IMPROVING UNDERSTANDING OF THE CONCEPT OF FLAT AREAIN MI THROUGH THE STAD CO-OPERATIVE LEARNING MODE

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ABSTRAK

Penelitian ini bertujuan untuk mengeksplorasi peningkatan pemahaman konsep luas bangun datar pada siswa melalui model pembelajaran kooperatif tipe Student Teams Achievement Divisions (STAD). Metode penelitian yang digunakan adalah kualitatif. Data dikumpulkan melalui wawancara mendalam dengan guru MI Wali Songo Kebon Rowopucang. Hasil penelitian menunjukkan bahwa penerapan STAD mampu meningkatkan pemahaman konsep luas bangun datar pada siswa secara lebih signifikan. Siswa menjadi lebih aktif terlibat dalam proses pembelajaran, mampu saling berbicara dan menjelaskan konsep kepada teman sekelompok, serta mengalami peningkatan kemampuan dalam menyelesaikan soal-soal terkait luas bangun datar. Selain itu, STAD mendorong peningkatan kerjasama, interaksi, dan tanggung jawab siswa dalam kelompok belajar.Penelitian ini dapat diambil kesimpulan bahwa STAD merupakan model pembelajaran yang efektif untuk membantu siswa memahami konsep luas bangun datar secara lebih mendalam. Kerjasama dan diskusi kelompok dalam STAD memfasilitasi konstruksi pengetahuan dan pemahaman konsep matematis siswa MI. Penelitian lanjutan dapat dilakukan untuk menerapkan STAD pada topik matematika lain atau jenjang kelas yang berbeda.

Kata kunci *:* pembelajaran kooperatif, STAD, pemahaman konsep, luas bangun datar,

ABSTRACT

This study aims to improve the understanding of the concept of flat area in students by using the Student Teams Achievement Devisions (STAD) coorperative learning model. The method used in this research is qualitative, with data collected through in-depth interviews with MI Wali Songo Kebon Rowo Pucang teachers. The results showed that the application of STAD was able to improve the understanding of the concept of the area of building data on students more significantly. Students become more active in the learning process, able to communicate with each other and explain concepts to group mates, and experience an increase in the ability to solve problems related to

the area of flat buildings. In addition, STAD also encourages increased cooperation, interaction, and trains student responsibility in learning groups. From this research, it can be concluded that STAD is an effective learning model to help students understand the concept of flat area more deeply. Cooperation and group discussion in STAD in other math topics or different grade levels.
Keywords*: Co-operative learning, STAD, concept understanding, flat area.*

INTRODUCTION

Mathematics is one of the important subjects in the educationcurriculum at the Elementary School (SD) or Madrasah Ibtidaiyah level,which teaches about the science of logic related to shape, structure, magnitude, and concepts are interconnected with one another. In studying mathematics, students do not only focus on calculating a problem, but mathematics also always develops following the flow of the times.(Manurung, 2018)

However, math is an exact science, whose fundamentals andprinciples are consistent and reliable.In mathematics, the results obtained from the same process will always get the same answer, if in accordance with the predetermined calculation rules. The purpose of math lessons is to train and develop students' reasoning skills in counting, because in its concepts, it is always related to everyday life from various fields, both in physics and in economics. (Agustina, L:2021).

Understanding mathematicalconcepts is a fundamental aspect of learning mathematics, especially at the elementary school level. In elementary school it is very important, the goal is to provide basic knowledge of counting which will later serve as a foundation for learning more in-depth mathematics at higher levels of education. Concept understanding refers more to understanding the basic ideas that exist in a topic that is discussed, so that students can more easily relate, explain, and apply what.(Karunia, 2015:81). One of the topics that require deep understanding is the concept of flat shapes. However, many students often have difficulty in understanding abstract math concepts, including the concept of flat shapes. It's a tough job for a teacher, becausea teacher needs to pay attention to several things such as organizing, planning, and thinking of all ways to improve

the quality of learning. (nisrokhati, 2022)

Based on the results of observations and interviews in grade 3 at MIWS Kebonrowo Pucang, addressed to the homeroom teacher of grade 4 MIWS KebonrowoPucang, that before the application ofthe STAD learning model, the teacher applied learning using the lecture method supported by learning media in the form of pictures of flat shapes to visualize the shape of flat shapes. Even so, this method cannot improve students' understanding of the concept of flat shapes. Although various efforts have been made to improve students' understanding such as holding Co-operative learning STAD (Student Teams Achievement Divisions) is one of the learning methods carried out in a co-operativeor group that emphasizes interaction between students, in order to create an interactive relationship between students to motivate each other, worktogether and share knowledge, to motivate each other. Achieving comprehension goals in learning (Wulandari, I., & Kunci, K:2022).

In this STAD learning model, the teacher usually divides into several groups, with each group consisting of 3-4 students consisting of female and male students, who have different levels of understanding ability.(Esminarto:2016). They work together to learn the material and ensure that all group members understand the concepts. After group learning, individual quizzes are given, and the scores contribute tothe overall group performance. Previous research shows that the STAD model can improve students' academic achievement, motivation, and social skills Thus, the student teams achievement division (STAD) model is a learning model that can stimulate student activity to express opinions, ideas, and ideas in learning.(Maulana, panji:2017).

The Student Teams Achievement Divisions (STAD)cooperative learning model isproposed as an effective approach to facilitate students' understanding of mathematical concepts. This study aims to find out the improvement understanding of flat buildingconcepts in students through theapplication of the STAD cooperative learning model.

This study used a qualitative method to explore in depth the views of MI Wali Songo Kebon Rowopucang teachers on the effectiveness of the Student Teams

Achievement Divisions (STAD) learning model in improving students' understanding of the concept of flat shapes. The qualitative approach was chosen because it allows researchers to understand directly and thoroughly, as well as obtain reliable and in- depth data from the teacher's point of view.

Data collection was conducted through in-depth interviews with teachers of MI Wali Songo Kebon Rowopucang. This interview was conducted to obtain comprehensive and in-depth information about the teachers' experiences and views related to the application of the STAD model in learning the concept of flat shapes. The interview questions were carefully organized to explore various aspects, starting from the preparation and implementation of STAD, to student learning outcomes and the obstacles faced. to student learning outcomes and the obstacles faced. Interviews were conducted directly or face to face, where the researcher interviewed directly with the teacher. This allowed the teacher to feel more comfortable and open in giving answers to the questions given by the researcher. In addition, the researcher can also directly observe the teacher's expressions and body language during the interview, which can provide valuable additional information.

Data obtained from interviews were analyzed using systematic and structured qualitative analysis techniques. Data analysis was carried out in stages, starting from interview transcription, data reduction, data categorization, to data interpretation. The results of data analysis were then used to answer research questions and conclude research findings.

DISCUSSION

The data collected in this study describe the steps of STAD learning in Madrasah Ibtidaiyah Walisongo which includes 1) greetings 2) student attendance 3) reflection or 4) explain the material about measuring the area of flat buildings with standard and non-standard units 5) divide students heterogeneously with games 6) students start working on commands with their respective groups. The contents of the order include: a) determining the objects to be measured with the unit of measurement (the unit of measurement is determined by the teacher) b) after that students measure the objects with the unit of measurement that has been determined c) write down the results of the work on the student worksheet d) after that each group presents the results of its discussion, listened to by other group

members and give each other feedback. 7) after completion, the teacher gives feedback and general views on the results of the discussion 8) then inthe next meeting the teacher conducts an evaluation. After carrying out these learning steps the teacher realizes that each student willvary in the level of understanding and how to understand the learning material. Use of This STAD method facilitates students who like social activities, like learning by moving and discussing with their friends. In practice, of course there are many obstacles, but in this case it trains students in problem solving and trains their sensitivity in socializing. For the results do vary, but most students actually understand better and learning is more effectivebecause they find the concepts themselves. When there are difficulties, or one of the groupmembers does not understand, they pay more attention to how their friends in the group work so that understanding will arise by itself. However, there are still some students who are ignorant andbecome uncooperative in learning activities. With the STAD method,students can be more active in learning, such as increasing student participation in class discussions, increasing cooperation between students, increasing student motivation to learn, increasing student learning outcomes and making it easier for students tounderstand flat shapes.

STAD learning is proven to increase student activeness in learning. This is because STAD emphasizes cooperation between students in small groups, to solve various problems given by a teacher. It encourages each student to participate and cooperate. STAD learning does not only stop at cooperation to solve a problem but students are also trained to make presentations or present the results of the discussions carried out. That waystudents can be more active and can practice speaking in front of their friends and students can also convey aspirations and responses from other groups.

In the application of STAD tostudents' ability to solve problems of flat shapes, students become easier torecognize the shapes of flat shapes, improve students' skills incalculating the perimeter of flat shapes, improve their skills in calculating the area of flat shapes,and students can also explore the concept of flat shapes.

The application of the STAD learning model is effectively used in flat

building material. Because students can increase their level of understanding in the material, by working together, solving problems, with the help of the STAD learning model. exchange strategies andknowledge with their groupmates.So that students can expand their knowledge freely, and can improve students in critical thinking, by analyzing the flat building problems provided, then presenting the resultsof the analysis, and discussion. Besides that, other groups can also provide responses to the results of discussions from other groups. By analyzing independently, students will automatically understand the concepts of flat shapes more deeply. So that studentscan more easily solve problems related to flat shapes well. In addition, STAD learning can increase the motivation and self-confidence of students, because thelearning process is fun or moreinteractive, so they do not just sit andlisten to lectures, but also activelyparticipate in learning. Students alsofeel valued and supported by theirpeers and teachers. Because they canfreely express what their opinions are.

STAD is one of the methods that can be used, because it is not justan exercise in doing problems but students can practice solving problems math together with friends and train students' cooperative spirit.

So with this STAD method, it not only makes it easier for students to understand concepts, but also can provide support or motivation, andtrain students to think critically.

CONCLUSION

Conclusion Based on the results of the study, it can be concluded that the STAD cooperative learning model is an effective approach to improve students' understanding of flat plane concepts in MI (Madrasah Ibtidaiyah). Group cooperation and discussion facilitated by STAD encourage the construction of knowledge and deeper understandingof mathematical concepts among students. The STAD model also increases students' engagement, motivation and critical thinking skills in mathematics learning. Therefore, the STAD model can be recommended to be applied to other math topics or different grade levels.

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