

## **Improving Mathematics Learning Outcomes through Model Application Cooperative Learning Type Student Teams Achievement Division (STAD)**

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*Received: January 01, 2024*

*Accepted: January 28, 2024*

*Online Published: February 29, 2024*

### **ABSTRACT**

This research is classroom action research which was carried out in two cycles and aims to find out whether the Mathematics learning outcomes of Class VI MIN 2 Bulukumba students who are taught using the STAD type cooperative learning model can improve. The subjects of this research were 20 students of class VI MIN 2 Bulukumba, even semester of the 2022/2023 academic year. The research results have a positive impact on student learning outcomes. Learning outcomes in cycle I had the lowest score of 41, the highest score of 78 and the average score of 65.95. Meanwhile in cycle II the lowest score was 69, the highest score was 100 and the average score was 83.55. The percentage of learning completeness in cycle I was 40% and the percentage of learning completeness in cycle II was 95%, this shows an increase of 55%.

Keywords: learning outcomes, learning models, STAD.

### **INTRODUCTION**

In learning activities at school during this time the teacher tend to teach conventionally in the form of knowledge transfer from teachers to students. thus having an impact on participants' learning outcomes students who only achieved an average of 61 out of the ideal score of 100 in the medium category in the second semester of the 2012/2013 academic year. Results This average is below the KKM (Minimum Completeness Criteria) value set at MIN 2 Bulukumba, which is 70 out of the ideal score of 100 in the high category and classical completion 85% of the number of participants educate. From this data, the author found a trend teachers are still the focus and the main source of knowledge, the lecture method dominates the learning process. Application this model only considers the convenience for teachers, without considering the participant's level of mastery achievement students both in terms of mastery of the process and the results. So that learning is often only oriented towards the target of mastering the material Mathematics as a product has proven to be quite effective in providing education children solve problems in long-term life.

Application of learning models through learning methods The cooperative STAD model can be one solution mathematics learning. The STAD type is a type of learning simple cooperative where in STAD students are formed in small groups consisting of 4 or 5 people different abilities, genders and ethnicities. Then, in practice the teacher presents the lesson and then students study in groups to ensure that each group member has mastered material (Hendra, 2018). The STAD learning model is a model learning designed in the form of an experiment for prove a certain statement or hypothesis.

This STAD type cooperative learning model is a type easy so that students can work together, help each other learn information and skills and there is an assessment system from

individual improvement and cooperation with groups, and is effective way to change learning patterns in the classroom. This learning have procedures explicitly implemented to provide participants educate more time to think, answer and help each other one another.

From the description above it can be concluded that the learning model based on experience whose implementation is in the form STAD type cooperative learning needs to be considered applied in mathematics learning in schools increase students' mastery of the material. Increase There are many student learning outcomes through the STAD learning model researched, among others, by Septian, et al, 2020; Octavia, 2022; and Lastia, 2020; where the research results are a capable STAD type cooperative model improve student learning outcomes

Based on the description above, the aim of this research is to knowing how to improve Mathematics learning outcomes through application STAD type cooperative learning model for Class VI students MIN 2 Bulukumba, while the benefits of writing can be information about the importance of the STAD type cooperative learning model in an effort to improve learning so as to improve results learn math.

## **METHODS**

This research was carried out at MIN 2 Bulukumba Jl. Cengkeh Kec. Bulukumpa District. Bulukumba in the odd semester of the school year 2022/2023. This research uses a classroom action research design (PTK) which is carried out in two cycles. Each cycle consists of four stages, namely: planning, implementation (action), observation (observing), and reflection (reflection), (Arikunto, 2019). The subject of this research There are 20 Class VI MIN 2 Bulukumba students, consisting of 12 male students and 8 students Woman. The instruments used in this research are final cycle learning outcomes test instrument to obtain results data learning, observation sheets to obtain implementation situation data actions while learning takes place.

The types and techniques of data collection in this research are qualitative data and quantitative data. Qualitative data is about students' activeness when participating in the learning process. Data This is obtained from observations during the learning process teaching through the STAD type cooperative learning model. Data Quantitative, namely data obtained from tests on student learning outcomes in each cycle, namely cycle I and cycle II.

There are three settings for this research, namely: First, input setting, concerns the condition of students before being given action. Condition What is meant is the problems faced by students and teachers who cause low learning outcomes are then given action. Second, process settings, namely by looking at the process conditions Mathematics learning by applying learning models cooperative type Student Teams Achievement Division (STAD) with desired learning objectives. Third, output settings, namely by looking at student learning outcomes through learning outcomes tests given at the end of cycle I and cycle II.

For quantitative analysis, descriptive statistical analysis is used, namely calculating the highest score, lowest score, and average score, (Ayudiah: 2007). Which is a criterion or indicator of success in research This is an increase in learning outcomes and student activities through the application of the STAD type cooperative learning model classically 85% of Class VI MIN 2 Bulukumba students got grades minimum 75 out of an ideal score of 100.

## **RESULTS AND DISCUSSION**

This research was carried out at MIN 2 Bulukumba with implementing the Student Teams type cooperative learning model Achievement Division. Based on the observation sheet, it was obtained increasing student activity during the learning process taking place. Increased student activity is as follows: The average percentage of student attendance in cycle I was 95% and increased in cycle II by 100%, the average percentage students students who carry out other activities such as chatting with my classmates, going in and out of the classroom as much as possible 21.67% and increased in cycle II by 5%. Students who answered questions about the subject matter by 23.33% and increased in cycle II 41.67%%. Average percentage of students who did homework was 25% and increased in cycle II

as much as 100%. Percentage of students who are not active in group discussions in cycle I were 25% and increased in each cycle II as much as 5%. The percentage of completeness of learning outcomes in cycle I, namely 91.67% and increased in cycle II, namely 100%.

Increased student activity and learning outcomes occurred after The STAD type cooperative learning model was applied. According to Sunal and Hans (Isjoni, 2007: 12) "cooperative learning is a way an approach or set of strategies specifically designed for encourage students to work together during the process learning".

In implementing the cooperative learning model, students don't work individually but they will complete a problems together. Where in learning cooperative can improve student learning outcomes and increasing the attitude of helping in social behavior, which stated by Stahl (Isjoni, 2007). In carrying out the research, the researcher also gave questions in the form of student worksheets (LKS) to be done with friends group, which aims to find out the extent students' understanding in following lessons and understanding the material that has been taught and also the extent to which students are active in solving the given practice questions. Once applied STAD type cooperative model for class VI MIN 2 students Bulukumba, then based on the learning outcomes obtained by students in following the teaching and learning process shows that learning outcomes The mathematics obtained has increased from cycle I to cycle II.

Changes in students' attitudes in following the learning process teaching at the beginning of the meeting during cycle I was still very lacking, especially student participation in solving the questions given as well as the attitude of students who are indifferent to his ignorance regarding some of the issues they might have don't understand.

Thus, the application of the cooperative learning model type STAD can improve learning outcomes in mathematics subject matter circle of class VI MIN 2 Bulukumba students, and participant activity students also improve in the learning process. Like the results research conducted by Syamsu, et al. (2019), namely the model STAD learning can improve student learning outcomes, therefore Therefore, teachers need to implement the STAD learning model well so that Students are more enthusiastic and enthusiastic in participating in the activity process learn how to teach. Apart from that, Herawati, (2022) also said that that the STAD type cooperative learning model is able to improve Student learning outcomes on number pattern material in class VIII SMP Negeri 3 Lembo. So the STAD type cooperative learning model can be used used as an alternative in overcoming yield problems students' mathematics learning.

## CONCLUSION

Based on the results obtained in this research, it can be it was concluded that by implementing the STAD type cooperative model proven to improve mathematics learning outcomes for Class VI MIN students 2 Bulukumba, this can be seen by the increase in the average score of the student learning outcomes test in the first cycle, namely 65.95 in the category moderate with a completion percentage of 40% while in cycle II namely 83.55 is in the high category with a completion percentage 95% of the ideal score of 100 in cycle II. The impact of implementing STAD can be increasing student learning activities, namely the emergence of motivation and there is student involvement in learning from various aspects observed from cycle I to cycle II.

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