

The Effect of the Cooperative Learning Type Students Team Achievement Division (STAD) and Learning Interest to Students' learning Outcomes in Economic Subject

Mimi Sariani^{1*}, Z. Mawardi Effendi², Sany Dwita³

^{1,2,3} Universitas Negeri Padang, Padang, Indonesia

*Correspondence Author, email: mimisarianikamsino@gmail.com

ABSTRACT

The aim of the research analyze the effect cooperative learning type Students Team Achievement Division (STAD) and conventional learning model, interest in learning and the interaction between both model with interest in learning in economic subject at XII MIPA of SMA N 10 Kerinci. This research was quasi-experimental research with population of this research was the students of XII MIPA at SMA N 10 Kerinci. The researcher used purposive sampling to select the sample. The sample was XII MIPA B as experimental class and XII MIPA A as control class. To collect the data, the researcher used test to examine student's learning outcomes and questionnaire to measure the student's learning interest in economic subject. The data were analyzed with TWO way ANOVA. The result shows that: (1) the students who are taught by Students Team Achievement Division (STAD) model have significant higher result than who was taught by conventional. (2) The students with high interest in learning have significant higher result than the students with low interest in learning. (3) There is no interaction between Students Team Achievement Division (STAD) model used and students' interest in learning toward students' result in economic subject.

Keywords: *The Students Team Achievement Division (STAD), interest in learning and interaction.*

1. INTRODUCTION

Education is a device to increase the human resource in a whole. Education can answer the challenge as the effect of the fast development of technology nowadays. There have been a lot of effort made in education area, one of them is the curriculum improvement and development gradually, consistently and based on the scientific and technological advances. The goal of the national education is to develop the student's potential in order to be a righteous and have faith to one True Almighty God, virtuous, physically and spiritually healthy, competent, creative, independent, and responsible to country and nation.

The economic learning is a dynamic activity and close to student's daily life to form wise rational and responsible act by having knowledge and skill in economic science that is advantageous to oneself, family, community and country. The economic subject aims at taking rational decision in various options.

The economic learning process includes the teaching and learning process. The teaching process done by teacher as an educator and the process of learning done by students as learning participants. The success of economic learning-teaching activity is greatly affected by the internal and external factors from the students. The internal factor lies within the students self such as learning interest. Interest is a preference and attraction to a thing without any intervention or command. Somebody who has interest to certain subject tend to give bigger attention to the subject. Students who have interest in learning will be motivated to follow the learning process so that their learning outcomes become increasing. The external factor comes from outside of the students or the stimulation from other side, such as the selection of learning model fit the learning target enables students to actively participate in the learning process in order to gain the quality of learning so that students become interested to follow the learning process and yearn increased learning outcomes.

Based on the data obtained from the economic teachers showed that the mean of semester test result for grade XII at SMAN 10 Kerinci was low and many students still have grade under the minimum mastery criteria (KKM). The data which were obtained through documentation found that 51 % of all students still got grade under KKM. It happened because students weren't involved directly in the learning process; consequently, the students' ability in comprehending and memorizing the material given by the teacher were lack.

From the pre observation to see the students' learning interest in following the learning process, researcher found that the students of twelfth grade at SMA N 10 Kerinci had low interest in learning economic subject. It can be seen from four indicator observed, namely: active participation in the learning process, will in doing the task given, attention in following the learning process, and the attendance rate in the learning process.

The low of the students' learning outcomes caused by the lack of learning interest and ineffective learning model applied by the teacher. One of the efforts can be done is applying cooperative learning model emphasizing the importance cooperation or student's interaction with other side to comprehend the lesson. Cooperative learning model has several types, one of the types which is suitable for economic subject and the condition based on pre observation is cooperative learning model type Student Team Achievement Division (STAD).

The reason of choosing STAD because it emphasizes to activities and interactions which students support each other to master the lesson and will give good effect to the students' learning outcomes. [1] says that in STAD model, the students are divided in several learning teams consists of 4-5 persons with different levels of ability, gender, and ethnic backgrounds and teacher delivers the lesson, then students work in their teams to make sure all the meambers of the team master the lesson given. In this model, teacher will give reward to the success team as effort to increase the students' participation in the learning process.

[2] says that the STAD type cooperative learning model is most suitable for use in subject matter such as social studies, literature, some parts of science (science) and various skills. Based on this, STAD is suitable to be applied in economic subjects because by using STAD students not only learn and accept what is presented by the teacher, but can also learn from other students, and at the same time have the opportunity to teach other students.

2. RESEARCH METHODOLOGY

This reasearch is quasi experimental research which apply different treatments. The subjects of this research all the students of twelfth (XII) grade at SMA N 10 Kerinci who are registered in academic year 2020/2021. Class XII MIPA A as the control class were taught by using conventional learning model and Students of XII MIPA B were chosen as the experimental class which

were given treatment of STAD learning model. The determination of the research subject was selected based on the average score of students in economic subjects which is almost the same.

The research design used was factorial 2 x 2 design. Based on the design, then the experimental method prepared can be seen from the following table 1:

Table 1 Research Design

Learning Interest (B)	Learning Model (A)	
	STAD Model (A ₁)	Conventional Model (A ₂)
High (B ₁)	A ₁ B ₁	A ₂ B ₁
Low (B ₂)	A ₁ B ₂	A ₂ B ₂

Table Descriptions:

- A₁B₁ = Students' learning outcomes of economic subject with high learning interest taught by using STAD model
- A₁B₂ = Students' learning outcomes of economic subject with low learning interest taught by using STAD model.
- A₂B₁ = Students' learning outcomes of economic subject with high learning interest taught by using conventional model.
- A₂B₂ = Students' learning outcomes of economic subject with low learning interest taught by using conventional model.

In general, the research procedure can be divided into three stages, namely the preparation stage (establish a research schedule, determine the subject matter, compile a lesson plan, prepare a questionnaire to determine student learning interests), implementation stage (setting a research schedule, determining subject matter, compiling a lesson plan, preparing a questionnaire sheet to determine student learning interests), and the final stage (giving a final test to the experimental class and the control class which is used as a sample class after the learning process ends in order to see the results of the treatment given, collect data on learning interest, both in the experimental class and the control class).

The instruments used in this research were questionnaire on the learning interest and a test to examine the learning outcomes. An interest in learning questionnaire was given at the first meeting before starting the learning process while the final test was given at the last research meeting, namely at the fourth meeting. Interest in learning questionnaires are arranged based on a Likert scale. Each item has 5 (five) categories of alternative answers and the respondent chose one of the alternative answers, the choice of answers for all items was always, often, sometimes, rarely, and never. While the learning outcome test given is in accordance with the material studied during the treatment.

The instruments used in this research were questionnaire on the learning interest and a test to

examine the learning outcomes. To get good data then the questionnaire items and the test items must be valid and reliable. Therefore, the items should be tested in a try out test before given. Based on the try out test can analyze the validity, reliability and difficulty level of the questionnaire and the test items. The try out test was conducted in an object which was outside the research subject. The students of class XII at SMAN 8 Kerinci were chosen as the object for the try out test. The try out test was conducted on 30 students. To analyze the learning interest and outcomes, both data were analyzed descriptively and inductively using two ways of ANOVA analysis.

3. FINDINGS

Data were analyzed using descriptive and inductive analysis. Descriptive data were used to see or describe the tendency of data distribution in each variables. Inductive analysis was used to test the conditions and hypothesis.

Data about the students' learning outcomes in the economic subject were taken from the test results after applying both models in each classes. The following is table 2 which describes the frequency distribution of students' learning outcomes from experimental and control class which are based on the learning outcomes taken from class XII MIPA B and class XII MIPA A

Table 2. The Frequency of Learning Outcomes From Experimental and Control Class

No	Interval Class	Experimental Class		Control Class		Description
		Fi	%	Fi	%	
1	95 - 100	3	12.5	0	0	Passed
2	89 - 94	7	29.17	5	20.83	Passed
3	83 - 88	3	12.5	3	12.5	Passed
4	77 - 82	3	12.5	2	8.33	Passed
5	71 - 76	2	8.33	5	20.83	Not Passed
6	65 - 70	2	8.33	7	29.17	Not Passed
7	59 - 64	4	16.67	2	8.33	Not Passed
Total		24	100	24	100	
Mean		81.81		76.39		
Median		86.5		78.9		
Modus		91.5		72.51		
Deviation Standard		12.891		9.423		
Variance		153.21		102.85		
Minimum		60		60		
Maksimum		96.67		93.33		
Passed		16		10		
Not Passed		8		14		

Source: Primary Data Processing

Table 2 shows that the students' learning outcomes whom the students were taught using STAD model were higher than the learning outcomes of the students taught with conventional model. The mean of the students' learning outcomes obtained from the experimental class was 81.81 and 76.39 for the control class. The highest student's grade in experimental class was 96.67 and the

highest student's grade in control class was 93.333. The lowest student's grade in experimental class was 60.00 and the lowest student's grade in control class was 60.00. there were 16 students who passed the minimum mastery criteria in the experimental class while there were only 10 students passed it in the control class.

Based on the information above, after the researcher did normality test and homogeneity test, it was concluded that the data were normal and homogenous and then the researcher continued the work to the two way variants analysis. In the test of hypothesis on the two way variants analysis, the criteria to decline or accept Ho is based on the value of F and the significance value which was abbreviated to sig. If Fcount is bigger than Ftable (Fcount > Ftable) then the value of sig is smaller than α (sig < α 0.05) then we will decline Ho which means we accept the alternative hypothesis (Ha). The following is the counting result of two way ANOVA:

Table 3. Two Way ANOVA Analysis Tests of Between-Subjects Effects

Dependent Variable: Learning Outcomes					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3641,211 ^a	3	1213,737	20,739	,000
Intercept	300303,150	1	300303,150	5131,360	,000
Learning Model	352,138	1	352,138	6,017	,018
Learning Interest	3277,734	1	3277,734	56,008	,000
Learning mode * Learning interest	11,339	1	11,339	,194	,662
Error	2575,017	44	58,523		
Total	306519,378	48			
Corrected Total	6216,228	47			

a. R Squared = ,586 (Adjusted R Squared = ,558)

Based on the testing result, it can be concluded: (1) students who were taught using STAD model have significantly higher learning outcomes than the students who were taught using the conventional model, (2) students with high learning interest have higher learning outcomes than the students with low learning interest, (3) there is no significant interaction between the use of STAD model and the learning interest to the students' learning outcomes.

4. DISCUSSIONS

The followings are the research discussions based on the description on the research findings:

Students who were taught using STAD model had significantly higher learning outcomes compared with the students were taught in conventional model.

Based on the result of hypothetical test, it was found that students who were taught using STAD model had significantly higher learning outcomes compared with the students were taught in conventional model. it was obtained that $F_{count} 6.017 > F_{table} 4.06$ or $sig 0.018 < \alpha 0.05$ then H_0 was declined and H_a was accepted, so that it can be concluded that the students who were taught using STAD model had significantly higher learning outcomes compared with the students who were taught using conventional model.

It is because in the STAD learning model, students learn together to comprehend the lesson to become the greatest team and to get the reward. For the team which get the highest grade then the team will receive the team's award/reward.

The result is accorded to [3] which stated that STAD learning model emphasizes the synergy interaction, a positive dependency, individual responsibility, and active cooperation between students in their team to learn a lesson. [4] also stated, "the students' learning outcomes in the first experimental class which applied the STAD model are higher compared with the second experimental class using conventional learning model."

Students with high learning interest have significantly high learning outcomes compared with the students with low learning interest.

Based on the result of hypothetical test, it was found that students with high learning interest had significantly higher learning outcomes compared with the students were taught in conventional model. it was obtained that $F_{count} 56.008 > F_{table} 4.06$ or $sig 0.000 < \alpha 0.05$ then H_0 was declined and H_a was accepted, so that it can be concluded that the students who have high learning interest have significantly higher learning outcomes compared with the students with low learning interest.

It can also be seen from the mean of the students' learning outcomes of experimental and control class which showed that in the experimental class which treated with STAD model, the students with high learning interest (A1B1) had 90.5550 as the mean of the learning outcomes while the students with low learning interest (A1B2) only had 65.8333. It means that the students with high learning interest certainly have higher learning outcomes than the students with low learning interest.

In the control class, it showed that the students with high learning interest (A2B1) had 84.16583 as the mean of the learning outcomes while the students with low learning interest (A2B2) only had 68.61083. It means that both classes, whether it is experimental or control class, it always showed that the students with high learning

interest certainly have higher learning outcomes than the students with low learning interest.

The result is accorded with the research conducted by [5] which stated that high learning interest tends to yield high students' achievement. [6] also stated that high learning interest tends to have high learning outcomes while in the contrast low learning interest will result low learning outcomes.

The interaction between STAD learning model and the learning interest in affecting the students' learning outcomes in economic subject.

Based on the result of hypothetical test, it was found that there is no interaction between the STAD learning model and the learning interest in affecting the students' learning outcomes in economic subject. It was obtained that F_{count} was 0.083 with significant value equalled 0.774 (F_{count} was 0.194 < F_{table} was 4.06 or $sig 0.662 > \alpha 0.05$) then H_0 was accepted and H_a was declined, so that it can be concluded that there was no significant interaction between the use of STAD learning model and the learning interest to the students' learning outcomes in economic subject. The following picture describes the interaction form between the learning model and the learning interest to the learning outcomes in economic subject for both experimental and control class.

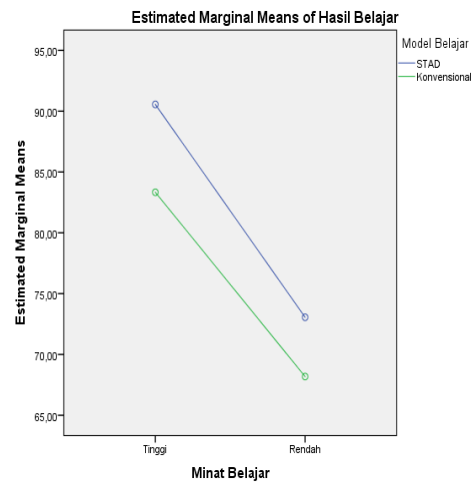


Figure 1: Interaction between the learning models and learning interest to the learning outcomes in economic subject

[7] said, "Interaction shows the sameness factor in affecting the dependent variables and if there is an interaction, it means there will two unparallel lines (crossed over) between the effect factor to the dependent variable. Therefore, based on the picture 1 above, it is obvious to say that there is no interaction between the STAD learning model and learning interest to affect the students' learning outcomes. However, both learning model and learning interest can increase the students' learning outcomes. The effect can be seen in detailed on the table 4 below.

Table 4: The Effect of Learning Model and Learning Interest to Students' Learning Outcomes in Economic Subject

Learning Interest (B)	Learning Model (A)	
	STAD Model (A ₁)	Conventional Model (A ₂)
High (B ₁)	90,5550	84,16583
Low (B ₂)	65,8333	68,61083

According to table 4 above, both learning model and learning interest had positive effect to the students' learning outcomes in economic subject. The mean of students' learning outcomes in experimental class which used STAD learning model and had high learning interest was 90,5550 and it was only 65,8333 for the students with low learning interest. Moreover, The mean of students' learning outcomes in control class which used conventional learning model and had high learning interest was 84,16583 and it was only 68,61083 for the students with low learning interest

The increasing of students' learning outcomes in the class with STAD learning model due to the interaction and cooperation in the learning process between team members in order to comprehend the lesson given by the teacher and to obtain high grade individually so it can give positive feedback to the team's grade and in order to reach predicate as the best team.

It is accorded to [8] opinion which is stated in the theoretical framework. She said, "The cooperative learning type STAD influences the students' learning outcomes because the model learning can help students to comprehend the difficult concepts, develop the cooperative ability, critical thinking, and develop social attitude so that it brings positive effect to the students with low learning outcomes." Moreover, [9] mentioned that interest has big impact on learning process, a person will do something because he/she has interest in it and otherwise without any interest, it is impossible for someone to do something.

It can be concluded that the STAD cooperative learning model and learning interest have positive effect/impact to the students's learning outcomes in economic subject though the STAD learning model and learning interaction does not have any interaction in giving impact to the students' learning outcomes because when there is an interaction between them, the interaction diagram will be crossed over or unparallel.

5. CONCLUSION

Based on the research findings, it can be concluded that: ((1) the students who were taught with STAD model have significantly higher learning outcomes than the ones who were taught with conventional model. (2) the students with high learning interest have significantly higher learning outcomes than the students with low learning interest. (3) There is no interaction between the use of STAD model and the student's learning interest to the students' learning outcomes in economic subject.

Based on the reasearch result in the experimental class and control class, the researcher suggests: (1) the economic teachers at SMAN 10 Kerinci to choose more effective learning model (2) the principal of SMAN 10 Kerinci to support and help teachers to apply more effective learning models in the learning process. (3) all students to always become active in the learning process. (4) next researchers to conduct this kind of research in other level of grade and use bigger sample.

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