Islamic Journal of Integrated Science Education (IJISE), Vol. 1 No. 1, June 2022, pp. 1-16
DOI: https://doi.org/10.30762/ijise.v1i1.282

Islamic Journal of Integrated Science Education (IJISE)

Program Studi Tadris IPA
Institut Agama Islam Negeri Kediri
e-ISSN : 2986-0865
https://jurnalfaktarbiyah.iainkediri.ac.id/index.php/ijise

Application of Student Team Achievement Division (STAD) in Improving Students Activities and Learning Achievements

Mughiz Suwaybatul Islamiyah [1*], Muhammad Iffat Imtiyaza [2]
[1] Institut Agama Islam Negeri Kediri, Indonesia
[2] Institut Agama Islam Negeri Kediri, Indonesia

***Correspondence: E-mail:** aslamiyahmughiz@iainkediri.ac.id

Abstract: This experiment aims to describe the results of the application of the STAD learning model in increasing physics learning activities and achievements. The subjects studied were students of class VII-1 of Kediri State Islamic Junior High School 2. This study uses a qualitative method with the type of CAR (Classroom Action Research). The research subjects in this study were students of class VII-1 even semester 2018/2019 academic year total 31 students. The results of data analysis in cycle 1 showed that student achievement had not reached the passing standard and student activity was still in the low category. While the results of data analysis in cycle 2 showed that student achievement had reached the passing standard and student activities had increased in all aspects except for the aspects of oral activities, drawing activities, and mental activities which had not yet reached the standard passing indicators. Thus, it can be concluded that the application of the STAD model can increase student activity and achievement.

Keywords: STAD, learning activities, learning achievement, learning physics

Article History:
Received: 9 January 2022; Revised: 12 January 2022; Accepted: 23 February 2022; Published: 30 March 2022

Citation (APA Style):
Aslamiyah, M. S., & Imtiyaza, M. I. (2022). Application of Student Team Achievement Division (STAD) in Improving Students Activities and Learning Achievements. *Islamic Journal of Integrated Science Education (IJISE), 1*(1), 1–16. https://doi.org/10.30762/ijise.v1i1.282

DOI: https://doi.org/10.30762/ijise.v1i1.282

INTRODUCTION

In order to increase motivation and learning outcomes of physics, as well as improve students' abilities, it is necessary to make the best efforts in the teaching and learning process. One of them is the use of the STAD (Student Team Achievement Division) learning model. It is type of cooperative learning model. The low achievement in learning physics is caused by students being less involved in the learning process (Chim, 2015; Sirisrimangkorn & Suwanthep, 2013). The teacher does not pay attention to student concepts, the teacher is busy explaining the formula without explaining the chronological order of the fall of the formula and lacks context. In addition, teachers lack diversity in the use of learning media. The method used by the teacher is often the understand physics concepts. It is important that teacher must have good competencies to lead learning activities in classroom (Wulandari & Mundilarto, 2016).

According to research conducted on seventh grade students of Kediri State Islamic Junior High School 2, the results of the first exam in February were not satisfactory. The data for 2 students' examination for grade VII was follows. The number of students in class VII-1 is 31. The number of students with scores between 0-40 is 1 student, accounting for 3.20% of all students taking the examination. There were 3 students with grades between 41-50, accounting for 9.70% of the total number of students. There were 7 students with grades between 51-60, accounting for 22.60% of the total number of students. There were 2 students with grades between 61-70, which is 6.50% of the total number of students.

Students who scored in the range between 71-80 were 8 students or 25.80% of the total number of students. Students who scored between 81-90 were 7 students or 22.60% of the total number of students. Meanwhile, students who scored between 91-100 were 3 students or 9.70% of the total number of students. If the Minimum Completeness Standard (MCS) for physics subjects at Kediri State Islamic Junior High School 2 is 75, then students who achieved the MCS are only 18 students or 58.10%. While the rest, namely 13 students or 41.90% of all students have not reached the MCS. From the results of this study, it could be concluded that the students learning outcomes of class VII-1 Kediri State Islamic Junior High School 2 were very poor.

We had to improve the low learning outcomes to improve human resources in order to advance national development in Indonesia. Therefore, it is necessary to review the learning strategies used so far. In order to provide a social experience in a learning environment characterized by democratic and scientific procedures, as well as to ensure mastery of the

passing skills of STAD-type learning activities, these activities focus on group learning of several students and require students to be active in achieving the goals that have been set in learning activities (Berlyana & Purwaningsih, 2019). Therefore, the STAD (Student Achievement Division) type of learning model is expected to enable students to understand difficult theories and concepts, in addition to increasing the interaction between teachers and students, as well as increasing the cooperation of each student and the creativity of each batch of students (Padalia et al., 2022). STAD learning has the characteristics of direct learning and is one of learning that is in accordance with science subjects. This learning system is based on the principle that students learn together in learning and are responsible for themselves and their friends (Kusumawardani, Siswanto, & Purnamasari, 2018).

There are several forms of learning that are suitable to be applied in this class. As with the learning model contextual that emphasizes questions and answers and presenting problems based on everyday life (Adnyana, 2020). However, this STAD type of cooperative teaching was chosen because students felt the need to cooperate and interact with their friends in order to be able to deal with existing problems using good and relevant ways to the problems at hand.

METHOD

The method used in this study is a qualitative research method. The steps in this research used the basic principles of classroom action research. Using work procedures that are spiral cycles, including planning phases, implementing actions, observing, and reflecting followed by re-planning (**Figure 1**).

The implementation of this research used two cycles in its action. Cycle I was applied to the Heat learning material. The learning process in cycle I was carried out in 3 meetings with the time allocation for each meeting of 3x40 minutes. Cycle II was applied to the same learning material, namely Heat. The learning process in cycle II is 3x 40 minutes. The role of the teacher in this study is as an observer and contributes before the researcher who acts as a teacher conducts learning. This study was assisted by 2 observers who helped in measuring learning abilities and observing learning activities.

DOI: https://doi.org/10.30762/ijise.v1i1.282

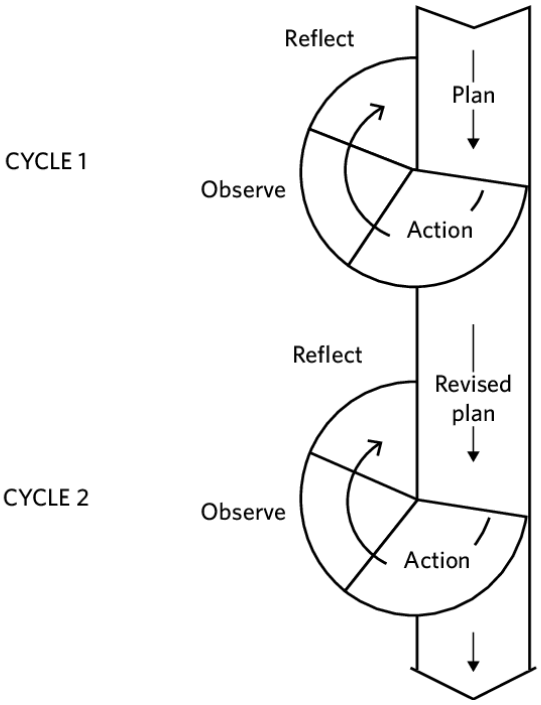

Figure 1. Spiral Class Action (adapted from Kemmis & Taggart, 2002)

This research was conducted at Kediri State Islamic Junior High School 2, with the research subjects being class VII-1 students in the even semester of the 2018/2019 academic year, totaling 31 students. While the research time is during the even semester of the 2018/2019 academic year with data collection in February - March 2019. The instruments used include: (1) action instruments; (2) learning activity observation format; (3) test questions; (4) field notes format; and (5) the format of the implementation of learning.

In this study, data sources were obtained from students and teachers. While the data used in this study is data on learning achievement and learning activities. On student achievement data, before taking action, it is necessary to have data on physics test scores in the previous chapter, before taking action. After being given the action, the score or formative test results (competency test) in cycles 1 and 2 will be obtained to determine the learning outcomes seen from the cognitive aspect and then compare them to determine the improvement. Students are considered to have completed learning if their scores are equal to or above 75 based on the MCS (Minimum Completeness Standard).

While on student learning activities data, the source of learning activities data comes from research conducted by observers on students while learning takes place as material for analyzing students learning activities in the learning process. Data on student learning activities was obtained based on the rubric of the guidelines for observing student learning

DOI: https://doi.org/10.30762/ijise.v1i1.282

activities during learning by using STAD learning strategies and then comparing them to get an increase.

This observation uses qualitative analysis techniques, by collecting data obtained through several things, then the data was discussed and concluded. Observations were made by observers. The values obtained are then added up, from the results of the average value and the percentage of implementation against the ideal value of the total number of aspects observed using the percentage equation (Sugiyono, 2011). The results of the percentages are then classified into categorical levels as in **Table 1**.

Table 1. Activities level and students learning achievement

No	Percentage	Classification
1	85-100	Very Good
2	70-84	Good
3	55-69	Good Enough
4	50-54	Not Good
5	0-49	Very Not Good

This experiment was conducted in two cycles and each cycle was carried out in 3 meetings in each cycle. Has a time span of 2 x 40 minutes. 4 steps were carried out in each cycle and include: an action plan, implementation of action, conducting research, and doing reflection.

FINDING AND DISCUSSION

Cycle I

Action Planning Cycle I

Based on the results of initial observations, an action plan is finally drawn up, namely learning using the STAD model. At this stage the researchers made learning tools, including: (1) Preparing a learning implementation plan; (2) Prepare an observation format for the assessment of student learning activities; (3) Prepare test questions; (4) Prepare student worksheets (LKS); (5) Prepare materials to be used in the experiment; (6) Prepare the format of field notes and observations of the implementation of learning; and (7) Organizing the division of tasks between researchers and observers.

DOI: https://doi.org/10.30762/ijise.v1i1.282

Implementation of Actions in Cycle I

The action and observation stages are the implementation of actions as well as research from the components made by the research team. The implementation of action I includes the understanding of heat and temperature changes, using the STAD learning model. In the implementation of action I learning achievement was measured through a test at the end of the implementation of the first cycle, learning activities were observed while learning was taking place. All learning is carried out in 6 hours of lessons, with an allocation of 1x40 minutes. At this stage of action using the stages of the STAD model consisting of the experiencing stage, applying stage cooperating, and transferring.

Research Findings Cycle I

In the research process in cycle, I obtained several results as follows: 1) The realization of cycle I by using learning with the STAD strategy obtained an average student achievement class of 69.50. At this stage the students' understanding has not yet finished learning there are 13 students out of 31, if the percentage is 41.90%; 2) Student learning activities in the oral, drawing, motor, and emotional activities are still on a less scale. This shows that student learning activities have not been maximized; 3) Students are not familiar with practicum activities, so the practicum has not run smoothly. Students are still confused about assembling the tools used in the practicum; 4) Most of the groups have not been able to understand the experimental steps in the LKS as indicated by the number of students who still often ask the teacher; and (5) Some students do not understand in drawing conclusions through the previous analysis questions, so it seems that the conclusions are not based on the analysis of the previous questions.

Reflection of Cycle I

From the results of the research from the first cycle, various samples were obtained from the process of student learning activities. Percentage student learning completeness reached 58.10%. These results indicate that there are 18 students who have completed their studies, and 13 students who have not completed their studies. Aspects of learning activities that get a fairly low percentage and fall into the low category are Oral, Drawing and Mental activities. The remaining aspects are in the sufficient category but have not met the success indicator, namely 70%. Thus, it can be seen that the implementation of learning with the

DOI: https://doi.org/10.30762/ijise.v1i1.282

STAD strategy needs to be improved in subsequent learning, so that student learning activities and achievements are better in cycle II.

Cycle II

Action Planning Cycle II

Based on observations and implementation of action I, there are advantages in implementing the Learning Implementation Plan in cycle I. The advantage is that students are enthusiastic in participating in physics learning with the STAD strategy. Because with the implementation of these strategies, students are more active in the learning process. According to the researcher, the learning achievement results obtained in the first cycle have not reached the minimum standard of learning graduation, which is 75%, therefore the researcher makes the second cycle of action with the aim of getting better results.

Thus, cycle I is a continuation of cycle I. By maintaining the advantages that exist in cycle I, and deficiencies when carrying out action I are corrected in action II. Action planning II includes preparation for the implementation of actions and observations to obtain data in cycle II which consists of material changes in the form of substances and the Black Principle. The plans carried out by researchers who act as teachers are: (1) Designing a more mature lesson plan; (2) compiling student worksheet in easy-to-understand language to make it easier for students; (3) maintaining the experiment at the experiencing in cycle II; and (4) monitor students' activities when conducting experiments to ask students' difficulties in conducting experiments. This is intended so that the teacher guides students when they experience difficulties in carrying out practicum or worksheets while at the same time attracting students who like to joke when conducting experiments to become active.

Implementation of Action in Cycle II

This stage is the implementation of actions as well as observations of the devices that have been made by the researcher. The implementation of action II includes the material for changing the form of substances and the Black Principle with the application of learning with the STAD strategy which has several stages, namely: (1) experiencing; (2) apply; (3) cooperating; and (4) transfers.

DOI: https://doi.org/10.30762/ijise.v1i1.282

Research Findings Cycle II

Based on the results of observations in cycle II, the following findings were obtained: (1) It is proven by the achievement of mastery learning, because the MCS in physics lessons is 75 in the range of values from 71 to 80. It can be said that the mastery results from the second cycle test has reached the percentage of 83.30%; (2) the achievement of completion in learning, is if 75% of the students' scores are 75. And from the table above it can be seen that the students who scored 75 are 26 students, it means that they have reached 75% of the total number of students; (3) The implementation of learning that occurred in cycle 2 has been carried out very well; (4) The implementation of the second cycle with the application of learning with the STAD strategy obtained an average student achievement class of 81.40. In this cycle, there are 5 students out of 31 students who have not finished studying, if the percentage is 16.10%; (5) Student learning activities in the oral, writing, and drawing sections have increased to a sufficient level. this is in line with the results of the reflection in the first cycle which provides many inputs in improving student learning activities; (6) Students have started to get used to the experimental activities so that this experiment can run well. Most of the students have been able to carry out the experimental activities, but there are still some students who have not been able to fully carry out the activities, so the teachers or researchers help them; (7) Students have begun to understand in drawing conclusions through previous analytical questions; (8) Students have begun to be enthusiastic in conducting experiments, desire to present discussion results, and are more daring in expressing their opinions; and (9) The teacher provides guidance in helping to solve problems faced by students when conducting experiments.

Reflection on Cycle II

From the results of the research in cycle II, it can be seen that the STAD strategy learning process has been carried out well. From the first cycle, the average achievement value of all students was 69.6 then in the second cycle it was 81.40. The results in the first cycle have not reached the minimum MCS limit that has been determined by the school, which is 75, but in the second cycle the results have reached the minimum MCS limit that has been determined by the school, which is 75. In the first cycle also obtained learning mastery of 58.10% while in the second cycle obtained learning completeness of 83.30%. The percentage of student learning completeness in cycle I has not met the minimum standard that has been set, which is 75% so that improvements are still needed in cycle II. Student activities

have increased in all aspects. However, the aspects of Oral activities, drawing activities, and mental activities have not yet reached the indicator of success, namely 70%.

Thus learning with the STAD strategy can increase student interest in the teaching and learning process even though the results obtained are not optimal. The results of this research are not optimal because in its implementation, researchers have obstacles that need attention. The obstacles faced by researchers are the lack of available facilities and infrastructure, especially laboratory equipment. Students do not prepare the lessons to be studied so that there are still some students who have not been able to experiment independently even though the student worksheet already has instructions for conducting experiments.

Table 2. Data of students achievement average on cycle I and cycle II

Cycle I	Cycle II
68.89	80.77

Based on observations, data obtained from the range of student scores in cycle I and cycle II and the average. The comparison is in the **table 3**.

Table 3. Data of students learning completeness on cycle I and cycle II

Students Learning Achievement	Cycle I	Cycle II
Achievement ≤ 75 (not complete yet)	13 students (41.90%)	5 students (16.70%)
Achievement ≥ 75 (complete)	18 students (58.10%)	26 students (83.30%)

Learning achievement in the first cycle obtained an average grade of 69.60. In **Table 3**, data obtained from students who have not finished studying are 13 students or 41.90% of 31 students, while 58.10% of students have completed studying physics. Based on the results of the analysis of the second cycle, the data obtained that the average test score for the class of students is 81.40 and there are 5 students who have not completed, if the percentage is 16.70%.

If seen from **Table 3**, it can be seen that student learning achievement in the first cycle was not above the MCS, but in the second cycle student achievement was above the MCS set by the school, namely 75. In the first cycle there were 13 students who did not complete their studies (41.90%) and in the second cycle there were 5 students who did not finish their studies (16.70%). This shows there will be an increase in student learning achievement in terms of complete learning.

DOI: https://doi.org/10.30762/ijise.v1i1.282

Based on the description above, the implementation of learning with the STAD strategy in cycle II was more satisfying when compared to cycle I. Thus, learning with the STAD strategy had a positive impact on increasing student achievement and learning activities, especially in physics learning.

Implementation of STAD learning

Improvement of the learning process in Cycle I and Cycle II were caused by relating teachers more clearly in asking questions to students. If in the first cycle the teacher is too fast and the sentences are difficult to understand, in the second cycle the teacher is clearer in asking questions to the students, the sentences used by the teacher are easier to understand so that students are not confused anymore. The STAD learning model applied at Kediri State Islamic Junior High School 2 includes five stages of relating, experiencing, applying, cooperating and transferring.

In the first cycle the relating stage experienced a decrease between meeting 1 and meeting 2 this is because the questions given by the teacher were more in meeting 1 than meeting 2 so that the number of students who answered was also more in meeting 1 but with improvements at the third meeting there was an increase again because of the relating is used to explore students' prior knowledge through questions or phenomena that are interesting and familiar to students (Kolb, 2014). In the experiencing, the first meeting and the second meeting decreased because the teacher did not demonstrate before the practicum started. At the applying, there is no increase or decrease because the teacher gives questions related to practicum but with different conditions. At the cooperating, meetings 1 and 2 were carried out optimally because students were very enthusiastic about working together. At the transferring stage, there was a decrease in the 3rd meeting due to the teacher's explanation being less related to new things (Halimah, 2017).

In the cycle II the applying, cooperating and transferring carried out very well at meetings 1 and 2, but decreased at meeting 3 because at this meeting students only worked on worksheets without practicum. In the relating and experiencing there are differences between meetings 1, 2, and 3. Due to the relating meetings 1 and 2, the teacher does not do much demonstration, replacing them with questions. In the third meeting, the relating teacher asked a few questions and replaced them by explaining how to paint shadows on a concave lens. In the experiencing, there was a significant decrease in the 3rd meeting because the teacher did not ask students to do practical work and replaced it by giving worksheets to draw the

DOI: https://doi.org/10.30762/ijise.v1i1.282

formation of images on a concave lens. The experiencing stage is not always practicum, practical class activities can be done by manipulation, problem-solving activities, and laboratories (Mirdanda, 2019). The teacher replaces it with problem solving activities. In this study, the overall implementation of learning with the STAD strategy increased from cycle I to cycle II, the implementation of learning was included in the Very Good category.

Student Activities and Learning Achievements

Learning achievement achieved by students is not only influenced by talent, but also influenced by learning opportunities, ability to understand materials and quality of learning (Mulyasa, 2005). This shows that learning achievement is not something that stands alone, but is the result of various underlying factors.

It can be seen that there is an increase in student achievement in class VII-1 Kediri State Islamic Junior High School 2 from cycle I to cycle II. The average test score obtained by students in the first cycle was 69.60 while in the second cycle it was 81.40. This happens because the quality of learning has been improved by using the STAD learning model.

The application of STAD learning strategy has been applied in the subject of Geography to determine the difference in learning outcomes from the application of the STAD learning model to conventional learning in class XI SMA Negeri 7 Malang. The Gain score of learning outcomes in the experimental class was 29.57 while the control class had an average of 17.86. So that the research that has been done is expected to improve the achievement of class VII students of Kediri State Islamic Junior High School 2.

The results of this study indicate that the application of learning with the STAD strategy can improve student achievement in accordance with the results of previous studies. The increase in student physics learning achievement is due to the STAD model learning that adheres to Contextual learning can provide better benefits to students because it connects new information with students' prior knowledge because what students learn is influenced by previous thinking (Khan & Inamullah, 2011). The learning experience provided by the STAD model through the stages of experiencing (real activities) provides better ability for students in understanding new information because at this stage the emphasis is on learning by doing (learning by doing) through exploration, discovery, invention (Inkeeree et al., 2018). Practical class activities can be done by means of manipulation, problem solving, and laboratories (Kolb, 2014). The application of concepts after carrying out activities (practicum) in story questions has the aim of making students accustomed to analyzing problems using concepts

DOI: https://doi.org/10.30762/ijise.v1i1.282

obtained previously. Analyzing problems together provides a better advantage because by listening and sharing with each other in groups, students will reevaluate and reformulate their understanding abilities (Kolb, 2014).

The application of learning with the STAD strategy, students can learn more meaningfully and contextually because students are seen to be more active in the learning process and students are more motivated to take physics lessons. One important factor to make physics learning more interesting and produce high student achievement is to actively involve students in the learning process (Hapsari, 2017; Wang, 2012).

Student Learning Activities

During the implementation of teaching and learning activities using the STAD learning model, it shows that student activities are starting to increase cycle relating when the teacher starts learning with questions about interesting phenomena (Anam, 2018), many students are interested in answering questions and expressing their opinions so that at this stage oral and visual activities increase. Visual activities in cycle 1 were in the fairly good category, the increase occurred at the 3rd meeting. Oral activities in cycle 1 increased each meeting even though they were still in the less category of increase triggered by questions at the relating stage so that students were enthusiastic about answering questions. in the second cycle, oral activities achieved the highest increase at the first meeting because students were very interested in presenting the results of their practicum. In cycle 2, visual activities reached the highest score at the second meeting because the teacher did a lot of demonstrations here.

In the experiencing, students are invited to do practicum experiencing emphasizes learning by doing (learning by doing) through exploration, discovery and invention (Kolb, 2014). Students were very enthusiastic when were invited to do practicum to the practicum process. Students do practicum happily because previously they rarely did practicum. Many students want to be involved in presenting the results of their experiments. Giving new things such as practicum really sucks the attention of students.

From the practical activities in the experiencing phase, it was able to increase 7 student activities, namely Oral activities through formulating experiments and reporting results. Listening activities in cycle 2 experienced the highest increase in the second meeting because students listened to the teacher's explanation/guidance about heat. Writing activities are increased by writing down the results of their work during practicum. Drawing activities experienced the highest increase at the 3rd meeting of cycle 2 because students were asked to

DOI: https://doi.org/10.30762/ijise.v1i1.282

form heat diagrams on the worksheets. Motor activities are increased by conducting experiments and presenting the results of these experiments. Highest increase was obtained at the first meeting of cycle 2. Mental activities increased because students were trained to analyze and conclude the relationship between the variables of decline. Emotional activities can be seen from the enthusiasm and joy when doing practicum and presenting the results. So that they are interested in participating in learning, the highest increase is obtained at meeting 2 cycle 2.

At the applying questions have two important objectives, expose students to real situations, and show the need for academic concepts in life. Both are important to apply problems as motivation (Esminarto, 2016). From the purpose of giving these questions, it has an effect on increasing students' mental activities by training them to solve problems.

Students who work individually often do not make progress in problem solving. They will become frustrated and bored. On the other hand, students who work together in small groups tend to be able to overcome these complex problems with a little help from the teacher (Sudana & Wesnawa, 2017). Seeing this phenomenon, the cooperating stage in the STAD learning model is a powerful strategy in answering this phenomenon. Working together with peers in small groups, will make you feel confident in asking questions without feeling embarrassed. They will also be more prepared to express their understanding of the concept to others or provide input on problem solving in their group. By listening to others in their group, students will evaluate and reformulate its retention (Kolb, 2014). This makes listening and oral activities increase with confidence in expressing and listening to their ideas in groups.

The transferring is learning in the context of presenting or transferring knowledge, using and building on the knowledge already known to students (Baharuddin, 2009). Therefore, the transfering stage increases listening activities because students actively pay attention to strengthening the material.

Based on the data on student learning activities, the increase in oral activities, drawing activities and mental activities are in the sufficient category (Rad et al., 2022). For oral activities, the idea is because some students still feel a little embarrassed in expressing their opinions and ideas and are carried away by a feeling of fear of being wrong in answering questions. Drawing activities have not increased to a good category because students still find it difficult to draw images of objects. Obstacles in analyzing answers to find relationships and conclude relationships make students' mental activities not increase to a good level. However,

the STAD learning model was able to increase student learning activities which were carried out in 2 cycles to achieve a minimum percentage of 70%, although an increase in 8 kinds of activities was not obtained in 1 meeting. Some important factors in the physics learning process to make it easier and more interesting for students to learn are the active and directed involvement of students in observing, being trained with visible and clear objects, and the operation of tools that are easy for students to understand.

Based on this explanation, it can be concluded that the application of learning with the STAD strategy (relating, experiencing, applying, cooperating, and transferring) can increase students' interest in learning class VII 1 MTsN 2 Kota Kediri, Indonesia.

CONCLUSION

Based on the data exposure and discussion about the application of learning with the STAD model in class VII-1 Kediri State Islamic Junior High School 2 even semester of the 2018/2019 academic year it can be concluded as follows: (1) The application of the STAD learning model can improve student achievement in class VII-1 Kediri State Islamic Junior High School 2. STAD is a method that explains by connecting subjects with something that is in the real world. STAD strategy learning invites students to directly relate, experience, apply, collaborate and transfer knowledge that can improve their understanding of physics concepts so that student achievement increases; (2) The application of learning with the STAD strategy can increase the learning activities of students VII-1 Kediri State Islamic Junior High School 2. Several factors that influence to make the learning process better are by involving students directly and actively in a teaching and learning process, for example by conducting experiments in the experiencing stage; and (3) The implementation of the STAD learning model is expected to improve the quality of teaching and learning for grade VII students of Kediri State Islamic Junior High School 2.

REFERENCES

Adnyana, M. (2020). Implementasi Model Pembelajaran STAD untuk Meningkatkan Motivasi dan Prestasi Belajar. *IJED (Indonesian Journal of Educational Development)*, 1(3), 496-505. https://doi.org/10.5281/zenodo.4286979

Anam, F., A'yun, D. Q., Asitah, N., Purnomo, A., & Laili, M. (2021). Do STAD Learning Method Can Improve Students' Learning Outcomes on Social Science?. *Indonesian Journal of Islamic Education Studies (IJIES)*, 4(1), 37-51. https://doi.org/10.33367/ijies.v4i1.1490

Baharuddin, B. (2009). *Teori Belajar dan Pembelajaran.* Bandung: PT Arrus Media.

Berlyana, M. D. P. & Purwaningsih, Y. (2019). Experimentation of STAD and Jigsaw Learning Models on Learning Achievements in Terms of Learning Motivation. *International Journal of Educational Research Review*, 4(4), 517-524. https://doi.org/10.24331/ijere.628311

Chim, H. (2015). Literature Review of the Cooperative Learning Strategy – Student Team Achievement Division (STAD). *International Journal of Education (IJE)*, 7(1), 29-43. https://doi.org/10.5296/ije.v7i1.6629

Esminarto, E. (2016). Implementasi Model STAD dalam Meningkatkan Hasil Belajar Siswa. *Briliant: Jurnal Riset dan Konseptual,* 1(1), 16-23. http://dx.doi.org/10.28926/briliant.v1i1.2

Halimah, N. (2017). Perbedaan Pengaruh Model Student Teams Achievement Division (STAD) dan Numbered Heads Together (NHT) Terhadap Hasil Belajar Matematika Siswa Kelas V SD. *Scholaria: Jurnal Pendidikan dan Kebudayaan*, 7(3), 267-275. https://doi.org/10.24246/j.scholaria.2017.v7.i3.p267-275

Hapsari, A. E. (2017). Penerapan Model Pembelajaran Kooperatif Tipe Numbered Heads Together Berbantuan Media Interaktif untuk Meningkatkan Aktivitas dan Prestasi Belajar Siswa. *Scholaria: Jurnal Pendidikan dan Kebudayaan,* 7(1), 1-9. https://doi.org/10.24246/j.scholaria.2017.v7i1.p1-9

Inkeeree, K. H., Fauzee, O. S. M., & Othman, H. K. M. (2018). The Effects of Student Achievement Team-Division (STAD) on Achievement and Retention in Mathematics of Thai Students. *European Journal of Education Studies*, 5(2). https://doi.org/10.5281/zenodo.1413658

Khan, G. Z. & Inamullah, M. H. (2011). Effect of Student's Team Achievement Division (STAD) on Academic Achievement of Students. *Asian Social Science*, 7(12), 211-215. http://dx.doi.org/10.5539/ass.v7n12p211

Kolb, D. (2014). *Experiental Learning: Experience as The Source of Learning and Development.* USA: FT Press.

Kusumawardani, N., Siswanto, J., & Purnamasari, V. (2018). Pengaruh Model Pembelajaran Tipe STAD Berbantuan Media Poster Terhadap Hasil Belajar Peserta Didik. *Jurnal Ilmiah Sekolah Dasar*, 2(2), 170-174. https://doi.org/10.23887/jisd.v2i2.15487

Mulyasa, E. (2005). *Menjadi Guru Profesional.* Bandung: PT Remaja Rosda Karya.

Padalia, A., Jamilah, A., Yatim, H., Alimuddin, Handayaningrum, W., Rahayuningtyas, W. (2022). Increasing Activeness and Learning Outcomes at the University by Applying the STAD Method to Learning. *International Journal of Multicultural and Multireligious Understanding (Ijmmu)*, 9(2), 129-138. http://dx.doi.org/10.18415/ijmmu.v9i2.3350

Rad, S. H., Namaziandost, E., & Razm, H. M. (2022). Integrating STAD and Flipped Learning In Expository Writing Skills: Impacts on Students' Achievement and Perceptions. *Journal of Research on Technology in Education*, 55. https://doi.org/10.1080/15391523.2022.2030265

Sirisrimangkorn, L. & Suwanthep, J. (2013). The Effects of Integrated Drama-Based Role Play and Student Teams Achievement Division (STAD) on Students' Speaking Skills

and Affective Involvement. *Scenario: A Journal of Performative Teaching, Learning, Research*, 7(2), 64-78. https://doi.org/10.33178/scenario.7.2.5

Sudana, I., & Wesnawa, I. (2017). Penerapan Model Pembelajaran Kooperatif Tipe STAD untuk Meningkatkan Hasil Belajar IPA. *Jurnal Ilmiah Sekolah Dasar*, 1(1), 1-8. http://dx.doi.org/10.23887/jisd.v1i1.10128

Sugiyono, S. (2011). *Metode Penelitian Kombinasi (Mixed Method).* Bandung: Alphabeta.

Wang, P. K. (2012). The Impact of Nursing Students' Chemistry Learning Performance Assessment in Taiwan: Competitive Versus Non-Competitive Student Team Achievement Division Approaches. *Research in Science & Technological Education*, 30(2). https://doi.org/10.1080/02635143.2012.687717

Wulandari, R. W., & Mundilarto. (2016). Kompetensi Pedagogik dan Profesional Guru Fisika dalam Melaksanakan Pendekatan Saintifik di SMAN Sleman. *Jurnal Pendidikan Fisika dan Keilmuan (Jpfk)*, 2(2), 92-104.