

Description Of The Mistakes Of The Fifth Graders Of SD Negeri 1502 Pioner Siborna In Solving Math Problems

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Abstract, The purpose of this study was to find out what mistakes were made by the students of SD Negeri 1502 Pioner Siborna in grade 5 odd questions when solving math problems. The method used in this research is qualitative and descriptive type of research. The subjects of this study were all fifth grade students of SD Negeri 1502 Pioner Siborna, totaling 26 students consisting of 16 female students and 10 male students. The data collection technique used in this research is the use of documents and interviews. The purpose of this documentation is to find out the mistakes students made with their math problems in Semester 2. The purpose of the interviews was to obtain information about alternative answer choices and to analyze students' errors in the questions given. Based on the data analysis of the results of this study, it can be concluded that students make more conceptual errors than errors caused by principles, operations, and carelessness. Conclusions based on the results of data analysis are the conceptual error rate is 35.54%, the principle error rate is 31.24%, the operating error rate is 21.95%, and the careless error rate is 11.27%.

Keywords : Error analysis, Math problems

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I. INTRODUCTION

The purpose of national education is to educate the life and development of the Indonesian state as a whole, namely humans who believe and fear God Almighty, have noble character, have knowledge and skills, are physically and mentally healthy, strong and independent. personality and social responsibility as well as national awareness (Nasional, 2006).

Learning is a complex process that is experienced by everyone throughout his life because of the interaction between the individual and the environment. Slameto, (2010) change is a change in behavior caused by interaction with the environment in the process of meeting the needs of life. These changes will manifest in all aspects of behavior. Therefore, learning is a process of making behavior better. Learning is not just a memory, but a mental process that takes place in the human body. The ultimate

goal of learning activities is for students to gain new knowledge and become capital to face problems in everyday life. This capital is called learning outcomes.

Learning outcomes are changes or additions to knowledge marked by increased creativity, understanding, increased student attitudes, and others. Hamalik, (2006) is a change in student behavior, for example from not knowing to knowing, never understanding to understanding. These learning outcomes are expected by the teacher to be achieved. To obtain these learning outcomes, it is necessary to conduct an assessment that can provide information to teachers about students' abilities in these subjects, and one of the fields of study in basic learning is mathematics.

Mathematics is one of the important fields of study taught in schools. This is because mathematics develops students' thinking skills so that students can analyze problems critically. The basic aim of the Ministry of National Education is to prepare students to face the changing life in a constantly changing world by acting on the basis of logic, rationality, and critical thinking. Attentive, honest, effective and efficient. Meanwhile, according to the regulations of the Ministry of National Education, the specific purpose of elementary school mathematics is to grow

and develop mathematical numeracy skills that must be taught to students. The goal is that the knowledge provided is meaningful for the students themselves. There are various subjects that can be taught in the field of mathematics that is taught in elementary school, because if it is not taught well, there will be many mistakes in doing math problems in the future.

The results of an interview with the 5th grade principal of SD Negeri 1502 Pioner Siborma on February 25, 2021 revealed that some 5th grade students still have difficulty answering questions, resulting in lower scores for some students because the math assessment questions are in category V according to the standard. syllabus material studied. From these questions, the author wants to know what mistakes students make when working on the second semester exam questions.

Based on the context of the problem, the author is interested in conducting a research entitled "Misunderstanding of Class V Students of SD Negeri 1502 Pioner Siborna in Solving Mathematical Problems". Based on the above background, the questions posed in this study are: What mistakes did students make in successive semesters of math problems at SD Negeri 1502 Pioner Siborna Class V? Based on the formulation of the questions above, the purpose of this study is: "To find out what

mistakes students make when working on math problems in the odd semester of fifth grade SD Negeri 1502 Pioner Siborna. Analysis is a collection of activities, interrelated activities, and processes for Solving problems or solving components in more detail, then rearranging and drawing conclusions.

According to the Big Indonesian Dictionary, it means mistake or accident (KBBI, 2016). So, mistakes are mistakes made by someone in completing the task entrusted to him. Error analysis is a description of the types of errors made by students and the reasons for the causes of errors. Error analysis has the aim of knowing the actual situation. Error analysis as a work procedure has certain steps.

The mistakes that students can make when solving math problems are as follows: 1) using mathematical concepts. 2) using mathematical formulas. 3) in mathematics. 4) calculation (mathematical questions are instruments in the form of questions on mathematical material in the form of multiple choice and descriptions related to arithmetic operations, figures and spaces, and measurements (Wiyartimi, 2010).

II. RESEARCH METHODS

The method used in this study is a qualitative research method and the type of descriptive research. According to (Sugiyono), qualitative is the study of

natural objects, developed as they are, not manipulated by researchers. The subjects of this study were all fifth grade students at SD Negeri 1502 Pioner Siborna, totaling 26 students consisting of 16 female students and 10 male students.

The data collection technique used in this research is the use of documents and interviews. Documentation is used to analyze errors made by students in solving math problems during odd semesters. Interviews were used to obtain information about alternative answer choices and to analyze student errors in the questions given.

The results of the study were analyzed using the author using a simple percentage formula as proposed by (Sudijono, 1997), namely:

$$P = \frac{f}{N} \times 100\%$$

Information:

P = Percentage

f = Frequency or number of students who make mistakes in learning

N = Number of respondents or total number of students

100 = Fixed number

Then the results of data collection with the documentation along with the results of data collection with interviews will be analyzed by researchers with three stages of qualitative data analysis as described by Miles and Huberman (Sugiyono, 2009),

1. Data Reduction Data reduction means summarizing, choosing the main things, focusing on the important things, looking for patterns and themes. 2. Data Display Data display means displaying data, namely presenting data in the form of brief descriptions, charts, relationships between categories, and so on 3. Conclusion Drawing / Verification The final step of this model is drawing conclusions and verification

III. RESEARCH RESULTS AND DISCUSSION

Based on the data analysis of the results of this study, it can be concluded that students made more conceptual errors than principle errors, operating errors, errors due to carelessness. The conclusion is based on the results of the data analysis, namely the percentage of concept errors 35.54%; the principle error percentage is 31.24%, the operating error percentage is 21.95%, and the error percentage due to carelessness is 11.27%. Judging from the test results and the results of student interviews, the causes

of these errors are: students do not know the correct solution, students ask friends for answers and how to do them, students cannot work on questions, students forget wire material, students do not like mathematics, and students have difficulty working on questions. Students use the formula incorrectly Students are hesitant to work on questions Students can't do math.

IV. CONCLUSION

Based on the data analysis of the results of this study, it can be concluded that students made more conceptual errors than principle errors, operating errors, errors due to carelessness. The conclusion is based on the results of the data analysis, namely the percentage of concept errors 35.54%; the principle error percentage is 31.24%, the operating error percentage is 21.95%, and the error percentage due to carelessness is 11.27%.

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