

Problems in Mathematics Learning Multiple Materials Viewed From Low-Grade Students' Learning Interest Aspect

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Abstract:

This research is motivated by a lack of understanding in learning mathematics multiplication material. This study aims to describe the problems in learning mathematics with multiplication material in terms of the learning interest of low-grade students at SDN 13 Sitiung Dharmasraya. This researcher uses qualitative descriptive research. The research subjects were homeroom teacher for grade 2, homeroom for grade 3, and grade 4 for low-grade students. Data collection techniques by means of observation, interviews, and documentation. The data analysis technique in this study uses the Milles and Huberman model which consists of data collection, data reduction, data presentation, and conclusion drawing/verification. The results showed that the problems in learning mathematics multiplication material can be seen from several factors, one of which is the student's interest in learning, which can be seen from the indicators of student interest in learning, namely, students' feelings of pleasure, attention in learning, lesson materials and teacher attitudes. interesting, the benefits and functions of the subjects. From this, it can increase students' interest in learning mathematics in multiplication material.

Keywords: problematics; mathematics; multiplication; aspects of interest in Learning

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Introduction

Elementary school is an institution or educational institution that organizes education for six years and is tasked with providing direction or provision in the form of basic abilities to students. These provisions are carried out so that students can live in society and as a preparation for students to continue at a higher level of education. Education is an absolute necessity in life and must be fulfilled throughout life. Education functions to develop abilities and improve the quality of education. In education, there are several subjects of study, one of which is mathematics.

A teacher must provide a study guide for students to understand a lesson. In learning activities, the teacher must pay attention to students' development and characteristics. According to Piaget, the age of children from 7-11 is in a concrete operational stage (Nuryati, 2021). The concrete operational stage is the ability of students to think logically about an object that is real in everyday life. One of the learnings that relate to the concept of learning abstractly and concretely is learning mathematics. Mathematics has become a compulsory subject at every level of education with different levels of difficulty (Susati, 2020).

Mathematics is a science that can attract students' skills to think critically to be applied to solving problems in their lives that contain abstract thoughts. Numbers and formulas are used in counting activities and symbols (Suci et al., 2020). Thus learning mathematics has regularity based on patterns found and using symbols that have meaning. According to Law Number 20 of 2003 concerning the National Education System, Article 37 Paragraph 1 states that: "Primary to secondary education curriculum must contain: religious education, language, civics education, natural sciences, social sciences, mathematics, arts and culture, physical education and sports, skills/honesty and local content. Based on the law, mathematics is one of the subjects that must be taught at the elementary education level.

Mathematics is a subject that is expected to be useful in everyday life for those who study it. Mathematics is an ideal subject that can develop children's thinking processes from the end of elementary education, secondary education, upper education, and even to college. It is given so that students can know the principles of mathematics in everyday life, working on problems, calculating, and solving problems at school or in the community. However, in reality, people view mathematics as a complicated, boring and scary subject. As stated by Sudarman, some students still have a negative impression of mathematics; for example, mathematics as learning is scary, difficult, boring, mathematics is not fun, and mathematics only contains formulas (Mz & Vebrianto, 2021).

The problem encountered by researchers is that students have to memorize and remember everything the teacher has conveyed; thus, students do not have the courage to express opinions and think innovatively. When students think negatively about mathematics, this will affect the process and learning outcomes. Even though mathematics is considered to have a high level of difficulty, everyone must understand it because it is a tool for solving everyday problems. Therefore it is necessary to study and understand mathematics learning so that it can be implemented in everyday life. In this case, the teacher must have a good strategy to foster the ability of students to learn mathematics, and the teacher must motivate students. Students no longer think mathematics is very difficult and boring, so that student learning can be successfully achieved (Ulya & Irawati, 2016). Thus it can grow students' learning interest in learning mathematics.

The teacher can carry out the strategy so that students understand, are not bored and are interested in learning; the teacher needs to accompany a game or use learning media that has been adjusted in advance to the material he wants to

convey. So students can understand a learning concept. Thus students do not think that mathematics is difficult and boring. Moreover, the characteristics of mathematics subjects, in general, are the existence of arithmetic activities. In arithmetic operations, some skills help during the learning process. Reveals that skill is the ability to give correct and appropriate answers, skills in the process of learning mathematics can be observed when students are able to express correct answers, count and use mathematical symbols.

Numeracy skills are procedures in mathematics, each of which is a process to seek and obtain specific results. Arithmetic operation skills consist of subtraction, addition, division and multiplication activities. One of the arithmetic operations skills that are the subject of class II mathematics learning material is the multiplication arithmetic operation. Counting multiplication is a form of arithmetic operation in learning. Multiplication is the repeated addition of the same number. Multiplication arithmetic operations are found in mathematics lessons given in elementary schools (Halfi Rahmi et al., 2012).

Based on the results of the first observations made on Thursday, September 2, 2021, which coincided with the School Field Introduction (PLP) activities at SDN 13 Sitiung Dharmasraya. Students carried out arithmetic operations well and helped each other if other friends needed help working on the method of Count multiplication. Whereas in the second-grade homeroom interview, it was stated that students would be motivated during the learning process when the teacher taught mathematics accompanied by playing while learning, thereby making it easier for students to understand multiplication counting. However, some still do not understand multiplication, so they have to ask questions when doing the assignments given by the teacher. The researcher also interviewed the homeroom teacher for class II and the homeroom teacher for class III SDN 13 Sitiung regarding students' problems in learning mathematics multiplication material. From the results of the interviews, it can be concluded that the problems were students had not memorized multiplication, lacked in calculating correctly, and had been influenced by students' internal and external factors, one of which is students' learning interest in multiplication learning. Therefore teachers must be more creative in conveying material and using interesting media so that students easily remember what is conveyed because low-grade students are identical to abstract objects.

This research examines and describes the problems in learning mathematics multiplication material in terms of the aspect of low-grade students' learning interest. This study aims to describe the problems of learning mathematics in multiplication material in terms of the interest aspects of low-grade elementary school students.

Research Method

This research used descriptive qualitative research. The research subjects were the homeroom teacher for grade 2, the homeroom teacher for grade 3, and grade 4 for low-class students. Data collection techniques with observation, interviews, and documentation. The data analysis technique in this study uses the Milles and Huberman model, which consists of data collection, data reduction (data simplification so that data can produce meaningful information), data presentation, and drawing conclusions/verification.

Research instruments are tools or facilities used by researchers in collecting data. According to (Sugiyono, 2019) the instrument or research tool is the researcher himself. Therefore, the researcher as an instrument must also be "validated" on how far the qualitative researcher is ready to conduct research that will go into the field. Validation of researchers as instruments includes validation of

understanding of research methods, mastery of insight into the field studied, and readiness of researchers to enter research objects both academically and logistically.

This research is motivated by a lack of understanding in learning multiplication material mathematics. This study aims to describe the problems in learning mathematics multiplication material reviewed from the aspect of learning interest of low-grade students at SDN 13 Sitiung Dharmasraya. This researcher used a qualitative descriptive study. The research subjects were the homeroom teacher for class II, the homeroom teacher for class III, and 4 low-class students. Data collection techniques by way of observation, interviews, and documentation. Data analysis techniques in this study used the Milles and Huberman models, which consisted of data collection, data reduction, data presentation, and conclusion/verification. The results show that problem-solving in learning mathematics multiplication material can be seen from several factors. One is the student interest in learning, which can be seen from the indicators of student interest in learning, namely, students' feelings of enjoyment, attention to learning, lesson materials and teacher attitudes, interesting, and the benefits and functions of the subject. Based on that, it can increase students' interest in learning mathematics in multiplication material.

The data obtained during the research must meet the data's validity criteria so that it is said to be valid according to the research guidelines. Testing the validity of data in qualitative research can use triangulation techniques. *Triangulation* is defined as a technique for collecting data and existing data sources. The triangulation technique that will be used in this research is source triangulation and technique triangulation. Thus, the authors simultaneously use participatory observation, documentation for the same data source, and in-depth interviews. The following is meant by the triangulation technique used (Sugiono, 2019). Technical triangulation that is, researchers use different techniques to get data from the same source; source triangulation, namely, to get data from different sources with the same technique.

This research was conducted in the even semester of the 2021/2022 school year. The research was conducted at SDN 13 Sitiung, Dharmasraya Regency. The socio-cultural ones are native Minang/Javanese, sedentary/migratory lives and the average parents of students who have graduated from elementary, junior high, high school, and undergraduate. The researcher chose SDN 13 Sitiung, Dharmasraya Regency, as the research location because the researcher had made previous observations and wanted to know the problems in learning mathematics multiplication material in terms of the aspect of low-grade students' interest in learning at this elementary school.

Research and Discussion

In the learning process, the teacher's role is critical in increasing students' interest in learning; of course, the teacher must clarify the goals. By arousing students' interest and connecting the subject matter to be taught with the needs of students, students' interest will grow when they perceive that the subject matter is useful for their lives. Thus the teacher needs to explain the relationship between learning material and students' lives, as well as use various learning models and strategies, for example, discussions, groups and others. Then create a pleasant atmosphere, feel comfortable, and be free from fear of learning. The teacher must make sure that the class is lively and fresh. For this reason, the teacher can occasionally do funny things to entertain students. The teacher also remembers to give reasonable praise for each student's success, assess, comment and punish when students break the rules and create competition and cooperation.

To find out students' learning interests, we can learn from students' happy feelings. Based on the research results, the feeling of pleasure experienced by students can increase their interest in learning mathematics in multiplication material. It can be influenced by creative teachers in delivering learning to make students enthusiastic about participating in the learning process. For students who are less focused on learning due to internal and external factors within students, for example, students who sleep late so that when learning is sleepy and less focused on paying attention to the teacher's delivery. The teacher's efforts to make students happy and enthusiastic about learning always provide motivation or advice that makes students understand

Feelings of pleasure can be seen from the attitude of students who follow lessons enthusiastically, never feel bored, and are present during learning. During the learning process, students are enthusiastic and have cheerful faces, which can increase interest in learning even though learning that they think is difficult will become easy to understand. The interview process can be shown in Figure 1



Figure 1. Class II (a) and III (b) Teacher Interviews about The Process of Learning Mathematics in Class

From the results of interviews with the class II homeroom teacher, it was explained that students in learning mathematics were quite good and active and liked it. It can be seen from the results of the value obtained. While the results of interviews with class III teachers stated that some students were active and some were just silent, giving rewards during learning would increase students' interest in learning. As for the supporting factors that make students happy, the teacher can apply them in learning multiplication by using unique tricks in delivering material, methods, strategies and learning media that are appropriate to the material and liked by students that are related to the real life of students. So that the learning objectives are under what is desired

Attention is our concentration or activity towards understanding, observing, and excluding others. Students interested in particular objects will automatically pay attention to these objects, for example listening to the teacher's explanation and taking notes on the learning material delivered (Kompri, 2016). In the learning process, without attention and focus, the process of transferring information or material will not be able to run optimally. Because of attention in the learning process, a person chooses and responds to many stimuli from the surrounding environment. For example, in learning activities, students are in a room where there are many things to pay attention to, for example, talking to friends, writing, and reading. When the teacher enters the classroom, all the student's attention is focused on the teacher, who previously had students write, so he will stop paying attention to the teacher's teaching. The teacher needs to get students' attention and

maintain focus on the teacher's delivery. Because if it is not focused on learning, it is possible that students will not be able to grasp the material being taught. Therefore, the teacher must design lesson plans to achieve the desired learning objectives. It will undoubtedly increase the attention of students.

Based on the results, the teacher's way of delivering material or greeting and looking at students gently and affectionately can attract students' attention, making students feel loved and cared for with a sense of care that the teacher gives. From the beginning of the meeting with the teacher, the students indirectly focused on the delivery that the teacher conveyed until the learning took place according to the learning objectives. The focus on learning can be shown in Figure 2.



Figure 2. Mathematics Learning Process Activities in Class are Going Well

The teacher's attitude can also affect students' learning interests. A teacher must have a polite, neat, clean and attractive appearance and a friendly face so that students like the teacher, especially the learning the teacher conveys. Students love teachers who are friendly and concerned.

A teacher designing or compiling teaching materials greatly determines the success of the learning process and learning through teaching material. Teaching materials are a form of material developed systematically, allowing students to learn independently and designed according to the applicable curriculum (Ruhimat, 2011). The teacher makes a lesson plan for each subject to teach the learning objectives to be achieved. The teacher uses learning media appropriate to the material taught by linking students' lives. For example, utilizing objects found in the school environment. Like, rocks, sticks and others. It can be shown from the interview process in Figure 3.



Figure 3. Interview with Students about Learning Mathematics

Teacher used learning media. For learning to be more meaningful, students need to know the benefits and functions of a subject because it will have something to do with the needs of students' daily life if they understand the meaning of the subject. A teacher needs to explain the purpose of learning multiplication and realize it by applying it to everyday life. If you already understand, of course, students learn it with enthusiasm. The function of interest in learning is more significant as a motivating force, namely, a force that encourages students to learn. Students who are interested in the lesson will, without being motivated to continue diligently to learn, be different from students whose attitude is only to accept the lesson. They are only moved to want to learn, but it is difficult to persevere because there is no motivation. Therefore, to obtain good results in learning, a student must be interested in the lesson to encourage him to continue learning (Kompri, 2016).

One of the main factors for achieving success in all fields, whether in the form of study, work, hobbies or any activity, is interest. Students' interest in learning mathematics can be seen in feeling happy, focusing on the teacher's explanation, and actively using learning media. To foster this interest, the teacher must be more creative in conveying material and paying attention to students. So the teacher must make students aware of the importance of learning mathematics in everyday life. Thus the growth of interest in a person will give birth to attention to do something diligently for a long time, easy to remember, more concentrated, and not easily bored with what is learned. Interest is a preference and curiosity in something or activity without being told. Meanwhile, learning causes a relatively permanent behavior change, which is made through planned activity or effort. So, what is meant by interest in learning is the psychological aspect of a person who manifests itself in several symptoms, such as passion, desire, and feelings of liking to carry out the process of changing behavior through various activities, which include seeking knowledge and experience. In other words, interest in learning is attention, liking, and student interest in learning which is shown through enthusiasm, participation and activeness in learning (Sirait, 2016).

Interest has an important role in giving birth to attention, facilitating the creation of concentration, and preventing outside attention. Therefore interest has a significant influence on learning. After all, if the learning material being studied is outside the student's interests, these students will not learn as well as possible because there is no attraction for them. Meanwhile, if the learning material attracts students' interest, it will be easy to learn and store because of interest so that it adds to learning activities.

Conclusions

Based on the problems in learning mathematics multiplication material in terms of learning interest in the low-grade students of SDN 13 Sitiung Dharmasraya, students who lack multiplication understanding often ask friends when doing assignments the teacher gives. So that the teacher must be creative in conveying material and using interesting media, as well as giving an understanding that the importance of learning multiplication is important in everyday life. There are several indicators of students who have an interest in learning. It can be recognized through the learning process in class and at home, including having feelings of pleasure, attention in learning, learning materials, interesting teacher attitudes, and the benefits and functions of learning subjects. Thus the efforts made by the teacher can increase students' learning interest.

The results of this research on problems in learning mathematics multiplication material in terms of the learning interest of low-grade students at SDN 13 Sitiung Dharmasraya, can be useful for adding information, insight,

providing input, and increasing knowledge. Then this research can be used as a reference source for researchers related to increasing students' learning interest.

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