The Influence of Peer Teaching Methods on Student Learning Outcomes in Islamic Cultural History (SKI) Class X Subjects at MAN 4 Agam

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Abstract

The study aims to determine the effect of the peer teaching method on student learning outcomes in the subject of Islamic Cultural History (SKI) class X at MAN 4 Agam. The type of research is quantitative with quasy experimental design (quasy experimental research) with non equivalent control group design. The research population is 111 students of class X MAN 4 Agam. The research sample was class X IPS 1 as the experimental class and class X IPS 2 as the control class by using purposive sampling technique. The results showed that the average pre-test score for the experimental class was 53,54 and post-test result 83,13, while the average value of the control class pre-test is 50 and post-test result 74.17. After testing the hypothesis (t test) using SPSS v. 26, the significance of on both sides (2-tailed) was = 0.005, it was concluded that (0.005 <0.05) at the 95% confidence interval. Therefore, H_a is accepted and H_O is rejected. This means that there are differences in learning outcomes using the Peer Teaching method with learning using conventional methods in the subject of Islamic Cultural History (SKI) in class X MAN 4 Agam.

***Keywords**: Influence, Peer Teaching Method, Learning Outcomes, Islamic Cultural History.*

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A. INTRODUCTION

Education means a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character and the skills needed for themselves, society and the State. Thus education means all the efforts of adults in association with students to lead the development of their physical and spiritual potential towards perfection as formulated in the UUSPN (Ramayulis, 2015:30).

Education is inseparable from the name of the teaching and learning process. Teaching and learning is an activity that has educational value (Aulia & Amra, 2021). Educational values color the interactions that occur between educators and students. Interactions that have educational value because the teaching and learning activities carried out are directed to achieve certain goals that have been formulated before teaching is carried out (Aini & Fitria 2021). Educators consciously plan their teaching activities systematically by utilizing everything for the benefit of teaching (Djamarah & Zain, 2013:1).

The subject of History of Islamic culture in the Madrasah Aliyah curriculum is one part of the subject of Islamic Religious Education. The facts that are happening

in the field today, most people think that history is no longer important to be studied and studied. As stated by Sardiman (2017:13), it sounded so loud the criticism leveled by various parties that learning history tends to be memorized which is tedious and ultimately very tiring for both teachers and students. Even though it must be admitted that there have been teachers who have made efforts to innovate, the conditions for teaching history are still apprehensive and not many students are interested in studying history. In fact, not only students, but many members of the public view that history lessons are not important lessons, rote lessons are meaningless, less useful for human life. This view of society is strengthened by some learning practices which are indeed less attractive.

After the initial observations were made at Madrasah Aliyah Negeri 4 Agam, it was seen that the students paid less attention to learning Islamic Cultural History. Many students feel that SKI learning taught by educators is only a boring subject because it is packaged in an unattractive presentation. Then, the learning outcomes of class X students are still relatively low. From the data obtained at the school, many students scored below the Minimum Completeness Standards (KKM) set by the school.

From the problems that occur, it becomes an interesting and important thing to research in order to make improvements in learning so that students' learning outcomes become better by using fun learning methods, namely the peer teaching method (peer tutors). The peer tutoring method is a way of presenting teaching materials by utilizing students who have been able to master the material while others have not. By utilizing the abilities of existing students, the learning process takes place from students, by students and for students. While the teacher monitors, if anyone does not understand, students can ask the educator (Istarani, 2014 : 150).

The concept of learning assisted by peers is a form of actualization of the messages conveyed by Allah SWT to His servants to ask for learning from people who are bestowed with more knowledge. In this case the Prophet Musa who learned from the Prophet Khidhir contained in QS. Al-Kahf : 66 as follows:

قَالَ لَهٗ مُوْسٰى هَلْ اَتَّبِعُكَ عَلٰٓى اَنْ تُعَلِّمَنِ مِمَّا عُلِّمْتَ رُشْدًا ٦٦

It means: Musa said to him, "Can I follow you so that you forbid me (true knowledge) from what you have been taught (to be) guidance?" (QS. Al-Kahf: 66).

According to Zainal Abidin, one of the educational values contained in this verse (2021:33) is the recommendation to seek knowledge from people who are smarter than them. As Allah ordered Musa to learn from Khidhir about the knowledge that Musa did not have.

As executors of improvement programs, educators should be able to choose teaching methods that are more suitable for students. Educators can apply peer teaching learning methods (peer tutors), because sometimes it is easier for a student to accept information given by a peer or classmate. Based on the above background, the authors are interested in conducting research with the title "The Influence of the Peer Teaching Method on Student Learning Outcomes in Class X Islamic Cultural History (SKI) Subject at MAN 4 Religion".

B. METHOD

This type of research is quasi-experimental research with the Nonequivalent Control Group Design. This design was chosen because in this study the sampling technique did not use random, as Sugiyono said that this design was almost the same as the pretest-posttest control group design. , only in this design the experimental group and the control group were not randomly selected.

In this design there are two groups that are given different treatment. Before being given treatment each group was given a pretest which was useful to find out the initial state before treatment and after treatment was given a posttest to find out the final results. A good pretest result is if the values of the control and experimental groups are not significantly different. The results of the difference between the posttest and pretest of the two groups were then compared. The treatment effect is (O_2- O_1) - (O_4- O_3). Further details can be seen in the table below (Sugiyono, 2014:116):

Table 1 Scheme of Nonequivalent Control Group Design

Group	First Test	Treatment	Final Test
Experimental group	0_1	X_1	0_2
Control group	0_3	X_2	0_4

Description:

0_1 : Pre-test of the experimental group
0_2 : Post-test experimental group
0_3 : Control group pre-test
0_4 : Post-test Control group
X_1 : Treatment using the Peer Teaching method
X_2 : Treatment using conventional methods

The population in this study were all students of class X MAN 4 Agam, namely: X-IPS 1, X-IPS 2, X-MIPA, X-IPK 1, and X-IPK 2. The samples taken in this study were: the experiment was X- IPS 1 and the control class was X- IPS 2. The sampling technique used was purposive sampling

There are 2 (two) variables in this study, namely the peer teaching method as the independent variable which is symbolized by the letter "X", and learning outcomes as the dependent variable which is symbolized by the letter "Y".

Data collection techniques in this study used a pre-test and post-test in the control group and the experimental group. Pre-test is a test conducted on a group before being given treatment and aims to determine the initial achievement of students. Post-test is a test conducted on the group after being given treatment and aims to determine the learning outcomes of students after treatment

The instruments used in collecting data were multiple choice test questions to measure student learning outcomes. The test questions given amount to 40 test questions. The test instrument given to students before using the peer teaching method is called the pre-test. Then the test given to students after learning is finished

using the peer teaching learning method is called the pre-test. The stages in determining the interval class according to Sugiyono (2014: 34-36):

The initial stage in classifying the value of learning outcomes is to find class intervals using the following Sturges formula:

K= 1 + 3,3 log n

Description:

K= Number of interval classes

N = Amount of data

log = Logarithm

The second stage, calculating the range of data, namely the largest data minus the smallest data then adding 1. And the third stage is calculating the class length, namely the data range divided by the number of class intervals, then arrange the class intervals

Validity is a measure that shows the validity or validity of a research instrument. To measure the validity of the objective test with multiple choice, that is by using the biserial point correlation formula.

$$r_{pbi} = \frac{M_p - M_t}{SD_t}\sqrt{\frac{p}{q}}$$

Description:

Rpbi : Biserial point correlation coefficient

Mp : The average score that is owned by the testee, for test items that have been answered correctly.

Mt : The average score of the total score.

SDt : Standard deviation of the total score.

p : The number of testees who answered correctly from the items being tested for validity

q : The number of testees who answered incorrectly from the items being tested for validity (Anas Sudjiono, 2011:73).

As for the reliability formula in the research used is the K-R 20 formula according to Suharsimi Arikunto (2013:258) as follows:

$$r_{11} = \left(\frac{n}{n-1}\right)\left(\frac{S^2 - \Sigma_{pq}}{S^2}\right)$$

Description:

r_{11} : Overall item reliability (instrument reliability)

n : The number of detailed questions

S^2 : Standard deviation of the test

p : Proportion of subjects who answered correctly in each item (proportion of subjects who received a suspension of 1)

p : $\frac{most\ subjects\ get\ a\ score\ of\ 1}{N}$

q : The proportion of students who answered incorrectly in each item item

q : $\frac{most\ subjects\ get\ a\ score\ of\ 0}{(q+1-p)} 20$

The difficulty level of the item is used to indicate whether a question is included in the easy, medium or difficult category. Arikunto stated that a good question is one that is neither too easy nor too difficult. To find the difficulty index, the formula is used:

$$P = \frac{B}{Js}$$

Description:

P = Difficulty index

B = The number of students who answered the questions correctly

Js = Total number of test takers (Arikunto, 2013:222-223).

The discriminating power of the item is the ability of a question to distinguish between students who have high abilities and students who have low abilities. Discrimination index (discrimination) can be found using the formula:

$D=\frac{Ba}{Ja} - \frac{Bb}{Jb}=Pa\text{-}Pb$

Description:

D : Different power

Ja : Many upper group students

Jb : Many lower group students

Ba: Most of the upper group participants answered the correct questions

Bb : Many participants in the upper group answered the wrong questions (Bagiyono, 2017:4).

The normality test aims to determine whether the data from each group in the study is normally distributed or not. If the sample used is above 50 then use the Kolmogorov Smirnov significance test, while the sample used is below 50 then use the Shapiro Wilk significance test. Since there were 48 samples taken, the significance test used was Shapiro Wilk. If the significance value of the test results is > 0.05, it means that the data is normally distributed, and if the significance value of the test results is <0.05, it means that the data is not normally distributed.

Table 2. Results of the Normality Test Analysis of the Experimental Class and the Control Class

Tests of Normality

	Class	Shapiro-Wilk		
		Statistic	df	Sig.
SKI Learning Outcomes	Post-test Experiment	,945	24	,215
	Post-test Control	,959	24	,416

**This is a lower bound of the true significance.*

In the above, obtained a significance value of α of 0.215. This shows that the data is greater (>) than 0.05. This means that on both sides it means that the data is normally distributed.

Homogeneity test is used to determine whether the study population has the same variance or not. The error rate used in this study is α = 0.05 (5%). To test

whether the variance of the two samples is homogeneous or not, the F test is used to test the homogeneity of variance or you can use the SPSS version 26 program. According to Sudjana (2005 : 249) the formula used to test it is:

$$F = \frac{biggest\ varians}{smallest\ varians} \text{ or } F = \frac{S_1{}^2}{S_2{}^2}$$

The proposed hypothesis:

H_0 : the sample class does not have a homogeneous variance

H_α : the sample class has a homogeneous variance

By testing criteria:

Jika $F_{count} \leq F_{table}$, then H_0 is accepted and H_α is rejected, meaning that the data is homogeneous. If $F_{count} \geq F_{table}$, then H_0 is rejected H_α is accepted meaning the data is not homogeneous.

The t-test is used to determine the truth of the statements or assumptions hypothesized by the author (Syofian Siregar, 2014:194). This formula can be used using the SPSS (Statistical Package for Social Science) version 26 program.

Description:

If the value of sig α (2-tailed) > 0.05, then H_α is rejected and H_0 is accepted

If the value of sig α (2-tailed) <0.05, then H_α is accepted and H_0 is rejected

C. RESULTS AND DISCUSSION

The results of the study show a pre-test description of the X-IPS1 experimental class at MAN 4 Agam. The test was conducted with a total of 20 multiple choice questions. Respondents who took the test were 24 students

Table 3. Frequency Distribution of Experimental Class Pre-test Learning Outcomes

Interval	Frequency	Percentage
61 – 70	9	37,5%
51 – 60	8	33,3%
41 – 50	2	8,3%
31 – 40	1	4,2%
21 – 30	2	8,3%
11 – 20	2	8,3%
Amount	**24**	**100%**

Based on the data display in table 4.1, there are 6 class intervals and the class length is 10. The number of students in the 11–20 interval is 2 people at the 8.3% level, in the 21–30 interval there are 2 students at the 8.3% level, in the 21–30 interval 31-40 totaling 1 person at 4.2%, in the 41-50 interval 2 people at 8.3%, in the 51-60 interval 8 people at 33.3%, and in the 61-70 interval 9 people at 37.5%. After adding up the values, the mean value is 53.54.

The pre-test for the X-IPS2 control class at MAN 4 Agam was carried out with a total of 20 multiple choice questions. Respondents who took the test were 24 students.

Table 4 Frequency Distribution of Control Class Pre-test Learning Outcomes

Interval	Frequency	Percentage
70 – 80	2	8,3%
59 – 69	6	25%
48 – 58	6	25%
37 – 47	5	20,8 %
26 – 36	4	16,7%
15 – 25	1	4,2%
Amount	**24**	**100%**

Based on the data display in table 4.2, there are 6 class intervals and class lengths of 11. The number of students in the 20-29 interval is 1 person at the 4.2% level, in the 30-39 interval there are 4 students at the 16.7% level, in the 30-39 interval 40-49 totaling 5 people at 20.8% level, in the 50-59 interval 6 people at 25% level, in the 60-69 interval 6 people at 20% level, and in the 70-80 interval 2 people at 8.3% level . After adding up the values, the mean value is 50.

The post-test of the X-IPS1 experimental class at MAN 4 Agam was carried out with a total of 20 multiple choice questions. Respondents who took the test were 24 students.

Table 5. Frequency Distribution of Experimental Class Post-test Learning Outcomes

Interval	Frequency	Percentage
94 – 100	6	25%
87 – 93	2	8,3%
80 – 86	10	41,7%
73 – 79	2	8,3%
66 – 72	2	8,3%
59 – 65	2	8,3%
Amount	**24**	**100%**

Based on the data display in table 4.3, there are 6 class intervals and the length of the class is 7. The number of students in the 59-65 interval is 2 people at the 8.3% level, in the 66-72 interval there are 2 people at the 8.3% level, in the 66-72 interval 73-79 totaling 2 people at the level of 8.3%, in the 80-86 interval there are 10 people at the 41.7% level, in the 87-93 interval there are 2 people at the 8.3% level, and in the 94-100 interval there are 6 people at the 25%. After adding up the values, the mean value is 83.13.

The post-test of the X-IPS2 control class at MAN 4 Agam was carried out with a total of 20 multiple choice questions. Respondents who took the test were 24 students.

Table 6 Frequency Distribution of Control Class Post-test Learning Outcomes

Interval	Frequency	Percentage
84 – 90	5	20,8%
77 – 83	3	12,5%

70 – 76	11	45,8%
63 – 69	3	12,5%
56 – 62	1	4,2%
49 – 55	1	4,2%
Amount	24	100%

Based on the data display in table 4.4. there are 6 class intervals and the class length is 7. The number of students in the 49-55 interval is 1 person at the 4.2% level, in the 56-62 intervals there is 1 person at the 4.2% level, in the 63-69 interval there are 3 people at the level 12.5%, in the 70-76 interval there were 11 people at 45.8%, in the 77-83 interval there were 3 people at 12.5%, and in the 84-90 interval there were 5 people at 20.8%. After adding up the values, the mean value is 74.17.

Hypothesis testing is done by T test, with the basis of decision making if Sig α > 0.05 then Ho is accepted and Ha is rejected and if Sig α < 0.05 then Ho is rejected and Ha is accepted. The following table describes the results of the t-test analysis for the experimental class, namely class X- IPS 1 and the control class, namely class X- IPS 2.

Table 7 Results of Hypothesis Testing Analysis of Experimental Class and Control Class

Independent Samples Test

		t	df	*Sig. (2-tailed)*	*Mean Difference*	*95% CI of the Difference*	
						Lower	*Upper*
Result	*Equal variance assumed*	2,955	46	,005	8,958	2,856	15,061
	Equal variance not assumed	2,955	44,575	,005	8,958	2,850	15,066

Based on table 4.5 above, the mean value is obtained which states the average sample X is 8.958. Calculated T value = 2.955, CI Difference Lower value of 2.856 and Upper 15.061. Therefore, t count (2.955) > t table (1.679) so that Ho is rejected and Ha is accepted. To test the significance value, obtained α sig on a two-tailed or sig (2-tailed) confidence interval of = 0.005, which means (0.005 < 0.05) and it can be concluded that H_O is rejected and Ha is accepted.

Based on data analysis and description of results and observations made in this study, there are differences in terms of learning outcomes. This difference occurs because the actions given are different. Implementation of learning using the peer teaching method (peer tutor) in the experimental class while in the control class apply the conventional method of lectures and questions and answers

Learning with the peer teaching method (peer tutors) can improve the ability of students to remember information provided by a tutor and each student can learn from other students and convey their ideas to each other during discussions. The peer teaching method (peer tutor) also improves students' self-confidence in learning, especially students who become tutors.

The teaching and learning process is an activity of interaction and mutual influence between educators and students, with the main function of the educator providing learning material or something that affects students, while students receive learning, influence or something provided by the educator (Abuddin Nata,

2016: 41).

In learning using the Peer Teaching Method (Peer Tutor), the author appoints 3 people among the students who have the highest pre-test scores to become tutors. In addition to considering the pre-test scores, the author also determines the tutor of the activeness of individual students by asking for the SKI subject teacher's consideration. Determination of this tutor is done before taking action.

In applying the Peer Teaching Method, educators explain learning objectives and subject matter in general. Then the educator asks students to form classes into three groups with each group being guided by a previously appointed tutor. Each group is responsible for mastering the part of the sub-material assigned to the group. This is where the tutoring process takes place, where tutors from each group try to explain to their friends to master the material. Then the educator asks each group to present the material that is their assignment so that all groups can understand and respond to the results of the delivery. Make sure that the one giving the presentation is not from the tutor, but from another group of friends, so that each student can test his understanding of the material he is discussing. The Peer Teaching method shows the activeness of students as a whole during the learning process.

Meanwhile, in the control class students listened to explanations from educators regarding learning material using conventional methods such as lectures. So that the activeness of students is not so visible because learning is only centered on the teacher. In addition, during the learning process many students were busy with their respective activities and only a few wanted to ask questions regarding material they had not understood. This shows that the activeness of students in the control class is lower than in the experimental class.

In the next stage, the writer gave a final test (post-test) to the experimental class and control class to measure the level of understanding of students after learning. Based on the results of research that has been done in class X MAN 4 Agam, obtained differences in learning outcomes between the experimental class and the control class.

The difference in learning outcomes on the initial test in the experimental class and the control class was not too significant, seen from the average score of the experimental class was higher than that of the control class. In the experimental class, an average of 53.54 was obtained which was in the 51-60 interval, and the control class average was 50 which was in the 50-59 interval. with the highest score in the experimental class 70 and in the control class 80. While the lowest value is in the experimental class 15 and the lowest value in the control class is 20.

The difference in the final test learning outcomes in the experimental class and the control class is quite significant, seen from the average score of the experimental class is higher than that of the control class. In the experimental class, an average of 83.13 was obtained which was in the interval 80–86. and the average control class is 74.17 which is at intervals of 70-76 with the highest score in the experimental class being 100 and the highest value in the control class being 90.

While the lowest score in the experimental class is 60 and the lowest value in the control class is 50. the experimental class is better than the control class.

Based on the t test (hypothesis test) there is an influence from the learning outcomes of the experimental class and the control class. After conducting research on class X at MAN 4 Agam, it was found that the significance value of α in a two-tailed (2-tailed) confidence interval was = 0.005, so this means (0.005 <0.05) so that H_O is rejected and H_a is accepted. So it can be concluded that the learning outcomes of the experimental class that apply the peer teaching method are better than the control class, which apply conventional methods so that it can be said that there is a significant influence of the Peer Teaching method on student learning outcomes.

From this presentation, the conclusion obtained is that learning that applies the peer teaching method has an influence on improving the learning outcomes of class X MAN 4 Agam students. However, the use of the peer teaching method can be applied in the future by providing a variety of methods to create a more active and less boring atmosphere for students in the learning process, especially SKI subjects. So that the next research can be improved again can also continue this research to be even better.

D. CONCLUSION

Based on the results of research conducted in class X MAN 4 Agam, the experimental class was X IPS 1 and the control class was X IPS 2. There were differences in the two classes. In the experimental class the peer teaching method was applied in the teaching and learning process, while in the control class only applied conventional methods such as lectures. The significant differences in the results of the learning outcomes test of the two classes can be seen as follows:

The results of the initial test (pre-test) in class X IPS 1 by applying the peer teaching method obtained an average score of 53.54 which ranged from 51-60 intervals. Whereas in class X IPS 2 by applying conventional methods obtained an average value of 50 which ranged from 50-59 intervals. The results of the final test (post-test) in class X IPS 1 by applying the peer teaching method obtained an average score of 83.13 which ranged from 80-86 intervals. Whereas in class X IPS 2 by applying conventional methods obtained an average value of 74.17 which ranged from 70-76 intervals.

Based on the t test (hypothesis test) there is an influence from the learning outcomes of the experimental class and the control class. After conducting research on class X at MAN 4 Agam, it was found that the significance value of α in a two-tailed (2-tailed) confidence interval was = 0.005, so this means (0.005 <0.05) so that H_O is rejected and H_a is accepted. So it can be concluded that the learning outcomes of the experimental class that apply the peer teaching method are better than the control class, which apply conventional methods. So it can be concluded that there is a significant influence between the Peer Teaching method and the learning outcomes of Islamic Cultural History (SKI) in class X MAN 4 Religion .

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