Jurnal Ilmiah Mandala Education (JIME)
Vol. 9. No. 4 Oktober 2023
p-ISSN : 2442-9511, e-2656-5862
DOI : 10.58258/jime.v9i1.5880/http://ejournal.mandalanursa.org/index.php/JIME

The Effect of Implementing the STAD Type Cooperative Learning Model on Students' Learning Outcomes in 7th Class PAI Subjects at SMPN 1 Junjung Sirih

Wilanda Intan Pertiwi[1], Zuliarni[2], Darmansyah[3], Ulfia Rahmi[4]
Educational Technology study program, Padang State University

Article Info
Article history:
Received : 04 September 2023
Publish : 02 Oktober 2023

Keywords:
STAD type cooperative learning model, learning outcomes, Islamic Religious Education (PAI)

Abstract
This research aims to determine the effect of implementing the STAD type cooperative learning model on students' learning outcomes in class VII PAI subjects at SMPN 1 Junjung Sirih. This type of research is quasi-experimental research. The sample in this study were 60 class VII students. The data collection technique used is the test method. The test instrument is used to collect data on students' learning outcomes after implementing STAD type cooperative learning. Data were analyzed using t test statistics with a significance level of 0.05. The research results showed that the average value of the experimental class was 76.83 and the average value of the control class was 68.67. The results of the t test calculation (t-test) obtained tcount2.548 is greater than the t table at the 0.05 significance level which is 1.671. It can be concluded that the application of the STAD type cooperative learning model influences students' learning outcomes in class VII PAI subjects at SMPN 1 Junjung Sirih.

Article Info
Article history:
Diterima : 04 September 2023
Terbit : 02 Oktober 2023

Abstrak
Penelitian ini bertujuan untuk mengetahui pengaruh penerapan model pembelajaran kooperatif tipe STAD terhadap hasil belajar siswa pada mata pelajaran PAI kelas VII SMPN 1 Junjung Sirih. Jenis penelitian ini adalah penelitian eksperimen semu. Sampel dalam penelitian ini sebanyak 60 peserta didik kelas VII. Teknik pengumpulan data yang digunakan adalah metode tes. Instrument tes digunakan untuk mengumpulkan data hasil belajar peserta didik setelah menerapkan pembelajaran kooperatif tipe STAD. Data dianalisis menggunakan statistik uji t dengan taraf signifikan 0,05. Hasil penelitian menunjukkan bahwa nilai rata-rata kelas eksperimen sebesar 76,83 dan nilai rata-rat kelas kontrol sebesar 68,67. Hasil hitung uji t (t-test) diperoleh thitung 2,548 lebih besar dari t tabel pada taraf signifikn 0,05 adalah 1,671. Dapat disimpulkan penerapan model pembelajaran kooperatif tipe STAD berpengaruh terhadap hasil belajar siswa pada mata pelajaran PAI kelas VII SMPN 1 Junjung Sirih.

Corresponding Author:
Wilanda Intan Pertiwi
Padang State University

1. INTRODUCTION

Education plays a role in creating quality and potential human beings, through education there will be a process of interaction, mutual respect, cooperation and self-maturity. So that in the decision-making process on a problem can be accompanied by a great sense of responsibility. Awareness of the importance of education has encouraged various efforts and attention from all walks of life towards the development of education.

The learning process is the core of the educational process. An effective learning process is teaching that is capable of giving birth to a quality learning process, namely a learning process that involves intensive participation and appreciation of students.(Junaedi, 2019). The current learning process requires active participation from all students. Learning activities are centered on students, teachers as motivators and facilitators so that the classroom atmosphere is lively.

Junior High School (SMP) is one of the formal educational institutions that is responsible for developing human resources and is included in the level of compulsory education in Indonesia. . In accordance with the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, "Basic education takes the form of elementary schools (SD) and

madrasah ibtidaiyah (MI) or other equivalent forms as well as junior high schools (SMP) and madrasah tsanawiyah (MTs) or forms others who are equal."

Islamic Religious Education (PAI) is one of the scientific disciplines or subjects in SMP/MTS. According toAhyat (2017)Islamic Religious Education is a conscious effort, namely an activity of guiding, teaching and/or training carried out by Islamic Religious Education teachers in a planned and conscious manner with the aim of students to develop their faith through giving, cultivating and developing the knowledge and experiences of students about the Islamic religion so that become a Muslim who continues to develop his faith and devotion to Allah SWT.

Based on observations that were carried out on March 6-17 2023 in class VII, information was obtained that the learning activities of the students looked very low, seen during the learning process there were still students who did not pay attention when the teacher delivered the material and instead talked to their peers. Learning is still focused on the teacher, so students' learning outcomes are not optimal. This is caused by several factors, including students not taking an active role in learning, only dominant students who contribute both when given the opportunity by the teacher or during group discussions. Teachers have indeed used learning models, but very rarely use a learning model that is appropriate to the material. From several things above, it shows that students are less active during the lesson. This affects students' learning outcomes. This can be seen in the average value of the daily assessment results for class VII PAI subjects which can be seen in the table below.

Table 1.
Average Daily Assessment of Class VII PAI Subjects

No	Class	KKTP	The number of students	Average
1.	VII A	70	31	70,10
2.	VII B	70	31	67.10
3.	VII C	70	30	64,67
4.	VII D	70	30	64.33

From the data above, it can be seen that the average value of the daily assessment of class VII students of SMP N 1 Junjung Sirih, especially the Islamic Religious Education subject, students of SMP N 1 Junjung Sirih still do not meet the KKTP (Criteria for Achievement of Learning Objectives) set by the school, namely 70 Therefore, appropriate, appropriate and fun learning is needed so that the learning material delivered by the teacher can be easily understood by students. One learning model that can be used is the cooperative learning model.

According to Slavin R (2005:4) the cooperative learning model is a learning model that refers to various kinds of teaching methods that require students to work in small groups to help each other in learning the subject matter. According to Isjoni (2009:16) Cooperative Learning is a learning model that is currently widely used to realize student-centered teaching and learning activities (student oriented), especially to overcome problems found by teachers in activating students who cannot cooperate with other people, students who do not dare to disclose their income, as well as students who are aggressive and do not care about other people.

One of the learning models that provide opportunities for students to be actively, creatively and critically involved in learning is the cooperative learning model of the Student Team Achievement Divisions (STAD) type. The STAD type cooperative learning model is a simple learning model and the learning model uses a cooperative approach. This type of STAD cooperative learning model is very easy to adapt, has been used in learning Mathematics, Science, Social Sciences, English and is used at the elementary school level up to tertiary institutions. The use of the STAD type cooperative learning model provides opportunities for students to ask questions freely about material they have not mastered.

Research conducted by Rofi'ah (2021) suggests that the use of the STAD type cooperative learning model can improve students' learning outcomes. This can be seen from the increase in

students' learning outcomes from cycle I with an average learning outcome of 63.97 and cycle II the average learning outcome being 71.26 where in cycle II this shows that they have achieved indicators of success. From the learning process using the STAD model, it was also found that students seemed comfortable in discussions and working together with each other and the class atmosphere and relationships between teachers and students seemed more harmonious.

2. RESEARCH METHODS

The research method used in this research is quantitative research using a quasi-experimental approach. The purpose of this study was to see the effect of applying the STAD type cooperative learning model in class VII PAI subjects on the material of presenting prayer and remembrance in life. This research was carried out in two classes, namely the experimental class and the control class. The experimental class is class VII D which applies the STAD type cooperative learning model. Meanwhile, for the control class, a conventional learning model is applied.

The population in this study was class VII students of SMP N 1 Junjung Sirih, totaling 122 people who had been grouped into 4 classes. The research sample used was 60 people. The sampling technique uses purposive sampling technique. Sampling by purposive sampling is done by taking samples deliberately selected based on certain characteristics needed in research, this technique is used with various considerations, for example based on certain specific characteristics. The researcher's aim was to use purposive sampling to facilitate the implementation of the research.

The data collection technique that researchers used in this research was a written test in the form of multiple choices. This test will later be used to see the effect of the STAD type cooperative learning model on students' learning outcomes in class VII PAI subjects at SMPN 1 Junjung Sirih. The data collection tool used in this research was an objective test question sheet totaling 20 questions which were given to students.

The statistical analysis technique used in this research is the t-test. Analysis of this research data is to test the truth of the hypothesis that will be proposed. The first data analysis technique is the normality test. Syafril (2020: 177), says that the normality test is used to find out whether the data to be processed comes from normally distributed data. The normality test is carried out before processing the data with Product Moment correlation techniques, Regression, t-test, Anava and so on. The technique that is often used to test the normality of this data is the Liliefors test. Then proceed with the Homogeneity test According to Syafril (2020: 174) "one of the techniques often used to test the homogeneity of population variance is to use the Barlett test". Homogeneity test was carried out to determine the variation of the population and see whether the data came from homogeneous groups. After that, proceed with hypothesis testing. To test this hypothesis, it can be done with a difference test (t-test) with the formula in Syafril (2020: 147), as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SD^2\ x1}{N_1 - 1} + \frac{SD^2\ x2}{N_2 - 1}}}$$

Information :

t : difference between 2 groups

X¯_1 : average value of the experimental class

X¯_2 : average value of the control class

⟦SD⟧^2 x1 : variance of group 1 (experimental)

⟦SD⟧^2 x2 : variance of group 2 (control)

N_1 : The number of samples of the experimental group

N_2 : total control group

The tcount price is compared with the ttable price contained in the t distribution table. If t count > t table it means there is a significant difference between the two groups. This is in accordance with what was stated by Syafril (2020: 138), namely if the calculated t is the same or greater than the t table, it means there is a significant difference and conversely, if the calculated t is smaller than the t table, it means there is no significant difference.

3. RESEARCH RESULTS AND DISCUSSION

3.1 Research Results

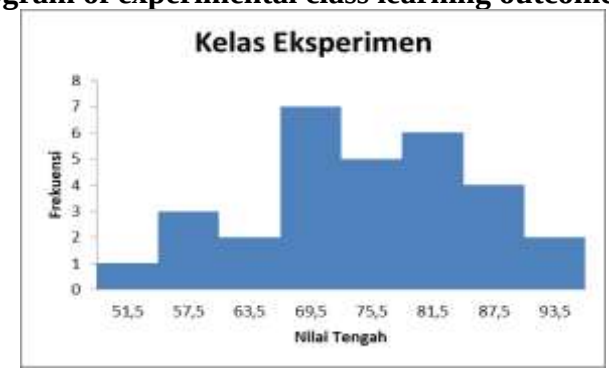
Students' learning outcomes were obtained from an experimental class that applied the STAD type cooperative learning model to PAI subjects in two meetings. Data on the value of experimental class learning outcomes is presented in Table 2 below:

Table 2.
Data on Students' learning Outcome Values for Experimental Class class VII.D

Interval Class	Midpoint	F
91 – 96	93.5	2
85 – 90	87.5	4
79 – 84	81.5	6
73 – 78	75.5	5
67 – 72	69.5	7
61–66	63.5	2
55 – 60	57.5	3
49 – 54	51.5	1
Amount		30

Based on the table above, the interval class that has the highest frequency is the 67-72 range and the lowest frequency is the 49-54 interval. For more details, see the following graph:

Figure 1
Histogram of experimental class learning outcomes data



Data on learning outcomes from the control class that applies conventional learning, obtained an average score of 68.67. The following is the range of intervals for the acquisition of learning outcomes in the control class in table 3 below:

Table 3
Control Class Learning Result Value Data

Interval Class	Midpoint	F
79 – 85	82	5
72–78	75	4
65 – 71	68	11
58 – 64	61	4
51 – 57	54	2
44 – 50	47	3
Amount		30

Based on the table above, the highest frequency is in the interval 65-71 and the lowest frequency is in the interval 51-57. For more details can be seen in the graph below:

Figure 2.
Histogram of data on control class learning scores

Based on the normality test from the experimental class and the control class, Lcount and Ltable were obtained at α 0.05 for N = 30 as in the following table:

Table 4.
Experimental Class and Control Class Normality Test Results.

Class	A	N	Lcount	ltable	Information
Experiment	0.05	30	0.094	0.161	Normal
Control	0.05	30	0.101	0.161	Normal

Based on tests conducted with the Liliefors technique on the experimental class (STAD type cooperative learning model) and the control class (conventional learning model), it was found that the results of the experimental class and the control class had L-count values of 0.094 and 0.101. Meanwhile for L-table it is 0.161 with N = 30. For the significance level α = 0.05. So it can be concluded that the experimental class and control class data are normally distributed.

The next requirements test is homogeneity testing using the Barllet test. This test aims to see whether the data comes from a homogeneous group, both between the experimental class and the control class. The homogeneity test calculation is in the attachment. The calculation results can be seen in the following table:

Table 5.
Homogeneity test results of experimental class and control class.

Class	Variance	χ^2Count	χ^2table	Information
Experiment	109,885	0.07	3,84	Homogeneous
Control	99,569	0	1	

Based on the table above, it is known that the calculated chi squared value (χ^2) is 0.070 while for the chi squared value (χ^2) the table is 3.841 at $\alpha = 0.05$. Then χ^2 count < χ^2 table, namely 0.070 < 3.841. It can be concluded that the data from the experimental class and control class came from homogeneous groups.

The next step taken is the t test. The t test was conducted to find out whether there was a significant effect between the two classes. If tcount <ttable means there is no significant effect between the two groups. This is in accordance with the opinion put forward by Syafril (2020: 138), namely "if tcount is the same or greater than ttable for α 0.05 there is a significant difference and vice versa if tcount is smaller than ttable means there is no significant difference". From the results of hypothesis testing using the t test, the following results are obtained:

Table 6.
Test Results with Test t

Class	Average	t count	t table	Information
Experiment	74.33	2,548	1,671	Significant
Control	67.50			

The number of dk is 58 whereas in the existing dk table it is 40 and 60. So dk is chosen, namely 60 because 58 is close to 60. Based on the table, dk is 60 for α 0.05 = 1.671. Thus t count > t table = 2.548 > 1.671, then the H1 hypothesis can be accepted.

3.2Discussion

Based on the results of research that has been conducted by researchers, obtained students' learning outcomes with applying the Student Team Achievement Division (STAD) learning model in the experimental class with an average value of 74.33. For students who achieved a KKTP of 70, there were 24 people with the highest score of 95 and the lowest score of 50. Compared with the learning outcomes in the control class with 67.50, where the number of students who achieved a KTTP of 70 was 18 people with the highest score of 85 and lowest score 45.

From the data analysis that has been done, to test the success of learning outcomes that have been formulated in the working hypothesis (H1). The results of the calculation of the t test are obtained, namely t count = 2.548. When compared with the t table, which is 1.671 at α 0.05, the value of t count > t table or 2.548 > 1.671. This means that the hypothesis (H1) is accepted. It can be concluded that there is an influence of the application of the STAD type cooperative learning model on students' learning outcomes in class VII PAI subjects at SMP N 1 Junjung Sirih. Thus, the application of the STAD type cooperative learning model in PAI subjects for class VII SMP can provide an increase in students' learning outcomes.

This STAD type cooperative learning model is a discussion learning model, where students are divided into groups of 4 - 5 people in one group randomly without looking at achievement, ethnicity, race and religion. In accordance with Slavin's (2005:143) opinion, STAD type cooperative learning triggers students to encourage and help each other to master the understanding and skills taught by the teacher.

Learning that was done before tended to be monotonous and students were less active because the material in PAI learning required understanding, memorization and analysis. By applying the STAD type cooperative learning model in class, students become more active in asking questions, providing answers from other group mates and being able to express their opinions during the learning process in class. In accordance with the characteristics of learning using the STAD type cooperative model, namely cooperative skills. Students are encouraged to interact and communicate with each other, so students can express opinions and contribute to group success (Wulandari, 2022).

Changes in behavior and learning outcomes in a better direction for students after carrying out the learning process are factors that come from within the students and factors from outside themselves. Good learning outcomes are obtained when these factors make a positive contribution to students.

Based on this explanation, it can be seen that after carrying out learning by implementing the STAD type cooperative model, it turns out to have a significant influence on students' learning outcomes in class VII PAI subjects at SMP N 1 Junjung Sirih.

4. CONCLUSION

Based on the results of the data description, data analysis and discussion previously explained, it can be concluded that the application of the STAD type cooperative model in the learning process has a significant influence on students' learning outcomes in class VII PAI learning at SMP N 1 Junjung Sirih. Students' learning outcomes with applying the cooperative learning model of the Student Team Achievement Division (STAD) type in class VII.D as the experimental class obtained high learning outcomes with an average value of 74.33. Class VII.C as the control class that applies conventional learning gets lower learning outcomes than the experimental class with an average of 67.50. From the results of the data analysis that has been carried out, the t test results were obtained with a t value of 2.548 and a t table of 1.671 at α 0.05. So the value of t-count > t-table = 2.548 > 1.671. So that the H1 hypothesis is accepted.

Teachers who teach PAI subjects are expected to be able to apply the STAD learning model in the learning process, because it can motivate students and students can also be actively involved in every activity in the learning process. Teachers in other fields of study are also advised to apply this type of STAD cooperative learning model as an alternative in carrying out the teaching and learning process (PBM). By trying to implement this STAD type cooperative model, you can improve learning outcomes.

5. THANK-YOU NOTE

Acknowledgments are intended for research publications with a research scheme for the Final Project. Therefore, the author would like to thank all colleagues who have helped in writing this.

6. BIBLIOGRAPHY

Ahyat, N. (2017). METODE PEMBELAJARAN PENDIDIKAN AGAMA ISLAM. *Edusiana:Jurnal Manajemen dan Pendidikan Islam*, 24-31.

Darmansyah, R. (2017). *Strategi Pembelajaran.* Yogyakarta: Erka Publishing.

Hamdayama, J. (2014). *Model dan Metode Pembelajaran Kreatif dan Berkarakter.* Bogor: Ghalia Indonesia.

Isjoni. (2009). *Pembelajaran Kooperatif.* Yogyakarta: Pustaka Belajar

Junaedi, I. (2019). Proses Pembelajaran yang Efektif. *Journal of Information System,Applied,Management, Accounting and Research, 3(2)*, 19-25.

Rofi'ah, S. (2021). Penerapan Model Pembelajaran Kooperatif Tipe STAD (Student Teams-Achievment Divisions) untuk Meningkatkan Hasil belajar Siswa. *Learning: Jurnal Inovasi Penelitian Pendidikan dan Pembelajaran,1(2)*, 145-153.

Rusman. (2011). *Model-Model Pembelajaran Mengembangkan Profesionalisme Guru.* Jakarta: Rajagrafindo Persada.

Slavin, R. (2005). *Cooperatif Learning* . Yogyakarta: Pustaka Belajar.

Wulandari, I. (2022). Model Pembelajaran Kooperatif tipe STAD (Student Teams Achievement Division) dalam Pembelajaran MI. *Jurnal Papeda,4(1)*, 17-23.

Syafril. (2020). *Statistik Pendidikan.* Jakarta: Prenamedia Group.