

Analysis of Mathematics Learning Difficulties Using the Drill Method

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Abstract

The purpose of this research was to obtain empirical data on the relationship between learning difficulties and drill methods in grade 2 students of SDN Kedaung Kota South Tangerang. This research uses a qualitative approach through descriptive techniques and drill methods. The population of this study was 6 students from 25 grade 2 students of SDN Kedaung obtained through purposive sampling. The data analyzed in this study is descriptive analysis. Descriptive analysis describes the characteristics of the data on each variable consisting of the lowest, highest values. The results showed that there was a positive correlation between learning difficulties (Variable X) and the drill method (Variable Y), this was evidenced by the drill method can improve mathematics learning outcomes at SDN Kedaung, both in low and high grades. In its implementation, the drill method with its advantages makes students get a better influence to improve their ability to improve their abilities.

Keywords: drill method, weight unit measurement, descriptive qualitative.

1 INTRODUCTION

Education has a very important role in producing quality Human Resources (HR). Education is also a place of activity to develop self-potential to build a society with character, intellectual, and productive, so that education is very important to always pay attention to its development both by the government, society and education managers. The curriculum is a plan in carrying out an educational process. Including lesson planning will be included in the discussion of the curriculum. In other words, the integrated curriculum as a concept can be said to be a learning system and approach that involves several disciplines or subjects / fields of study to provide meaningful and broad experiences to students. It is said to be meaningful because in an integrated concept, students will understand the concepts they learn as a whole and realistically. It is said to be broad because what they obtain is not only in one scope but all cross-disciplines that are considered related to each other. The success of the method taught by the teacher to students is due to a discipline and this drill method will be meaningful for students and teachers. The Drill method (exercise) is also called the training method, which is a teacher's teaching activity to build certain habits, Education has a very important role in producing quality Human Resources (HR). Education is also a place of activity to develop self-potential to build a society with character, intellectual, and productive, so that education is very important to always pay attention to its development both by the government, society and education managers. (Ashadi, F. 2016)

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Mathematics is one of the subjects whose application is able to bring critical and logical power to students. In addition, learning mathematics must be continuous, diligent and disciplined and requires a strong understanding of concepts so that they can be applied to the next lesson. If from the beginning you don't like mathematics, then for the next time students will have difficulties. Therefore, until now mathematics is still seen as a difficult subject, even so in the world of education mathematics lessons must still be studied for the completeness of student learning. This is also what makes learning mathematics in elementary school always interesting to talk about. In addition to the stage of thinking development of elementary age children who are formal and relatively still concrete, plus the diversity of intelligence, as well as the large population of elementary school students and coupled with 9 years of compulsory education, these factors are considered so that the process of learning mathematics in elementary school can be successful. (Harahap, S. Y. 2019)

Mathematics can also be interpreted as a subject that requires a good understanding of concepts so that it can be applied easily in solving problems, for that in teaching it is sought so that students can better understand and follow the lesson happily, so that curiosity to learn mathematics increases if the lessons presented are good and interesting. Motivation in learning is felt to be needed by every student to be an encouragement that will spur students' curiosity about a lesson. Learning styles and learning methods used by teachers as a source of information on knowledge that will be conveyed to students are important factors in increasing understanding of mathematical concepts, so as to create effective learning conditions. (Unaenah, E., & Sumantri, M. S. 2019)

The author hopes that mathematics subjects can be even better. Many events that we can encounter in the world of education are that student learning outcomes in mathematics subjects are still low. This is due to the lack of student activity in the teaching and learning process. Therefore, I hope that students can be more active in learning mathematics. While the hope of the 2013 Curriculum is to improve the quality of education in Indonesia, students are required to think more creatively, innovatively, quickly and responsively. In addition, the 2013 Curriculum expects students to be able to convey information or communicate ideas, among others, through oral speech, graphs, maps, diagrams, in explaining these ideas. (Nabillah, T., & Abadi, A. P. 2020)

The purpose of learning mathematics becomes significant because of its significance in various areas of life. Therefore, the teaching of mathematics is an integral element. In accordance with Law Number 20 of 2003 concerning the National Education System, in Chapter I of General Provisions Article 1 Paragraph 20 (mentioned "Learning" and not "Learning"), learning is defined as an interactive process in which learners interact with educators and learning resources in a particular learning environment (Law Number 20 of 2003, Article 1 Paragraph 20). (Astuti, A., & Leonard, L. 2015)

The expected mathematical skills and proficiency above can be achieved in learning mathematics with the following indicators: presenting mathematical statements orally, in writing, with symbols and diagrams; explain the steps or give reasons for the results of solving the problem; apply concepts algorithmically; check the validity of an argument; determining conditions requires a mathematical statement; put forward conjectures that will arise if mathematical processes are carried out; finding patterns in mathematical phenomena; determine the effect or draw conclusions after evidence has been obtained; perform mathematical manipulations; change a formula or formulas to another form of the same value; relate various existing concepts in solving problems; develop strategies in solving problems; conduct simulation and demonstration activities for daily problem solving media; determine the necessary requirements in solving the problem; check the

conformity of the expected completion results; choose a suitable approach or strategy to solve the problem; interpret the answers obtained; show curiosity and concern or interest in learning mathematics; and show a persistent and confident attitude in solving problems. (Kesumawati, N. 2008)

The thing that really needs to be noted is that so far in classroom learning practice teachers have emphasized more material goals, including environmental demands that are strongly influenced by regional or national systems. This has resulted in many people assuming that the purpose of mathematics education is only in the cognitive domain. While formal goals are considered to be achieved by themselves or can be called to be achieved "by chance". Such learning planning is still needed, but the development of mathematics is so rapid and because of the demands of society and the need for mathematics and its thinking in the field of work that does not directly use mathematical formulas, it is necessary to plan mathematics learning that deliberately includes the learning of affective values. (Novikasari, I. 2013)

Based on the results of observations carried out on April 6, 2023, several problems were found in the classroom, including classes that were not conducive to the lecture method taught by the teacher, students were even engrossed in themselves not listening to what was explained by the teacher. Lack of learning media in the classroom when the teaching and learning process the teacher only explains in front of the class, Lack of teacher motivation to students, students do not understand the material provided by the teacher, this can be seen from the results of basic competencies in the teacher's book and RPP in terms of basic competence an indicator appears, namely students are able to explain the material for measuring weight units, judging from the measurements that students should be able to do, but judging from the daily test scores and based on KKM, namely (70) students are still unable to meet the KD and Indicators that have been determined by their teachers. Class 2 of which amounted to 25 students of this number was known to be obtained information from the class teacher that with KKM 70 completed, only about 10 students out of 25 students, 10 children who had not completed because of lack of attention when the teacher explained the material and also there were some children who were not paid attention by their parents because of other activities, There are not yet 50% of children complete the material and indicators delivered by their teachers, this data is obtained from the results of interviews with teachers and students, but from this problem there must be solutions and efforts, because according to teachers at SD Negeri Kedaung Ibu Ida Irawati, S.Pd to support and to improve the understanding of mathematical concepts need continuous practice. Therefore, it is expected that with the "Drill" method or exercises in mathematics learning so that students are more active, fast, and easy to accept the learning material that the teacher delivers.

The drill method is a training method generally used to obtain an agility or skill from what is learned. As a method, drill is a way of teaching students to develop skills and skills and can develop attitudes and habits. Practice or practice is a process of learning and getting used to being able to do something drill method is "An activity of doing the same thing, repeatedly earnestly with the aim of strengthening an association / perfecting a skill so that it becomes permanent". The interesting thing about the method is that before entering the learning students do measurement exercises in units of weight. Therefore, it is expected that with the "Drill" method or exercises in mathematics learning so that students are more active, fast, and easy to accept the learning material that the teacher delivers. The interesting thing about the method is that before entering the learning students do measurement exercises in units of length, weight and memorize weight units with the material to be taught by the teacher. (Usman, B. B. 2018)

2 RESEARCH METHODS

The research method used is qualitative research with a case study approach to determine the initial reading difficulties of students in SD Negeri Kedaung. Nawawi stated that "case study data can be obtained from all parties concerned, in other words the data in this study is collected from various sources". As a case study, the data collected comes from various sources and the results of this research only apply to the case under investigation.

Arikunto continued to suggest that "the case study method as one type of descriptive approach, is research carried out intensively, in detail and in depth on an organism (individual), institution or certain symptoms with a narrow area or subject". A case study is a research strategy that focuses on understanding the dynamics present in a single setting. Case studies typically incorporate data collection methods such as archives, interviews, questionnaires, and observations. (Arikunto, 2006)

In qualitative research, the deeper the research, the deeper the data obtained, thus producing good quality in the research. It can be concluded that descriptive qualitative research, is a type of social research that investigates, understands and examines problems that occur, methods that can be used to collect data are observation, interviews, and documentation.

3 RESULT AND DISCUSSION

The data presented is data on the ability of weight unit measurement material with the drill method. In this chapter will be stated about the description of data, research findings, discussion of research findings.

The findings of this study are in the form of exposure to the results obtained by researchers through observation, interviews, field notes and documentation. Researchers conducted interviews with several grade 2 students of SDN Kedaung. The data analyzed are in accordance with the research objectives and problem formulation in this study. Based on interviews with grade 2 teachers, it is known that teachers use the lecture method to be taught on heavy unit material. Observations made by researchers in class are known that students learn with the drill method according to their respective abilities, before learning the teacher leads to pray together and after that the teacher explains and then writes sample questions on the board. After being explained in a repetitive way and using the weight unit song, the teacher also gave examples of other questions and asked students who already understood to answer the questions on the board, when the students had finished answering, the teacher corrected the results of the students' answers.

As for the results of interviews with grade 2 students of SDN Kedaung, researchers obtained data about the difficulty in answering the problem of weight unit material, namely not being able to change from weight units for example from kilograms to grams, they do not still understand how kilo units become gram units. Based on the results of the researchers' observations about the fluency of students in learning weight unit material, that is, they have not been able to memorize the sequence of weight units from the largest to the smallest, students also have not all memorized the abbreviation of one by one unit of weight, but some students are able to answer the question of converting units of Kg to units of grams. Researchers conduct research during the implementation of learning activities. On average, grade 2 can already calculate multiplication and division, but researchers found 6 students who had difficulty calculating division. 2 students are still very difficult when counting, it takes a long time to solve just one problem.

From the results of interviews that have been conducted with students, it shows that students have difficulties in: 1. Some students still have difficulty converting kilo units to grams 2. Students are still unable to memorize the sequence of mass units of 3. Students have not been able to calculate the division

Researchers in addition to conducting interviews with grade 2 students, researchers also made observations. Researchers also obtained data on the numeracy skills experienced by students in taking the test. Based on the interview results of one of the grade 2 students interviewed after conducting the teaching and learning process, when asked what method is commonly used in mathematics lessons? He said usually teachers use the lecture learning method. When asked how to think about learning mathematics weight unit material, he thought learning weight units is very fun when combined with appropriate methods, especially drill methods. By using the drill method, students understand the material faster. Researchers observed the ability to learn weight unit measurement material with the drill method to determine the ability to learn weight unit material in grade 2 SDN Kedaung, if there are students who have difficulty doing the learning, then students must continue to practice learning the material so that they can remember how to do it correctly.

3.1 Sub Pembahasan

This study aims to improve the learning ability of weight unit measurement material. In this study using test instruments carried out with observation sheets and test sheets for students, field notes and documentation in the form of photos listed on the attachment page.

3.2 Tabel

Table 1 Results of Abrisham's unit weight material capability

No	Indikator	Skor			
		1	2	3	4
1.	Able to recognize abbreviations/symbols of weight units				√
2.	Able to memorize sequences of weight units			√	
3.	Able to sing weight unit ladders			√	
4.	Able to know how to convert Kg units to grams			√	
5.	Fluency in summing up weight unit story questions			√	

Table 1 shows that the above abilities of Abrisham Zahid Gaozhan students in the indicator say students are able to recognize the abbreviation of weight units given a score of 4 because he already knows all the abbreviations of weight units, then on the indicator of being able to memorize the sequence of weight units given a score of 3 on the mention there are some who are wrong. On the indicator of singing ladders the weight unit is given a score of 3, because after he sings it is still wrong. In the indicator converting the unit of weight kilos to grams is given a score of 3 because he is able to answer questions even though not all of them are correct. In the indicatro summing the story questions are given a score of 3 because he still does not understand the questions given. Weight unit material proficiency test to students Abrisham Zahid Gaozhan, on May 25, 2023.

4 CONCLUSION

Based on the results of research and discussion, it can be concluded that the use of drill learning methods on heavy unit material can improve the learning outcomes of grade 2 students of SDN Kedaung Ciputat South Tangerang City. Learning through the drill method can improve student learning outcomes. This can be proven by looking at the test table that has been filled in according to the ability of students after using learning with the drill method.

5 ACKNOWLEDGEMENT

Especially for Wariyah's beloved mother and Mr. Rusdi who always nurture, educate, and give prayers, support and have bestowed his affection, provided material and countless sacrifices for the success of researchers. My beloved brothers and sisters (Suryadi, Wawan, and Widya) who always give prayers, motivate, support and congratulate researchers to remain enthusiastic in completing this thesis. Mrs. Encu Suhartini, M.Pd as the principal of SDN Kedaung who has assisted researchers in the data collection process. Friends and all parties who always help and motivate in writing this thesis that cannot be mentioned one by one.

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