

THE INFLUENCE OF THINK, PAIR AND SHARE LEARNING AND THE ATTITUDE TOWARD COLLABORATIVE SKILLS ON STUDENTS OF JUNIOR HIGH SCHOOL

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ABSTRACT

Collaborative skills are one of the capabilities needed in the current era, because humans are required to work collectively or in teams. Working in teams is not an easy thing to do, because working in a team requires good cooperation skills. Collaborative skills are not innate or inherited skills from parents, but collaborative skills are obtained from the process of interaction with others. This study uses a quasi experiment non equivalent control group design and data analysis techniques used to test the effect of collaborative learning models Think, Pair and Share and attitudes toward collaborative skills and their interactions between variables used *analysis of variance* (Anova) with the IBM SPSS computer program *Statistics 20 for Windows*. This study gets results (1), there is a difference between students who have a positive attitude with students who have a negative attitude, (2) students who have a positive attitude value has a higher increase compared to students who have a negative attitude, (3) there is an interaction between the TPS learning model and attitudes towards collaborative skills

Keywords: Jigsaw, Think, Pair and Share, Attitude, collaborative skills

Introduction

The purpose of education is to help students develop their potential. These potentials can grow up if the students get enough time, opportunity and education in their school to develop their potentials. The process of developing the potential of students needs to get benefits from the teacher so that the development process of these potentials can develop optimally.

One of the students' potential to develop is collaborative skills, because collaborative skills are the ability or qualification of students cooperatively (skill to cooperate) with other people in group to achieve goals or complete the tasks (Johnson and Johnson, 1991). Collaborative skills are inseparable from positive interdependence, interpersonal relationship skills and relationships in small groups.

Collaborative skills need to be taught because skills are not inherited abilities or skills and are not students' innate skills, not necessarily taught and learned (Eggen and Kauchak, 2007). In other words, students have skills, skills that should be trained and students learn them well.

The results from observation and interview between researcher and teacher, the researcher found that students' collaborative skills are not good, because the tasks given by the

teacher must be done independently by students. This has an impact when the teacher tries to direct learning in groups, but students cannot discuss well. This condition occurs because students who are clever are reluctant to share knowledge and students who are less intelligent to ask questions, so that the process of discussion and students' collaboration are not optimal. When collaboration learning was implemented, teacher found several obstacles are: (1) there are still many students who are ignorant in group discussions, (2) there are still many students who want to move groups, (3) there are still many students who impose their opinions and (3) students who speak for themselves. The emergence of obstacles in the application of group learning makes teachers reluctant to implement it.

The results from observation and interview of the researcher with junior high school teachers, researcher found that the teacher still uses lecture and independent assignment methods. Those methods have not been able to provide sufficient opportunities and time for students to learn, practice and develop collaborative skills.

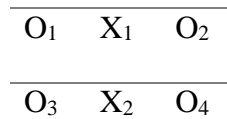
The efforts to improve collaborative skills while achieving objectives learning and reducing social problems need to be chosen as a learning model that allows accommodation of the principles of learning collaborative skills, which according to Eggen and Kauchak (2007) are as follows: (1) understanding students about the necessary collaborative skills learned, (2) give the opportunity to the learner to practice or practice these skills and (3) give rewards and feedback (feedback). The earliest implication in an effort to improve collaborative skills is that a learning model needs to be chosen that allows students to understand learning material and also can get an understanding of collaborative skills, get the opportunity to practicing and gain appreciation and feedback on the collaborative skills that have been learned. One learning model that enables collaborative learning to occur is cooperative learning (Bennet, et al., 1991; Bennet and Dunne, 1994; Cohen, 1994; Dunlap and Grabinger, 1996).

The collaborative learning model of Think, Pair and Share can provide opportunities for students to interact actively both between students and the interaction between students and teachers. Collaborative learning model type Think, Pair and Share is a structure of mutual collaborative learning activities that can provide opportunities for students to work alone and work together with others (Lie, 2002). The collaborative learning model of Think, Pair and Share can provide several benefits are: (1) students can use more time to do their work and to listen the opinions among students, so that when students are involved in the learning process Think, Pair and Share , more students are raising their hands to answer questions after practicing in groups, (2) students have more time to think quickly to respond the problems that arise in their environment that are closely related to their abilities and intelligence (Kagan, 2009).

In addition, the collaborative learning model of Think, Pair and Share need the students' attitude to contribute and then impacts on their learning achievement (Dika, et al. 2002). The attitude of students who are positive towards certain subjects, tends to be more concentrated and earnest in learning it, while students with negative learning attitudes tend to be indifferent and not enthusiastic in learning the subject.

The Research Method

This study uses a quasi experiment non equivalent control group design (Gay, 1987; Wiersma, 1991, Cohen, 2005). the picture as follows:



Gambar 1. Non Equivalent Control Group Design (Cohen, 2005)

Information:

- O₁, O₃ : Observation of initial capabilities
- X₁ : Treatment (treatment) with cooperative learning models of Think, Pair and Share
- O₂, O₄ : Observation of the final / posttest ability
- X₂ : Class Control

The data analysis techniques used to test the effect of collaborative learning model Think, Pair and Share and attitudes toward collaboration capabilities and their interactions between variables used *analysis of variance* (Anova) with IBM SPSS Statistics 20 for windows program. All of these statistical analysis processes use computer assistance with the IBM SPSS *Statistics 20 for window* program. Hypothesis testing is carried out at a significance level of 5% or 0.05. Anova analysis using the SPSS program will issue two testing hypotheses namely testing the hypothesis as a whole and testing the hypothesis individually. The overall test can be seen in the *output* of the significance *pillai's trace, wilks' lambda, hotelling's trace and the roy's largest root*, while the individual test can be seen in the output of the significance value of Tests of Between-Subjects Effects.

The Result and Discussion

After all the treatment has done, the next step is to take the final measurement or posttest. The description of collaborative skills was analyzed with the IBM SPSS Statistics 20 for window program. The results of the analysis are presented as in the following table:

Table 1. The Result of Descriptive Analysis

Descriptive Statistics

Dependent Variable: The post value of Collaborative skills

Learning Model	Attitude code	Mean	Std. Deviation	N
TPS	Positive	47.00	6.056	11
	Negative	30.90	3.280	10
	Total	38.71	7.461	21
Total	Positive	46.32	4.923	21
	Negatif	34.60	3.403	20
	Total	40.62	7.224	41

From table 1 above, we can know the value of each research variable. Furthermore, the interpretation of the results on descriptive analysis will be described in each research variable. The average learning outcomes with learning models Think, Pair and Share for students who have a positive attitude is 47.00 with a standard deviation of 6.05 and the number is 11. While students who have a negative attitude are 30.90 with a standard deviation of 3.28 and the amount is 10. Based on these results it can be seen that students who have a positive attitude are higher than students who have a negative attitude.

Comparison between the mean scores of students with positive attitudes was obtained at a mean of 46.32 with a standard deviation of 4.92 and the number of students was 21, while students with a negative attitude were 34.60 with a standard deviation of 3.40 and a number of 20 students. From these data, it can be seen that the positive attitude value is greater than the negative attitude average value.

The data tested for normality is posttest data from collaborative skills. Data distribution normality test for each group of subjects was calculated using the IBM SPSS Statistics 20 computer program, namely by using the *kolmogorov-smirnov* test. The criteria of the test are if the significance value > 0.05 means normal distribution and if the significance value is <0.05, the data is not normally distributed. The results of the normality test for cooperation skills are as follows.

Table 2. Normality Test

Tests of Normality

Learning Model		Kolmogorov-Smirnov ^a			Shapiro-Wilk
		Statistic	df	Sig.	Statistic
The posttest value of Collaborative skills	Confensional	.167	20	.146	.916
	TPS	.167	21	.132	.931
The pretest value of Collaborative skills	Confensional	.161	20	.183	.892
	TPS	.131	21	.200*	.925

From table 4.5 above, we get the Kolmogrof Smirnov value of the conventional learning model variable of 0.16 with a significance value of 0.14. The value above shows that the significance value is greater than 0.05 ($p > 0.05$), thus H_0 was accepted or in other words that the conventional learning model is normally distributed.

In the TPS learning model variable, the Kolmogrof Smirnov value was 0.16 with a significance value of 0.13. The significance value is greater than 0.05 ($p > 0.05$), thus H_0 was accepted or in other words that the TPS learning model is normally distributed.

The homogeneity test in this study used *Levene's Test of Equality of Covariance Matrices* with the IBM SPSS Statistic computer program 20. The variables tested were collaborative skills variables. The identification used if the number of significance > 0.05 there is no number of variants between groups (homogeneous) and if the number of significance < 0.05 there is a number of variants between groups (not homogeneous). The homogeneity test results are carried out in table 3 below.

Table 3. Levene's Homogeneity Test

The Variance of Homogeneity Test

The posttest value of collaborative test

Levene Statistic	df1	df2	Sig.
.008	1	39	.931

From the results of the variance homogeneity test in table 4.6 with Levene 's on the variable skills of collaborative (collaborative skill) obtained a significance value of 0.931. Thus the significance value > 0.05 , so H_0 was accepted or in other words the variable of cooperative skills is homogeneous.

The criteria for the null hypothesis are if the significance value is > 0.05 , it means that the null hypothesis is accepted, which means that there is no difference in the independent variable

on the dependent variable. Whereas if the significance value is <0.05 , it means that the null hypothesis is rejected, which means that there are differences in the independent variables on the dependent variable. The results of hypothesis testing are presented in table 4.

Tabel 4. Hypothesis Test

Tests of Between-Subjects Effects

Dependent Variable: The posttest value of collaborative skills

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1440.220 ^a	3	480.073	27.202	.000
Intercept	67301.684	1	67301.684	3813.419	.000
Learning_model	49.526	1	49.526	2.806	.002
Attitude_code	1400.735	1	1400.735	79.368	.000
Learning_model * Attitude_code	3.684	1	3.684	1.209	.002
Error	653.000	37	17.649		
Total	69871.000	41			
Corrected Total	2093.220	40			

Based on the table above, known as follows: first, the differences in student cooperation skills taught by conventional and TPS learning models. The results of the calculations in the table above obtained the results of the value of F 2.809 with p-value (Sig.) 0.002. This value is higher than the alpha value of 5% or $0.002 < 0.05$. It means that H_0 states that there is no difference in the cooperative skills of students between groups taught with conventional learning models with groups taught with TPS learning models rejected. In other words, there are differences in the results of collaboration skills between students who are taught with conventional learning models and students who are taught with TPS learning models.

This research got results that cooperative skills with cooperative learning (cooperative learning) was increased. Basically, the cooperative learning model (cooperative learning) arise because of developments in the learning system. Cooperative learning model (cooperative learning) replaces the position of individual and teacher center learning models. Cooperative learning model (cooperative learning) is a learning model that uses a small group / team learning system (Eggen & Kauchak, 2007). Grouping in cooperative learning is a heterogeneous grouping system that does not differentiate between academic ability, gender, or different tribes.

Cooperative learning models (cooperative learning) can form individuals who can accept differences and be more open to others (Juliantine, 2013). The groups that are built in cooperative learning (cooperative learning) do not distinguish ethnicity, religion, race or social status, so students can learn to accept and learn to respect others. In addition, students can accept differences,

students can also be more open, because in cooperative learning (cooperative learning) encourage students to communicate with each other and be responsible.

Second, the difference in collaborative skills between students who have a positive attitude and students who have a negative attitude. The results of the calculation obtained an F value of 79.36 with a significance level of 0.00. Significance value of alpha ($p < \alpha$ or $0.00 < 0.05$). These results indicate that H_0 states that there are differences in collaboration skills between students who have a positive attitude and students who have a negative attitude are accepted. In other words, there are differences between students who have a positive attitude with students who have a negative attitude.

Third, there is an interaction between learning models Think, Pair and share and attitudes towards collaborative skills. The results of the calculation of the table above obtained F 61.20 with a significance level of 0.02. Significant value of alpha ($p < \alpha$ or $0.02 < 0.05$). The results of this calculation indicate that H_0 states that there is an interaction between cooperative learning models and students' attitudes to cooperative skills are accepted. It can give the meaning that there is an interaction between cooperative learning models and students' attitudes towards cooperative skills.

Based on the results shows the form of an interaction between learning models Think, Pair and Share and attitudes towards collaboration skills. The existence of these interactions can be drawn from the table above which shows that the average value of students taught with learning models Think, Pair and Share and having positive attitudes is superior to the average value of students taught by the learning model think, pair and share and have a negative attitude. Learning models Think, Pair and Share if accompanied by a positive attitude can improve collaboration skills more effectively than the application of learning models Think, Pair and Share with a negative attitude.

Positive attitudes held by students seem to encourage students to be actively involved in learning. Active involvement of students in learning is thought to be one of the variables that can influence to increase of collaborative skills effectively, while the negative attitudes held by students can hinder the collaborative skills increase. Students who have negative attitudes seem to be less active in learning, so increasing collaborative skills is less effective. In other words, the application of the learning model Think, Pair and Share which is accompanied by a positive attitude is superior to the application of the learning model Think, Pair and Share accompanied by the negative attitude of students.

The results show that students who have a positive attitude follow the learning process well, while students who have a negative attitude tend to be less active in undergoing the learning process, so students who have a positive attitude tend to have good collaboration skills when compared to students who have a negative attitude.

In addition, the learning model Think, Pair and Share also influences on student collaborative skills, because the learning model Think, Pair and Share encourages students to be actively involved in the learning process. Students who have negative attitudes are also found to increase collaboration skills, although the increase is not as big as students who have a positive attitude.

Conclusion

The results of this study are (1) there are differences between students taught with think, pair, and share learning model, (2) students who have different attitudes that are higher than students who have negative attitudes and (3) occur between cooperative learning models with student attitudes to cooperative skills. Suggestions for further research are variable learning outcomes and student learning styles.

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