Journal of Social Knowledge Education (JSKE)
Vol. 4, No.1, February 2023, pp. 1~10
ISSN: 2722-046X, DOI: 10.37251/jske.v4i1.420

Effect of Using Cooperative Model Think Talk Write Type and Think Pair Share Type with Talking Stick Strategy on Student Learning Outcomes

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Article Info

Article history:

Received Nov 18, 2022
Revised Nov 25, 2022
Accepted Dec 3, 2022

Keywords:

TTW
TPS
Talking Stick
Learning outcomes

ABSTRACT

Purpose of the study: This study aims to determine the effect of using the cooperative model of the think talk write type and the think pair share type with the talking stick strategy on the geography learning outcomes of students in class X IPS SMA N 1 Banyudono in the 2016/2017 academic year (subject matter of inland waters and their potential).

Methodology: This research is a quasi-experimental research (Quasi Experiment) with Posttest only control design. The population in this study was class X IPS SMA N 1 Banyudono in the 2016/2017 academic year. The research sample was taken using the Cluster Random Sampling technique with three times taking from the population and obtained class X IPS 4 as the experimental class 1 (defined as the TTW Learning Method with the TS strategy), class X IPS 2 as the experimental class 2 (defined as the TPS Learning Method with the TS strategy), and class X IPS 5 as the control class (defined as Group Discussion Method). Data collection techniques using tests, documentation and observation. The data analysis technique is parametric inferential statistics with hypothesis testing using one way Anava (one way Anava) and followed by a post Anava test (Scheffe' test) with a significant level of 5%.

Main Finding: There are differences in geography learning outcomes between the use of the TTW type cooperative learning model and the TS strategy, the TPS type and the TS strategy and group discussions with a mean score ratio of 20.69; 19.39; 18.12 and proven by the one-way anava test with a significant level of 5% obtained Fcount>Ftable (6.22706>3.08). The TTW type of cooperative learning model with the TS strategy (20.69) is better than the TPS type with the Talking Stick strategy (19.39). The TTW type cooperative learning model with the TS strategy (20.69) is better than group discussions (18.12). TPS type cooperative learning model with TS strategy (19.39) is better than group discussion (18.12). The three learning models have different qualities, the learning model that has the greatest influence is the TTW model with the TS strategy, followed by the TPS model with the TS strategy and group discussions.

Novelty/Originality of this study: The cooperative model of the think talk write type and the think pair share type with the talking stick strategy on the learning outcomes of students' geography.

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1. INTRODUCTION

Education is a human effort to grow and develop innate potentials both physically and spiritually in accordance with the values that exist in society and culture [1]–[3]. So that the progress of a nation cannot be separated from the educational factor, because education has an important role in improve human resources (HR) which is an important element in the development of a nation. In order for education to run well, this is where the government begins to play a role in the field of education [4], [5]. The government is responsible for regulating matters related to education in such a way, starting from the curriculum, the quality of teaching staff, and the condition of the school environment to support the advancement of the quality of education in Indonesia.

It can be seen that all guidelines for organizing educational activities are regulated through the curriculum, in Indonesia there have been developments in the learning curriculum as was the case with the change in the Education Unit Level Curriculum (KTSP) to the 2013 Curriculum. until the evaluation has changed so that teachers are expected to be able to plan, implement, monitor and evaluate as regulated in the 2013 curriculum.

One of the keys to success that determines the successful implementation of the 2013 curriculum is teacher creativity and innovation because the teacher is an important factor that has a great influence, and even determines the success or failure of students in learning [6], [7]. In the 2013 curriculum, student-centered learning (Student Center Learning) means that the role of the teacher is only as a facilitator and motivator. In this regard, the teacher must be innovative in designing an active learning process. As regulated in Permendikbud No. 22 of 2016, namely the learning process in educational units is held interactively, inspiring, fun, challenging, motivating students to actively participate, and providing sufficient space for creativity and independence initiatives according to the talents, interests and physical and psychological development of students.

Active learning is a learning method that involves students actively in the learning process. Active learning conditions students to carry out meaningful learning experiences and always think during the learning process and can develop their potential optimally. In time, of course, teachers will become increasingly aware that conventional learning models, methods and strategies are not enough to help students. Teachers are required to be innovative, adaptive and creative and able to bring a pleasant learning atmosphere into the classroom and learning environment, where intensive teaching and learning interactions occur and take place from many directions.

Based on the results of initial observations with geography class X IPS SMA Negeri 1 Banyudono it is known that the learning process that takes place in class still uses the lecture method with a focus on copying textbooks only. Learning using the question and answer lecture method is not a bad method, but if the method is used continuously it will result in students not being active in the learning process and tend to experience boredom and are not ready to participate in the ongoing learning process. In addition to lectures, teachers sometimes also use group discussion methods in learning so that learning is more active, but in these discussions not all students play an active role so that they only focus on a few students so that the application of the method is still not effective. This low student attention results in geography learning outcomes.

There are many learning models that teachers can use to support active learning, one of which is the cooperative learning model. Cooperative learning in comparison with competitive and individualistic learning has a very strong effect on achievement, socialization, motivation and self-development [8], [9] The importance of cooperative learning in the classroom has actually been emphasized in various previous studies which have resulted in higher learning outcomes, more positive student relations, better psychological health, these results distinguish cooperative learning from other instructional methods. These results are also the reason why cooperative learning is seen as a means of mercy to improve student achievement.

From this study the researchers tried to apply the cooperative learning model to improve the learning activities carried out by the teacher. Cooperative models include Jigsaw, Think Pair Share, Numbered Heads Together, Group Investigation, Think Talk Write, Two Stay Two Stray, Student Tems Achievement Divisions, Team Assisted Individually, Teams Games Tournament, Complex Instruction, CIRC. This study focuses on the cooperative model of the Think Talk Write type and the Think Pair Share type. This is because the two cooperative models have the same syntax and both influence the interaction patterns of students.

In addition to the learning model, a learning strategy is needed that supports students to play an active role and the learning process is more innovative. Learning strategies are activities that are selected as facilities or assistance to students to achieve certain learning goals [10]. In this study using the talking stick strategy to make

the learning process more interesting. Talking stick is a learning strategy that is carried out with the help of a stick, whoever holds the stick must answer questions from the teacher after students have studied the subject matter. Learning with the talking stick strategy encourages students to dare to express opinions, so that it demands the readiness of students.

From these problems, innovative learning methods are needed so that students can take part in lessons actively and achieve maximum learning objectives. Based on this background, the writer is interested in conducting research on "The Influence of the Use of the Cooperative Model of the Think Talk Write Type and the Think Pair Share Type with the Talking Stick Strategy on the Geography Learning Outcomes of Class X IPS Students of SMA N 1 Banyudono in the 2016/2017 Academic Year" (Major Material Land Waters and Its Potential).

2. RESEARCH METHOD

The research uses a quasi-experimental research method (Quasi Experimental Design) because the object is students, so it is not possible for researchers to control all external variables that affect the implementation of the experiment. This study uses the Posttest only control design. In this design, the initial abilities of students are assumed to be the same.

This research was conducted at State High School 1 Banyudono. The population is a generalized area consisting of: objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn [11]–[12]. The population in this study were all class X IPS SMA N 1 Banyudono, namely students in class X.IPS 1 (38 students), X.IPS 2 (38 students), X.IPS 3 (37 students), X.IPS 4 (36 students), X.IPS 5 (34 students). The sample is part of the number and characteristics possessed by the population [13] The sample in this study is three groups which include two groups for experiments using the think type cooperative learning model talk write with the talking stick strategy and think pair share type with the talking stick strategy, then one group uses the answer group discussion method as the control class. Samples were obtained by cluster random sampling technique.

The data collection technique used in this study was in the form of tests and observations. The tests were used to determine the cognitive abilities of students through the posttest to determine differences in learning outcomes between experimental class I, experimental class II and control class learning outcomes. In this study, observations were made to determine the conditions when the teacher taught in class and to find out whether the cooperative learning model of the think talk write type with the talking stick strategy and the think pair share type with the talking stick strategy was suitable for application to class X students of SMA N 1 Banyudono. In addition, observation is also used in taking aspects of assessment and attitude skills.

Data analysis techniques in this study used descriptive statistical analysis and parametric inferential methods. Descriptive statistical analysis is used to describe or describe data acquisition in the form of tables and graphs from the results of the average value so that it can easily identify the characteristics of the object from the data [14], [15]. Furthermore parametric inferential is used to test the hypotheses [2], [16], [17]. In this study, hypothesis testing was carried out using one way analysis of variance (one way anava) and post anava using the Scheffe' method with a significant level of 5%.

3. RESULTS AND DISCUSSION

The research data were obtained from learning outcome data which included the affective, cognitive and psychomorphic domains in the basic competence to analyze the dynamics of the hydrosphere and its impact on everyday life, especially on the subject matter of inland waters and their potential. Cognitive learning outcome data were obtained from the results of the posttest conducted at the end learning after being given treatment. The post test consists of 25 multiple choice questions covering C1 to C4. As for the affective and psychomotor aspects obtained from the results of observations when the learning process takes place. The data obtained from the three classes totaled 108 students, namely X IPS 2 (38 students), X IPS 4 (36 students) and X IPS 5 (34 students) SMA N 1 Banyudono 2016/2017 academic year. Class X IPS 4 as the experimental class 1 uses the cooperative learning model type think talk write with the talking stick strategy, class X IPS 2 as the experimental class 2 uses the cooperative learning model type think pair share with the talking stick strategy and class X IPS 5 as the control class using group discussion.

3.1 Description of Attitude Aspect Learning Outcomes

The attitude aspect learning outcome data comes from the results of observing the assessment carried out by the teacher on students during group discussions and in carrying out the posttest. The research data is in the form of learning outcome data on the attitude aspects of students in experimental class 1 and experiment 2 (using Think Talk Write with the Talking Stick strategy), then in the control class (using group discussion). The results are presented in the table below.

Table 1. Data on Learning Outcomes Aspects of Student Attitudes

Class	Interval	f	%	Mean	Median	Min	Max
Experiment 1	12 – 13	2	5.56	16.81 (84.03)	17	12 (60)	19 (95)
	14 – 15	4	11.11				
	16 – 17	16	44.44				
	18 – 19	14	38.89				
Experiment 2	12 – 13	1	2.63	15.82 (79,08)	16	12 (60)	18 (90)
	14 – 15	15	39.47				
	16 – 17	20	52.63				
	18 – 19	2	5.26				
Control	12 – 13	1	2.94	15.44 (77,21)	15	12 (60)	18 (90)
	14 – 15	18	52.94				
	16 – 17	14	41.18				
	18 – 19	1	2.94				

In the attitude aspect of the students in the experimental class 1 using the think talk write method with the talking stick strategy, it can be seen that the highest score is in the 16-17 interval, which is equal to 16 students. The experimental class 1 has an average of 16.81 (84.03) with a standard deviation of 1,613 and the lowest score is 12 (60) while the highest score is 19 (95).

In the experimental class 2 using the think pair share method with the talking stick strategy, it can be seen that the highest score is in the 16-17 interval, which is equal to 20 students. The experimental class 2 has an average of 15.82 (79.08) with a standard deviation of 1.232 and the lowest score is 12 (60) while the highest score is 18 (90).

In the control class using the group discussion method, it can be seen that the highest score is in the 14-15 interval, which is equal to 20 students. The control class has an average of 15.44 (77.21) with a standard deviation of 1.143 and the lowest score is 12 (60) while the highest score is 18 (90).

3.2 Description of Knowledge Aspect Learning Outcomes

Data on learning outcomes in the knowledge aspect comes from the posttest scores which are carried out at the end of learning in each class, both the experimental class and the control class. with the Talking Stick strategy), then in the control class (using group discussions). The results are presented in the table below.

Table 2. Student Knowledge Aspects Learning Outcome Data

Class	Interval	f	%	Mean	Median	Min	Max
Experiment 1	11 – 12	1	2.78	20.69 (82,78)	22	11 (44)	24 (96)
	13 – 14	2	5.56				
	15 – 16	2	5.56				
	17 – 18	1	2.78				
	19 – 20	7	19.44				
	21 – 22	9	25.00				
	23 - 24	14	38.89				
Experiment 2	11 – 12	1	2.63	19.39 (77,60)	20	12 (48)	24 (96)
	13 – 14	3	7.89				
	15 – 16	2	5.26				
	17 – 18	5	13.16				
	19 – 20	14	36.84				
	21 – 22	7	18.42				
	23 - 24	6	15.79				
Control	11 – 12	1	2.94	18.11 (72,50)	18.5	11 (44)	22 (88)
	13 – 14	3	8.82				
	15 – 16	8	23.53				
	17 – 18	5	14.71				
	19 – 20	8	23.53				
	21 – 22	9	26.47				

In the experimental class 1 using the think talk write method with the talking stick strategy, it can be seen that the highest scores are in the 23-24 interval, namely 14 students. The experimental class 1 has an

average of 20.69 (82.78) with a standard deviation of 3.239 and the lowest score is 11 (44) while the highest score is 24 (96).

In the experimental class 2 using the think pair share method with the talking stick strategy, it can be seen that the highest score is in the 19-20 interval, which is equal to 14 students. The experimental class 2 has an average of 19.39 (77.60) with a standard deviation of 3,056 and the lowest score is 12 (48) while the highest score is 24 (96).

In the control class using the group discussion learning method, it can be seen that the highest score is in the 21-22 interval, which is equal to 9 students. The control class has an average of 18.11 (72.50) with a standard deviation of 2,938 and the lowest score is 11 (44) while the highest score is 22 (88).

3.3 Description of Skill Aspect Learning Outcomes

The data on the learning outcomes of the skills aspect comes from the results of observing the assessment carried out by the teacher on students when delineating the flow pattern of the river and by assessing the results of the delineation. 2 (using Think Talk Write with Talking Stick strategy), then in the control class (using group discussion). The results are presented in the table below.

Table 3. Data on Student Skills Aspect Learning Outcomes

Class	Interval	f	%	Mean	Median	Min	Max
Experiment 1	6 – 7	0	0.00	9.67 (80,56)	10	8 (66,67)	11 (91,67)
	8 – 9	15	41.67				
	10 – 11	21	58.33				
Experiment 2	6 – 7	1	2.63	9.34 (77,85)	9	7 (58,33)	11 (91,67)
	8 – 9	21	55.26				
	10 – 11	16	42.11				
Control	6 – 7	1	2.94	9.03 (75,25)	9	7 (58,33)	10 (83,33)
	8 – 9	26	76.47				
	10 – 11	7	20.59				

In the experimental class 1 using the think talk write method with the talking stick strategy, it can be seen that the highest scores are in the 10-11 interval, namely 21 students. The experimental class 1 has an average of 9.67 (80.56) with a standard deviation of 0.972 and the lowest score is 8 (66.67) while the highest score is 11 (91.67).

In the experimental class 2 using the think pair share method with the talking stick strategy, it can be seen that the highest scores are in the 8-9 interval, namely 21 students. The experimental class 2 has an average of 9.34 (77.85) with a standard deviation of 0.735 and the lowest score is 7 (58.33) while the highest score is 11 (91.67).

In the control class using the group discussion learning method, it can be seen that the highest score is in the 8-9 interval, which is equal to 26 students. The control class has an average of 9.03 (77.25) with a standard deviation of 0.664 and the lowest score is 7 (58.33) while the highest score is 10 (83.33).

Before carrying out the one-way ANOVA test (analysis of variance) and the ANOVA follow-up test, it is necessary to test the analysis prerequisites as the main requirements that must be met which include the normality test and variant homogeneity test from the cognitive value data from the posttest results. The prerequisite analysis test was carried out in experimental class 1, class experiment 2 and control class.

The normality test is used to test whether the sample is normally distributed or not. This test is called the normal distribution test in the population and is abbreviated as the population normality test. Normality test with the Liliefors method, in the Liliefors method with a significant level of 5% (α : 0.05) with the calculation process with the help of Microsoft Excel. The results of the normality test are shown in the table below.

Table 4. Normality Test Results

Data	Class	L price		
		L_{Count}	L_{Table}	Conclusion
Post test	Think Talk Write with TS	0.143	0.148	Normal
	Think Pair Share with TS	0.0881	0.144	Normal
	Group discussion	0.1174	0.152	Normal

To determine the normality of the data is done by reading the value of L count and compare it with L table. If L count < L table, it can be concluded that the data is normally distributed, but if L count > L table, it can be concluded that the data is not normally distributed. Based on the table above, information can be obtained that L count <L table in each class both experimental class 1, experimental class 1, experiment 2 and control

class, so that H0 is accepted and it can be concluded that the Think Talk Write Class with Talking Stick, Think Talk Class Pair Share with Talking Stick and Group Discussion Class come from a normal population.

Homogeneity test is used to measure whether the sample used is homogeneous or not. The homogeneity test of the variance is based on the Bartlett test with a significant level of 5% (α : 0.05%) in the control class, experimental class 1 and experimental class 2. The results of the normality test for the data on the posttest scores of students in each class are as follows.

Table 5. Homogeneity Test Results

Class	X^2_{obs}	X^2_{table}	Decision
Think Talk Write with TS Think Pair Share with TS Group discussion	1.8183	5.991	Homogen

To determine the homogeneity of the data, it is done by reading the value of X2obs and comparing it with X2table, if X2obs <X2table, it can be concluded that the data is homogeneous, but if X2obs > X2table, it can be concluded that the data is not homogeneous. Based on the table above, information can be obtained that X2obs<X2table is 1.8183 <5.991, so that H0 is accepted and it can be concluded that the experimental class 1 (TTW with TS), experimental class 2 (TPS with TS) and the control class (Group Discussion) homogeneous.

After the analysis prerequisite tests were carried out which included the normality test and homogeneity test of variance, then the one-way ANOVA test was carried out with a significant level of 5% (α: 0.05). The one-way ANOVA analysis was carried out to find out whether there was a different effect between the experimental class and the control class. Testing the hypothesis was carried out by testing the posttest results given to each experimental class group, namely experimental class 1 using the Think Talk Write cooperative learning model with the Talking Stick strategy, experimental class 2 using the Think Pair Share cooperative learning model with the Talking stick strategy and the group with the Talking Stick strategy. group discussion method.

The hypothesis used in one-way Anava is that there are differences in geography learning outcomes between the use of cooperative learning models of the think talk write type and the talking stick strategy, the think pair share type and the talking stick strategy and group discussions on the subject matter of inland waters and the potential of class X SMA students. N 1 Banyudono Academic Year 2016/2017. The results of the one-way Anava test are presented in the following table.

Table 6. One Way Anava Calculation Results

Variant Source	JK	dk	RK	F_{obs}	F_{table}
Method	123.7376	2			
Error	1043.225	105	61.86882	6.22706	3.08
Total	919.4877	107			

Based on the table above, it explains the results of the one-way analysis of variance test with the same cell. To make a decision, it is enough to compare the Fobs value with Ftable. From the table above, information can be obtained that Fobs is 6.22706 while Ftable is 3.08 (Fobs> Fα/6.22706> 3.08). So that H0 is rejected and it can be concluded that there is one average of geography learning outcomes that is different from the other averages. This means that there is an effect of differences in geography learning outcomes using cooperative learning models of the think talk write type with the talking stick strategy, the think pair share type with the talking stick strategy and group discussions. This proves that the first hypothesis states that there are differences in geography learning outcomes between the uses cooperative learning model think talk write type with talking stick strategy, think pair share type with talking stick strategy and group discussions on the subject matter of inland waters and their potential for class X students of SMA N 1 Banyudono 2016/2017 academic year.

The test results of the one-way analysis of variance are only to find out whether there is a different effect between the use of the treatment. Meanwhile, to find out whether there is a significant effect or not, it is necessary to carry out the Anava Scheffe further test. Scheffe's method resulted in counts with significant differences in the mean for each treatment with a different number of samples. Therefore, the Anava Scheffe follow-up test is used to prove the second, third and fourth hypotheses by looking at the average student learning outcomes to find out which learning method has a better effect on geography learning outcomes.

Table 7. Post Anova Test Results with the Scheffe Method

Xj	KK	KK	KE1
Xi	KE1	KE2	KE2
Average Xj	18.11765	18.11765	20.77778
Average Xi	20.77778	19.47368	19.47368
Nj	34	34	36

Ni	36	38	38
(Xi-Xj)^2	7.076295	1.838837	1.70066
RKG (XXXX)	0.568206	0.55368	0.537446
Q count	12.45376	3.321119	3.164339
F table	3.08	3.08	3.08
Decision	H0 rejected	H0 rejected	H0 rejected
Conclusion	Different	Different	Different

Based on Table 5, it describes the results of the post-anava test with the Scheffe method. To determine the post-Anova Scheffe test decision by comparing the Qobs value and the Fα value. Based on the table, it can be seen that the Fobs value is 3.164339 while the Fα value is 3.08, so Qobs > Fα, so that H0 is rejected, it can be concluded that the average geography learning outcomes using the cooperative learning model of the think talk write type with the talking stick strategy is better than the type think pair share with talking stick strategy. This is in line with the second hypothesis which states that the cooperative learning model of the think talk write type with the talking stick strategy is better than the think pair share type with the talking stick strategy for geography learning outcomes in the subject matter of inland waters and the potential of class X students of SMA N 1 Banyudono Academic Year 2016/2017.

Based on Table 6, it describes the results of the post-anava test with the Scheffe method. To determine the post-Anova Scheffe test decision by comparing the Qobs value and the Fα value. Based on Table 4.19, it can be seen that the Fobs value is 12.45376 while the Fα value is 3.08, so Qobs > Fα, so that H0 is rejected. It can be concluded that the average geography learning outcomes using the think-talk-write cooperative learning model with the talking stick strategy is better than group discussion. This is in line with the third hypothesis which states that the cooperative learning model of the think talk write type with the talking stick strategy is better than group discussions on the results of learning geography on the subject matter of inland waters and its potential for class X students of SMA N 1 Banyudono in the 2016/2017 academic year. .

Based on Table 7, it describes the results of the post-anava test with the Scheffe method. To determine the post-Anova Scheffe test decision by comparing the Qobs value and the Fα value. Based on Table 4.19, it can be seen that the Fobs value is 3.321119 while the Fα value is 3.08, so Qobs > Fα, so that H0 is rejected, it can be concluded that the average geography learning outcomes using the think pair share cooperative learning model with the talking stick strategy is better than the discussion group. This is in line with the fourth hypothesis which states that the cooperative learning model of the think pair share type with the talking stick strategy is better than group discussions on the results of learning geography on the subject matter of inland waters and its potential for class X students of SMA N 1 Banyudono in the 2016/2017 academic year.

The study aims to determine the effect of applying the Think Talk Write cooperative model and the Think Pair Share type with the Talking Stick strategy on the geography learning outcomes of class X SMA N 1 Banyudono in the 2016/2017 academic year on the subject matter of inland waters and their potential. The sample in this study was in class X IPS 2, class X IPS 4 and class X IPS 5 with treatment in class X IPS 2 as the experimental class 2 (using the think pair share method with the talking stick strategy), class X IPS 4 as the experimental class 1 (using the think talk write method with the talking stick strategy) and class X IPS 5 as the control class (using the group discussion method). Sampling is by random sampling or random sampling by way of a draw on all populations. In the first stage three classes were taken randomly and got class X IPS 2, X IPS 4 and X IPS 5, after that a draw was carried out again to determine the treatment for each class. The three classes produce different average scores of learning outcomes. The average score of learning outcomes is influenced by the treatment given, namely the learning method used in each class has its own characteristics.

It can be seen that the average learning outcomes in the experimental class 1 are better than the experimental class 2 and the control class. This is evidenced by testing the hypothesis. Hypothesis testing uses one way anava test (analysis of variance). Based on the calculation results, the F obs value is 6.22706 while the F table is 3.08 (Fobs > Fα/6.22706> 3.08), so H0 is rejected, thus it can be concluded that there is an effect of differences in geography learning outcomes between the use of cooperative models think talk write type with talking stick strategy, think pair share type with talking stick strategy and group discussion. This statement is in line with the first hypothesis which states that there are differences in geography learning outcomes between the use of the cooperative model of the think talk write type and the talking stick strategy, the think pair share type and the talking stick strategy and group discussions on the subject matter of inland waters for students of SMA N 1 Banyudono Year Lesson 2016/2017. This difference is because each learning method has different characteristics and has a different syntax.

Testing the analysis of variance (anava) has not yet been able to find out which treatment affects significantly different from one another. To find out which treatment has a significant influence, a post-anava test was carried out using the Scheffe' method on the three learning models. The post-anava test with the Scheffe' method was used on a different number of samples. So that the second, third and fourth hypotheses were tested

after ANOVA with the Scheffe' method to find out which learning model is better for geography learning outcomes.

The second hypothesis testing was carried out by comparing the average learning outcomes of students between cooperative learning models of the think talk write type with the talking stick strategy and the think pair share type with the talking stick strategy. The Scheffe' test results show that the Qobs value is 3.164339 while the Fα value is 3.08, so Qobs > Fα, so that H0 is rejected, so that the average geography learning result using the cooperative learning model of the think talk write type with the talking stick strategy has a better effect than the type think pair share with talking stick strategy. This is in line with the second hypothesis which states that the cooperative learning model of the think talk write type with the talking stick strategy is better than the think pair share type with the talking stick strategy for geography learning outcomes in the subject matter of inland waters and the potential of Class X students of SMA N 1 Banyudono 2016/2017 Academic Year. Based on the scores of students' learning outcomes, it can be seen that the experimental class 1 (X IPS 4) uses the cooperative learning model treatment of the think talk write type with the talking stick strategy has an average score of 20.69 while in the experimental class 2 (X IPS 2) uses the cooperative model the think pair share type with the talking stick strategy has an average score of 19.39. Thus the difference in the mean score between the two is 1.3. This shows that the average score of students' geography learning outcomes using the think talk write cooperative learning model with the talking stick strategy is better than the geography learning outcomes scores of students using the think pair share cooperative model with the talking stick strategy. In addition, the skills aspect in experimental class 1 has an average score of 9.67 while the experimental class 2 has an average score of 9.34, so that the average score of skills in experiment 1 is higher than experiment 2 as well as the attitude aspect in experimental class 1 has an average score higher than the experimental class 2 which is equal to 16.81 while the experimental class 2 has an average score of 15.82. This is because the think talk write learning model provides opportunities for students to work in groups (56 students) but each individual has their own responsibility for the results of their own work which will be done independently from the results of discussions with their group, then with the talking strategy This stick encourages each student to always be ready for ongoing learning and makes the learning atmosphere more interesting and not monotonous. Meanwhile, using the think pair share cooperative model with the talking stick strategy is a type of cooperative learning designed to influence student interaction patterns. In discussions, however, this model is teamwork in which the final reporting results of the discussion are group in nature, this model only prioritizes interactions between the two students.

Next is testing the third hypothesis. Testing the third hypothesis was carried out by comparing the average score of learning outcomes in the experimental class 1 using the think talk write cooperative learning model with the talking stick strategy and group discussions. Based on the calculation results, the Qobs value is 12.45376 while the Fα value is 3.08, so Qobs > Fα, so that H0 is rejected. Thus it can be concluded that the average geography learning result using the cooperative learning model of the think talk write type with the talking stick strategy is better than the group discussion . This is in line with the third hypothesis which states that the cooperative learning model of the think talk write type with the talking stick strategy is better than group discussions on the results of studying geography on the subject matter of inland waters and its potential for class X students of SMA N 1 Banyudono in the 2016/2017 academic year. . Based on the average score of students' geography learning outcomes, it can be seen that the experimental class 1 (X IPS 4) uses the think talk write type cooperative learning model with the talking stick strategy has an average score of 20.69 while the control class (X IPS 5) uses the Group discussions have an average score of 18.12. Thus the difference in the average score between the two is 2.57. Thus it can be concluded that the average score of learning outcomes in the experimental class 1 is better than the control class, this is because the cooperative learning model of the think talk write type with the talking stick strategy in the ongoing learning process provides opportunities for students to work in groups (5- 6 students) but each individual has their own responsibility for the results of their own work which will be done independently from the results of discussions with their group, then with the talking stick strategy encourages each student to always be ready in learning that takes place well to accept teacher questions and present the results. Whereas in the group discussion method, learning is more focused on group discussions so that students experience dependence on their group mates causing these participants to be less independent and less prepared in learning. In addition, the skill aspect in the experimental class 1 has an average score of 9.67 while the control class has an average score of 9.03, so that the average skill score in experiment 1 is higher than the control class as well as the attitude aspect in the experimental class 1 has a higher average score. higher than the control class which is equal to 16.81 while the control class has an average score of 15.44.

Testing the fourth hypothesis was carried out by comparing the average score of learning outcomes in the experimental class 2 using the think pair share cooperative learning model with the talking stick strategy and group discussions. Based on the calculation results, the Qobs is 3.321119 while the Fα value is 3.08, so Qobs > Fα, so H0 is rejected. It can be concluded that the average geography learning outcomes using the think pair share cooperative learning model with the talking stick strategy is better than group discussions. This is in line with the third hypothesis which states that the cooperative learning model of the think pair share type with the talking stick strategy is better than group discussions on the results of learning geography on the subject matter

of inland waters and its potential for class X students of SMA N 1 Banyudono in the 2016/2017 academic year. . Based on the average score of student geography learning outcomes, it can be seen that the experimental class 2 (X IPS 2) uses the think pair share cooperative learning model treatment with the talking stick strategy has an average score of 19.38 while the control class (X IPS 5) uses the group discussion method has an average score of 18.12. Thus the difference in the average score between the two is 1.22. Thus it can be concluded that the average score of learning outcomes in the experimental class 2 is better than the control class, this is because the cooperative learning model of the think pair share type with the talking stick strategy in the learning process is better with fewer discussion groups or only 2 students so that the discussion process is maximized, then with the talking stick strategy it encourages each group to always be ready for learning that takes place both by receiving teacher questions and presenting the results. Whereas in the group discussion method, learning is more focused on group discussions, in ongoing learning there are many students who are not active in the continuation of the discussion and only depend on the group leader or other members, so that students experience dependence on their group mates causing these participants to be less independent and less prepared in learning. In addition, the skill aspect in the experimental class 2 has an average score of 9.34 while the control class has an average score of 9.03, so that the average skill score in experiment 2 is higher than the control class as well as the attitude aspect in the experimental class 1 has a higher average score. higher than the control class, which is equal to 15.82, while the control class has an average score of 15.44.

It can be concluded that the think talk write cooperative learning model with the talking stick strategy and the think pair share cooperative learning model with the talking stick strategy provide a different average from the group discussion model, this is because the two models are more interesting than the group discussion model so that the three models it has a difference. This is because each given learning model has different characteristics so that it has an influence on learning outcomes.

4. CONCLUSION

Based on the results of data analysis and discussion of the results of the research data that has been described, it can be seen and concluded that: there are differences in geography learning outcomes between the use of cooperative learning models of the think talk write type with the talking stick strategy, the think pair share type with the talking stick strategy and group discussions; The cooperative learning model of the think talk write type with the talking stick strategy (20.69) is better than the think pair share type with the talking stick strategy (19.39) for the results of learning geography on the subject matter of inland waters and the potential of class X IPS SMA students N 1 Banyudono Academic Year 2016/2017; The cooperative learning model of the think talk write type with the talking stick strategy (19.39) is better than group discussions (18.12) on the results of learning geography on the subject matter of inland waters and its potential for class X IPS students at SMA N 1 Banyudono in the 2016 academic year /2017; The cooperative learning model of the think pair share type with the talking stick strategy (19.39) is better than group discussions (18.12) on the results of learning geography on the subject matter of inland waters and its potential for class X IPS students at SMA N 1 Banyudono in the 2016 academic year /2017.

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