

## The Use of Concrete Objects to Increase Interest in Learning Mathematics using Playfull Learning Method for Grade 1 Elementary School Students

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### 1. Abstract

This study aims to describe the process of increasing interest in learning math using the *playfull learning* method with concrete objects media in grade I elementary school students. This type of research is Classroom Action Research (PTK). This research was conducted in semester 2 of the 2022/2023 school year with the research subjects being all first grade students totaling 26 students. The object in this study is an increase in the interest in learning mathematics of grade I elementary school students. The result of this study is the use of *playfull learning* method with concrete objects media can increase students' interest in learning. The results showed that the use of *playfull learning* method with concrete media can increase students' interest in learning mathematics. The increase can be seen from the average percentage results of all observation indicators in cycle I 71.82% increased in cycle II to 89.80%. Student interest questionnaires that have been given to students show that students' interest in math subjects has increased, seen from the percentage of cycle I which is 61.15% and the percentage in cycle II is 75.62%. The success indicator in this study is if the average percentage of all aspects of interest reaches 75%. Based on this, it is concluded that learning mathematics using the *playfull learning* method with concrete objects media can increase student interest.

**Keyword:** Concrete Objects, Math, Learning Interest, Playfull Learning Method

## **2. Introduction**

Mathematics is one of the subjects taught at the formal education level. Mathematics is very important to be taught starting from the early childhood education level to college, the goal is to understand how important mathematics is in everyday life. Mathematics acts as a way to solve various problems that occur. Problem solving is the center of discipline in mathematics, so that by learning mathematics will be able to develop a better system in problem solving.

Learning mathematics in elementary school is the process of providing learning experiences to students through a series of planned activities so that students gain competence on the mathematical material being studied. Learning math is about mathematical concepts and structures (Dwi & Taufina, 2020: 506).

Interest is one aspect of the human spirit that can encourage you to achieve goals. Those who are interested in an object tend to pay attention or enjoy the object more. However, if the object does not cause pleasure all activities will be carried out in a less effective and efficient manner (Diah Anungrat, 2018: 168).

Interest in learning mathematics is very meaningful in school students. Interest in learning mathematics has an influence on the level of student activeness in the educational process. The condition of students who are lazy and do not want to learn can be caused by a lack of interest in learning (Yogiek, et al. 2021: 47). Therefore, interest in learning mathematics needs to get more attention. The high and low interest in learning mathematics can be seen from the markers of interest in learning which include, attention, curiosity and intensity of learning mathematics and the satisfaction shown by students (Wicka, 2013: 1). Interest can be measured through several

indicators, namely: a) interest in learning, b) participation in learning, c) attention in learning, d) learning effort.

Based on the results of observations with the first grade elementary school teacher on April 14, 2023, a description of the condition of students during the mathematics learning process was obtained. Only 30.76% of students have an interest in learning math, students look uninterested in learning math students also do not pay attention to learning well. This is because students think that math is a scary subject that contains material that students do not understand.

Based on interviews with first grade teachers, every time math learning takes place only a few students pay attention to learning well, participate during learning, show interest in learning and when the teacher gives assignments or problems students try to solve the problem. This is due to students' lack of interest in learning, so that learning objectives are not maximally achieved. Thus, there is a need for learning methods with learning media that can increase student interest in learning.

According to Wahono (2019: 57), efforts to improve the quality of mathematics learning in elementary schools are through learning with teaching aids that can increase communication in various directions, namely teacher-student, student to teacher and student to student. This is in the selection of teaching aids or learning media adjusted to the grade level. Mathematics learning media can use concrete objects so that students can more easily understand the lessons presented.

According to Ibrahim, et al (in Gilang Siwi Subekti, 2023: 24) what is meant by concrete media is to achieve optimal results from the teaching and learning process, one of which is recommended in the use of media that is direct, real or reality. In addition, another definition of concrete media is a real object that will provide very

important stimuli for students in learning various things, especially those related to the development of certain skills.

According to Rayandra Asyhar (in Gilang Siwi Subekti, 2023: 24) states, concrete objects (real) are objects that are visible to support the learning process. That concrete objects can increase interest in learning, seen from the results of the research conducted is that there is an increase in interest in learning of 82% in cycle I and at 93% in cycle II.

Student learning interest at the elementary school level is more focused on things that are interesting and fun, in this case a learning method is needed so that students are interested in math subject matter. Based on this, the use of playful learning methods with concrete objects media can increase students' interest in learning in the learning process.

### 3. Methods

The research method used in this study is the Classroom Action Research (PTK) method. The subjects in this study were first grade elementary school students totaling 26 students, while the object of this study was the interest in learning mathematics using the *playfull learning* method with concrete objects media.

Anas Sudijono (2008: 43) argues that to calculate the percentage of interest in learning that has been achieved by students the formula:  $P = \frac{f}{n} \times 100\%$ . Interest in learning mathematics in elementary schools after applying the playfull learning method with concrete objects media will be said to be successful if the average percentage of all aspects observed is more than 75%.

### 4. Results and Discussion

#### 4.1. Results

The results of student observations in cycle I showed moderate criteria, with an average of all aspects of the indicator being 71.82%. However, these criteria still do not meet the research success indicators, namely with student completeness  $\geq 75\%$ .

Table 4.1 Observation Results of student Interest Cycle I

No	Indicator	Percentage	Description
1	Learning Interest	71,92%	Moderate
2	Learning Participation	66,15%	Moderate
3	Attention in Learning	68,84%	Moderate
4	Learning Effort	80%	Higt
Percentage of learning interest of first grade students		71,82%	Moderate

The observation results in cycle II showed an increase in percentage from the previous cycle I of only 71.82% to 89.80% in cycle II and showed high criteria and had met the success indicators.

Table 4.2 Observation Results of Student Learning Interest in Cycle II

No	Indicator	Percentage	Description
1	Interest in Learning	93,46%	High
2	Learning Participation	85,76%	High
3	Attention in Learning	83,84%	High
4	Learning Effort	96,15%	High
Percentage of class I students' interest in learning		89,80%	High

Based on the results of observations, it can be explained that the results of observations of student interest in learning through playfull learning methods with concrete media have increased. The increase in student interest in cycle I of the learning interest indicator was 71.92% which increased in cycle II to 93.45%. Then the learning participation indicator in cycle I was 66.15% which increased in cycle II to 85.76%, the attention indicator in learning in cycle I was 68.84% which increased in cycle II to 83.84%, and the learning effort indicator in cycle I was 80% which increased in cycle II to 96.15%. With an average percentage of all aspects in cycle I being 71.82% and cycle II being 89.80%. In the results of the questionnaire of interest in learning mathematics, the average number of interest questionnaire scores in cycle I was 30.57 or with a percentage of 61.15% increased in cycle II, namely the average questionnaire score of 37.80 or with a percentage of 75.62%.

#### **4.2. Discussion**

Based on the results of the study, the use of playfull learning methods with concrete objects can increase the interest of grade I elementary school students. This is because learning using the playfull learning method with concrete objects media can attract students' attention so that it helps improve students' understanding of the material presented by the teacher.

The use of playful learning method with concrete objects can help students in increasing their interest in learning, learning participation, attention in learning and learning effort. Louis Rice (2009) says playfull learning is within the constructivism learning theory where this theory explains well why active learning

such as play can provide good learning outcomes. Playfull learning not only makes learning easier, but this theory also explains that students not only passively understand the material, but also actively build new knowledge or skills.

This is because the playfull learning method with concrete objects is a new thing that makes students more enthusiastic. The playfull learning method with concrete objects media can increase students' learning interest.

According to Ibrahim, et al (in Gilang Siwi Subekti, 2023: 24) what is meant by concrete media is to achieve optimal results from the teaching and learning process, one of which is recommended in the use of media that is direct, real or reality. In addition, another definition of concrete media is a real object that will provide very important stimuli for students in learning various things, especially those related to the development of certain skills.

According to Rayandra Asyhar (in Gilang Siwi Subekti, 2023: 24) states, concrete objects (real) are objects that are visible to support the learning process. That concrete objects can increase interest in learning, seen from the results of the research conducted is that there is an increase in interest in learning of 82% in cycle I and at 93% in cycle II.

If you can make learning a fun, exciting and enjoyable activity, it will increase students' interest in learning. Based on the results that have been obtained starting from the implementation of cycle I to cycle II, it can be concluded that through the playfull learning method with concrete objects media can increase the interest in learning mathematics of grade I elementary school students.



## 5. Conclusion

Based on the results of the research and discussion that has been described, it can be concluded that the use of the *playfull learning* method with concrete objects media can increase the interest in learning mathematics of grade I elementary school students. The increase in student interest in learning can be seen from the results of the percentage of student interest in learning, namely in cycle I the indicator of interest in learning was 71.92% which increased in cycle II to 93.45%. Then the learning participation indicator in cycle I was 66.15%, which increased in cycle II to 85.76%. the attention indicator in learning in cycle I was 68.84%, which increased in cycle II to 83.84%, and the learning effort indicator in cycle I was 80%, which increased in cycle II to 96.15%. With an average percentage of all these aspects in cycle I is 71.82% and cycle II is 89.80%. The success indicator in this study is if the average percentage of all aspects of interest reaches 75%. Based on this, it is concluded that the application of the *playfull learning* method with concrete objects media can increase the interest in learning mathematics of grade I elementary school students.

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