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Application of The Jigsaw Type Cooperative Learning Model Reviewed From Critical Thinking In The Subject of Aqidah Akhlaq Material

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ABSTRACT
The application of the Jigsaw type cooperative learning model in terms of critical thinking skills in the Aqidah Akhlaq subject Material. This research aims to determine the effectiveness and process of implementing the Jigsaw Type Cooperative Learning Model in View of Critical Thinking Ability in the Subject of Aqidah Akhlaq Material: Exemplary Characteristics of Abu Bakar Ash Shiddiq Class VIII MTSN 4 Jombang. This application makes it easier for students to understand the material, increases students' experience, improves critical thinking skills, especially in the subject of Aqidah Akhlaq. Critical thinking as a cognitive skill includes activities of interpretation, analysis, evaluation, inference, ability to explain, self regulation. This research method uses the Pre-Experimental Design method with One-Group Pretest-Posttest Design. This research data was collected through tests, interviews and documentation. Data was analyzed using quantitative analysis techniques. The results of this research show that there is a comparison of the average student score after using the Jigsaw type cooperative learning model of 76 and before using the Jigsaw type cooperative learning model of 56.00, apart from that it is also proven by calculating the t value of -13,190 with df = 39. The Ttable obtained of the number (n) = 40 with degrees of freedom (df) = n-1 or 40-1 = 39. The results obtained for t table are 2.021, based on the value of this research tcount > t table (-13.190 > 2.021) then H0 is rejected and H1 is accepted. So it can be concluded that the application of the jigsaw type cooperative learning model can improve student learning outcomes and students' thinking abilities.

***Keywords**: Jigsaw; Cooperative learning model; Critical thinking ability.*

INTRODUCTION

Education is something that is very important for humans, wherever we are, we definitely need education. Education has a big influence on humans to help them survive by building good interactions with each other so that their life needs can be easily met. Education means nurturing or training humans (Mawarti, 2017). Education is an effort or process to change human attitudes and behavior and make humans perfect through teaching and training. wqaearning it self is an interaction between students and teachers in a learning environment. Learning can help students easily obtain knowledge and information as well as mastery of skills. Learning also has a system consisting of elements with different components that are connected to each other. This component contains: Objectives, materials, methods, and evaluation. In the learning process there are learning models that are created to make it easier to understand the material presented by the teacher, including lecture, cooperative, contextual, and also problem-based learning models. Of these four learning models, the one that is often used is the lecture learning model. Mathematics is not an isolated knowledge which can be perfect by itself, but with mathematics it can help humans understand and master social, economic and natural problems (Nasrulloh et al., 2022).

This lecture learning model is one of the traditional teaching methods that has been used the longest in the learning process so we cannot abandon it but also do not require using this learning model, because it is too monotonous and boring when put into practice. The disadvantages of the lecture learning model are the lack of opportunities to discuss and express opinions in solving problems, students' knowledge is lacking because the teacher plays a very important role, students' literacy is lacking. Apart from choosing the right learning model, critical thinking skills are also very necessary. Critical thinking is a mental activity that cannot be separated from human life. The ability to think occurs in every human

mental activity aimed at formulating or solving a problem, deciding a problem, and finding reasons. According to Weissinger, critical thinking is awareness of one's own thinking (self-reflection), and the ability (basic skills) and willingness (willingness to ask questions) to clarify and improve understanding which helps in drawing the right conclusions and making the best decisions in the context (knowledge base). Critical thinking is a mental activity that cannot be separated from human life. Each individual's critical thinking ability is different from one another so it needs to be cultivated from an early age (Nasrulloh & Umardiyah, 2020).

Based on the results of the interview I conducted with the moral aqidah teacher Mr. Abdul Rohim M.Pd on April 30 2023 at MTsN 4 Jombang, it shows that the problem is that in teaching we have not tried to apply a variety of learning models and only use the lecture method so that the impact on students during the learning process is Cooperation between students is still very lacking, this can be seen when students are working on individual assignments. There are still many students who do not want to help their friends who are having difficulty understanding assignments, and when there are group assignments. Students are still unable to work together to carry out their assignments, students' critical thinking skills have not yet developed. This can be seen when the teacher explains that students do not dare to ask questions, only accept explanations from the teacher, students also have difficulty answering verbal questions given by the teacher or written questions. Based on the background of the problems at MTSN 4 Jombang, I want to try to apply the jigsaw type cooperative learning model in terms of critical thinking skills in the subject of aqidah, morals, material on the exemplary qualities of Abu Bakar As Siddiq, class VIII MTSN 4 Jombang. The learning model in question is that students are able to shape students into stronger individuals who care about others, create activity and involvement of all students in learning, increase the academic value of learning through working together in groups, develop students' social sensitivity, train students to be wise in accepting differences. other students.

Jigsaw type cooperative learning also has several advantages, including being able to provide students with the opportunity to collaborate with other students, students being able to master the lessons being taught, each member of the student having the right to be an expert in their group, in the teaching and learning process students are positively interdependent. This research is supported by previous research which is very relevant, namely: first research conducted by Hertiavi et al., (2010)who obtained research results that the jigsaw type cooperative learning model was able to improve students' problem solving abilities as reflected in the increase significantly student learning outcomes. The second research was conducted by Almukarram et al., (2017) which obtained research results that the jigsaw type cooperative learning model had an effect on increasing critical thinking skills.

Trianto revealed that jigsaw type cooperative learning provides conditions for improving critical and analytical thinking skills and solving complex problems in real life so that it will give rise to a culture of thinking in students (Almukarram et al., 2017). Meanwhile, according to Slavin, the jigsaw type cooperative learning model is able to improve social skills and is able to optimize interactions between students with each other, interactions with teachers, and students with existing learning resources. The social system built from the jigsaw type is full responsibility in conveying material to friends. Jigsaw type cooperative learning is a type of cooperative learning that consists of heterogeneous learning groups with 5-6 members who use the pattern of home groups and expert groups. This jigsaw type of cooperative learning has several advantages, including students becoming more active in the learning process, making the teacher's work easier in teaching because there is a group of experts whose job is to explain the material that has been shared and at the same time explain it to their friends.

Jigsaw type cooperative learning was developed by Elliot Aronson and his friends at the University of Texas (called Jigsaw I) and then adapted by Slavin and his friends at John's University (Rumiyatun, 2012). Hopkins becomes Jigsaw II. In Jigsaw I (original) students only learn certain concepts that will become a specialty while they get other concepts through discussions with their teammates. The original Jigsaw takes less time compared to Jigsaw II. Meanwhile, in Jigsaw II, each student gets the opportunity to learn the entire concept before he learns his specialty to become an expert.

METHOD

The research that the author conducted took place at MTSN 4 Jombang. This research is quantitative research. According to Sugiyono, quantitative methods are methods based on positivistic (concrete data), research data in the form of numbers that will be measured using statistics as a calculation test tool, related to the problem being studied to produce a conclusion. Quantitative research is

also referred to as traditional methods, where this method has been used as a research method for quite a long time. The research method used in this research uses the experimental method. The form of experimental design used is pre-Experimental Design with One-Group Pretest-Posttest Design. In this design there is a pretest and posttest. A pretest is given to students before being given treatment. Meanwhile, the posttest is given to students after being given treatment. Hypothesis testing in this study used the t test with a significance level of 0.05. The t test can be used for statistical analysis of two independent samples with interval or ratio data types and also if the data is normally distributed.

RESULT AND DISCUSSION

Result (font size 11pt)

- **Normality Test**
  In the table above, it can be seen that the pretest and posttest significance values are 0.071 > 0.05, so it can be said that the data is spread with a normal distribution. The assumption of data normality is met so the t test can be used.

Table 1. Normality Test One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	7.50589767
Most Extreme Differences	Absolute	.133
	Positive	.133
	Negative	-.109
Test Statistic		.133
Asymp. Sig. (2-tailed)		.071[c]

- **Homogeneity Test**
  the SPSS calculation results, a significant value of 0.163 > 0.05 was obtained, so it can be said that the variance is homogeneous. The assumption of homogeneity is met so the t test can be used.

Table 2. Homogeneity Test

Levene Statistic	df1	df2	Sig.
1.980	1	78	.163

- **Paired t test**
  The results of calculations using SPSS, as shown in the table, can be seen as -13,190 with df= 39. This was obtained from the number of students (n) = 40 with degrees of freedom (df) = n-1 or 40-1=39. Results for 2,021. because in this test the value is (-13.190 > 2.021) and the significance value is 0.000 < 0.05, then *H*0 is rejected and *H*1 is accepted. Based on the processing results, it can be concluded that the jigsaw type cooperative learning model has an influence on critical thinking in the Aqidah Akhlaq subject material on the exemplary characteristics of Abu Bakar Ash Shiddiq class VIII MTSN 4 Jombang.

Table 3. Paired Samples t Test

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre test - post test	-19.7500	9.46993	1.49733	-22.77863	-16.72137	-13.190	39	.000

Discussion

This firstmeeting was held on Wednesday 31 May 2023. The researcher continued learning in class the material on the exemplary characteristics of Abu Bakar Ash Shiddiq with the sub-material being the biography of Abu Bakar Ash Shiddiq, the exemplary characteristics of Abu Bakar Ash Shiddiq using a jigsaw type cooperative learning model with the following stages. the learning stages are in accordance with the RPP that has been created by the researcher. For example, students are divided into two groups (original and expert) after which students join their respective groups according to the division. The teacher gives assignments to students to discuss or solve problems together with their group members.

In the process of implementing this jigsaw learning model through the following steps:

1. The teacher guides students to gather in groups (home groups) with 4 students each.
2. The teacher gives directions that each person in the group is given different material, namely: biography of Abu Bakar Ash Shiddiq, exemplary characteristics of Abu Bakar Ash Shiddiq, achievements of Abu Bakar Ash Shiddiq, making examples of Abu Bakar Ash Shiddiq's exemplary qualities in everyday life -day.
3. The teacher directs students to gather with friends who have the same material (expert group)
4. Students can discuss with their friends according to the themes they shared at the beginning.
5. Students can search for the material they receive in books or from other sources.
6. Students can conclude the results of discussions about Abu Bakar Ash Siddiq with their respective expert groups
7. Students return to their original groups to provide an explanation of the material they received from each expert group.
8. Students together with the teacher ask and answer questions about things that students don't know, and the teacher provides reinforcement to students.

In carrying out research in the field, researchers have collected data obtained based on test results, interviews and documentation. During the research, these included:

a. Limited research time resulted in the delivery of the learning process not being optimal
b. It is difficult to condition students when distributing pretest questions because when the pretest questions are distributed it is close to break time
c. This research was conducted 1 week before the school exams were held, making it difficult for students to study.

Research related to the application of the jigsaw type cooperative learning model in improving students' critical thinking skills at MTSN 4 Jombang, where researchers found that the application of the jigsaw type cooperative learning model was able to improve critical thinking skills which can be seen from the results of the posttest scores with results that were quite high compared to before the learning model was applied this jigsaw type cooperative. The implementation of the jigsaw type cooperative learning model in learning aqidah akhlaq at MTSN 4 Jombang, during two meetings, together with the aqidah akhlak teacher, they have done a lot of preparation by making lesson plans which include the jigsaw type cooperative learning model to be implemented.

The researcher is of the opinion that the application of this jigsaw type cooperative learning model is very effective in learning and is also applied well during two meetings and can gradually form students' critical thinking skills and can understand the subject matter of Abu Bakar Ash Siddiq's exemplary qualities more easily. , compared to the lecture method used by previous moral aqidah teachers, the implementation of the jigsaw type cooperative learning model applied at MTSN 4 Jombang is included in

the good category. In this research, a multiple choice test was carried out which took place twice, first the researcher gave pre-test questions with quite low results, then the jigsaw type cooperative learning model was implemented in terms of the critical thinking of class VIII O MTSN 4 Jombang students with quite high results. Based on the graph above, it can be seen that the Jigsaw model can improve critical thinking skills in the Aqidah Akhlaq class VIII MTSN 4 Jombang subject. Students' critical thinking in the Aqidah Akhlaq subject in this research consists of pretest and posttest scores. With an average pretest score of 56.00 and a posttest score of 75.75. Based on these data, it can be said that the jigsaw learning model in the Aqidah Akhlaq subject can improve critical thinking skills.

The results of the calculation of the average normality test scores show an average pretest score of 56.00 and a posttest score of 76. It can be seen that there was an increase in the pretest score in the posttest score after using the jigsaw type cooperative learning model compared to the lecture method. Apart from that, the significance value of the normality test shows a result of 0.071 > 0.05, so it can be concluded that the application of the jigsaw type cooperative learning model has an effect on learning Aqidah and Akhlaq material on the exemplary qualities of Abu Bakar Ash Shiddiq class VIII MTSN 4 Jombang.

CONCLUSIONS

Based on the discussion that has been presented, the researcher concludes that there is a difference between learning aqidah and akhlaq before using the Jigsaw type cooperative learning model and after using the Jigsaw type cooperative learning model. This can be proven from the comparison of the average student score after using the Jigsaw type cooperative learning model of 76 and before using the Jigsaw type cooperative learning model of 56.00, apart from that it is also proven by calculating the T value of -13,190 with df = 39. T table is obtained from number (n) = 40 with degrees of freedom (df) = n-1 or 40-1 = 39. The results obtained for T table are 2.021, based on the value of this research Tcount > T table (-13,190 > 2.021) then H0 is rejected and H1 is accepted . So it can be concluded that the application of the jigsaw type cooperative learning model can improve student learning outcomes and students' thinking abilities.

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