The Influence of Think Pair Share (TPS) Cooperative Learning Model on Students' Critical Thinking Ability in Civics Learning in XI MIPA Class at SMA Negeri 1 Amurang

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Abstract. In an effort to improve students' critical thinking skills, especially in Civics subjects, teachers must use suitable learning models so that they are able to make students play an active role in Civics learning and are able to improve students' critical thinking skills by way of students conveying their thoughts orally in the process. Learn how to teach. For this reason, this research is expected to be able to improve students' critical thinking skills in groups treated with think pair share (TPS) cooperative learning models. This type of research is included in a quasi-experimental study (quasi-experimental) which involves 2 groups of students, one experimental group and one control group. In think pair share (TPS) cooperative learning, students are given problems to solve, then students are led to form small groups consisting of 2 people (pairs) to discuss and find solutions to the problems given. This study shows that the number of members in the discussion group affects students' critical thinking skills in solving problems. The TPS group of students consisting of 2 members in pairs has a higher average achievement of students' critical thinking skills than the conventional group of students who are only individually or independently.

Keywords: learning model · think pair share cooperative type · critical thinking ability

1 Introduction

In order to accomplish learning goals, two to five students collaborate in small groups during cooperative learning to solve challenges. Cooperative learning is a type of learning where students collaborate in small groups and support one another's learning, according to [1]. According to Riyanto [2], cooperative learning is a type of instruction created to educate both academic and social skills, including interpersonal skills. Meanwhile, the cooperative learning model, according to Rusman [3], is a type of learning in which students study and collaborate in groups with heterogeneous group structures.

Citizenship education is a subject that must be accepted in formal education both elementary, junior high, high school and at university. As for the opinion of Muhamad

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Erwin [4], civic education in Indonesia is national and civic education that deals with the existence of the Unitary State of the Republic of Indonesia, democracy, human rights, and the ideals of realizing an Indonesian civil society by using the Pancasila philosophy as a knife of analysis. In educational institutions today there are still many old ways or methods used in delivering learning materials which still focus on the teacher as the main role so as to make students passive in the teaching and learning process. This causes students to lack understanding and even explore their insights to solve the problems presented in the material in the teaching and learning process. Meanwhile, a learning model is needed that is able to make students active in learning. Because the active students in the learning process are able to make students who can think critically. Because the objectives of Civics according to the Ministry of National Education [5] are: 1. Think critically, rationally, and creatively in responding to citizenship issues. 2. Participate actively, be responsible and anti-corruption. 3. Develop in a positive, democratic way to shape oneself based on the character of the Indonesian people so that they can live together with other nations. 4. Interact with other nations in the world arena directly/indirectly by utilizing information and communication technology. 5. Develop in a positive, democratic way to shape oneself based on the character of the Indonesian people so that they can live together with other nations In an effort to improve students' critical thinking skills, especially in Civics subjects, teachers must use suitable learning models so that they are able to make students play an active role in Civics learning and are able to improve students' critical thinking skills by way of students conveying their thoughts orally in the process. Learn how to teach.

Many studies have discussed research in order to improve the quality of learning [6]–[8]. Therefore, the cooperative learning model of Think Pair Share type is used. The advantages of the Think Pair Share model according to Alma [9] TPS think pair share model can optimize student participation in expressing opinions and increasing knowledge.

2 Research methods

This type of research is included in a quasi-experimental study (quasi-experimental) which involves 2 groups of students, one experimental group and one control group. In think pair share (TPS) cooperative learning, students are given problems to solve, then students are led to form small groups consisting of 2 people (pairs) to discuss and find solutions to the problems given. After that, students were asked to present the results of group discussions. In the learning process, researchers approach and motivate all students to participate actively in learning activities. Data collection techniques using pretest and posttest. Testing through panelist review. The posttest instrument that has been prepared by the researcher is then tested by panelists to determine the level of reliability on the instrument to be tested. In this study, researchers took 20 panelists. Based on the results of the panelist's assessment of the 12 essay test items compiled by the researcher, the panelist's assessment reliability coefficient was 0.84. These results indicate that the consistency of the panelist's assessment results is high so that the 12 items are feasible to be tested. Next are the test results. The instrument that was feasible according to the observer was then tested on groups of students outside the experimental

Table 1. Results of Assessment of Student

Class	Average Percentage of Student Learning Activities			Average percentage
	Meeting 1	Meeting 2	Meeting 3	
Experiment A1 (TPS)	60.74%	76.30%	73.33%	70.12%
Control A2 (conventional)	55.56%	61.48%	61.48%	59.51%

Learning Activities in Experiment Class A1 and Control Class A2.

class, namely class XI MIPA 2 (groups a and b) with a total of 30 students. The aim of the researcher to carry out this measurement is to measure the validity and reliability of the instrument or test questions. Finally, there are validity and reliability tests to see the validity of the data.

3 Results and discussion

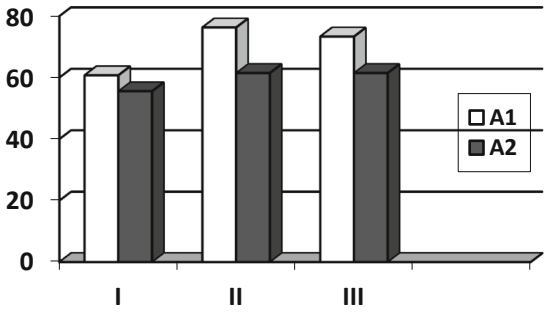
Assessment of Student Learning Activities

Boarding students who incidentally are immigrants in Gunung Pangilun Village, North Padang District, Padang City, in their daily life inevitably have to adapt to the social life of the local community. Boarding students as immigrants come from different backgrounds, as well as the local community. With these differences, it will certainly affect boarding students in adapting to the local community so that a pattern is needed to facilitate social relations between boarding students and the local community.

Researchers have conducted research at SMA Negeri 1 Amurang in class XI MIPA 6 which was divided into two groups of students, group XI MIPA 6a which consisted of 15 students as an experimental class which applied the think pair share (TPS) learning model and group XI MIPA 6b which consisting of 15 students as a control class which applied conventional learning models. In each learning process in three face-to-face meetings (meetings) the researchers observed and also assessed the learning activities of students. What the researchers assessed was the ability of students to ask questions, the ability of students to answer questions, and the ability of students to work together in groups. Researchers used observations and assessments following the assessment criteria for each student in the experimental class A1 and control class A2, which can be seen in the appendix.

Based on Table 1 above, it was found that the group of students who were treated with the TPS learning model at each face-to-face (meeting) with the results of student learning activities was 70.12% while the group of students who were treated with the conventional learning model was 59.51%, based on these data results. it can be interpreted that the results of the learning activities of students who were treated with the TPS learning model were higher than the group learning activities of students who were treated with conventional learning models.

Prerequisite Test of Research Result Data Analysis



Graph 1. Student Learning Activities in Experiment Class A1 and Control Class

1) Data Normality Test
   Researchers tested the normality of the distribution using the Liliefors test before the data in this study were processed using the t statistical test. The L-table value with a significance level of = 0.05 and n = 15 is 0.220. Testing the normality of the data distribution in the experimental class A1 shows that Lo = 0.11592 so that Lo is smaller than the L-table. While the control class A2 shows that Lo = 0.10582 so that Lo is smaller than the L-table. This means that the Y data in both experimental classes are normally distributed. The steps for testing the normality of the data can be seen in appendix 8.
2) Data Homogeneity Test
   Researchers conducted an F test to determine the uniformity or homogeneity between the two classes, namely the experimental class A1 and the control class A2. The value of the F-table with a significance level of = 0.05, n = 15 and db = 28 is 2.048407142. The results of the test show that the F-count = 1.758 so that the F-count is smaller than the F-table. So it can be interpreted that both the experimental and control classes are homogeneous (equivalent). The steps for testing the uniformity or homogeneity between the experimental class A1 and the control class A2 can be seen in Appendix 9. Researchers conducted tests for data normality and also data homogeneity using Microsoft Office Excel programs that have been adapted to the needs of the test statistics.
3) Statistical Test t-test (Hypothesis Test)
   Researchers conducted a statistical t-test to determine the differences in the achievement of students' critical thinking abilities in the experimental group class A1 which was given the think pair share (TPS) learning model and in the control group class A2 students who were given the conventional learning model.

Researchers perform data processing using Microsoft Office Excel program that has been adapted to the needs of the test statistics. The steps in testing the hypothesis through the t-test statistical test can be seen in Appendix 10 with the test criteria, namely: At the real level ($\alpha = 0.05$); reject Ho if |t-count| > |t-table| and accept Ho if |t-count| |t-table|. The following table shows the results of the t-test statistical test (Table 2).

Tabel 2. Rangkuman Hasil Uji Statistik t-test

t-hitung	t-tabel	Kriteria
4.12	(α: db) (0.05: 28)	|t − hitung|>|t − tabel|
	2.048407142	

The posttest results above show t-count > t-table, then Ho is rejected and H1 is accepted. Thus, it is concluded that: The average achievement of students' critical thinking skills who are treated with the think pair share (TPS) cooperative learning model is higher than the average achievement of students' critical thinking abilities who are treated with conventional learning models. The research conducted is a study of two variables, namely the independent variable and the dependent variable. Variable X = independent variable is think pair share (TPS) learning model, while variable Y = dependent variable is students' critical thinking ability. The researcher obtained the results of the research, namely from the learning activities of students and the results of the posttest given by the researcher. Researchers chose research subjects, namely all students of class XI MIPA SMA Negeri 1 Amurang. Researchers provide research material to students, namely the Harmonization of Human Rights and Obligations in the Perspective of Pancasila. In the learning process, the researcher conducted several assessments, namely, the researcher assessed the ability to ask questions, the ability to answer, and the ability to cooperate with students with the aim of finding out whether there was an increase in students' critical thinking skills. This is in line with the notion of learning put forward by Rusman [3] explaining that learning is one of the factors that influence and play an important role in personal formation and individual behavior.

The researcher applies the Think Pair Share (TPS) learning model in the experimental class with the aim of knowing whether there is an effect on students' critical thinking skills. Learning with the group model is a learning process that can build the enthusiasm of students to learn [10]. Group learning can build students' personalities in collaborating, exchanging ideas in teams, training students to dare to express opinions, interacting with each other in teams, and building the enthusiasm of students to compete to become the best group by exchanging the knowledge they find during the process. Learning. This is in line with the notion of the think pair share (TPS) learning model proposed by [11].

The learning applied is think pair share (TPS) and the control class A2 with the learning model applied is conventional, it shows that in fact the learning activities of students in the class that uses the think pair share (TPS) learning model are higher than the class that applies the conventional learning model.. The average percentage of student learning activities in all meetings for class A1 treated with the think pair share (TPS) learning model is 70.12% and the average percentage of student learning activities for class A2 treated with conventional learning models is 59.51%.

Descriptively, the level of critical thinking skills of students who use the tink pair share (TPS) type of cooperative learning model is higher than the level of critical thinking skills of students who use conventional learning models. This can be seen from the learning activities of students for three meetings (face to face) where the researchers

observed and assessed that there were differences in students' critical thinking skills in solving problems. Students in the experimental class are more active in responding to solving problems given by researchers [12]. This is due to differences in behavior and the steps of the learning model applied by researchers.

This is in line with the opinion namely learning with the think pair share (TPS) model is a learning model that gives students more time to think, respond, and help each other cooperate with other students. Researchers also conducted several tests, namely, researchers tested the validity of the instruments that would be given to students. After that, the researcher conducted a reliability test with the aim of knowing whether the instrument was reliable to be used. According to Anas Sudijono, a test is said to be good if it has a reliability of 0.70. Then the researchers conducted a posttest test on both groups of students [13].

The results of the assessment and data analysis of the students' posttest results showed that the average critical thinking ability of students in the group treated with the Think Pair Share (TPS) cooperative learning model was higher than the average critical thinking ability of the group of students treated with the learning model. Conventional. These results are in line with the results of the assessment of student learning activities.

Learning that uses the TPS model involves more students in studying learning materials because the learning process is in groups compared to students who use conventional learning models. This causes groups of students who are treated with think pair share (TPS) cooperative learning models have more sources of opinion and knowledge to share in the learning process because in groups they discuss in solving problems from the material provided so that students can find appropriate and correct solutions. From the posttest data obtained by the researchers in the experimental class that applied the Think Pair Share (TPS) learning model, the maximum score was 98, minimum score was 79, standard deviation was 5,804, mean 89.53, median 89, mode 85, range 19, class interval 5, length 4th grade.

The researcher also conducted a prerequisite test for the research data using the normality test. This test is carried out by the researcher as the first requirement to determine the hypothesis test that will be carried out by the researcher. The normality test resulted in 0.115 for the experimental class XI MIPA 6b, and 0.105 for the control class XI MIPA 6b. Based on the results of the normality test, it can be continued with the homogeneity test because the data is normally distributed. The researcher also conducted a homogeneity test to find out whether some of the data population variances were the same or not. This is the second prerequisite test to determine the hypothesis test to be used. Obtained a value of 2.48 in the experimental class XI MIPA 6a for homogeneity test, and obtained a value of 3.69 in the control class XI MIPA 6b for homogeneity test.

The researcher then tested the hypothesis with the aim of knowing the differences in the achievement of students' critical thinking skills in the experimental and control groups. Obtained t-count 4.12 and t-table 2.04, then the posttest results show t-count > t-table, Ho is rejected and H_1 is accepted. Based on the data discussed above, it can be seen that the use of the Think Pair Share (TPS) learning model is more effective in improving students' critical thinking skills, especially in Civics learning materials, where the average score is obtained on student learning activities and on the average score. The posttest turned out to be that the experimental class XI MIPA 6a which was

applied by the think pair share (TPS) cooperative learning model was higher than the average score on learning activities and the posttest average score of the control class XI MIPA 6b which was applied to the conventional model. This is in line with research which states that the Think Pair Share (TPS) learning model can improve critical thinking skills. This is evidenced by the results of hypothesis testing in his research [14].

4 Conclusion

Therefore, it can be concluded that the Think Pair Share (TPS) learning model can improve students' critical thinking skills in Civics subjects which has been proven by the results of hypothesis testing t_count is smaller than t_table so that it can be stated that the Think Pair Share (TPS) learning model is a a good learning model to improve students' critical thinking skills at SMA Negeri 1 Amurang compared to using conventional learning models. Based on the results of the research and discussion that has been stated in chapter IV, it can be concluded that: "The average critical thinking ability of students in the group treated with the Think Pair Share (TPS) cooperative learning model is higher than the average critical thinking ability of the participants. Students in the group treated with conventional learning models". The results in this study are supported by the results of the assessment of the teaching and learning process conducted by the examiner on the students, namely the assessment of student learning activities and the assessment of students' critical thinking skills in solving quiz questions which indicate that the learning activities of students are treated with the syntax of the Think Pair Share learning model. Higher than the class that was treated with the syntax of the conventional learning model. The results of this study also show that the number of members in the discussion group affects students' critical thinking skills in solving problems. The TPS group of students consisting of 2 members in pairs has a higher average achievement of students' critical thinking skills than the conventional group of students who are only individually or independently.

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