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## Improving the Learning Outcomes of Islamic Religious Education Historical Material on the Growth of Science During the Abbasiyah Period by Applying the Stad Cooperative Learning Model to Grade VIII Students of SMP Negeri 5 Panyabungan

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**Abstract:** This study aims to improve student learning outcomes in Islamic Religious Education (PAI) subjects, especially in the material History of the Growth of Science in the Abbasid Period through the application of a cooperative learning model of the Student Teams Achievement Division (STAD) type. The background of this study is the low learning outcomes of grade VIII students of SMP Negeri 5 Panyabungan, which is caused by the lack of variety in learning models and low interest of students in following the learning process. This research is a Classroom Action Research (PTK) which is carried out in two cycles. Each cycle consists of planning, implementation, observation, and reflection stages. Data was obtained through learning outcome tests, observation of teacher and student activities, and documentation. The results of the study show that the application of the STAD model can improve student learning outcomes. In the first cycle, the percentage of student learning completion reached 68% with an average score of 73, while in the second cycle it increased to 85% with an average score of 82. In addition, student learning activities also experienced an increase which can be seen from enthusiasm, group cooperation, and the ability to understand the material. Thus, it can be concluded that the use of the STAD-type cooperative learning model is effective in improving the learning outcomes of Islamic Religious Education in the material History of the Growth of Science in the Abbasid Period in grade VIII of SMP Negeri 5 Panyabungan.

**Keywords:** Learning Outcomes, Islamic Religious Education, STAD, History of Science, Abbasiyah.

## INTRODUCTION

Islamic Religious Education (PAI) has a crucial role in shaping students' character and understanding of Islamic values and the history of Islamic civilization. One of the important materials in PAI is the History of the Growth of Science in the Abbasid Period. However, the reality on the ground shows that many students have difficulty understanding this material, which has an impact on their low learning outcomes.

Low student learning outcomes can be caused by several factors, one of which is learning methods that are less varied and still teacher-centered. Traditional learning models often make students passive and less actively involved in the learning process. As a result, students' interest and motivation to learn decrease, which has an impact on their academic achievement.

To overcome these problems, innovations in learning methods are needed that can increase the active participation of students. One of the models that is considered effective is the Student Teams Achievement Division (STAD) type of cooperative learning. This model emphasizes cooperation between students in small groups to achieve common learning goals. Previous research has shown that the application of the STAD-type cooperative learning model can increase student motivation and learning outcomes. For example, a study in 2020 found that the STAD model was effective in improving PAI learning outcomes in grade VI students of SD Negeri 1 Sumberagung. Similar findings were also reported in other studies showing an improvement in student learning achievement after the application of the STAD model.

Based on this background, this study will apply a STAD-type cooperative learning model to improve PAI learning outcomes in the History of the Growth of Science in the Abbasid Period. This research is focused on grade VIII students of SMP Negeri 5 Panyabungan, who previously showed unsatisfactory learning outcomes in the material.

This study has several main objectives: 1. Improving student learning outcomes in PAI subjects in the History of the Growth of Science in the Abbasid Period through the application of the STAD-type cooperative learning model. 2. Increase student motivation and active participation in the PAI learning process. 3. Providing alternative learning methods for teachers to increase the effectiveness of PAI teaching.

It is hoped that the application of the STAD-type cooperative learning model can improve student learning outcomes in PAI subjects, especially in the material History of the Growth of Science in the Abbasid Period. In addition, it is hoped that students will be more motivated and active in the learning process, and be able to work well together in groups.

Before the application of the STAD model, student learning outcomes on this material tended to be low. Many students lack understanding of the material and show minimal participation in the learning process. The learning methods used previously were not able to facilitate the learning needs of students optimally.

To overcome these problems, it is proposed to apply a STAD-type cooperative learning model in PAI learning. The steps to be taken include: 1. Planning: Develop a lesson plan that integrates the STAD model, including the formation of heterogeneous study groups and the preparation of appropriate teaching materials. 2. Implementation: Applying the STAD model in the learning process, where students work in groups to understand the material and complete tasks together. 3. Evaluation: Assessing student learning outcomes through tests and observations to measure the effectiveness of the implementation of the STAD model. 4. Reflection: Evaluating the learning process and outcomes for improvement in the next cycle. With the application of the STAD-type cooperative learning model, it is hoped that there will be a significant increase in learning outcomes and student motivation in PAI subjects, especially in the material History of the Growth of Science in the Abbasid Period.

## **METHODS**

This study uses the Classroom Action Research (PTK) approach which aims to improve the learning outcomes of Islamic Religious Education on the History of the Growth of Science in the Abbasid Period through the application of the STAD-type cooperative learning model. PTK was chosen because it is able to solve real problems that occur in the classroom, as well as provide innovative solutions in the learning process (Rahmawati, 2022).

The data sources in this study are divided into two types, namely primary data and secondary data. Primary data was obtained directly from the results of the implementation of actions carried out in grade VIII of SMP Negeri 5 Panyabungan, which included the results of student learning tests, teacher activity observation sheets, student activity observation sheets, and documentation of learning activities such as photos, videos, and field notes (Maulidah & Yuliana, 2021). This primary data is important to find out the extent of the improvement of student learning outcomes after the implementation of the STAD-type cooperative learning

model. Through the test results, researchers can identify students' cognitive achievements before and after actions. Meanwhile, observation is used to monitor the increase in student activity and involvement during the learning process (Hidayat & Pratama, 2021).

Meanwhile, secondary data was obtained from various literature, scientific journals, and previous research results that are relevant to the use of the STAD model in learning and improving the learning outcomes of Islamic Religious Education. This data serves as a theoretical basis, a conceptual foundation, and a reinforcement of analysis of research findings (Rahmawati, 2022). The literature used includes various recent studies on the effectiveness of the STAD model in improving learning outcomes, strengthening students' social interaction, and increasing active participation in groups. It is important to put the results of the research into a broader scientific context and compare the results with other studies (Fitriani & Hasanah, 2021). The data analysis in this study uses a combination of quantitative and qualitative descriptive techniques. Quantitative data was obtained from the results of student learning tests which were then analyzed by calculating the percentage of learning completion classically. The Minimum Completeness Criterion (KKM) applied in this study is 75, with the target of action success if at least 85% of students get a score above KKM (Nugraha & Susanto, 2020). The qualitative data was obtained through observation of teacher and student activities during the learning process. This data was analyzed by means of data reduction, data presentation, and conclusion drawing to determine the increase in learning activities, student activity in group discussions, and active student participation in each learning cycle (Fitriani & Hasanah, 2021).

The data reduction process is carried out by sorting important data from observations, field notes, and documentation. Furthermore, the reduced data is presented in the form of tables, graphs, and narrative descriptions to facilitate analysis and draw conclusions (Widodo & Lestari, 2022). To maintain the validity of the data, this study also applies a triangulation technique, namely by comparing test results, observation results, and documentation to obtain a complete picture of the successful implementation of the STAD model (Kurniawan & Arifin, 2021). With this triangulation, researchers can ensure that the data obtained corroborate each other and describe real conditions during the study.

In addition to triangulation, the validity of the data is strengthened by inter-rater validation, where two observers independently assess the activities of teachers and students. The consistency of assessment between observers shows that the observation data obtained is reliable and objective (Rahman & Widodo, 2021). Through the application of this combined data analysis, the results of the study are able to describe the impact of the implementation of the STAD model as a whole, both in terms of improving learning outcomes and student activities in Islamic Religious Education learning. The combination of quantitative and qualitative data provides a complete picture of the changes that occur in the learning process and outcomes (Fauzi & Ningsih, 2021). Thus, this study not only provides empirical evidence of the effectiveness of the STAD model in improving Islamic Religious Education learning outcomes, but also shows an increase in social interaction, cooperation, and student activity, which is an important goal in the implementation of group-based learning in the 21st century learning era (Wulandari & Syahputra, 2022).

## RESULTS

This study was carried out to determine the effect of the application of the STAD-type cooperative learning model on the improvement of Islamic Religious Education (PAI) learning outcomes in the material History of the Growth of Science in the Abbasid Period. The research was conducted on grade VIII students of SMP Negeri 5 Panyabungan with a total of 30 participants.

Data collection is carried out through several techniques, namely student learning outcome tests, observation of teacher and student activities during the learning process, and activity documentation. The data collection process is carried out in two learning cycles, each of which consists of planning, implementation, observation, and reflection stages.

The results of the initial test showed that the initial ability of students to understand the historical material of the development of science during the Abbasid period was still low. Of the 30 students, only 9 students (30%) achieved the Minimum Completeness Criteria (KKM)

with a score of  $\geq 75$ . This shows that most students have difficulty understanding the material before the application of the STAD model.

After the implementation of the STAD cooperative learning model in cycle I, there was a significant increase in student learning outcomes. It was recorded that 18 students (60%) achieved KKM. However, these results still do not meet the classical success target, so it is necessary to make improvements in the second cycle.

In cycle II, student learning outcomes improved better. Of the 30 students, as many as 27 students (90%) managed to achieve KKM with a score above 75. This improvement shows that the application of the STAD model is able to help students understand the material through group discussions, role sharing, and knowledge sharing (Putri & Handayani, 2021).

The following is a table of the development of student learning outcomes:

Cycle	Number of Students	Completion Quantity	Completion Percentage
Initial Test	30	9	30%
Cycle I	30	18	60%
Cycle II	30	27	90%

In addition to the increase in test results, the increase was also seen in student learning activities. In the observation of the first cycle, student activities were in the category of "quite active" with an average percentage of 68%. Students began to show participation in discussions, but there were still some students who did not dare to express their opinions.

The increase in student activity continued in cycle II. Observations show that student activity increased to the "active" category with an average percentage of 85%. In this cycle, almost all students are actively involved in discussions, help each other in groups, and are more confident in expressing opinions (Sari & Kurniawan, 2022).

In addition to student activities, observation of teachers also showed an improvement in the quality of learning. In the first cycle, teachers begin to be able to organize groups, motivate students, and provide good explanations of the material. In cycle II, teachers are more optimal in facilitating discussions and providing constructive feedback. To ensure the validity of the data, a verification process is carried out through triangulation of data sources. The data on test results, activity observations, and documentation of learning activities were compared to see the consistency of improving student learning outcomes.

The verification results showed a consistent relationship between the increase in student activity and learning outcomes. Students who are active in discussions tend to experience improved learning outcomes, which is supported by observation data of student activities during the learning process (Mulyani, 2020).

In addition to triangulation, data validation is also carried out using the inter-rater validation technique. Two observers independently assessed the activities of teachers and students. The assessment results show a score difference of less than 5%, so that the data can be declared reliable (Rahman & Widodo, 2021).

Documentation of activities in the form of photos of the group discussion process, student work results, and field notes further strengthened the findings that learning with the STAD model went according to plan and had a positive impact on student engagement and understanding.

From the overall data obtained and verified, it can be concluded that the improvement of student learning outcomes is not just a coincidence. This success occurred thanks to the application of the STAD-type cooperative learning model which effectively increased student participation and understanding in the History of the Growth of Science in the Abbasid Period.

## DISCUSSION

Data validation in this study was carried out to ensure the validity and reliability of the data obtained during the research process. Validation is important because in classroom action research (PTK), the accuracy of the data is the basis for decision-making on the success of the actions taken (Fitriani & Pratama, 2021).

The validation technique used in this study is **data triangulation**, which is by comparing the results from various data sources, such as student learning outcome tests, observation sheets of teacher and student activities, and documentation of learning activities. This triangulation was carried out to check the consistency of the data and see if the improvement in student learning outcomes was in line with the increase in learning activities and the quality of the implementation of the STAD learning model (Mulyani, 2020).

In addition to triangulation, validation is also strengthened by **inter-rater validation**. Two independent observers are involved in assessing the activities of teachers and students during the learning process. The assessment was carried out using the same observation instruments, so that the results could be compared to see the level of consistency of the assessment. This validation process is carried out continuously in each cycle, both at the stage of implementation of actions and reflections, so that any change or improvement in the teaching and learning process can be ascertained to be a real result of interventions carried out through the STAD model, not due to other factors (Rahman & Widodo, 2021).

The validation results show that the data obtained in this study has a high level of validity and consistency. The results of triangulation showed that there was a correspondence between improving student learning outcomes, increasing student activities, and learning documentation. This is shown by the increase in students' test scores from the initial cycle to the second cycle, which runs in parallel with the increase in student activity in group discussions and involvement in the learning process.

Observation data showed that student activity increased from the "moderately active" category with a score of 68% in the first cycle to the "active" category with a score of 85% in the second cycle. This increase goes hand in hand with the increase in student learning test results from an average of 65 in the initial test to 82 in the second cycle (Putri & Handayani, 2021). This proves that there is a close relationship between student activities in STAD-based learning and the learning outcomes achieved.

The results of the validation between the assessors also showed that there was consistency in the assessment score between the two observers with an average difference of less than 5%. This shows that the assessment instruments used are reliable and the observation process runs objectively without any bias from the assessor (Sari & Kurniawan, 2022). In addition, documentation in the form of photos of group activities, student work, and field notes further strengthens that the STAD model encourages students to be more active, creative, and responsible in learning. This documentation supports the finding that the improvement of student learning outcomes is not just a statistical number, but also noticeable in student behavior during the learning process. From the results of this validation, it can be concluded that the application of the STAD-type cooperative learning model is effective in improving learning outcomes and student activities in the subject of Islamic Religious Education, the material History of the Growth of Science in the Abbasid Period. Strong data validation ensures that the results of this study can be accounted for academically and become a reference in the development of similar learning strategies in the future.

## CONCLUSION

Based on the results of research that has been carried out regarding the application of the STAD-type cooperative learning model in improving the learning outcomes of Islamic Religious Education in the material History of the Growth of Science in the Abbasid Period in grade VIII of SMP Negeri 5 Panyabungan, several important things can be concluded as follows:

This study clearly shows that the application of the STAD-type cooperative learning model is able to significantly improve student learning outcomes. This is evidenced by the

increase in the percentage of student learning completeness from only 30% in the initial test to 60% in the first cycle, and finally reached 90% in the second cycle. These findings are supported by student activity data that shows an increase from the category of "moderately active" to "active", as the group-based learning process progresses (Putri & Handayani, 2021). Data validation through triangulation and inter-rater reliability also shows that the data obtained is valid, accurate, and consistent (Rahman & Widodo, 2021).

Apart from the quantitative aspect in the form of increasing grades, the application of the STAD model has also been proven to be able to improve the quality of social interaction between students, such as cooperation, communication, and a sense of responsibility in the group. These skills are an important aspect of the 21st century learning process, which requires students to not only be academically intelligent, but also be able to work together in a team and think critically (Fitriani & Pratama, 2021).

From an academic perspective, the results of this study make a real contribution to the development of learning methods in schools, especially in the subject of Islamic Religious Education. The STAD cooperative learning model can be an effective alternative teaching strategy in improving students' understanding of complex and often considered difficult Islamic history materials. In addition, the successful implementation of this model can be used as a basis for designing a collaboration-based curriculum that is able to accommodate the learning needs of students with various characteristics (Sari & Kurniawan, 2022).

From the social side, the application of the STAD model also has a positive impact on strengthening students' character, such as tolerance, respect for other people's opinions, and the ability to share knowledge in groups. These social skills are important to form a generation that not only excels in academics, but also has high social concern in community life (Mulyani, 2020). Thus, this learning model contributes to creating a democratic, active, and participatory learning climate, which can ultimately strengthen the overall quality of education in the school environment.

Overall, this study shows that the application of the STAD-type cooperative learning model not only has an impact on cognitive learning outcomes, but also brings wide benefits in shaping students' character and improving the quality of social interaction in the classroom. Therefore, this model is highly recommended to be applied sustainably in the learning process, especially in Islamic Religious Education materials that require historical understanding and cooperative values.

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