

THE EFFECT OF STUDENT TEAM LEARNING MODEL ACHIEVEMENT DIVISION (STAD) ON ECONOMICS LEARNING RESULTS CLASS XI IPS PRIVATE SENIOR HIGH SCHOOL BANDUNG MEDAN T.P 2021/2022

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ABSTRACT

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The problem in this study is the low economic learning outcomes of class XI students. The purpose of this study was to determine the effect of the Student Teams Achievement Division (STAD) learning model on economic learning outcomes for class XI IPS SMA Private Bandung Medan T.P 2021/2022. This research was conducted at a private high school in Bandung, Medan. The population in this study were all students of class XI Social Studies at the Bandung Private High School Medan in the 2021/2022 academic year, totaling 62 students. This type of research is experimental research. The data analysis technique used in this research is calculating the arithmetic mean, standard deviation, normality test, homogeneity test, and hypothesis testing using t test. From the results of the data analysis of the experimental class, the average pre-test and post-test scores were 49,194 and 80,161 while in the control class the average values for pre-test and post-test were 46,935 and 71,935. From hypothesis testing, it was obtained that $t_{\text{arithmetic}} = 3.337$ with $t_{\text{table}} = 1.6706$. By comparing the two values, it can be concluded that $t_{\text{arithmetic}} > t_{\text{table}}$, then the hypothesis is accepted. Then it was concluded that there was a positive and significant effect of the Student Teams Achievement Division learning model on the economics learning outcomes of class XI SMA Private Bandung Medan T.P 2021/2022.

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1. Introduction

Education is an effort carried out by individuals who are given the responsibility systematically and consciously in influencing students on physical or spiritual development to the maximum based on their potential, therefore the creation of character and character in line with the ideals of education. Through the availability of education, it can grow students who become the next generation of the nation's successors. In education they are educated to improve the expertise and skills contained in themselves with the aim of achieving education. Learning is said to be

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successful and of good quality if most (75%) students are actively involved both physically and mentally in the learning process, besides that they also show a great enthusiasm for learning, and have confidence in themselves. In fact, learning outcomes at the junior high school level of class XI IPS, especially in economic subjects at the Bandung Medan Private High School are still low. This is evidenced that 77% of students' daily test scores have not met the Minimum Completeness Criteria (KKM) and 23% have met the Minimum Completeness Criteria (KKM). Minimum Completeness Criteria (KKM) for Economics is 75.

So far, most of the learning activities at the secondary school level still emphasize on changing thinking skills at the basic level and have not maximized students' higher-order thinking skills. whereas higher order thinking skills are also very important for mental development and changes in students' mindsets. This is because in the learning process the teacher still uses a direct learning approach (lectures, questions and answers, and provides exercises/ assignments) and the learning process is dominated by teachers who generally use the lecture method, this will result in reduced effectiveness and not student-centered. Learning that allows students to be busy with their respective activities without playing an active role in learning, results in students being less interested in the learning process that will take place. This will result in students being less interested in learning. Therefore, it takes a way that is able to make students interested in learning.

Currently, many educational and learning activities are still teacher-centric and some students listen to the teacher's explanations and take notes. This resulted in a lack of interaction between students and teachers, because when they were learning to teach the students were busy themselves so they did not pay attention to the teachings of the teacher. This is caused by the lack of teachers in implementing the teaching and learning model in the classroom. So that teaching and learning taught by educators in the classroom is less interesting. Each student has different characteristics. This makes active students feel that they can follow the lesson and tend to underestimate the material presented in the discussion and want to dominate the group. Furthermore, students are actively involved and enthusiastic in teaching and learning, but there is no support that can help them. The teacher's way of teaching and learning is expected to be by implementing a learning model that makes the material easier for students to understand and therefore can play an active role in teaching and learning. If this is achieved so that students easily get better grades, therefore the success value of students exceeds the specified value, namely the KKM value.

Based on observations that have been made at the Bandung Medan Private High School that the low economic learning outcomes of students are proven by the fact that there are still many students who have not achieved the Minimum Completeness Criteria (KKM) that the school has set for economic subjects, which is 75.

According to [Trianto \(2015\)](#) learning model is a plan or a pattern that is used as a reference in carrying out the learning process in the classroom or learning in tutorials. Therefore, it is important in choosing a learning model because it can affect the interaction patterns of students who are intertwined in the classroom with various skills possessed to increase the success of student learning to be achieved. One of the

learning models that can be used to solve problems in economics learning is the Student Teams Achievement Division (STAD) learning model.

According to [Slavin \(2005\)](#), who said that STAD learning is a model that helps students work together on a common task and they are required to organize concurrent efforts in completing it. By applying the STAD model, students can encourage collaboration skills, creative, critical thinking and skills to help friends in discussions.

Based on the description above, the researcher wants to carry out this research with the title "The Influence of the Student Teams Achievement Division (STAD) Learning Model on Economic Learning Outcomes for Class XI Social Sciences SMA Private Bandung Medan TP 2021/2022".

2. Methodology

Location and Time of Research

The location of the research that the researchers set was SMA Private Bandung Medan Jl. Devotion No. 72 Bandar Setia Medan, Kec. Percut Sei Tuan, Kab. Deli Serdang Prov. North Sumatra. This research was conducted in class XI IPS in the even semester of TP 2021/2022.

Population and Research Sample

The population for this study were all students of class XI majoring in social studies at SMA Swasta Bandung Medan. And the sample in this study is the total number of class XI IPS 1 and XI IPS 2 with a total of 62 students. The sampling technique in this study used purposive sampling.

Types and Design of Research

This research is an experimental research, which in its implementation uses two different classes by comparing the experimental class and the control class ([Sugiyono, 2013](#)).

Research Instruments

Before this instrument was used as a data collection tool, for the data analysis technique in this study using the Microsoft Excel 2010 program. So the research instrument was first tested for validity by using a validity test.

Data Collection Techniques

The data collection technique used is a test of learning outcomes using a multiple choice test of 20 questions which is carried out by giving pre-test and post-test.

Data Analysis Techniques

Before testing the hypothesis, the data analysis requirements were first tested, in this case the normality test and data homogeneity test were calculated. For data analysis techniques in this study using the Microsoft Excel 2010 program.

3. Results and Discussion

A. Test of Research Instruments Test of Learning Outcomes

1) Test of Validity

There are two validity tests in this study, namely the content validity test and the biserial point correlation validity. Content validity is given to raters/experts consisting of economics subject teachers and economics tutors. As

for the validity of the biserial point correlation, it was tested on students who had the same criteria. For the results of the content validity test, 13 items (1,4,5,6,7,8,10,11,12,13,15,16,17) had a high category while the rest were in the medium category. The average validity test is 0.85 so that the instrument has a high level of validity. This shows that the variables described through the item items have a high level of accuracy to measure the validity of the item. For the validity of the biserial point correlation of the results tested through the learning outcomes test of 20 multiple choice questions with levels C1 to C6 that have been tested with a value of $r_{table} = 0.3610$, 18 questions were declared valid and 2 items were declared invalid. The questions that were declared invalid were questions number 7 and 14. While the questions that were classified as valid were 18 items. Based on these validation criteria, it can be concluded that there are 18 multiple choice questions that can be used to measure the ability of students, namely questions number 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20. The data were processed using the help of the Microsoft Excel 2010 program.

2) Reliability Test

Based on the reliable test that was carried out on 18 multiple choice questions which were declared valid, the score was 0.838. Furthermore, the value is compared with $r_{table} = 0.3610$. So it can be concluded that $r_{arithmetic} 0.838 > r_{table} 0.3610$, meaning that the items that have been declared valid are declared reliable and can be used for research. Calculation of reliability test with the help of Microsoft excel 2010 program.

3) Distinguishing Power of Questions

Based on the calculation of the discriminating power of valid items, there are only two criteria, namely sufficient and good. There are 8 items that are classified as sufficient which are in the range (D: 0.21 - 0.40), namely questions number 1, 6, 9, 11, 15, 17, 19, 20. And 10 items are both in the range (D : 0.41 - 0.70), namely questions number 2, 3, 4, 5, 8, 10, 12, 13, 16, 18. These items are valid questions and each has a differentiating power. which is sufficient and good and there are no items that fall into the bad category.

4) Problem Difficulty Level

Based on the results of the calculation of the difficulty level of the question there are 18 valid multiple choice questions indicating that there are questions that are included in the easy difficulty level (P 0.71 - 1.00), namely questions number 6, 11, 15, 19. There are questions that classified as moderate (P 0.31 - 0.70), namely questions number 1, 2, 4, 5, 8, 9, 10, 12, 13, 16, 17, 18. And there are 2 questions that are classified as difficult (P 0, 00 - 0.30), namely questions number 3 and 20, so it can be concluded that from the test results for calculating the level of difficulty, these questions have different levels of difficulty, namely easy, medium and difficult.

B. Testing Research Prerequisites

1) Normality Test

Testing the normality of the data is done by using the Liliefors test to find out whether the data being tested comes from a normally distributed population

or not. This normality test uses the Microsoft Excel 2010 program with the provisions of $L_{arithmetic} < L_{table}$ at level = 0.05. The obtained value for the post test experimental class was $0.1385 < 0.1559$, so it can be concluded that the research data is normally distributed. Likewise, the control class post test score was $0.1417 < 0.1559$, so it can be concluded that the research data is normally distributed.

2) Homogeneity Test

Homogeneity test is conducted to determine whether the sample comes from a homogeneous population or not. From the results obtained, it is obtained that $F_{arithmetic} < F_{table}$, therefore it is concluded that the two sample groups are from homogeneous groups or can represent the entire existing population.

3) Hypothesis Testing

Once it is known that the data has a normal distribution and is homogeneous, so that hypothesis testing can be carried out. The test criteria if $t_{arithmetic} > t_{table}$ so that the hypothesis is accepted. From the distribution list for $\alpha = 0.05$ and $dk = 31 + 31 - 2 = 60$, the $t_{table} = 1.6706$. Because $t_{arithmetic} > t_{table}$ ($3.337 > 1.6706$) then in this case the hypothesis is accepted. So, it can be concluded that there is a positive and significant influence on the Student Teams Achievement Division on economics learning outcomes for class XI IPS Private Bandung Medan TP 2021/2022.

Discussion

This research was carried out at SMA Private Bandung Medan Academic Year 2021/2022 in class XI IPS is to learning model Student Teams Achievement Division on student learning outcomes in economics subjects. This research is an experimental research type where this research involves 2 classes by giving different treatment to the two classes. Class XI IPS 1 was used as an experimental class and was given treatment using the Student Teams Achievement Division and class XI IPS 2 class control using the Direct learning model. The test that will be used as a research instrument first is 20 questions so that their validity is tested by experts in the field of economic studies consisting of economics subject teachers or economics tutors. After completing the test, then the questions that have been tested are given to use other schools that have the same criteria, namely class XI SMA Swasta RK Santa Maria Pakkat with a total of 30 students.

Based on the analysis, the results showed that the learning outcomes of students who were treated with the STAD learning model were higher with an average gain (80,161) and standard deviation (8.896 with a total of 31 students), while students who were treated with the Direct learning model had an average of (71.935) and the standard deviation (11.45) with the number of respondents 31 students.

Comparison of Student Teams Achievement Division (STAD) Learning Model and Direct Learning Model on Learning Outcomes

The following is the value data of the research results in the form of the final calculation results through the experimental class and class Control data is data collected from tests that have been given to students, in the form of students'

economic learning outcomes tests which are carried out after the learning process is complete

Table 1. Comparison of Students' Economic Learning Outcomes Between Experimental Class and

Statistic	Experiment Class	Control Class
Min	60	55
Max	95	90
Mean	80,161	71,935
Standar Deviasi	8,896	11,451
Varians (S2)	79,14	131,129

Based on the table 1, it can be concluded that the comparative data on economic learning outcomes of experimental and control class students can be seen as a descriptive statistical comparison of students' economic learning outcomes between the experimental class and the control class. Of the 31 students in the experimental class, the lowest score was 60 and the highest score was 95. Meanwhile, from the 31 students in the control class, the lowest score was 55 and the highest score was 90. And the average score for the experimental class was 80,161 which was higher than the control class, namely 71,935.

Table 2. Recapitulation of Score Calculation Results

Class	Number of Samples	L arithmetic	L table	Description
Experiment	31	0.1385	0.1559	Normal
Control	31	0.1417	0.1559	Normal

From the results of the calculations in the table above, the results of L arithmetic 0.1385 in the experimental class and L arithmetic 0.1417 in the control class are obtained. Through the Liliefors test list with a significance level of $\alpha = 0.05$ with $n = 31$, Ltable 0.1559 is obtained, which means $L_{arithmetic} < L_{table}$, therefore it can be concluded that the population has a normal distribution.

Table 3. Recapitulation of Score Calculation Results

Group	Number of Samples	F arithmetic	F table	Conclusion
Experiment	31	1,66	4,18	Homogeneous
Control	31	-	-	-

From the table above, it can be seen that the F arithmetic is smaller than the F table ($1.66 < 4.18$) so that it can be concluded that the two data have the same or homogeneous variance.

Hypothesis Testing

Table 4. Recapitulation of Calculation Results of Hypothesis Testing

Group	Sample	Mean	t arithmetic	t table	Conclusion
Eksperiment	31	80,161	3,337	1,6706	Influence
Control	31	71,935	-	-	-

From the hypothesis testing table above, it can be concluded that the average post-test obtained that $t_{\text{arithmetic}} = 3.337$ and the price of t_{table} at $dk = 60$ and $= 0.05$ at $n = 31$ obtained $= 1.6706$, so when compared between $t_{\text{arithmetic}} > t_{\text{table}}$ that is $3.337 > 1.6706$. This shows that the hypothesis is accepted, so it can be concluded that there is a positive and significant effect of the Student Teams Achievement Division on economic learning outcomes.

Based on the average obtained by the two sample groups, it can be seen that the learning outcomes learned with the Student Teams Achievement Division experienced a higher increase than the learning outcomes learned through the Direct learning model. The existence of this influence is shown through the results of hypothesis testing where $t_{\text{arithmetic}} = 3.337$ while $t_{\text{table}} = 1.6706$. Because $t_{\text{arithmetic}} > t_{\text{table}}$ means that the hypothesis is accepted, it can be concluded that there is a positive and significant influence on the Student Teams Achievement Division on economic learning outcomes for class XI IPS SMA Private Bandung Medan TP 2021/2022.

Based on the observations/treatments given, students were more enthusiastic and more active by using the Student Teams Achievement Division (STAD) Learning Model as evidenced by the increase in student learning outcomes. This is in line with the theory of Constructivism which emphasizes students to be more active during learning, as evidenced by the application of the Student Teams Achievement Division, students in class XI Social Sciences SMA Swasta Bandung Medan become more active, enthusiastic, and further improve student understanding because these students participate during the learning process.

The results of this study are in line with research conducted by [Yasir and Karlina, \(2015\)](#) with research results showing that $t_{\text{arithmetic}}$ in learning using the Student Teams Achievement Division has an influence on the learning outcomes of class X students at SMK Nasyrul Ulum Pandeglang. Research conducted by [Amir and Rahman \(2019\)](#) which states that the application of the Student Teams Achievement Division can improve economic learning outcomes for students of class X SMA Muhammadiyah Maumere. Another research that has been conducted by [Hasan \(2020\)](#) regarding the effect of the STAD learning model is successful in improving the learning outcomes of class X students at SMA Negeri 1 Sosa. For this reason, the Student Teams Achievement Division is able to influence student learning outcomes so that this model can be used by teachers in carrying out learning activities to create a new learning atmosphere in the classroom.

4. Conclusion

Based on the results of the research obtained from the results of data analysis and hypothesis testing, it can be concluded: The Student Teams Achievement Division has an effect on student learning outcomes. This can be seen from the average pre-test

value of the experimental class 49,194, while the control class is 46,935, and after being given treatment with the Student Teams Achievement Division learning model in the experimental class and Direct learning model in the control class, there are differences in student learning outcomes where the score the post-test average of the experimental class was 80,161 while the control class was 71,935. Through hypothesis testing, the post-test value of t arithmetic $>$ t table is $3.337 > 1.6706$, so the hypothesis is accepted. In other words, the average experimental class student learning outcomes are greater than the control class learning outcomes, which means that there is a positive and significant influence on the Student Teams Achievement Division on economic learning outcomes for class XI IPS SMA Private Bandung Medan TP 2021/2022.

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