



## The Effect of Two Stay-Two Stray Cooperative Learning Methods and Think Pair Share on Student Learning Outcomes of Geography

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### ABSTRACT

**Purpose of the study:** The purpose of this study was to find out: 1) differences in student learning outcomes of Geography after using the Two Stay Two Stray, Think Pair Share and Discussion learning methods. 2) differences in Geography learning outcomes for students after using the Two Stay Two Stray and Discussion learning methods. 3) differences in student learning outcomes of Geography after using the Think Pair Share learning method with Discussion. 4) differences in student learning outcomes of Geography after using the Two Stay Two Stray and Think Pair Share learning methods in (material Distribution of Natural Disaster Prone Areas in Indonesia)

**Methodology:** This study uses a Quasi-Experimental research method with the design "Posttest-Only Control Group Design". The population in this study were all class X social studies students at senior high school. Samples were taken using the Cluster Random Sampling technique. The technique of collecting data on learning outcomes uses a test technique in the form of essay questions. The data analysis technique used was One Way Anava and post Anava test (Scheffe' method) with a significance level of 5%.

**Main Findings:** The results of the study show that: (1) there are differences in the learning outcomes of Geography students who use the Two Stay Two Stray, Think Pair Share, and Discussion learning methods with the acquisition of  $F_{obs} > F_{\alpha}$  scores; (2) the learning outcomes of Geography using the Two Stay Two Stray learning method are better than the Discussion learning method; (3) the learning outcomes of Geography using the Think Pair Share learning method are better than the Discussion learning method; (4) the learning outcomes of Geography using the Two Stay Two Stray learning method are better than the Think Pair Share learning method. Based on these data, it can be seen that the learning method that has the greatest influence is the Two Stay Two Stray method, followed by the Think Pair Share method, and the Discussion method.

**Novelty/Originality of this study:** The novelty of this study is to know the effect of the two stay-two stray cooperative learning method and think pair share on student geography learning outcomes so that it can be input material for teachers and students.

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## 1. INTRODUCTION

Education is important to lead a nation towards a better civilization [1]–[3]. Such education can be a tool for building quality human resources [4], [5]. A nation has better dignity in the eyes of the world if it has quality education.

Teaching and learning activities or often called learning activities are activities that teach students to use educational principles and learning theories [6], [7]. In teaching and learning activities there is a two-way communication process, namely the teacher as the party who teaches while the students as the party who learns. The teacher as the party who teaches here has a very vital role in teaching and learning activities. Teachers as educators must strive to improve their quality so that they are able to teach their students well [8], [9]. With the good quality of teaching staff, it is hoped that the quality of education will also be good so that the development of the potential of the participants can run optimally.

Geography lessons in their application to learning activities encountered a number of problems which resulted in less than optimal student learning outcomes, especially in the activeness of students, even though in the 2013 curriculum students were required to be active in class learning, but the real conditions in class often what happened was precisely the learning centered on the teacher and does not spur student activity. In classroom learning, each material delivered has a different nature, when a teacher chooses the wrong method to be used to deliver the material it can make students easily bored when attending lessons. An example of the material "Mitigation and Adaptation to Natural Disasters" especially in the material "Distribution of Natural Disaster Prone Areas in Indonesia". This material is new material in the 2013 Curriculum, which is given to class X students in the even semester, as one of the new materials Natural Disaster Mitigation and Adaptation is an interesting material because it is very suitable when included in school learning, considering that Indonesia is one of the countries that has a fairly high disaster vulnerability. The knowledge dimension in this material is dominantly conceptual but also leads to factual, meaning that in classroom learning the teacher must teach material based on the concept of disasters and facts from natural disaster phenomena that have occurred in Indonesia. With differences in the nature of the material from one material to another, a teacher must choose a learning method that is able to convey the material well.

The learning method is the method used by the teacher to convey learning to students. Choosing the right method can result in fun learning activities and easier delivery of material. Adjusting to the nature of the material "Mitigation and Adaptation of Natural Disasters", especially in the material "Prone Distribution of Natural Disasters in Indonesia, two suitable methods are the Two Stay Two Stray method and the Think Pair Share method. Through the application of these two methods, teachers can use the media of disaster distribution maps and ask students to discuss according to the syntax of each method.

The Two Stay-Two Stray learning method is a learning method with a group system where there is a division of roles in it [10]. In this method the role in the group is divided into two, namely the role of the host who is in charge of conveying the results of the discussion to other groups and the role of the guest who is tasked with receiving the results of other group discussions. With this role in the group, the Two Stay-Two Stray learning method aims to enable students to work together, be responsible, help each other solve problems, and encourage one another.

The Think Pair Share method is a method that was first developed by Frank Lyman and colleagues at the University of Maryland. The Think Pair Share method is applied through pair discussions which are followed by plenary discussions [11]. In its implementation for material on the distribution of natural disasters in Indonesia, students are asked to discuss the distribution of natural disasters in Indonesia and their causes and consequences in pairs, then each pair is asked to present the results of their discussion to other groups.

From the two methods described above, it can be seen that the two learning methods are able to help students to understand a problem that is factual and the concepts that underlie the causes of disasters in the region through discussion forums. Even though they are both in group learning, these two methods have differences, namely in terms of how to discuss. In the Think Pair Share method, students discuss in pairs in groups while the Two Stay – Two Stray method discusses by visiting other groups. Through the application of these two learning methods, it is hoped that students' thinking skills can develop so that factual and conceptual material can be conveyed properly. So that student learning outcomes can be obtained as much as possible.

## 2. RESEARCH METHOD

The research method used in this study is an experimental research method. The type of experimental research used is Quasi Experiment. For the research design applied to this research is posttest only. This design uses three randomly selected groups. The first two groups were given treatment in this study in the form of applying the Two Stay-Two Stray and Think Pair Share methods to each method. While the remaining group did not receive treatment, which in this study did not carry out treatment, meaning only using a learning method that is already plural and is commonly used in learning at school, namely the discussion method.

The research was conducted at senior high school Class X. The population is defined as the group of subjects who wish to generalize the results of the research [12]–[14]. The population in this study were all X classes at senior high school which were divided into 4 classes, namely X 1, X 2, X 3, and X 4 classes. The sample is part of the population [15] –[17]. The samples in this study were three classes from class X at senior high school, namely class X 2, X 3, and X 4.

The instruments in this study were arranged in a relevant manner, namely relevant to the research variables and data collection methods. The instruments used in this study were syllabus, lesson plans, materials, question papers, questions, and assessment rubrics. In accordance with the syllabus, the RPP is held in one meeting. The achievement of lesson plans was assessed through observation sheets assisted by 3 observers, and to measure the success of learning, tests were carried out on aspects of knowledge in the form of formative tests. Assessment on other aspects such as skills, social and spiritual uses another assessment sheet. The form of the test used is an Essay to measure all indicators of achievement of learning outcomes in learning material Distribution of Natural Disaster Prone Areas in Indonesia on the cognitive aspect.

Data analysis techniques in this study used descriptive statistics and inferential statistics. Descriptive analysis technique is a type of data analysis that is intended to reveal or describe the circumstances or characteristics of each research variable [18]–[20]. The inferential analysis technique used in this study is one-way analysis of variance. However, before testing the hypothesis, a prerequisite analysis test is carried out, namely by carrying out a normality test and a variance homogeneity test.

### 3. RESULTS AND DISCUSSION

This research is entitled "The Influence of Teacher Pedagogic Competence and Learning Facilities on Student Learning Outcomes in the State Economics Subject. Consists of two independent variables (independent) and one dependent variable (dependent). The variables are as follows:

The research data were obtained from the learning outcomes data of students in the cognitive domain in the material on the Distribution of Natural Disasters in Indonesia. Data on learning outcomes in the cognitive domain were obtained from a written test in the form of a description (essay) of 10 items conducted at the end of the first meeting. The questions used cover aspects C2 to C5. The data were obtained from three classes with a total sample of 98 students consisting of 32 students in class X 2 as a control class, 33 students in class X 3 as an experimental class 1, and 33 students in class X 4 as a class experiment 2. Class X 2 as the control class received treatment in the form of applying the Discussion method, class X 3 as the experimental class 1 received treatment in the form of the Two Stay Two Stray method, and class X 4 as the experimental class 2 received treatment in the form of application of the Think Pair method Share.

Research data in the form of data on student learning outcomes in the Two Stay Two Stray class is presented in the following table.

Table 1. Data on Learning Outcomes of Class Two Stay Two Stray Students

Interval	Mean	Frequency	Percentage
69,5-74,5	72	4	12.12%
74,5-78,5	77	4	12.12%
78,5-83,5	81	5	15.15%
83,5-87,5	86	7	21.21%
87,5-92,5	90	9	27.27%
92,5-96,5	95	3	9.09%
96,5-100	99	1	3.03%
Amount		33	100%
Means		85	
Median		88	
Maximum Value		98	
Minimum Value		70	

Based on the table above, it can be seen that the distribution of learning outcomes data for Class Two Stay Two Stray students. Through the application of the Two Stay Two Stray learning method in class X 3 at senior high school, the highest frequency of grades was in the value interval of 87.5-92.5, with a total of 9 students. The average score obtained in the Two Stay Two Stray class reaches 85 with a median value of 88, and has a minimum value of 70 and a maximum value of 98.

Research data in the form of student learning outcomes in the Think Pair Share class are presented in the following table.

Table 2. Data on Learning Outcomes of Think Pair Share Class Students

Interval	Mean	Frequency	Percentage
52,5-59,5	56	1	3.03%
59,5-66,5	63	2	6.06%
66,5-73,5	70	4	12.12%
73,5-80,5	77	9	27.27%
80,5-87,5	84	11	33.33%
87,5-94,5	91	4	12.12%
94,5-100	98	2	6.06%
Amount		33	100%
Means			80
Median			81
Maximum Value			95
Minimum Value			53

In the table above, it can be seen that the distribution of data on student learning outcomes in the Thing Pair Share Class. Through the application of the Thing Pair Share learning method in class X 4 at senior high school, the highest frequency of scores was in the value interval of 80.5-87.5, with a total of 11 students. The average score obtained in the Think Pair Share class reaches 80 with a median value of 81, and has a minimum value of 53 and a maximum value of 95.

The results of the research in the form of data on student learning outcomes in the Discussion class are presented in the following table.

Table 3. Data on Learning Outcomes of Discussion Class Students

Interval	Mean	Frequency	Percentage
59,5-65,5	63	6	18.75%
65,5-70,5	68	4	12.50%
70,5-76,5	74	4	12.50%
76,5-81,5	79	10	31.25%
81,5-87,5	85	5	15.63%
87,5-92,5	90	1	3.13%
92,5-100	96	2	6.25%
Amount		32	100%
Means			76
Median			78
Maximum Value			93
Minimum Value			60

In the table above, it can be seen that the distribution of learning outcomes data for Discussion Class students. Through the application of the Discussion learning method to class X 2 at senior high school, the highest frequency of grades was in the 70.5-81.5 score interval, with a total of 10 students. The average value obtained in the Discussion class reaches 76 with a median value of 78, and has a minimum value of 60 and a maximum value of 93.

Before the Anava test is carried out, there are prerequisite tests that must be fulfilled, namely the normality test and homogeneity test. The normality test aims to ensure that the samples taken come from a normal distribution, and the homogeneity test aims to ensure that the samples taken are homogeneous.

The normality test is one of the prerequisite tests before the Anava test is carried out. Through this normality test it will be known whether the sample taken comes from a normal distribution or not, if indeed the data is normally distributed then the data is considered capable of representing the population [21]–[23]. In this study the normality test was carried out using the Liliefors method with a significant level of 5%. The following are the results of the normality test for the Posttest data for each class.

Table 4. Posttest Data Normality Test Results

Data	Class	L price		Conclusion
		L count	L table	
Posttest	Two Stay Two Stray	0.0607	0.1542	Normal
	Think Pair Share	0.0688	0.1542	
	Discussion	0.0942	0.1565	

Determination of data normality is done by comparing the results of L count and L table, if L count < L table then the data is normally distributed, and if L count > L table then the data is not normally distributed. Based on the results of the normality test above, it can be seen that the data in the Two Stay Two Stray Class, the Think Pair Share Class and the Discussion Class are normally distributed because the L count for all classes is smaller than the L table.

The homogeneity test is one of the other prerequisite tests that must be carried out before the Anava test, which aims to determine whether the variant of the data used is homogeneous or not. In this study the homogeneity test was carried out using the Bartlett method with a significance level of 5%. A summary of the results of the variant homogeneity test can be seen in the following table.

Table 5. Variance Homogeneity Test Results

Data	Class	Harga $X^2$		Conclusion
		$X^2$ count	$X^2$ table	
Postest	Two stay Two Stray Think Pair Share Discussion	1,0022	5,991	Homogen

Determination of data homogeneity is done by comparing the value of  $X^2_{obs}$  and the value of  $X^2_{table}$ . If  $X^2_{obs} < X^2_{table}$ , then the data is homogeneous, but if the value of  $X^2_{obs} > X^2_{table}$  then the data is not homogeneous. From the results of the calculation of the homogeneity test that has been carried out, the value of  $X^2_{obs}$  is 1.0022 and the value of  $X^2_{table}$  is 5.991, so that when compared, the results of  $X^2_{obs} < X^2_{table}$ , thus it can be concluded that the sample data taken are homogeneous.

After the two prerequisite tests are met, then the hypothesis test is carried out. In this study, the hypothesis test used was a one-way analysis of variance (anava) test, followed by a post-anava test using the Scheffe' method.

In the first hypothesis test, the analysis used was a one-way analysis of variance (ANOVA) test. Anava test is used to test whether there are differences in the effect of treatment on the dependent variable. One-way anava results can be seen in the following table.

Table 6. One-way Anava calculation results

Source	JK	dk	RK	Fobs	F $\alpha$
Method	1244.9308	2	622.4654	7.8814	3.0902
Error	7502.9697	95	78.9786	-	-
Total	8747.9005	97	-	-	-

In determining the results of the calculated one-way Anava test, it is necessary to make a comparison between the Fobs value and the F $\alpha$  value, provided that if Fobs < F $\alpha$  then H0 is accepted and if Fobs > F $\alpha$  then H0 is rejected. From the results of the anava calculations shown in the table above, the Fobs is 7.8814, while the F $\alpha$  value is 3.0902, thus the results obtained show that the Fobs value > F $\alpha$ . This proves that there are differences in the learning outcomes of students who use the Two Stay Two Stray, Think Pair Share, and Discussion learning methods.

To get more specific test results, it is necessary to do a post-anava test, namely the Scheffe' method. The use of the Scheffe method was chosen because the number of students in each class was different. while the summary of the results of the post-anava test calculations can be seen in the table below.

Table 7. Post Anava Test Results with the Scheffe Method

Xi	Two Stay Two Stray	Think Pair Share	Two Stay Two Stray
Xj	Discussion	Discussion	Think Pair Share
Mean Xi	85	85	80
Mean Xj	76	76	85
Ni	33	33	33
Nj	32	32	33
$(Xi - Xj)^2$	76.5625	17.8058	20.5236
$RKG (\frac{1}{ni} + \frac{1}{nj})$	3.7598	3.7598	3.7019
F count	16.234	3.7755	4.2877
F table	3.0902	3.0902	3,0902
Test Decision	Ho was rejected	Ho was rejected	Ho was rejected
Conclusion	Different (Better)	Different (Better)	Different (Better)

In the table above the Fobs value from the Scheffe test calculation between the results of learning Geography using the Two Stay Two Stray and Discussion learning methods is 16.234, while the Fa value is 3.0902. Based on these calculations, the results obtained by comparing the Fobs and Fa values are Fobs > Fa (16.234 > 3.0902). This proves that the first hypothesis is rejected and the second hypothesis is accepted, meaning that the learning outcomes of Geography using the Two Stay Two Stray learning method are better than the Discussion learning method, in class X students at senior high school.

In table 6 above the Fobs value from the Scheffe test calculation between the results of learning Geography using the Think Pair Share and Discussion learning method is 3.7755, while the Fa value is 3.0902. Based on these calculations, the results obtained by comparing the Fobs and Fa values are Fobs > Fa (3.7755 > 3.0902). this proves that the first hypothesis is rejected and the second hypothesis is accepted, meaning that the results of learning Geography using the Think Pair Share learning method are better than the Discussion learning method, in class X students at senior high school.

In table 6 above the Fobs value from the Scheffe test calculation between the results of learning Geography using the Two Stay Two Stray and Discussion learning methods is 4.2877, while the Fa value is 3.0902. Based on these calculations, the results obtained by comparing the Fobs and Fa values are Fobs > Fa (4.2877 > 3.0902). this proves that the first hypothesis is rejected and the second hypothesis is accepted, meaning that the learning outcomes of Geography using the Two Stay Two Stray learning method are better than the Think Pair Share learning method, in class X IPS students at SMA Negeri 1 Sukoharjo in the 2015/2016 academic year .

This study aims to determine the effect of the application of the Two Stay Two Stray, Think Pair Share, and Discussion learning methods on the learning outcomes of Geography in the material on the Distribution of Natural Disaster Prone Areas in Indonesia. The population used in this study were students of class X at senior high school. The number of samples taken was 3 classes, namely class X 2, class X 3, class X 4, with a total of 98 students. Class X 2 with a total of 32 students became the control class and received treatment in the form of applying the Discussion learning method. Class X 3 with a total of 33 students became experimental class 1 and received treatment in the form of applying the Two Stay Two Stray learning method. And class X 4 with a total of 33 became experimental class 2 and received treatment in the form of applying the Think Pair Share learning method. The determination of each class in this study was carried out in two stages, the first stage was the drawing of 4 classes and selecting 3 classes to be the research samples. The selection can be made randomly because in class X students are considered to be still in the same range. After the first stage was carried out, then a second stage of drawing was carried out to determine the control class, experimental class 1, and experimental class 2. The three classes that were given treatment produced an average value of different learning outcomes. The difference in average scores is strongly influenced by the learning method used. A treatment is said to be influential if there is a difference in the average value after being tested.

The first hypothesis was tested using one way analysis of variance (ANOVA). Based on the test results obtained, it is known that the Fobs value > Ftable (7.8814 > 3.0902), from these results the decision that can be made is that H0 is rejected. The conclusion from this decision is that there are significant differences in students' Geography learning outcomes between the application of the Two Stay Two Stray, Think Pair Share and Discussion learning methods. Differences in student geography learning outcomes in each learning method

indicate a different effect on the application of each learning method on student geography learning outcomes. The influence given by each learning method varies due to the character of each learning method which is different with the advantages and disadvantages of each.

The one-way ANOVA test that has been carried out has not been able to show a significant difference from one learning method to another, so that in order to find out which method is more influential, it is necessary to do a post-ANOVA test using the Scheffe' method. The Scheffe' method is used because the average number of samples taken is different, thus, testing the second, third, and fourth hypotheses is carried out using the Scheffe' method to find out which learning method has more influence on student learning outcomes in Geography. average score of learning outcomes.

The second hypothesis test was carried out by comparing the learning outcomes of students who received treatment in the form of applying the Two Stay Two Stray and Discussion learning methods. The results of the Scheffe' test show that the Fobs value  $>$  Ftable ( $16.234 > 3.0902$ ). Based on these results, the decision that can be taken is that  $H_0$  is rejected, so it can be interpreted that the application of the Two Stay Two Stray learning method has a better effect when compared to the application of the Discussion method, on student learning outcomes. Based on the learning outcomes of Geography students, it is known that the average experimental class1 (X IPS 3) using the Two Stay Two Stray learning method is 85, while the control class (X IPS 2) using the Discussion learning method has an average value of 76, from the average value of the two it is known that the average difference between the two is 9.

The learning outcomes in the cognitive domain are comparable to the learning outcomes of students in the affective and psychomotor domains. Based on the assessment in the affective domain, through two assessments, namely social attitudes and spiritual attitudes, the average value of students in the Two Stay Two Tray class: Discussion is 3.65: 3.46, based on this assessment, students using the Two Stay learning method The Two Tray has a better average attitude value, in this assessment the attitude value is seen from activeness, independence, behavior towards friends, group cooperation, and behavior when praying. Comparison of values from the psychomotor domain between Two Stay Two Tray classes: Discussion of 3.36: 3.23, based on this assessment it can be seen that the application of the Two Stay Two Tray method is more able to foster skills in students, pricomotor assessment includes opinion skills, composing skills discussion material, and skills in delivering discussion material.

The Two Stay Two Stray learning method has proven to have a better effect when compared to the Discussion learning method, this is of course inseparable from the advantages of the Two Stay Two Tray learning method, namely:

- a) Provide free space for students to play an active role in learning through analysis and completion of group worksheets.
- b) Opening students' insights through visiting activities, so that the knowledge gained is not only from the group but also the results of discussions from other groups.
- c) Train students to be more active in arguing, both in group discussions and in visiting activities with other groups.
- d) Learning activities experienced by students are more intense with group discussion activities, visiting activities and presentations.

The third hypothesis test was carried out by comparing the learning outcomes of students who received treatment in the form of applying the Think Pair Share and Discussion learning method. The results of the Scheffe' test show that the Fobs value  $>$  Ftable ( $3.7754 > 3.0902$ ). Based on these results, the decision that can be taken is that  $H_0$  is rejected, so it can be interpreted that the application of the Think Pair Share learning method has a better effect when compared to the application of the Discussion method, on student learning outcomes. Based on the learning outcomes of Geography students, it is known that the average experimental class2 (X IPS 4) using the Think Pair Share learning method is 80, while the control class (X IPS 2) using the Discussion learning method has an average score of 76. from the average value of the two, it is known that the average difference between the two is 4.

The learning outcomes in the cognitive domain are comparable to the learning outcomes of students in the affective and psychomotor domains. Based on an assessment in the affective domain, through two assessments, namely social attitudes and spiritual attitudes, the average score of students in the Think Pair Share: Discussion class was 3.45: 3.46. Based on this assessment, students who use the Think Pair Share learning method have a better average attitude value. In this assessment, the attitude value is seen from activeness,

independence, behavior towards friends, group cooperation, and behavior when praying. Comparison of values from the psychomotor domain between the Think Pair Share class: Discussion of 3.34: 3.23, based on this assessment it can be seen that the application of the Think Pair Share method is more able to foster skills in students, psychomotor assessment includes opinion skills, skills in compiling discussion material, and skills in delivering discussion material.

The Think Pair Share learning method has proven to have a better effect when compared to the Discussion learning method, this is of course inseparable from the advantages of the Think Pair Share learning method, namely:

- a) Provide free space for students to play an active role in learning through analysis and completion of group worksheets, so that students can construct knowledge individually.
- b) Learners play an active role in learning.
- c) Sharing activities with peers makes the learning atmosphere more conducive.
- d) Students exchange information through presentation activities so that they receive information from the discussion results of other pairs, both those who have the same or different topics.
- e) The time required for the Think Pair Share learning method is more efficient.

The second hypothesis test was carried out by comparing the learning outcomes of students who received treatment in the form of applying the Two Stay Two Stray and Think Pair Share learning methods. The results of the Scheffe' test show that the Fobs value  $>$  Ftable ( $4.2877 > 3.0902$ ). Based on these results, a decision can be interpreted that the application of the Two Stay Two Stray learning method has a better effect when compared to the application of the Think Pair Share learning method, on student learning outcomes of Geography. Based on the learning outcomes of Geography students, it is known that the average experimental class 1 (X IPS 3) which uses the Two Stay Two Stray learning method is 85, while the experimental class 2 (X IPS 4) which uses the Think Pair Share learning method has an average a value of 80, from the average value of the two it is known that the average difference between the two is 5.

The learning outcomes in the cognitive domain are comparable to the learning outcomes of students in the affective and psychomotor domains. Based on the assessment in the affective domain, through two assessments, namely social attitudes and spiritual attitudes, the average score of students in the Two Stay Two Tray class: Think pair Share is 3.65: 3.54, based on this assessment, students using the learning method Two Stay Two Tray has a better average attitude value, in this assessment the attitude value is seen from activeness, independence, behavior towards friends, group cooperation, and behavior when praying. The comparison of values from the psychomotor domain between the Two Stay Two Tray: Think pair Share class is 3.36: 3.34, based on this assessment it can be seen that the application of the Two Stay Two Tray method is more able to foster skills in students, psychomotor assessment includes opinion skills, skills in compiling discussion material, and skills in conveying discussion material.

The Two Stay Two Stray learning method has proven to have a better effect when compared to the Think Pair Share learning method, this is of course inseparable from the advantages of the Two Stay Two Stray learning method, namely:

- a) Learners are more independent in building their understanding of the material through completing group worksheets.
- b) Opening students' insights through visiting activities, so that the knowledge gained is not only from the group but also the results of discussions from other groups.
- c) Train students to be more active in arguing, both in group discussions and in visiting activities with other groups.
- d) Learning activities experienced by students are more intense with group discussion activities, visiting activities and presentations.

The final decision from the results of the second, third and fourth hypothesis testing using the Scheffe' method shows that the Two Stay Two Stray learning method is better than the Think Pair Share and Discussion learning method, while the Think Pair Share learning method is better than the Discussion learning method, on the results learn Geography students. These results are in line with the conclusions drawn from Istirokah's research (2013) entitled Application of the Two Stay Two Stray (TSTS) Model in Improving Learning Outcomes through Basic Competence in Identifying Office Administration Personnel Requirements for Class X AP Students at Cut Nya' Dien Vocational High School Semarang. Based on the results of this study, the Two Stay Two Stray learning method was able to improve better learning outcomes in class X AP students at Cut Nya' Dien Vocational High School Semarang in the 2012/2013 academic year with an average score of 71 in the first



cycle and 80 in the second cycle. second. Meanwhile, based on other research, the Think Pair Share learning method is also able to improve student learning outcomes, but the average obtained is not too high. These results are an overview of Permitasari Febri's research entitled Application of the Think Pair Share Learning Model Based on Critical Thinking Skills to Improve Student Learning Outcomes in Class VII. In this study, the average student learning outcomes in cycle 1 was 67.42, while in cycle 2 it was 71.82.

There are differences in the influence of the application of each learning method on student learning outcomes Geography due to the differences in character and the advantages and disadvantages of each learning method. The Two Stay Two Stray learning method with the advantage of more intense learning activities through 3 stages of information absorption, namely small group discussions, guest group discussions, and presentations. With these 3 processes of absorption of information, students not only add to the information received, but are also trained to be more independent and straightforward in expressing opinions. On the other hand, in the Think Pair Share learning method, students are trained to be more independent by building their understanding through completing worksheets independently, and also holding discussion sessions with peers so that students can complement each other's information. At the end of the learning activity, a presentation session is held, so that students can present the results of their discussions, so that the information obtained increases. Unlike the two previous methods in the Discussion learning method, students carry out two stages of absorbing information, the first is through discussion, and the second is through presentations. From these two stages, students explore information in groups with the teacher's guidance.

In the application of the three learning methods, the teacher gives nuances of geography to teaching and learning activities. In each problem given to students, the solution point of view presented must be based on a geographical point of view. The obstacles encountered in the application of the three learning methods were the lack of time efficiency when forming groups, visiting activities and presentations, as well as student noise that occurred due to discussion and presentation activities.

This study shows that there are differences in learning outcomes of Geography in the application of the Two Stay Two Stray, Think Pair Share and Discussion learning methods. The Two Stay Two Stray learning method has a better effect, so it is more effective than the Discussion learning method, the Think Pair Share learning method has a better effect so it is more effective than the Discussion learning method, and the Two Stay Two Stray learning method has a better effect so it is more effective than the learning method Think Pair Share, on the material "Distribution of Natural Disaster-Prone Areas in Indonesia". The conclusion shows that learning Geography using the Two Stay Two Stray and Think Pair Share learning methods has a significant influence on the learning outcomes of Geography X students. Research related to learning using the Two Stay Two Stray and Think Pair Share learning methods can also be used as a basis for developing further research on other subject matter Geography learning.

Practically learning using the Two Stay Two Stray and Think Pair Share learning methods can be applied in Geography learning to improve student Geography learning outcomes in the material "Distribution of Natural Disaster Prone Areas in Indonesia".

#### 4. CONCLUSION

Based on the research results, the conclusions that can be put forward in this study are: 1) There are differences in the application of the Two Stay Two Stray, Think Pair Share and Discussion learning methods to the learning outcomes of Geography class X students on the material. 2) The application of the Two Stay Two Stray learning method is better when compared to the Discussion learning method on the results of learning Geography for class X students in the sub-material. 3) The application of the Think Pair Share learning method is better when compared to the Discussion learning method on the results of learning Geography for class X students in the sub-material at senior high school. 4) The application of the Two Stay Two Stray learning method is better when compared to the Think Pair Share learning method on the learning outcomes of Geography class X students in the sub-material.

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