

Application of STAD-Type Cooperative Model in Improving Student Learning Outcomes in Mathematics Learning in Class V SDN I East Suwawa Regency Bone Bolango

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Abstract. *The objective of this research to improve student's learning outcomes on the material of presenting mathematics learning data through a cooperative model type stad in class V SDN 1 Suwawa Timur. The method used action class research that implemented in 2 cycles. Data collection techniques in this study were in the form of observation of teacher activities, observation of student activities, tests, and documentation. Initial observations of student learning outcomes on average were students in the data presentation material from 28 students, there were 7 students who completed (27%) and 21 students did not complete or 75%. In the implementation of the first cycle of class action only 15 students (54%). In the second cycle increased to 25 people (89%). From the results of the research and discussion carried out, the research on the application of the Stad Type Cooperative Model in Improving Student Learning Outcomes in Mathematics Learning in Class V of SDN I Suwawa Timur, Bone Bolango Regency increased.*

Keywords: *Learning Outcomes, Stad Type Cooperative Learning Model*

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INTRODUCTION

Mathematics is one of the basic sciences that plays an important role in encouraging the development of other sciences or in an effort to master science and technology (Zeldin & Pajares, 2000). This can be seen by giving mathematics lessons at every level of education from elementary school to university level. Mathematics is a universal science that underlies the development of modern technology, has an important role in various disciplines and advances the power of human thought (Bell, 2012; Tall, 2002).

To be able to improve student learning outcomes about mathematics, alternative actions to overcome existing problems are in the form of applying varied and innovative meeting models that prioritize the activeness of students and provide opportunities for students to develop their potential to the fullest. The meeting model in question is the STAD Type Cooperative meeting model in mathematics, especially in data presentation material (Setiyawan, 2019).

Based on the results of the observations of researchers in class V of the State Elementary School 1 East Suwawa, Bone Bolango Regency in the 2018/2019 academic year, in general mathematics meetings in class are carried out using the (conventional) method of student involvement in the meeting process which is minimal, so that students' mathematics learning outcomes are classified as low. This can be seen from the number of students who have not

reached the KKM set by the school, which is 75. It can be seen from 28 students only 7 students or 25% have reached the KKM in data presentation material and 21 students or 75% of other students have not reached the KKM.

Based on the explanation above, the STAD (Student Teams Achievement Division) type of meeting model emphasizes meaningful group learning where students in groups work together, exchange ideas, discuss inequalities, and help each other in solving a problem. They teach each other in a group of friends and assess each other's strengths and weaknesses to help them successfully pass the test that will be carried out at the end of the learning process.

METHODS

This research was conducted in the fifth grade of SDN 1 Suwawa Timur, Bone Bolango Regency. The time of this research will be carried out in the 2018-2019 school year. Research time is adjusted to the school's academic calendar. With the number of students 28 people consisting of 16 men and 12 women. The reason the researcher chose class V was because this class had many students whose learning outcomes in mathematics were still low, especially data presentation material. This research uses classroom action research. According to Sanjaya (2016) that classroom action research is an effort made by educators in increasing the responsibility and quality of the role of educators to manage meetings and reflect by participants such as teachers, students, principals to improve meetings in the classroom. Therefore, this study aims to improve student learning outcomes in the presentation of data on mathematics subjects through the application of the STAD type cooperative learning model in class V SDN 1 Suwawa Timur, Bone Bolango Regency.

This research design uses the classroom action research model from Kemmis and Taggart (in Aqib & Chotibuddin, 2018) which illustrates that each cycle consists of planning, implementation, observation and reflection stages. If the first cycle has not been able to achieve the achievement indicators, it can be continued in the second cycle with the same stages as in the first cycle. If the second cycle has not been able to meet the achievement indicators, this research can end if the achievement indicators have been achieved, namely reaching 80% or fulfilling Minimum KKM is 75. The flow of this action research consists of four steps and can be described as follows: (a) Planning (b) Action (c) Observation (d) Reflection.

RESULTS AND DISCUSSION

This research is a form of classroom action research that researchers carry out with the aim of implementing the STAD Type Cooperative Learning Model in Improving Student Learning Outcomes in Mathematics Learning in Class V Sdn I, East Suwawa, Bone Bolango Regency. The class that the researcher used as the research subject were students who were in class V of SDN 1 Suwawa Timur, Bone Bolango Regency with a total of 28 students.

The research was carried out by the researcher in five meetings divided into two cycles, namely the first cycle consisting of three meetings and the second cycle two meetings. To be able to find out about the results of previous studies, the researchers carried out initial observations made by researchers before carrying out the actions in cycle I.

Based on the results of observations that the researchers carried out, namely out of 28 students, there were 7 students who completed or reached 25%, while those who did not complete were 21 students or reached 75%. With the results of student achievements depicted in the table, the learning outcomes of students at the mathematics meeting for data presentation materials have not reached the indicators of success or are still said to be low than the researchers' expectations. Therefore, the researcher continued the meeting with the hope that student learning outcomes could increase by holding meetings in the first cycle

Cycle I

Based on the learning outcomes data that the researchers did, the researchers conducted a reflection which was carried out at the end of the cycle with the aim of knowing the results that

had been obtained whether the actions taken by the researchers had affected the improvement of student learning outcomes or had not met the standard of success indicators, the researchers together with partner educators held reflection activities to assess learning activities that have been carried out in cycle I in three meetings. The results achieved in the implementation of the first cycle of learning in three meetings can be described as follows:

The first meeting of the learning outcomes of students from 28 total students there were 10 students who completed or reached 36% while those who did not complete there were 18 students or reached 64%. In the second meeting, the learning outcomes of 28 students were 13 students who completed or reached 46%, while those who did not complete were 15 students or reached 54%. At the third meeting of the 28 students there were 15 students who completed or reached 54% while those who did not complete were 13 students or reached 46%.

In accordance with the results of the reflections carried out by researchers, the researchers and partner educators determined several weaknesses that were still encountered in the implementation of the mathematics learning process through the cooperative learning model of the stad type of data presentation material, both the activities of educators and student activities, which can be described as follows:

Educator activities: there are several aspects that are still not visible or are still in the sufficient category, namely the researcher gives quizzes/questions to all students when answering the quiz, they should not help each other, demonstrate media use skills, respond positively to student participation, control the class, conduct assessments The final result is in accordance with basic competencies, using spoken clearly and fluently, using good and correct written language.

Student activities: there are several aspects that are still not visible or are still in the sufficient category, namely students feel guided, students are able to correctly answer questions smoothly, students are able to express their opinions smoothly, students are able to ask questions straightforwardly, students are able to By actively making summaries, students accept follow-up assignments with pleasure.

Based on the results of these reflections, it is concluded with partner educators that in order to improve all the weaknesses that occur in the implementation of the first cycle of actions, it must be improved on the implementation of the actions in the next cycle, namely the second cycle.

Cycle II

After the researchers carried out the action in cycle II, assisted by partner educators in two meetings, namely learning IV and V, in this case the educator provided the implementation of actions in cycle II with the aim of increasing the learning achievement of class V students at SDN 1 Suwawa Timur, Bone Bolango Regency in the presentation material. data through cooperative learning model type stad can increase. With the results of the total number of 28 students, there were 25 students who completed or 89%. While those who did not complete were 3 students or 11%. With the results achieved by students in this learning, the performance indicators are achieved.

The classroom action research was carried out with the title "Application of the STAD Type Cooperative Learning Model in Improving Student Learning Outcomes in Mathematics Learning in Grade V at SDN I Suwawa Timur, Bone Bolango Regency". The number of students who were used as samples was 28 students. Based on the learning outcomes in the initial observations that the researchers observed, namely from 28 students, there were 7 students who completed or 25%. While those who did not complete were 21 students or 75%. These results indicate that students' learning outcomes are still low on data presentation material in mathematics learning that has been taught. Therefore, the researcher continued with the first cycle stage.

The activity of the first cycle educator in the first meeting of the 24 observed aspects contained 5 aspects in the very good category or reached 21%, in the good category there were

10 aspects or reached 42%, in the adequate category there were 9 aspects or reached 37%. The second meeting of the 24 aspects observed in the very good category contained 6 aspects or reached 25%, the good category had 10 aspects or reached 42%, the sufficient category contained 8 aspects or reached 33%. The third meeting of the 24 aspects observed in the very good category contained 6 aspects or reached 25%, the good category had 11 aspects or reached 46%, the sufficient category had 7 aspects or reached 29%.

The activities of educators in the second cycle meeting four of the 24 aspects that were observed there were 9 aspects in the very good category or reaching 37%, the good category having 10 aspects or reaching 42%, in the sufficient category there were 5 aspects or reaching 21%. The fifth meeting of the 24 aspects observed in the very good category had 10 aspects or reached 42%, in the good category there were 12 aspects or reached 50%, the sufficient category had 2 aspects or reached 8%.

The activities of students in the first cycle of meeting one of the 22 aspects observed in the very good category had 5 aspects or reached 23%, in the good category there were 8 aspects or reached 36%, in the adequate category there were 9 aspects or reached 41%. The second meeting of the 22 aspects observed in the very good category had 5 aspects or reached 23%, in the good category 10 aspects or reached 45%, in the adequate category there were 7 aspects or reached 32%. The meeting of the three categories is very good, there are 5 aspects or 23%, both categories are 11 aspects or 50%, enough categories are 6 aspects or 27%.

The activity of students in the second cycle of the fourth meeting of the 22 aspects observed in the very good category had 5 aspects or reached 23%, in the good category there were 12 aspects or reached 54%, in the moderate category there were 5 aspects or reached 23%. The fifth meeting of the 22 aspects observed in the very good category had 6 aspects or reached 27%, the good category had 14 aspects or reached 64%, the category was sufficient, there were 2 aspects or reached 9%.

The results of the first cycle of learning which was carried out in three meetings obtained the achievement of student learning outcomes as follows: one meeting of 28 students there were 10 students who completed or reached 36% while those who did not completed 18 students or reached 64%. The second meeting of 28 students there were 13 students who completed or reached 46% while those who did not complete 15 students or reached 54%. The third meeting, namely from 28 students, the total number of students there were 15 students who completed or 54%. While those who did not complete were 13 students or 46%.

The results of the second cycle of learning which was carried out in two meetings obtained the achievement of student learning outcomes as follows: the fourth meeting of 28 students there were 20 students who completed or reached 71% while those who did not complete 8 students or reached 29%. The fifth meeting of 28 students there were 25 students who completed or reached 89% while those who did not complete 3 students or reached 11%.

Based on the description above, it is clear that the increase in student learning outcomes in data presentation material. In the first cycle until the implementation of the action in Cycle II, it was seen that there was an increase in student learning outcomes, from the first cycle the achievement of learning achievement reached 54% of student learning outcomes while in the second cycle learning outcomes increased to 89%. Thus, it is proven that after going through classroom action research, the learning outcomes of students on data presentation material in mathematics learning through the stad type cooperative learning model In Class V SDN 1 Suwawa Timur, Bone Bolango Regency, have increased. According to the theory of learning outcomes put forward by Purwanto (2016) learning outcomes are changes in behavior that occur in students after students follow the teaching and learning process in accordance with educational goals and also Feri et al., (2016) says learning outcomes are an indicator of changes that occur in participants After experiencing the learning process, students usually use an assessment tool set by the school by the educator. Based on the results achieved by students in cycle I and cycle II, it turns out that the use of the STAD type cooperative learning model in learning mathematics is

very appropriate to use. Based on the theory put forward by experts, it is proven that student learning outcomes change after carrying out the learning process which is reflected in cycle I and cycle II. So that the learning outcomes of students in learning mathematics can be improved by using the stad type cooperative learning model. Thus, the action hypothesis in this study can be accepted.

CONCLUSIONS

Based on the results of research and discussion, it can be concluded that using the stad type cooperative learning model can actually improve student learning outcomes in data presentation material in class V SDN 1 Suwaw Timur, Bone Bolango Regency. In the first cycle of learning, from 28 students, the total number of students was 15 students who completed or 54%. While those who were incomplete were 13 students or 46%. These results indicate that student learning outcomes are still low on the data presentation material that has been taught, so that researchers and partner educators reflect to see the weaknesses of the learning process contained in the first cycle as follows : researchers give quizzes/questions to students when answering quizzes, they should not help each other, demonstrate skills in using media, respond positively to students, control the class, conduct final assessments, use spoken language, use good and correct written language with those weaknesses it will be improved in cycle II. Based on the results of the second cycle of learning evaluation tests, of the total 28 students, there were 3 students who did not complete or 11%. While those who completed were 25 students or 89%. Thus, the research is declared complete because it has exceeded the specified performance indicators. Based on the discussion and conclusions above, the researchers provide the following suggestions; (1) For students, the implementation of this class action is expected to be a booster in improving learning outcomes in mathematics; (2) For educators, presumably the implementation and results of this research can be used as a reference for fellow mathematics educators in presenting material, they should be selective in choosing a learning model or approach that is deemed appropriate to the material to be taught; (3) For schools, the implementation of this classroom action research is expected to make a major contribution to schools in order to improve the quality of learning in schools.

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