

# **THE USE OF *GAME BASED LEARNING* TO INCREASE THE LEARNING INTEREST OF GRADE III STUDENTS AT SDK BETUN 2 IN MATHEMATICS LEARNING.**

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## **ABSTRACT**

This study aims to determine the increase in students' interest in learning through the application of *the Game Based Learning learning* model in mathematics learning in grade III SDK Betun 2. This study uses the Classroom Action Research (PTK) method which is carried out in three cycles, namely cycle I, cycle II, and cycle III with the Kemmis and Mc Taggart models. The subject of this study is grade III students of SDK Betun 2 which totals 24 students. The data collection techniques used include observation, questionnaires, and documentation. Data analysis was carried out quantitatively and qualitatively to see the increase in students' learning interest in each cycle.

The results of the study show that there is a gradual increase in students' interest in learning. In the first cycle, an average of 64.21 was obtained with a completion percentage of 41.66%. In the second cycle, it increased to 77.75 with a completion percentage of 79.16%. In cycle III, it increased to 91.63 with a completion percentage of 100%. This shows that the application of *the Game Based Learning* model is able to significantly increase students' interest in learning mathematics.

Thus, it can be concluded that the use of *the Game Based Learning* learning model is effective in increasing the learning interest of third grade SDK Betun 2 students in mathematics subjects because it is able to create active, fun, and increase student involvement.

**Keywords:** *Game Based Learning*, interest in learning.

## INTRODUCTION

Education is a conscious effort made to develop the potential of students so that they are able to acquire knowledge, skills and attitudes that are useful for life. Education focuses not only on cognitive specs but also on affective development.

In the educational process, mathematics learning has an important role because it helps students develop logical, critical, systematic and creative thinking skills. Mathematics is also the basis of various areas of daily life, so mastery of concepts from an early age is very necessary.

Nevertheless, learning math is often considered difficult by elementary school students. This condition causes low interest in learning students so that it has an impact on low student involvement during the learning process.

Based on the results of initial observations conducted by SDK Betun 2, it was found that most students were less active in conducting mathematical learning, less daring to ask questions and less focused during learning activities. This condition shows that innovation is needed in the learning process in order to increase students' interest in learning.

One of the efforts that can be made to increase students' interest in learning is to apply *the Game Based Learning (GBL)* learning model. This learning model integrates game elements into the learning process so that learning activities become interesting, fun and meaningful for students.

In increasing students' interest in learning, it is necessary to use an interesting learning model so that students can have an interest in learning. One interesting learning model is *the Game Based Learning learning model*. The *Game Based Learning learning model* is a game designed by educators to support the learning process to be interesting compared to the conventional learning process. An interesting learning model because it will foster students' interest in learning during learning.

*Game Based Learning* enriches students to learn while playing so that it can increase students' attention, activity and interest in the material learned. In addition, this model can also create an interactive and collaborative learning atmosphere.

Susanti & Rahmawati (2024) *Game Based Learning* is a learning strategy that combines play and learning activities in a structured manner so that students can understand the material through hands-on experience.

Therefore, a study was conducted to determine the increase in interest in learning through the application of *Game Based Learning* in mathematics learning in grade III SDK

Betun 2.

## RESEARCH METHODS

This study uses the Classroom Action Research (PTK) method with a qualitative approach. The research was carried out in grade III SDK Betun 2 with a total of 24 students.

The research was carried out in three cycles each consisting of four stages, namely:

### 1. Planning

At this stage, teachers prepare a learning plan using *the Game Based Learning* model, prepare learning media in the form of cards with numbers, and compile research instruments.

### 2. Implementation

Teachers carry out learners according to the plan that has been prepared by applying educational games in mathematics learning.

### 3. Observations

The researcher conducts observations on student activities during the learning process, especially related to students' learning interests.

### 4. Reflection

At this stage, an evaluation is carried out on the results of actions that have been carried out to overcome the successes and shortcomings in each cycle.

Data collection techniques are carried out through observation, interviews, documentation and tests. The research instruments are in the form of observation sheets, interview guidelines, documentation of learning activities and the results of student learning evaluations.

The data were analyzed descriptively, quantitatively, and qualitatively to determine the increase in students' learning interest in the research cycle.

## RESULTS AND DISCUSSION

### Data Exposure

This research was carried out at SDK Betun 2 in grade III students with a total of 24 students. The research uses classroom action research which includes three cycles, namely cycle I, cycle II and cycle III. This research was conducted for one month.

The data obtained is based on the results of observation and implementation to measure students' interest in learning.

### Cycle I

The implementation of Actions in cycle I was carried out by applying the *Game Based Learning* model using cards with numbers on addition and subtraction operation materials. At this stage, the teacher explains the game to the students and gives examples of how to play before the activity starts.

At the beginning of learning, it can be seen that some students show interest in game-based learning. Students look more enthusiastic compared to conventional learning. However, there are still some students

In addition, there are still students who lack focus and tend to be passive when the activity takes place. This is because students are still civilized with new learning models that they have never used before.

The average score of students' learning interest in the first cycle was 64.21 with a completion percentage of 41.66%. These results show that students' interest in learning is still below the expected target.

## Cycle II

In cycle II, several improvements were made, including providing a clear explanation of the rules of the game, providing assistance to students who are in difficulty and providing *Reward* to students and active groups.

The observation results showed an increase in enthusiasm and student activity during learning. Students are more actively participating in games and more courageous in answering questions.

The average score of students' learning interest increased to 77.75 with a completion percentage of 79.16%. These results show that the implementation of *Game Based Learning* have a positive impact on students' interest in learning.

## Cycle III

In cycle III, improvements were made by providing more interesting and challenging games and increasing appreciation for students who were active during learning.

Students look more focused, active and enthusiastic about learning. Students show a higher interest in math material and are able to work well together in groups.

Student scores are obtained from the calculation of the percentage of students' learning interest in three cycles:

**Table. 1 Cycle Values I, II and III**

| NO | CYCLES | AVERAGE | PERCENTAGE |
|----|--------|---------|------------|
|----|--------|---------|------------|

|   |              | SCORE | OF STUDENT<br>COMPLETENESS |
|---|--------------|-------|----------------------------|
| 1 | CYCLE I      | 64,21 | 41,66%                     |
| 2 | CYCLE<br>II  | 77,75 | 79,16%                     |
| 3 | CYCLE<br>III | 91,63 | 100%                       |

The improvement that occurred in each cycle showed that *the Game Based Learning* model was able to create a fun learning atmosphere so that students were more motivated to learn mathematics.

The results of this study are in line with various previous studies which stated that *Game Based Learning* can increase learning interest, learning motivation and student involvement in the learning process.

## DISCUSSION

Based on the results of the classroom action research carried out in grade III SDK Betun 2 with the application of *the Game Based Learning* learning model, it can be seen that there is a continuous increase in students' learning interest in mathematics learning. The increase can be seen from the change in the average score and percentage of student completeness that occurred gradually from cycle I, cycle II, to cycle III. This shows that the learning process designed through improvement actions each cycle has a positive impact on student involvement in learning activities.

This finding can be explained through the theory of constructivism which states that knowledge is actively constructed by students through learning experiences.

In addition, the application of *Game Based Learning* is also in line with Piaget (2001), especially at the concrete operational stage. Grade III elementary school students still need learning experiences that are real, visual, and manipulative.

## CONCLUSION

Based on the results of the study, it can be concluded that the application of the learning model *Game Based Learning* can increase the learning interest of grade III students of SDK Betun 2 in mathematics learning.

The increase in interest in learning can be seen from increasing students' attention, activity and interest during the learning process. In addition, the average value of students' learning interest has increased from cycle I to cycle III.

Thus the learning model *Game Based Learning* It can be used as an alternative learning

that is effective in increasing students' interest in learning mathematics subjects.

## **ADVICE**

Based on the results of the research that has been conducted, the researcher provides the following suggestions:

### **1. For Teachers**

Teachers are expected to use *the Game Based Learning* learning model as an alternative learning strategy, especially in mathematics learning in elementary schools. This model is proven to increase students' interest in learning because it is able to create an active, fun, and non-monotonous learning atmosphere. Teachers are also advised to be more creative in designing game media that is in accordance with the learning material and student characteristics.

### **2. For Students**

Students are expected to be more active in participating in the learning process, especially in game-based learning activities. Students are also expected to increase cooperation in groups, dare to express opinions, and be more focused on participating in each stage of the game so that learning goals can be achieved optimally.

In the first cycle, students' learning interest was still in the initial category with an average score of 64.21 and a completion percentage of 41.66%. These low results indicate that students are not fully ready to accept the new learning model.

In cycle II, there was a significant increase with an average score of 77.75 and a completion percentage of 79.16%. This improvement shows that students are starting to be able to adapt to the *Game Based Learning model*.

In cycle III, the increase in students' interest in learning achieved optimal results with an average score of 91.63 and a completion percentage of 100%. These results show that all students have achieved the success indicators set in the study.

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