonesia
muhyi.unipasby@gmail.com

Abstract

The results of observations by the researchers in the field during the Field Experience Practice, where students of class XI of SMK 1 Bangkalan were learning to play volleyball revealed that most students were less interested in listening to the explanation of the theory and practice of this game. One was the unavailability of study materials designed with practice-oriented learning characteristics for the vocational students. The learning approach expected to coordinate the presence of these complex learning characteristics, was absolutely necessary. Therefore the volleyball game video needed to be developed for the vocational high school students. The problem identification was adjusted to the characteristics of the vocational students. The volleyball video game as the expected product was designed to provide ample opportunity for the students to be actively and increasingly interested in following the physical and sport education subjects in the classrooms. The approach used in this study was qualitative by using observation, questionnaires, and interviews as a means of collecting data. The research location was at the vocational high schools (known as SMK) in Bangkalan. The reason of choosing the vocational schools in Bangkalan was that the schools Bangkalan had professional teachers or certified teachers, i.e. 22 teachers. The descriptive analysis was conducted in three ways, namely: (1) data reduction, (2) display or presentation of data (3) conclusion drawing or verification. Based on the assessment criteria for the expert test, the product of the development of the learning model videos on forearm passing met the criteria and very well fit the established criteria and can be said to be feasible so that it can be used for students of class XI of SMK Negeri 1 Bangkalan..

Keywords: Development, Video, Movement, Volleyball Game

INTRODUCTION

Sports has meaning and values because it is in the context of all aspects of social life such as political, economic, religious, social, educational, and cultural. The social life potentially determines physical development, sports, and recreation. Sport is a part of human culture and also a part of human life, such as physical agility training (Sumardianto, 2000: 1). Exercise also plays a very important role in the formation of men (Sumardianto, 2000: 106).

Education is a conscious effort to prepare students through guidance, instruction and training for life in the future. This is a shared responsibility between government, community members and parents. To achieve this success, it needs the support and active participation that are continuous from all sides. Development in the field of education is a crucial effort in order to improve human quality. One effort is realizing the Indonesian humans that are healthy, strong, skilled, and have morals through physical education.

Physical education is a process of education that is geared to encourage, guide, develop, and build capacity as well as the physical and spiritual health of the students and their natural

environment in order to grow and develop in a harmonious and optimized so as to carry out tasks for themselves and for the development of the nation. The purpose of physical education in schoos is to help students improve motor skills, cognitive understanding, and positive nature of the physical activity that would become a healthy human being physically and mentally and steady personality.

Good physical education is to be able to improve students' knowledge of the principles of motion. Such knowledge will help students be able to understand how a skill is learned to a higher level. Thus, students can master the skills a good motion so that the whole movement can be more meaningful. Physical education and health are the most important part of the educational process of the overall education patterns that attain its destination by using physical activities, while the targets to be achieved is the development of cognitive, affective, and psychomotor.

Learning is a complex process and involves various interrelated aspects are. Therefore, to create a creative and fun learning, we need a variety of skills. Among them are teaching skills. In reality, there are many students who are less active due to boredom with the same and repeated motions. It is thus necessary to the development of physical, sports, and health education learning models, learning strategies, learning approaches adapted to the conditions of students, resulting in a creative, innovative, and fun learning.

There are many models of learning that can be applied by teachers of physical, sports, and health education to increase the pleasure of students in moving, one of them is the model development of instructional videos. The expected media used are inexpensive and have many benefits. The type of materials is adapted to the comprehension level of students as well as to attract the attention of students. The researchers concluded to make learning media for the materials of volleyball using instructional video that refers to the purpose of education as well as the characteristics of the upper-middle children. Making media is not only beneficial for students but also for teachers themselves. It is low cost because in this age of technology the products of manufacture are increased, therefore, it is so much cheaper and varies.In making this video the teacher can further hone the skills of teaching with the delivery of the sentence description on the video that are more rhythmic, more clearly and more varied and up to date so that it could be a medium of teaching for teachers.

Modification of instructional media on volleyball game is important see the characteristics of high school-aged children who have a tendency to be lazy to move. Therefore the learning in the form of instructional videos can be one of the alternatives that facilitate the delivery of material from the teacher to the students. If students feel bored with a lesson, it will be difficult for them to catch the materials presented by the teacher. Teaching by using video is also a tool to help the physical education learning process as a support for achieving the learning objectives. In addition, instructional videos can also motivate students to develop their talents and further explore their abilities.

The authors' interest to conduct this study was originated from the observations in the field as during Field Experience Practice, in which the students of class XI SMK 1 Bangkalan was following the learning of volleyball. The researchers found out that most students were less interested in listening to the explanation of the theory and practice of the game. Some think that this game was something they frequently played, they therefore thought that they no longer need to listen to the material explained by teachers, partly the majority of the female students assumed that the game is hard to do, other than that they were also afraid of volleyball as it may harm their body. Accordingly, it takes innovations and modifications to the make students more interested in listening to the materials presented by the teacher. When the researchers observe the teaching and

learning process, they discovered the students' indifference. The students assumed that a game of volleyball was frequently done by them so they were not interested in listening to the teacher's explanation again. In addition, they often did not use the correct basic techniques of how to do the forearm passing. They just wanted to toss the ball as high as possible to make it look more powerful.

Furthermore, the paradigm has changed that the learning of physical, sports, and health education has been growing importance and now that the students were willing to move and be excited is a more important thing. It gives an idea to the researchers to modify instructional media for volleyball game so students are more interested in taking a serious learning and listening to the teacher so that when performing their practice they could properly do so.

To observe more closely, at first the learning media were regarded as a tool to aid teachers in teaching activities. The tool was intended to provide more concrete experiences, motivate, and enhance absorption and memory of students in learning. As the development of technology, there come the various forms of printed teaching materials, teaching materials which cover audio, audio-video and interactive teaching materials with a computer.

Around the middle of the 20th century visual tool utilization started to suit audio equipment. From this, it gives birth to the learning audio-visual equipment. Efforts to make the abstract more concrete lessons continues. In the 1960s, researchers began to pay attention to students as a major component in the learning activities. At that time the theory of behaviorism of BF.Skinner began to affect the use of media in learning activities. The famous product of instructional media was the creation of the Programmed Teaching and Learning Machine. In 1965-70, the systems approach began to show its influence in the world of education and teaching. This system approach encouraged the use of media as an integral part in the learning process.

Until now, there has been assumption that to learn, it is teachers who have to come to the house or office. Teachers walk into the room presenting learning materials, share experiences or inform something. This assumption is not entirely true because learning can be done anywhere and through several ways including television, video cassette, video compact disc or computer.

Research Methodology

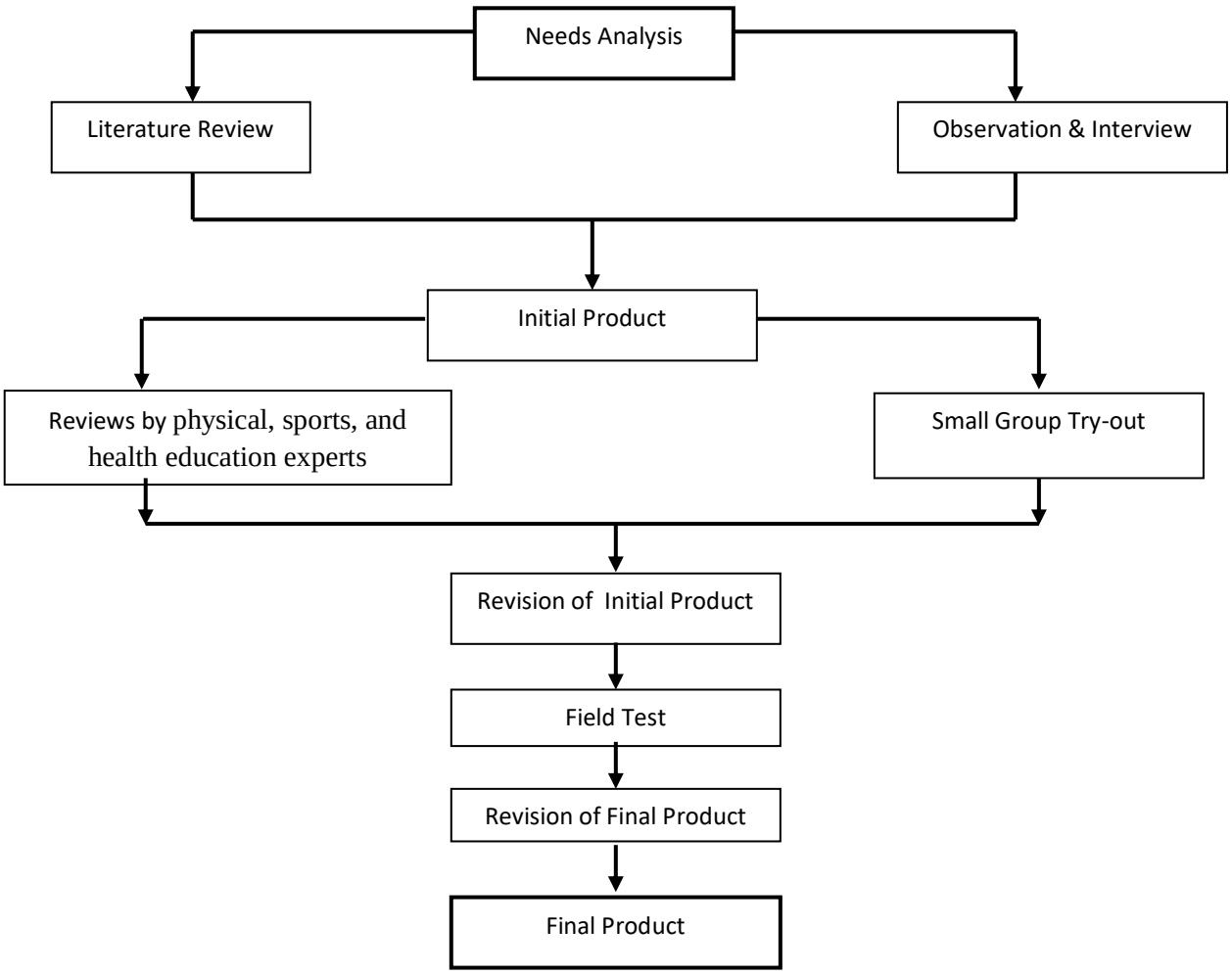
The stages of this research are described as follows:

Research Design

The product that came up through this research was the development of model of learning videos on volleyball passing for the students of class XI of the Vocational High School, which could improve the cognitive, affective and psychomotor aspects so that the students could master the basic skills of volleyball well and implementing them in a fun and active way without any sense of boredom.

Model and Procedure of Development

The procedure of development of video took the following stages:



Data Collection Technique and Instrument

The data collection technique used in this study is combining various techniques of data collection and data sources that already exist, including:

a. Interview
   In this study, the data were retrieved by interviewing experts, students, and colleagues about the results of research.
b. Observation
   In this study, the researchers held a participant observation as they implemented the instructional videos on volleyball at SMK Bangkalan.
c. Documentation
   In this research, the documentation technique included the data on the implementation of instructional videos on volley ball at SMK Bangkalan.

Discussion

Based on the findings in the implementation of this research, particularly related to the application of the video game on volley ball in the implementation of physical education learning subjects on the forearm passing, they showed that the students were interested and easier to understand the materials or the passing techniques. It cannot be separated from the fact that as nonprinting teaching materials nonprinting, video provides rich and straightforward information to be utilized in the learning program, as it can be presented to the students directly. In addition,

video adds a new dimension to learning, learners can see pictures from the print instructional materials, and the sound of the audio program. However, in the video, the students can obtain both the motion picture and sound that accompanies it. Thus, they are like being somewhere that is similar to programs aired in the video. Anything that allows the audio signal can be combined with moving images sequentially can be classified as a video (Belawati, et al in Prastowo, 2013).

Videos included in the category of audio-visual teaching materials. Audio-visual teaching materials are teaching materials that combine two different materials, namely visuals and auditory materials. Audio materials are intended to stimulate the senses of hearing while the visual materials to stimulate the sense of sight. With the combination of these two materials, education can create a higher quality learning process, because the communication takes place more effectively.

It is based on the view that learners tend to be easier to remember and understand a lesson if they do not just use one sense alone, especially if only the sense of hearing is used. As Confucius stated, "I hear I forget, what I see I'll remember, what I do I'll understand."

There are a number of strengths and limitations of the video materials. The strength among other things is that they are helpful to describe the movement, relevance, and impact on the topics discussed and can be played back. In addition, the mouth movements can be recorded with video; they can put into another film technique, such as animation; they can combine images and motion; and standard projectors can be found everywhere.

With videos with sound or not, we can show the return movement. The movement shown can be a stimulus to match or be the expected response from the learners, for instance, a short program that shows the interaction of people. By looking at this program, students can see what should or should not do, so that students can respond.

With video, the students' performances can be replayed to being criticized or evaluated. The trick is to record the activities associated with the development of interpersonal skills, such as interviewing techniques, presiding, gave lectures, and all is intended to strengthen the control of learners over skills. By using a certain effect, they can strengthen the learning process or the entertainment value of such presentation. Several types of visual effects that can be obtained with the video include shortening or extension of time, an overview of some of the events that takes place simultaneously, split or multiple screen (the screen shows two or three events), gentle displacement of one image or round to the image or the next round and an explanation of motion (slowed or accelerated).

Learning to use the video, we will get the content and structure intact from the subject matter or practice, which can be used interactively with workbooks, user guide, text books, and tools or other objects that are usually used in the field; with video, information can be presented in unison at the same time location (classes) or different one and the number of spectators (participants) is not limited. The trick is to place the monitor in class and learn with video that is a self-learning activity, where students learn in each individual's speed.

While the cost of reproduction limitations which is relatively expensive and not compatible for a variety of video formats. However, for these two limitations, if we observe from the present conditions, it seems no longer relevant. Because now we can find a wide range of video recording devices at low cost, for example, by using a multimedia player equipment, telecommunications equipment. In terms of video formats, for more compatible today, even with the equipment and software available in the market or over the Internet, we can vary the format into various types of video formats, for instance, how to run video conversion software that we want. Some examples of digital video formats are mpeg, avi, flv, 3gp and so on.

Furthermore, the limitations of using video games is that when it is used, the video will have to be provided in place of use and must match the size and format of the video tape or disc video that will be used. To develop script or scenario is not an easy task, in addition to time-consuming, video production costs very high and only a few people could do it. However, this limitation seems to be irrelevant to the rapid development of digital technology and information at this time. And when images on video tape are transferred to film, the results are not good. Small screens will limit the number of spectators, except network monitors and video projection system propagated.

The objects in this study are teenaged students who are going to vocational high schools, relatively between the ages of 16-18 years old that have different characteristics with other school-aged teenagers and are essential in their growth and development to find their identity. The characteristics of those high schools are as follows:

a. From the physical development:
- Muscle strength and endurance develop properly.
- Keen on good skills and even lead to acrobatic movement.
- Boys have quite mature physical state.
- Children have become increasingly putrid good body proportions.
- Able to build willingness admirably.

b. From the mental development:
- Thinking of oneself considerably
- Stable and mature mentality
- Requiring a lot of experience from all sides.
- Keen on ideals and delighted to decide the following issues: education, employment, marriage, world events, politics, and trust.

c. From the social development:
- Be aware of and sensitive to the opposite sex.
- More free.
- Trying to escape from protection of adult or educator.
- Keen on social development issues.
- Keen on freedom of self and adventure
- Aware to look good and dress neat and clean
- Not keen on the requirements specified by both parents.
- A group view determines personal attitude.

d. From the motor development

Conclusion

The product of development of model of learning videos on forearm passing is practicable to the subjects of the trial. This is based on the data analysis of the expert evaluation gained an average of 83%, the data analysis of learning experts obtained an average percentage of 86%. The preliminary data showed 81.5% of experts and 83% of the physical education learning experts. These changes indicate that there was improvement of the observations of experts. There were some repairs done to make the product better, i.e. by adding the particulars detail in the materials as well as adding some variety so that the duration of the video material was not too short. Based on the assessment criteria for test by existing expert, the product of development of the model of learning videos on the forearm passing met the criteria and very well fit the established criteria and can be said to be feasible so that it can be used for class XI students of SMK Negeri 1 Bangkalan.

The product of development of the model of instructional video can be used for class XI students of SMK Negeri 1 Bangkalan. It was based on the analysis of data corresponding to the *good* criteria. There were some adjustments in this development so that students were able to perform the basic techniques of forearm passing properly. As there was an increase in the percentage, the students may have started to understand the material presented. The development of this model of instructional videos was made considering the sequence of the materials and detailed information so that students could easily understand the materials. The basic technique was taught by exemplifying by stages correctly and adding the wrong move which was often done so that students became more apparent. Based on the existing criteria then learning through the development of model of instructional video on forearm passing fulfilled the *good* criteria in

accordance with the prescribed rules so that it can be feasible and can be applied in SMK Negeri 1 Bangkalan.

The factor that made the development of models of instructional video on forearm passing acceptable by the students of class XI was all aspects of the trials there. Most students can meet all the assessment criteria both in terms of cognitive, affective and psychomotor. The initial meeting during the introduction of model of development of instructional video on forearm passing students was very interesting because it was rare that they get, it is very helpful to the next lesson. The basic technique of forearm passing presented through direct visual practiced by easy stages, so that the students knew the detail steps of the passing properly. Moreover, there were also some wrong moves the students often did. With some examples of the movement, the student became easier to understand and comprehend the steps in doing the passing. The development of instructional video media on forearm passing also presents some variations of passing. It is hoped it can facilitate students to perform the passing in pairs so that it was easier and fun. The overall development of video models on learning of forearm passing can be used as an alternative learning which was innovative, creative, varied and effective. From the small scale testing and field trials, this development is used for class XI students of SMK Negeri 1 Bangkalan.

REFERENCES

Prastowo, A. 2013. *Pengembangan Bahan Ajar Tematik.* Yogyakarta: Diva PRESS.

Arikunto, S. 1999. *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: PT Rineka Cipta

Dikbud. 2002. *Kurikulum Berbasis Kompetensi,* Jakarta: Pusat Kurikulum, BalitbanG

Balitbangdikbud. 2002. *Kurikulum Pendidikan Jasmani, Sekolah Menengah Atas*. Jakarta: Puskur-Balitbangdiknas.

Depdikbud. 2000. *Panduan Manajemen Sekolah.* Jakarta: Direktorat Dikmenum

Koesyanto, H.2003. *Belajar Bermain Bola Voli.* Semarang : FIK Unnes.

Lincoln &Guba. 1985. *Naturalistic Inquiry.* Newbury Park. CA : Sage Publication

Maryono. 2000. *Metodologi Penelitian Pendidikan*. Jakarta: Rineka Cipta.

Miles, B.B., dan A.M. Huberman, 1992, *Analisa Data Kualitatif*, Jakarta: UI Press

Mulyasa. 1991. *Kurikulum Berbasis Kompetensi, Konsep, Karakteristik danImplementasi*. Bandung: Penerbit PT. Remaja Rosdakarya Offset.

Yunus,M. 1992. *Bolavoli Olahraga Pilihan*. Jakarta: Depdikbud Direktorat Jenderal Pendidikan Tinggi

Moleong. 2006. *Metode Penelitian Kualitatif (Edisi Revisi).* Bandung: Remaja Rosda Karya.

Ahmadi, N. 2007. *Panduan Olahraga Bolavoli.* Surakarta: Pustaka Umum.

Sudjana. 1991. *Dasar-Dasar Proses Belajar Mengaja*. Bandung: Sinar Baru Algensindo.

Sudjana. 2001. *Penilaian Hasil Proses Belajar Mengajar*. Bandung: PT Remaja Rosdakarya

PRESENTER'S PAPERS

Sudjana and Rivai. 1991. *Media Pengajaran*. Bandung: Sinar Baru.

Suharmi. 1979. *Metodologi Penelitian Sosial dan Pendidikan*. Yogyakarta : Andi Offset.

Sukintaka. 1992. *Teori Pendidikan Jasmani.* Solo: ESA Grafika.

Sumardianto. 2000. *Filsafat Olahraga*. Jakarta: Depdiknas.

Suwito. 1978. *Pengantar Awal Sosiolinguistik: Teori dan Problema*. Yogyakarta: Sabda.

Biodata

M. Muhyi is a faculty member of Universitas PGRI Adi Buana Surabaya.

Harwanto is a faculty member of Universitas PGRI Adi Buana Surabaya.

Yoso Wiyarno is a faculty member of Universitas PGRI Adi Buana Surabaya

PRESENTER'S PAPERS

The Development of Module With "Puzzle Map" to Increase Geography Achievement

Yoso Wiyarno
Iskandar Wiryokusumo
Marianus Subandowo
University of PGRI Adi Buana Surabaya
Jl. Dukuh Menanggal XII/No/ 4, Surabaya, Indonesia
yoso.unipasby@gmail.com

Abstract

With the puzzle map as learning media, students while playing are expected to be able to improve understanding of the location and analyze potential areas of natural resources to improve and enhance the quality of education in schools. This study aimed to: (1) develop a puzzle map suitable for the students of Class XII SMA Negeri 1 Kamal in Bangkalan, (2) develop a way of presenting a puzzle map in the learning process in Class XII of SMA Negeri 1 Kamal in Bangkalan, (3) identify the effectiveness of a puzzle map to the learning process and outcomes of the students of class XII SMA Negeri 1 Kamal Bangkalan. This research was conducted in SMA Negeri 1 Kamal Bangkalan. The samples used in this study were a class XII IPS-V of 2015/2016 academic year totaling 28 students. This Research & Development), which is the border of qualitative and quantitative approaches, was intended to bridge the gap between research and educational practice. The analysis technique was used to measure the effect of learning with a puzzle map, i.e. a paired t-test. The results showed that (1) the development of the puzzle map media fit for use to enhance the critical thinking skills of the students, according to the validation experts, (2) the learning model with map puzzle are regarded as 'good' in accordance with the students' responses and (3) the map puzzle is an effective media to improve students' critical thinking skills, according to the test results of paired t-test, which showed that there was no significant difference in the students' learning outcomes before and after the implementation of the map puzzle.

Keywords: Map Puzzle, Learning Outcomes, Geography of Kamal

INTRODUCTION

Today there has been very rapid advancement of Science and Technology) that makes people so easy in accessing data or information. This has an impact on the education sector which will undergo a change, they now have a very easy access of the data via internet browsing. This is in contrast to the early situation in which they took a long time and had to pass through several stages of the process manually. These changes encourage people to do the research and then create invention. These innovation changes make progress in the world era of Science and Technology supported by the invention of media or tools which mean that in achieving the purpose/goal people in the world of education cannot be separated from this process in which the communication between students and teachers in the learning process is considerably helped.

In today's development of Science and Technology there is no doubt that the role of Geography is a main mindset as foundation stone of accessing the spread of Natural Resources on earth through a distribution map of Natural Resources; with the map we get sheets of information about the geography of a place, on the other hand the diffusion of innovations spread to various technological advances that require physical resource information as well as the social conditions of local resources and therefore a factor of geographic information is a foundation for national development in order to realize the well-being of the Indonesian people.

However this development also needs to be supported by other sciences, such as mathematics and computer technology. To be able to master and create the appropriate technology in education, geography constitutes the mother of all required sciences and needs to be given to students as a foundation stone in a pattern of thinking (mindset) is. So that the pattern of geographic information system (GIS) can be run in the Natural Resources through remote sensing via satellite or via the photo sensing manually when creating thematic maps of the distribution of natural resources.

The rapid flow of information and the progress of science and technology today in the era of globalization, especially our nation Indonesia for the ASEAN Economic Community (AEC) and education has a passion for improving human resources through the internalization of fighting spirit and the spirit of competition starting from the educational environment of elementary school, junior high schools to universities as well as the surrounding communities that must be moved systematically and simultaneously to be able to compete fairly with other countries that may exist in the world of education today, the use of the results - the results of technological innovation has helped educators (teachers) in the provision of instructional media and learning resources (learning impact,) and props (teaching aid) in the field of education, the students easily obtain learning materials related to the topics studied in school or in completing the tasks assigned by the teacher. In the process of learning in class, teachers have trouble in the distribution of natural resources which are hard to memorize the places potential to produce natural resources, for instance, gold in Cikotok, petroleum in Gerong River, Salt in Kalianget, Sumenep.

With the map puzzle instructional media students are expected while playing can improve understanding and analyzing the location of the place - a potential place of natural resources to improve and enhance the quality of education in schools and eliminate verbalism so that learning objectives can be achieved as evidenced by improved learning outcomes.

Research Methodology

This study was a research and development (R & D), which is the border of qualitative and quantitative approaches, and especially to bridge the gap between research and practice of education (Semiawan 2007 in Sutopo, 2008: 78), then Semiawan explained that R & D in education is directed at developing an effective product for the purposes of the school, and is an applied research. This study is concerned with the changes for improvement (what works better), from the 'why, and put a more emphasis on it in education.

The method used in this study with consideration of compatibility with the nature of the research to be carried out, was the Research & Development (R & D) (Borg, and Gall W.R, M.D, 1989). The steps of this study consisted of six stages (Sutopo, 2008: 87) as summarized in Figure 1 below:

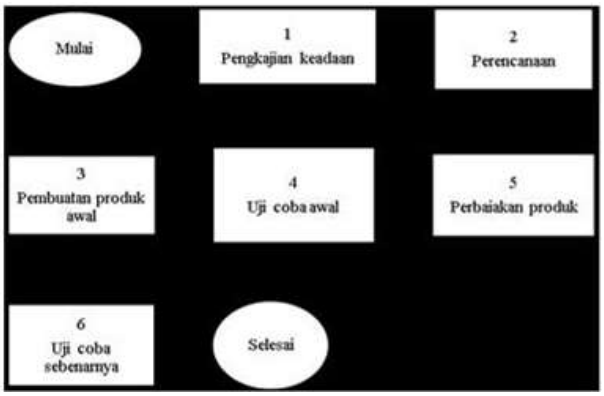


Figure 1 The stages of R&D

The product of the development of map puzzle of Bangkalan as instructional media was made of Multiple wooden. The population was the students of class XII IPS 4 of SMAN 1 Kamal Village, Telang District of Kamal, Bangkalan, as many as 28 students. The non-probability sampling was used as a sampling technique, the saturated sampling technique was the type of sampling technique used when all members of the population used as a sample. This is often done when the total population is relatively small, less than 30 people.

Mode of learning media, i.e. Contextual Map was applied to the subjects of research as a source of data for three phases, namely: (1) the stage of clarification by experts, (2) initial try-out, (3) the trial is actually a quasi-experimental research to determine the usefulness of media developed.

The data analysis technique was tailored to the type of data, namely (1) The results of interviews and observations are presented in the form of description, (2) The results of the questionnaire are presented in the form of description and (3) and learning achievement/students' test scores are for the student achievement grades.

Discussion

This research was conducted through four stages. The first stage was the development of the device, the second stage was a testing device developed in the actual class, the third stage is the implementation of the manufacturing-based learning media 'map puzzle', the fourth stage, namely a product which has been validated by the subject matter experts and media experts, then tested 28 high school students in class XII, as well as practitioners of learning geography teachers to give feedback on the learning media product, i.e. map puzzle. This section describes the feasibility of learning tools developed and the results of trials in the learning process in the classroom in terms of validity, practicability and effectiveness.

Validity of Learning Device to be Developed

The validity indicators of the learning device contained in this research was the validity criteria which were validated by two learning specialists. Parts of the device that were developed include: Syllabus, Learning Implementation Plan (RPP), Student Worksheet (LKS), Students Instructional Materials (BAS), assessment instruments and questionnaires on Puzzle learning media.

Syllabus

The aspects that are validated in the syllabus include: (1) the completeness of components of syllabus, (2) development of syllabus based on the material of Geography, (3) systematic, (4) syllabus that is consistent (core competence, basic competence, learning materials, learning activities, assessment, allocation of time and resources to learn), (5) the syllabus can support the achievement of basic competences, (6) the development of the actual nature of the syllabus is principled and contextual, (7) the material developed to be flexible syllabus, (8) the development of the syllabus is thorough. The results of validation of syllabus is presented in Table 1 as follows:

Table 1 Results of Validation of Syllabus

No	Aspects to evaluate	Evaluation Scores		Average	Criteria	Reliability (%)
		V1	V2			
1	Complete components of syllabus	4	4	4	Very good	100
2	Materials-based development	4	3	3.5	good	86
3	Systematic	3	3	3	good	100

4	Consistent (competences, materials, learning activities, time allotment, learning resources)	4	3	3.5	good	86
5	Syllabus can support achievement of basic competences	4	3	3.5	good	86
6	Actual and contextual	3	3	3	good	100
7	Flexible	3	3	3	good	100
8	Comprehensive	4	3	3,5	good	86
Total average score		**3.63**	**3.3**	**3.38**	**good**	
Reliability						**92.60**
Conclusion: Syllabus developed is good and can be applied in the learning process						

Based on Table 1 above it can be seen that the average score of the syllabus validation by the two validators reached 3.38 with 'good' criteria. The results of calculation of reliability reached 92.6%, so it can be concluded that the syllabi are developed and can be used in the learning process (Ratumanan & Laurens, 2011).

Learning Implementation Plan (RPP)

The aspects that are validated in the RPP, namely: 1) the purpose of learning, 2) learning materials, 3) methods of learning, 4) media, tools and learning resources, 5) learning activities, 6) evaluation. The results of the validation of Learning Implementation Plan (RPP) are presented in Table 2 as follows:

Table 2 Results of the Validation of Learning Implementation Plan (RPP)

No.	Aspects to evaluate	Evaluation score		Average score	Criteria	Reliability
		V1	V2			
1.	**Learning objectives:**					
	a. Writing core competences	4	4	4	Very good	100
	b. Writing basic competences & indicators	4	4	4	Very good	100
	c. Relevance with core & basic competences, and indicators	3	3	3	good	100
	d. Relevance with time allotment	3	3	3	good	100
	e. Can easily be measured	3	3	3	good	100
	f. Containing operational verbs	4	3	3.5	good	86
2.	**Learning materials:**					
	Description of materials	3	3	3	good	100
3.	**Method of learning**					
	Selection of method/ strategy/ technique of learning	3	3	3	good	100
4.	**Media, tool and learning resources**					
	a. media	3	4	3.5	good	
	b. tool	4	3	3.5	good	100

	c. learning sources	3	3	3	good	100
5.	**Learning activities**					
	a. Pre-learning					
	1. Apperception	4	4	4	Very good	100
	2. Motivation	4	4	4	Very good	100
	3. Explaining learning objectives	4	4	4	Very good	100
	b. Whilst-learning					
	1. Distributing students' worksheets	4	4	4	Very good	100
	2. Formulating problems	3	3	3	good	100
	3. Determining hypothesis	4	3	3.5	good	86
	4. Designing experiment	4	4	4	Very good	100
	5. Executing experiment	4	3	3.5	good	100
	6. Drawing conclusions	3	3	3	good	100
	7.Inter-group discussion of data	3	3	3	good	100
	c. Post-learning					
	1. Summarizing	3	3	3	Good	100
	2. Giving rewards to groups whose performances stand out	4	4	4	Good	100
	3.Greeting and revealing the materials for the next meeting	4	4	4	Very good	100
6.	**Evaluation**					
	1. Aspects to evaluate (attitude)	3	3	3	good	100
	2. Technique	3	3	3	good	100
	3. Instrument	4	3	3.5	good	100
	4. Item specifications	3	3	3	good	100
	5. Evaluation Rubric	3	3	3	good	100
Total average score		**3.50**	**3.32**	**3.41**	**good**	
Reliability						**97.36**
Conclusion: RPP developed was very good and can be used in the learning process.						

Based on Table 2, it can be seen that the acquisition of the average score by the second validator of validation of RPP; while the acquisition of calculation results of reliability reached 97.36%, so it can be concluded that the RPP is developed well and fit for use in the learning process. (Ratumanan & Laurens, 2011). And in this case the researchers also need to heed the advice of the validators in order to enhance lesson plans developed.

Students' Worksheet (LKS)

The aspects that are validated in LKS are: 1) the terms of didactic, 2) the feasibility of the content, and 3) questions. In order to clearly understand LKS validation, the results can be seen in Table 3 below:

Table 3 Result of Validation of Students'Worksheet

No	Aspects to evaluate	Evaluation Score V1	Evaluation Score V2	Average	Criteria	Reliability
1.	**Didactic requirements**					
	a. Determining indicators and learning objectives	4	4	4	Very good	100
	b. The Materials are relevant with the objectives in RPP	3	3	3	good	100
	c. Activities support students' creative thinking	3	3	3	good	100
2.	**Feasibility of content**					
	a. Using simple, clear, and easy-to-understand sentences	4	4	4	Very good	100
	b. Sequence of lessons	3	3	3	good	100
	c. Directions to do in students' worksheets	4	4	4	Very good	100
	d. Encouraging students to learn scientifically	4	4	4	Very good	100
	e. Supporting students for discussion and social interaction	4	4	4	Very good	100
	f. Developing creative thinking skills through the use of map puzzle	3	3	3	good	100
	g. Developing self-esteem and honesty	3	3	3	good	100
	h. Developing ability to draw conclusions	3	3	3	good	100
	i. Supporting students to search for further information	3	3	3	good	100
3.	**Questions**					
	a. Relevance of questions in students' worksheet and lesson plans	3	3	3	good	100
	b. Questions support the comprehension of materials	4	3	3.5	good	86
	c. Questions/Test support creative thinking skills through the use of map puzzle	3	4	3.5	good	86
	General evaluation	**3.40**	**3.20**	**3.30**	**good**	
Reliability						**96.96**
Conclusion: Students' worksheet developed is good and can be applied with Map Puzzle						

Based on Table 3 above, it can be seen an average gain of validation of LKS by two validators is 3.30 belonging to 'good' criteria. The results showed that the reliability was 96.9% so that it can be concluded that the worksheets that are developed and can be used in the learning process (Ratumanan & Laurens, 2011). Researchers still must pay attention to the advice/feedback from the validators/mentors to further enhance the development of LKS.

Learning Materials

The validated aspects of student teaching materials include: 1) Feasibility of content, 2) legibility of the language, and 3) presentation. The results of the validation of learning materials can be seen in Table 4 below:

Table 4 The results of the validation of learning materials

No	Aspects to evaluate	Evaluation Score		Average	Criteria	Reliability
		V1	V2			
1	**Components of Content Feasibility**					
	A. Materials covering					
	1. width of materials	4	3	3,5	good	86
	2. depth of materials	3	3	3	good	100
	B.Accuracy of materials					
	1. Accuracy of facts	3	3	3	good	100
	2. Truthfulness of concepts	3	3	3	good	100
	C. Novelty					
	1. Coping with advancement of sciences	4	4	4	good	100
	2. Exemplification	3	4	3.5	good	86
	D. Simulating curiosity					
	1. Developing curiosity	4	4	4	Very good	100
	2. Supporting to search for further information	3	3	3	good	100
2	**Linguistic components**					
	7. **Suitable for the students' level of development**					
	1. Suitable for students' development	4	3	3.5	good	86
	2. Suitable for students' social development	3	3	3	good	100
	8. **Communicative**					
	1. Students comprehension of messages	3	3	3	good	100
	2. Kesesuaian ilustrasi dengan subtansi pesan	3	3	3	good	100
	9. **Dialogic and interactive**					
	1. Ability to motivate students to receive messages	4	4	4	Very good	100
	2. Creating communicative interaction	3	4	3.5	good	86
	10. **Clarity**					
	1. Accuracy of sentence patterns	4	3	3.5	good	86
	2. Terms used	3	3	3	good	100
	11. **Relevance with the Indonesian language system**					
	1. Accuracy of grammar	4	3	3.5	good	86
	2. Accuracy of mechanics	4	3	3.5	good	86
3	**Components of presentation**					
	f. **Presentation technique**					
	1. Logic of presentation	3	3	3	good	100
	2. Rules of concepts	3	3	3	good	100
	3. Balance of substances of chapters and subchapters	4	3	3.5	good	86
	B. Presentation of learning					
	1. student-centered	4	4	4	Very good	100
	2. references	3	4	3,5	good	86
	3. Identity of tables and figures	4	3	3.5	good	86
	4. list of references	3	3	3	good	100

No	Aspects to evaluate	Evaluation Score		Average	Criteria	Reliability
		V1	V2			
General evaluation		**3.44**	**3.28**	**3.36**	**good**	
Reliability						**97.61**
Conclusion: The learning materials developed is good and feasible to be applied in the learning process.						

Based on Table 4 above it can be seen that the average score of validation of the materials by two validators reached 3.36 with good criteria, while the results of reliability reached 97.6%, so it can be concluded that the Student Instructional Materials have been developed with good criteria and fit for use with minimal revision (Ratumanan & Laurens, 2011). Revisions have been made by taking into account the advice of the two validators.

Instrument for Evaluation of Applicability of Learning

Results of evaluation of students' critical thinking Implementation of the learning using the Map Puzzle process for critical thinking skills was at the beginning and at the end of the meeting through the pretest and posttest. It aimed to determine the extent of mastery learning in the learning process by using the Map Puzzle on geography. The results regarding critical thinking skills can be seen in Table 5 below:

Table 5 Results of Evaluation of Critical Thinking Skills

NO	Students' Names	Evaluation			
		Pre Test	Criteria for Minimum Completeness (KKM)	Post Test	KKM
1	ABDUL BASID RAMADHAN	75	completed	85	completed
2	ABDUR ROHIM	67	Not completed	80	completed
3	ALI AKBAR FERDIANSYAH	70	Not completed	80	completed
4	ANDI SUTRISNO	75	completed	90	completed
5	ANGGARA FEBY MOONDEAR	70	Not completed	90	completed
6	BAHRUL ULUM	68	Not completed	80	completed
7	DEWI PUTRI DAMAYANTI	75	completed	95	completed
8	ENI SYAFITRI	70	Not completed	84	completed
9	FARAS FUADI	68	Not completed	82	completed
10	FISKA PRATIWI	70	Not completed	85	completed
11	FITRIA UMAR AL HABSYI	67	Not completed	86	completed
12	ISTIQOMAH	70	Not completed	85	completed
13	LISNA AYU SAFITRI	67	Not completed	90	completed

14	MAIMATUS RIZQIYANA	68	Not completed	86	completed
15	MERISA DWI LESTARI	67	Not completed	84	completed
16	MOCH. GAFFAR	68	Not completed	80	completed
17	MOH, SYAFIK	65	Not completed	80	completed
18	MOHAMMAD FAIZOL	67	Not completed	83	completed
19	NILAM DAISY MULYANA	65	Not completed	87	completed
20	NUR FANITA SARI	66	Not completed	87	completed
21	NUR KHOFIDOTUR ROFIAH	65	Not completed	75	completed
22	QOTRUN NADA	66	Not completed	88	completed
23	RISKI NOVIANTO	66	Not completed	92	completed
24	SITI SABEAT ASYAROH	65	Not completed	80	completed
25	SUCI INDAH WAHYUNI	67	Not completed	85	completed
26	SUKMA SEPTIA HANDAYANI	67	Not completed	88	completed
27	SYAIFUL BAHRI	68	Not completed	84	completed
28	YASIN	67	Not completed	85	completed

Table 5 revealed the result of critical thinking skills of students before and after the application of learning by using the Map Puzzle map. The results of the pre test showed 10.7% of students received grades in accordance with the Criteria for Minimum Completeness, popularly known as KKM; while the results of post-test showed that 100.0% of students achieved KKM. This means that the learning process by using a map Puzzle could improve students' critical thinking skills.

a) Results of Students' Responses

The data regarding the students' responses were obtained from the questionnaire responses of students found in Appendix. The questionnaire was distributed to 28 students at the end of the lesson and contained 20 statements about the students' responses to learning with the use of Map Puzzle that had been done. The results of the questionnaire responses of 28 students can be seen in Table 6

Table 6 The Results of Students' Responses on the Use of Map Puzzel

Students' Responses																				Total	Scores
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20		
4	4	5	4	4	4	3	5	4	5	4	3	3	4	3	3	5	5	5	5	82	82.0
3	3	4	4	4	4	4	4	4	4	4	3	3	3	3	4	4	5	4	4	75	75.0
4	3	4	3	3	4	4	4	3	4	3	4	4	3	4	3	4	4	4	4	73	73.0
4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	79	79.0
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	80	80.0
4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	79	79.0
4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	3	4	77	77.0
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	80	80.0
3	3	3	3	3	3	2	3	3	3	3	3	3	2	3	3	3	3	3	3	58	58.0
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	80	80.0
3	3	3	3	3	3	2	3	3	3	3	3	3	2	3	3	3	3	3	3	58	58.0
3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	61	61.0
4	4	4	4	4	4	4	4	4	4	4	4	4	2	4	4	4	4	4	4	78	78.0
3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	61	61.0

3	3	3	3	3	3	4	3	3	3	3	3	3	4	3	3	3	3	3	3	62	62.0
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	80	80.0
3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	61	61.0
3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	61	61.0
3	2	2	3	2	2	4	2	3	2	3	4	3	3	3	5	3	4	5	5	63	63.0
4	3	4	3	3	3	4	4	3	4	3	3	3	4	3	5	4	5	4	5	74	74.0
5	4	2	5	5	1	5	5	2	5	2	5	4	3	5	5	1	5	5	2	76	76.0
5	5	3	4	5	2	5	3	2	5	2	5	5	2	5	5	2	5	5	2	77	77.0
												Mean									70.0

Based on Table 6 it shows that the percentage of students from each of the statements, amounting to a relatively high enough. The overall statements belonged to the good category. The average response of students towards the learning that had taken place was 70.00% which is quite good. This suggests that learning using Map Puzzle was given positive responses from the students and was well received by the students.

PRESENTER'S PAPERS

Verification of Effectiveness of Map Puzzle Learning Model

The effectiveness of the application of the map Puzzel model is measured and it improved the students' learning outcomes through critical thinking skills. The paired t test was used to test the first hypothesis, which reads "Effectiveness of map Puzzel on the process and learning outcomes of students of class XII SMA Negeri 1 Kamal Bangkalan". The steps of hypothesis testing were as follows:

1) Hypothesis :
   H0: There is no difference between the learning outcomes before and after implementation of learning methods of Map Puzzel at XII of SMA Negeri 1 Kamal Bangkalan.
   H1: There is difference between the learning outcomes before and after implementation of learning methods of Map Puzzel at XII of SMA Negeri 1 Kamal Bangkalan.
2) Statistical Test :
   T_{count} = -21.061 ; significance level of 0.000
3) Acceptance and rejection of hypothesis :
   - When the significance of probability value> 0.05, there is no difference between the learning outcomes before and after implementation of map Puzzel learning methods at SMA Negeri 1 Kamal Bangkalan.
   - When the significance of probability value < 0.05, there is difference between the learning outcomes before and after implementation of map Puzzel learning method at SMA Negeri 1 Kamal Bangkalan
4) Conclusion :
   Based on SPSS output, it obtained significance probability value <0.05 then the conclusion is that H0 was rejectedband H1 was accepted. It is evident that there are differences between the learning outcomes before and after implementation of Map Puzzle teaching methods in class XII of SMA 1 Kamal, Bangkalan.

Conclusion

The development of puzzle media used to enhance students' critical thinking skills was beneficial, according to the average score of validation by two validators, it to reached 3.36 with good criteria, while the results of reliability reached 97.6%, so it can be concluded that the learning materials has been developed with the criteria of good and fit for use with minimal revision. The results of this study is that the map puzzle is expected to be used as a medium of learning and the map puzzle is useful for students during the learning process that takes place and as an alternative source of independent study for students' interest. Besides the results of this development is expected to be used as an alternative medium of learning in the classroom, especially in the subject of geography as well as innovative forms of learning media.

REFERENCES

Amri, Sofan. Iif, Khoiri Ahmad. (2010). *Konstruksi Pengembangan Pembelajaran (Pengaruhnya terhadap Mekanisme dan Praktik Kurikulum*. Jakarta: Prenada Media Group.

PRESENTER'S PAPERS

Darsono. (2008). *Pengembangan Model Inkuiri Sosial Dalam Pembelajaran Ilmu Pengetahuan Sosial di Sekolah Dasar (Studi Pengembangan Pendidikan untuk Meningkatkan Pemahaman Materi IPS dan Keterampilan Berpikir Kritis Siswa Kelas V Sekolah Dasar di Kota Metro): Sebuah Disertasi.* Bandung: Universitas Pendidikan Indonesia.

Pargito. (2009). *Penelitian dan Pengembangan Bidang Pendidikan.* Bandarlampung: Universitas Lampung.

Sugiono. (2012). *Metode Penelitian Kuantitatif, Kualitatif dan R&D (Cetakan ke 14).* Bandung: Alfabeta.

Sutopo, Hadi. (2008). *Pengembangan Model Pembelajaran Pembuatan Aplikasi Multimedia Game Puzzle pada Mata Kuliah Multimedia: Sebuah Proposal Disertasi.* Jakarta: Universitas Negeri Jakarta.

Tola, Burhanuddin. dkk. (2005). *Standar Penilaian Kelas.* Jakarta: Depag RI.

Authors' Biodata

Yoso Wiyarno is a faculty member of Universitas PGRI Adi Buana Surabaya

Iskandar Wiryokusumo is a faculty member of Universitas PGRI Adi Buana Surabaya.

Marianus Subandowo is a faculty member of Universitas PGRI Adi Buana Surabaya

Graduate Program
University of PGRI Adi Buana Surabaya