

ABSTRAK

Dwiky Maulidan Wardana, 2022. Analisis Kesalahan Siswa Dalam Menyelesaikan Soal Cerita Matematika Berdasarkan Teori Newman. Skripsi, Program Studi Pendidikan Matematika. Fakultas Sains dan Teknologi. Universitas PGRI Adi Buana Surabaya, Pembimbing I: Dr. Sunyoto Hadi Prayitno, S.T., M.Pd. Pembimbing II: Annisa Dwi Sulistyaningtyas, S.Si., M.Si.

Kata kunci: Analisis Kesalahan, Soal Cerita, Teori Newman

Materi teorema Pythagoras merupakan materi yang dipelajari pada jenjang SMP di kelas VIII. Pada materi teorema Pythagoras, bentuk soal yang sering muncul adalah soal cerita. Soal cerita merupakan soal yang berkaitan dengan masalah kehidupan sehari-hari yang berbentuk cerita. Siswa relatif lebih sulit menghadapi soal cerita matematika. Tujuan dilakukan penelitian untuk menganalisis jenis kesalahan siswa kelas VIII-A SMP YP 17 Surabaya dalam menyelesaikan soal cerita matematika guna mengetahui jenis kesalahan dan faktor penyebab siswa melakukan kesalahan menggunakan teori Newman. Teori Newman meliputi kesalahan membaca (*reading error*), kesalahan memahami soal (*comprehension error*), transformasi masalah (*transformation error*), kesalahan proses (*process skill error*), dan kesalahan penulisan jawaban akhir (*encoding error*).

Penelitian ini merupakan penelitian kualitatif. Pengumpulan data menggunakan metode tes dan wawancara, subjek penelitian diambil 3 siswa yang mendapatkan nilai terendah untuk dilakukan wawancara. Uji keabsahan data dilakukan dengan menggunakan triangulasi teknik.

Berdasarkan penelitian yang telah dilakukan diperoleh hasil terdapat 4 jenis kesalahan yang sering dilakukan siswa yaitu kesalahan memahami soal (*comprehension error*) dengan faktor internal penyebab kesalahan siswa terbiasa tidak menuliskan diketahui ditanya, kesalahan transformasi (*transformation error*) dengan faktor internal penyebab kesalahan siswa kurang menguasai materi, kesalahan proses (*process skill error*) dengan faktor internal penyebab siswa terburu-buru dan kurang teliti, dan kesalahan dalam menulis jawaban (*encoding error*) dengan faktor internal penyebab

kesalahan siswa terbiasa tidak menuliskan kesimpulan pada soal cerita matematika.

ABSTRACT

Dwiky Maulidan Wardana, 2022. *Analysis of Student Errors in Solving Math Story Problems Based on Newman's Theory*. Thesis, Mathematics Education Study Program. Faculty of Science and Technology. Universitas PGRI Adi Buana Surabaya, Advisor I: Dr. Sunyoto Hadi Prayitno, S.T., M.Pd. Advisor II: Annisa Dwi Sulistyaningtyas, S.Si., M.Si.

Keywords: Error Analysis, Story Problems, Newman's Theory

The material for the Pythagorean theorem is material that is studied at the junior high school level in class VIII. In the Pythagorean theorem material, the form of questions that often arise is story problems. Story questions are questions related to everyday life problems in the form of stories. Students are relatively more difficult to deal with math story problems. The purpose of this research is to analyze the types of errors of class VIII-A students of SMP YP 17 Surabaya in solving math story problems in order to find out the types of errors and the factors that cause students to make mistakes using Newman's theory. Newman's theory includes reading errors, problem understanding errors, problem transformations, processing errors, and writing errors in the final answer.

This research is a qualitative research. Data collection using test and interview methods, research subjects were taken 3 students who got the lowest score for interviews. Test the validity of the data is done by using triangulation techniques.

Based on the research that has been done, the results show that there are 4 types of errors that are often made by students, namely errors in understanding questions with internal factors that cause students to get used to not writing and being asked questions, transformation errors with internal factors causing students to lack mastery of the material, process errors with internal factors causing students in a hurry and lack of thoroughness, and errors in writing answers with internal factors causing errors, students are accustomed to not writing conclusions on math story problems.