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Implementation Of The Power Of Two Learning Model Operating Materials For Algebrial Form Based On The Power Point Of Class VII High Schools

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***Abstract**: This research is a classroom action research project that aims to improve the mathematics learning outcomes of students in class VII-1 Junior High School 6 Samarinda by using Microsoft PowerPoint to facilitate cooperative learning type The Power of Two on algebraic action material. The Research at Junior High School 6 Samarinda with the subject of 40-grade VII-1 students and the object is cooperative learning type The Power of Two. Worksheets, final cycle tests, and observation sheets were used as instruments. Worksheet for students consists of 1, 2, 3, 4, 5, and 6, which are done in groups in classrooms, as well as assessments at the end of each cycle. The descriptive statistics were used in data analysis method. The research and discussion revealed that the form of cooperative learning used in The Power of Two with Microsoft PowerPoint is a small group learning consisting of two people who collaborate. Cycle I has a base value of 54.7 and a final score of 66.1, representing a 20.8% rise, cycle II has a base value of 66.1 and a final score of76.5, representing a 15.7% increase, and cycle III has a base value of76, 5 and a final score of 83, representing an 8.5% increase.The metrics for the teacher's behavior in the first cycle of accessing are good, the second cycle is good, and the third cycle is really good. As a result, cooperative learning is used to perfect it.*

Keyword: The Power Of Two model, Algebraic Operations, Microsoft PowerPoint

INTRODUCTION

At this time, many mathematics teachers still apply conventional learning, in the process the teacher explains the material using the lecture method, students listen and then note things that are considered important. Mathematics learning which tends to be textbook oriented tends to be abstract and less related to everyday life so that the concepts of subject matter are less understood by student.

Based on the results of preliminary observations and information from teachers who teach mathematics in class VII SMP Negeri 6 Samarinda, there are still many students who are passive in participating in lessons so that the average scores obtained by students do not meet the mathematics learning completeness standards set by the school. Based on observations and information from teachers who teach mathematics, the teacher still dominantly uses the expository method in teaching so that no learning process can make students active in completing independent assignments, which can increase students' enthusiasm for learning so that students do not understand mathematics and it is difficult. solve questions from the teacher.

Based on the results of interviews with teachers of mathematics at SMP Negeri 6 Samarinda conducted by the author, it was found that mathematics scores were still low. This can be seen from the average value of daily tests on integer material, as follows:

Table 1. Results of Learning Daily Tests (Integer)

No.	Class	Mean
1	VII-1	46,8
2	VII-2	48,9
3	VII-3	61,5
4	VII-4	53,1
5	VII-5	53,1
6	VII-6	52,2
7	VII-7	54,0
8	VII-8	56,8

(Sumber: Arsip Guru SMP Negeri 6 Samarinda)

To anticipate that this problem will continue, it is necessary to use an appropriate learning formula, so that it can increase student activeness in learning mathematics. The teachers are constantly trying to compile and apply various learning methods so that students are interested and excited about learning mathematics.

One of them is by applying the type of cooperative learning method The Power of Two using Microsoft Powerpoint which is designed in such a way as to be attractive to students. Cooperative learning type The Power of Two is a learning method besides conventional learning. The Power of Two types of cooperative learning is cooperative learning that strengthens the importance of a synergistic relationship between group members. This learning strategy consists of 2 people so that cooperation and communication are better established. This learning also requires students to be more active in the teaching and learning process so that students do not feel bored because learning is more interesting and demands student participation in the subject matter.

There are several reasons why cooperative learning type The Power of Two using Microsoft PowerPoint points should be emphasized as an important and very meaningful aspect in creating mathematics learning. First, the hope of making it more applicable in the student environment or new unfamiliar situations. Second, the type of learning The Power of Two using Microsoft Powerpoint encourages students' interest in learning mathematics so that it can increase student activity in the teaching and learning process which in turn is expected to improve learning outcomes obtained by students.

Therefore, it is necessary to research "Implementation of the type of cooperative learning model The Power of Two using Microsoft Power point class VII junior high school 6 Samarinda".

METHOD

The method used in this research is classroom action research. Classroom Action Research (CAR) is a systematic study of classroom learning practices to improve the quality of the learning process and student learning outcomes by taking certain actions (Endang, 2004). Classroom action research has four stages, namely planning, action (action), observational observation, and reflection (reflection). This research was conducted from 29 October 2020 - 19 November 2020, the odd semester in class VII-1 junior high school 6 Samarinda. The subjects in this

study were seventh-grade students of junior high school 6 Samarinda, this school is used because the lecture method is still used in the learning process., while the object of this study was the students' mathematics learning outcomes through cooperative learning type The Power of Two using Power points. The data technique in this research is through 1) worksheets given at each learning meeting, in the form of a description, 2) the final cycle test is used by researchers to see student learning outcomes after one learning cycle is carried out. The final test questions were made by the researcher in the form of descriptions, and 3) Observations were made by three observators, namely the subject teacher and two students using observation tables to see the level of student activity and the activity of the teacher (researcher) during the learning process. The data analysis technique used is descriptive statistics. Descriptive statistical data can be presented in the form of graphs, tables, and charts. The table includes:

Table2: Learning Outcomes Criteria

Values on Average	Letter Value	Criteria
80-100	A	Very well
70-79	B	good
60-69	C	enough
50-59	D	less
0-49	E	very less

(Sudjana, 2010)

Table 3. Indicators for Improving Learning Outcomes

Test Score on Learning Outcomes	Value Improvement
More than 10 points below the baseline	5 points
10 points below the base grade to 1 point below the base grade	10 points
The base grade is up to 10 points above the base grade	20 points
More than 10 points higher than the base score	30 points
Excellent work.	40 points

(Sukidin, 2012)

Table 4. Criteria for identifying areas of learning outcomes may be increased

Point Average of Increment	criteria
$\overline{X} > 25$	Excellent
$20 \leq \overline{X} < 25$	Good
$15 \leq \overline{X} < 20$	Enough

(Sukidin, 2012)

RESULT AND DISCUSSION

Based on the results of the analysis in each cycle, the researchers stated that the type of cooperative learning The Power of Two using Microsoft Powerpoints can improve mathematics learning outcomes in class VII-1 of junior high school 6 Samarinda. This can be seen from the increase in the observatory's assessment in each cycle, namely the average teacher activity in cycle I was classified as sufficient and student activity was classified as less, then in cycle II the average teacher activity was classified as good and student activity was classified as sufficient, in cycle III it was average -The average teacher activity is very good and the average student activity is good.

The learning that is carried out in each cycle affects students' mathematics learning outcomes, namely the average mathematics learning outcomes of students at the initial value before cooperative learning type The Power of Two of 54.7 in cycle I increase to 66.1 or 20.8% with an increase in score of 11.4; in the first cycle it was 66.1 in the second cycle is increased to 76.5 or 15.7% with an increase in the score of 10.4; in cycle II it was 76.5 in cycle III increased to 83 or 8.5% with an increased score of 6.5.

Researchers act as teachers who carry out teaching and learning activities according to the scenario and lesson plan until the cycle is completed. This research ended in the third cycle because based on the results of the reflection, the researcher and the observatory agreed to end the third cycle.

In the first cycle, the increase obtained was quite good, namely 20.8%, but researchers who act as teachers need to make some improvements both in teaching techniques and in the process of group management. Many things need to be improved in teacher teaching techniques, including the teacher must be more familiar with the material before starting teaching so that in the implementation of learning the teacher does not look confused and must be able to eliminate feelings of nervousness in teaching in front of students, There are still many improvements in the learning process in the execution of cycle1, and so it is continued to the next cycle to improve the learning process carried out so that student learning outcomes are even better.

In the next cycle, the teacher must also be able to further increase the activity of each group by paying attention to each group, especially students who are still difficult to express their opinions in public, so that it can help to make improvements in the teaching and learning process and indirectly help in improving student learning outcomes.

In implementing the type of cooperative learning method The Power of Two is how the students play an active role in answering the questions given by the teacher, then the teacher provides the opportunity for students to discuss their answers with group members who have been determined by their teacher so that students not allowed to discuss the answer to his friends as a whole in the class. However, based on the research results, some group members have not been able to work together and if there is a material that they do not understand, they do not ask questions with their group members, but they ask other group members. This is also one of the factors the researcher wants to continue the second cycle of action research, by making some improvements such as making changes to groups that are still unable to work together.

In cycle II, several improvements were made by the researcher to encourage the emergence of individual student activity in the group and to increase maximum collaborative learning by each group to answer questions and provide a mutually agreed final answer, to obtain better learning outcomes.

Based on the results of the research conducted, the learning outcomes obtained in cycle II increased by 15.7%, and based on the KKM standards set by the school there were still some students who had not met these standards. In addition, teacher activities in paying attention to students need to be improved, namely by always helping students who have difficulty completing the assignments given.

Student activities in this cycle which consisted of students' attention, participation, and understanding were considered sufficient because in this cycle students began to listen to explanations and were active in working on the WORKSHEET FOR STUDENTS given. Students have also been able to work together with members of their respective groups. So that indirectly the skills to express opinions, receive suggestions and input from others, cooperate, feel loyal to friends, and reduce the emergence of deviant behavior in the classroom can be achieved. Based on some of the changes above, the researchers agreed to continue the research to cycle III.

In the third cycle, the learning outcomes obtained by each student have reached the specified Minimum Completeness Criteria (KKM) standards and the teacher and student activities based on the observatory's assessment have been good so that in cycle III this is not continued. The researcher chose three cycles because he predicted that by using cycles III, the learning process would be better than before, resulting in enhanced student mathematics learning outcomes. If the learning process did not improve, the next cycle may be used, but in this study, only cycles III have been used, and the learning process improved.

CONCLUSION

Based on the results, it can be concluded that using the cooperative learning method of The Power of Styles of Microsoft Powerpoint, students in grade VII-1 at 6 Samarinda junior high school increased their mathematics learning outcomes. The average score of students' mathematics learning outcomes increased from 54.7 in the first cycle to 66.1 in the second cycle, 76.5 in the third cycle, and 83 in the fourth cycle, indicating an improvement in the average score of students' mathematics learning outcomes. The percentage increase from the basic value increased by 20.8 % in cycle I, 15.7 % in cycle II, and 8.5 % in cycle III, according to the average increase in each cycle.

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