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Comparison of Two Stay-Two Stray Learning Model with Teams Games Tournament on Economic Learning Outcomes of Grade X Students of SMA Negeri 14 Gowa

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ABSTRACT

This type of research is an experimental research that aims to determine the differences in student learning outcomes in classes X.1 and X.4 of SMA Negeri 14 Gowa in Gowa Regency. The method used is random sampling and the sample in this study were students of X.1 and X.4 of SMA Negeri 14 Gowa in the 2022/2023 academic year. Class X.1 is taught using the Two Stay - Two Stray cooperative learning model and class X.4 is taught using the Teams Games Tournament learning model. The data analysis techniques used are descriptive statistics and inferential statistics. The results of this study use data analysis with the help of SPSS 26. Showing that in the post-test, the average score of students in experimental class 1 (X.1) who were taught by applying the Two Stay - Two Stray learning model was 79.94, while in experimental class 2 (X.4) who were taught by applying the Teams Games Tournament learning model with an average score of 81.75. The results of the normality test obtained a value for class X.1 of 0.058 while for class X.4 a value of 0.080 was obtained, which means that the data studied is normally distributed because the sig value ≥ 0.05 . The results of the homogeneity test obtained a value of 0.178, which means that the data studied is distributed the same or homogeneous because the sig value \geq 0.05. The results of the t-test / hypothesis calculation obtained a Sig value (2-tailed) of $0.043 \le 0.05$. So it can be concluded that the analysis of the HO hypothesis is rejected and H1 is accepted. The conclusion is that there are differences in student learning outcomes in the Economics subject in classes that apply the Two Stay - Two Stray cooperative learning model and classes that apply the Teams Games Tournament learning model on the material of Economics Concepts. The average learning outcomes of students who apply the Teams Games Tournament learning model (81.75) are higher than Two Stay-Two Stray (79.94).

Keywords: Learning Outcomes, Two Stay-Two Stray and Teams Games Tournament

INTRODUCTION

Education is the most important means in everyday life, because with education a person can develop, be knowledgeable, have broad insight, and have skills in their respective fields. In addition, education is the main container for every human being, because education is the main container for everyone in reducing life. The good or bad of a person's difficulties depends on the knowledge they have. Teaching is essentially a process of regulating and organizing the environment around students so that it can foster and encourage students' interest in learning. Teaching or educating is a complex action that requires and encourages students' interest in learning. Teaching or educating is a complex action that requires a number of message skills or educational goals. (Sudjana, 1995: 24).

Based on the results of observations that have been conducted at SMA Negeri 14 Gowa, the lack of student activity in participating in the learning process in class and also learning outcomes that are still below the minimum completion criteria (KKM) where the KKM value for economics subjects is 75. Based on the aspect of student activity in participating in the

learning process, there are still many students who play a passive role, are less responsive, and do not pay attention to learning so that in the learning process from the number of students approximately 30 people only about 10 students actively pay attention to learning, and only three to five students actively ask or answer questions when learning takes place. Likewise, from the aspect of student learning outcomes there are still 20 people who are below the student learning completion criteria. Low learning outcomes can be caused by the learning model which is still conventional or still using the lecture method. Where learning is still centered on the teacher. Because learning that is centered by the teacher or one way only also causes a lack of interaction in the classroom, students become passive and there is no discussion so that the classroom atmosphere is not interactive. In addition, students also become bored when given material by the teacher which causes students to switch to chatting with friends next to them or teasing their friends which results in not focusing on the material given by the teacher in front of the class. A challenge for teachers to maximize the learning process, conveying material so that students not only understand the theory but also its presentation in everyday life. Choosing the right learning model is also one of the keys to realizing learning objectives.

In the learning process, there are several types of learning models that can be used as a way to help students gain knowledge and achieve learning objectives. There are several types of learning models, one of which is the cooperative learning method. According to Thompson, et al. (Isjoni, 2010: 17) the cooperative learning method is a teaching model where students learn together in small groups that help each other and each group has different/heterogeneous levels of ability, in completing group assignments, each member cooperates and helps to understand a learning material.

One type of cooperative learning model is the Two Stay Two Stray and Teams Games Tournament type. The Two Stay Two Stray and Teams Games Tournament cooperative learning model is a cooperative learning model that will direct students to be active, both in discussing, asking questions, finding answers, explaining and also listening to material explained by friends. In addition, the reason for using the Two Stay Two Stray and Teams Games Tournament learning models is because there is a clear division of group work for each group member, students can work together with their friends, can overcome crowded and difficult student conditions during the teaching and learning process. Based on the description above, the author is interested in conducting research and wants to compare two effective learning models to be used in the learning process between TS-TS and TGT. So in this study, the researcher took the title "Comparison of the Application of the Two Stay-Two Stray Learning Model with the Teams Games Tournament (TGT) Learning Model on the Learning Outcomes of Economics at SMA Negeri 14 Gowa".

METHODS

A. Type of Research

The approach used is an experimental approach, which is a study that attempts to find the influence of certain variables on other variables under strictly controlled conditions (Sugiyono, 2011: 7). The method used in this study is the experimental method. Experimental methods are divided into two, namely pure experiments (True Experiments) and quasi-experiments (Quasi Experiments). The method used in this study is the quasi-experimental method (quasi-experiments). Quasi-experimental research can be interpreted as research that approaches experiments or types of research that do not allow for full control and manipulation of all relevant variables. This form of research is widely used in the field of educational science or other research with the subjects studied being humans (Sukardi, 2003: 16).

B. Variables and Research Design

1. Variabel Penelitian

This study uses independent variables and dependent variables. The independent variables in this study are the Two Stay-Two Stray cooperative learning model symbolized by X-1 and the Teams Games Tournament cooperative learning model symbolized by X-2, while the dependent variable is the learning outcomes of Economics at SMAN 14 Gowa.

2. Research Design

Table 1: Research Design

No	Class	Pretest	Treatment	Posttest
1	E_1	T_1	X_1	T_2
2	E_2	T ₃	X_2	T_4

Source: Riestiani Kadiriandi (2017)

3. Operational Definition of Variables

- a) The TSTS learning model is a learning method carried out in groups with two stages of staying and two going to visit, the remaining ones will provide results and information to the guests applied in Experimental Class 1.
- b) The TGT learning model is a learning method carried out in groups where each representative from the group goes to the tournament table that has been provided and will be given questions to answer and then given an assessment score applied in Experimental Class 2.
- c) Learning outcomes are the results achieved by students after experiencing a learning process within a certain time to achieve the goals that have been set after implementing the TSTS and TGT learning models in the form of assessment of learning outcomes.

4. Population and Sample

In this study, the population was all students of class X of SMA Negeri 14 Gowa. The number of students in class X was 214 students. Based on the Recapitulation of Class X Students of SMA Negeri 14 Gowa, in this study the samples used were two classes, namely class X.1, and class X.4 of SMA Negeri 14 Gowa in the 2023 academic year. Class X.1 was selected as Experimental Group 1 with the TSTS learning model, and class X.4 was selected as Experimental Group 2 with the TGT learning model.

5. Research Procedures

The research implementation procedure is a series of stages of activities carried out by researchers from beginning to end. The following are the research implementation procedures:

a. Preparing research instruments.

b. Carrying out the learning process in two different classes.

Experimental Class 1 applies the Two Stay-Two Stray learning model, while Experimental Class 2 applies the Teams Games Tournament learning model. At this stage, the researcher explains the post-test design, pre-test, learning implementation, conditions for learning actions.

c. Evaluation

- 1) Giving questions or research tests involving two classes, namely Experimental Class 1 which uses the TSTS cooperative learning model and Experimental Class 2 which uses the TGT cooperative learning model.
- 2) Distributing questions.
- 3) Making a table of scores for each group.

4. Reflection

The activity carried out here is a review of the actions that have been taken on the research subjects which require improvement so that good results will be even better.

6. Data collection technique

Data Collection Techniques

a. Observation

The observation conducted in this study aims to obtain data related to student activities during the learning process. Observations of student activities observed were student activities before and after the Two Stay-Two Stray (TSTS) learning model and the Teams Games Tournament (TGT) learning model were applied.

b. Test

Providing an initial ability test to all subjects regarding the dependent variable. This test is useful for determining the equality of the two groups regarding the initial abilities of students. and the final test is used to determine the learning outcomes achieved by students.

c. Documentation

Documentation is a data collection technique that is ready to be carried out to obtain data relating to the number of students and a general description of the school profile. Documentation can be in the form of writing, pictures, or monumental works from someone.

7. Data Analysis Techniques

a. Descriptive Statistical Analysis

Descriptive statistical analysis is an analysis used to clearly describe the learning outcomes of Economics from both classes, namely Experimental Class 1 (Class X.1) and Experimental Class 2 (Class X.4). The criteria used to assess success in implementing the comparison method by looking at student learning outcomes in accordance with the minimum completeness (KKM) is 80%. So a student is said to have completed learning if they get a score of 80% but if it is still below 80% it is considered incomplete (Depdikbud, 1993:6).

Table 2. Value Intervals

No	Score	Categori	
1.	86-100	Very high	
2.	75-85	High	
3.	66-74	Medium	
4.	56-65	Low	
5.	0-55	Very low	

Source: State High School 14 Gowa

b. Inferential Statistics

According to Nasir (2016) inferential statistics is a technique used to draw conclusions (general) on data that has been compiled and processed. There are several techniques used for the purposes of hypothesis testing, namely the normality test, the homogeneity test, and then the independent sample t-test for hypothesis purposes.

1) Normality Test

The data normality test is used to test whether the data being studied is normally distributed or not, because the t-test can be done if the data is normal.

2) Data homogeneity test

The homogeneity test is used because it functions to determine whether the data has a homogeneous variant before using the t-test. The sample homogeneity test is used to determine whether the variance of samples taken from the same population is uniform or not.

3) Hypothesis Test

This hypothesis test is carried out because it functions to determine whether there is a difference in the average learning outcomes of students in Economics who apply the

TSTS type cooperative learning model and the TGT learning model in Experimental 1 and Experimental 2 classes of SMA Negeri 14 Gowa, Gowa Regency. The hypothesis test is processed using the SPSS program analysis. Using a two-tailed t-test with a significance level with the following criteria:

H0: There is no difference in the average learning outcomes of students who apply the Two Stay-Two Stray learning model and the Teams Games Tournament learning model.

H1: There is a difference in the average learning outcomes of students who apply the Two Stay-Two Stray learning model and the Teams Games Tournament learning model.

Decision:

- If the sig value ≤ 0.05 , then H0 is rejected and H1 is accepted.
- If the sig value ≥ 0.05 , then H0 is accepted and H1 is rejected.

RESULTS AND DISCUSSION

A. Result

Data analysis in this study is quantitative data analysis which is research data on student attitudes obtained from observation sheets. In observing student activities, it was done twice, namely observing student activities and learning outcomes in pre-test and post-test activities.

This research was conducted at SMA Negeri 14 Gowa, Gowa Regency, involving two classes, namely class X.1 as Experiment 1 totaling 36 students and class X.4 as Experiment 2 totaling 36 students. The two classes were given different treatments. Experiment 1 used the Two Stay-Two Stray cooperative learning model, while Experiment 2 used the Teams Games Tournament learning model. This research was conducted for 2 months, namely July-September 2023 with two meetings each week. Once in experiment 1 and once in Experiment 2 with a time allocation of 2 X 45 minutes for each meeting. During the learning process in this study, the researcher himself acted as the teacher.

This study used the Two Stay-Two Stray cooperative learning model in Experiment 1 and the Teams Games Tournament learning model in Experiment 2 using the RPP based on the Independent Curriculum which refers to learning objectives using appropriate techniques or methods to observe, collect information, organize information, draw conclusions, and communicate research results on various economic phenomena based on economic concepts. The questions made by the researcher for the student learning outcome test were mostly from the material that had been taught by the researcher. The student activity observation sheet was made by the researcher, namely in accordance with the steps of the Two Stay-Two Stray learning model and the Teams Games Tournament learning model. Before applying the Two Stay-Two Stray learning model to the Experiment 1 class, in the previous meeting the researcher first used the lecture learning model during the teaching and learning process. The process of delivering the material was the same as that carried out in Experiment 2, namely explaining the material, then giving assignments. This is to see how the students' learning outcomes were before the Two Stay-Two Stray model was applied with the Teams Games Tournament.

1. Descriptive Statistical Analysis

The description of the results of this study describes the learning outcomes of students before and after being given treatment in the form of a cooperative learning model of the Two Stay-Two Stray type with Teams Games Tournament on the results of students' economic learning on the material of economic concepts in the experimental class. Data on student results, both pre-test and post-test taught by applying the cooperative learning model of the Two Stay-Two Stray type with Teams Games Tournament on the results of students' economic learning on the material of economic concepts.

So the researcher collected data through the Pre-Test and Post-Test filled in by students, then given a score on each question so that the data can be analyzed descriptively and inferentially.

2. Learning Outcome Value

Descriptive analysis of students' economic learning outcomes in the Two Stay-Two Stray cooperative learning model with Teams Games Tournament on students' economic learning outcomes in the material on economic science concepts can be seen in table 4.1 below: Table 3. Distribution of Statistical Values of Economic Learning Outcomes Pre-Test and Post

Test Experiment 1 and Experiment 2 at SMA Negeri 14 Gowa.

	Experiment	Pre-Test		Post-Test	
No	Statistical Value	Experimen	Experimen	Experimen	Experimen
		1	2	1	2
1.	Number of	36	36	36	36
	subjects				
2.	Highest	81	83	87	89
3.	Lowest	64	68	70	78
4.	Average	73	75,78	79,94	81,75

Source: Data processed 2023

Based on table 4.1, it can be seen that for Experiment 1 from 36 students, the average score of students before the implementation of the Two Stay-Two Stray learning model was 73, the highest score was 81, the lowest score was 64 and for Experiment 2 from 36 students, the average score of students was 75.78, the highest score was 83 and the lowest score was 68. After the researcher conducted observations by looking at the results of the students' pre-test before the implementation of this learning model, it turned out that there were still students whose understanding was very low. So the researcher applied the learning model that would be used in Experiment 1 and Experiment 2, namely the Two Stay-Two Stray cooperative model for Experiment 1 and the Teams Games Tournament cooperative model for Experiment 2.

So it can be concluded that the post-test value obtained from Experiment 1 was an average value of 79.94, the highest value was 87, and the lowest value was 70. Meanwhile, Experiment 2 had an average value of 81.75, the highest value was 89, and the lowest value was 78. This shows that the average value of the learning outcomes of Experiment 2 using the Teams Games Tournament learning model is better than the learning outcomes of Experiment 1 using the Two Stay-Two Stray learning model. Thus, the average learning outcomes for Experiment 2 are greater than those for Experiment 1.

3. Interval of comparative value of pre-test and post-test learning outcomes of Experiment 1 and Experiment 2

The learning outcome scores if grouped into categories, then the frequency distribution of scores is obtained as shown in the following table:

4. Table 4. Interval of Comparison Value of Pre-Test Learning Outcomes of Experiment Class 1 and Experiment 2

Skor	Experiment 1		Experiment 2		Categori
	Frequency	Percentage	Frequency	Percentage	
86-100	0	0	3	8,33%	Very high
75-85	8	22,22%	16	44,44%	Tall
66-74	9	25%	12	33,33%	Currently
56-65	17	47,22%	5	13,88%	Low
0-55	2	5,55%	0	0	Very Low

Source: Processed Data 2023

Table 5. Comparison Value Interval of Post-Test Learning Outcomes for Experimental Class 1 and Experimental Class 2

Class I and Experimental Class 2					
Skor	Experiment 1 Experiment 2		Categori		
	Frequency	Percentage	Frequency	Percentage	
86-100	7	19,44%	9	25%	Very high
75-85	14	38,89%	15	41,66%	Tall
66-74	15	41,67%	12	33,33%	Currently
56-65	0	0	0	0	Low
0-55	0	0	0	0	Very Low

Source: Processed Data 2023

5. Inferential Statistics

a. Pre-Test Data Normality Test

Normality test using Shapiro-Wilk test obtained significance value of Experiment 1 is 0.032 and Experiment 2 is 0.068. Because the significance value of Experiment 1 class is less than 0.05, this indicates that the sample comes from a population that is not normally distributed. The significance value of Experiment 2 class is greater than 0.05, this indicates that the sample comes from a population that is normally distributed. Because the data is normally distributed, a pre-test data homogeneity test will be carried out.

b. Pre-Test Data Homogeneity Test

A significant value of 0.149 was obtained. Therefore, the significant value is greater than sig = 0.05, so the pre-test data of both classes come from a homogenous population or have the same variance.

c. Post-Test Data Normality Test

The significance value of Experiment 1 = 0.058 and Experiment 2 = 0.080 was obtained. Because both values are more significant than sig = 0.05, this indicates that

the sample comes from a normally distributed population. Because it is normally distributed, a post-test data homogeneity test will be carried out.

- d. Homogeneity Test of Post-test Data on Student Learning Outcomes
 A significant value of 0.178 was obtained. Therefore, the significance is greater than sig = 0.05, so the post-test data of both classes come from a homogeneous population or have the same variance.
- e. Hypothesis Testing
 - H₀: There is no difference in the average learning outcomes of students who apply the Two Stay-Two Stray learning model and the Teams Games Tournament learning model in Class X.1 and Class X.4 of SMA Negeri 14 Gowa.
 - H₁: There is a difference in the average learning outcomes of students who apply the Two Stay-Two Stray learning model and the Teams Games Tournament learning model in class X.1 and class X.4 of SMA Negeri 14 Gowa.

The calculation results with the help of SPSS 26, the Sig value (2-tailed) is $0.043 \le 0.05$, so it can be concluded that there is a difference in the average economic learning outcomes of students who apply the Two Stay-Two Stray learning model and the Teams Games Tournament learning model in Experiment 1 and Experiment 2 of SMA Negeri 14 Gowa.

B. Discussion

The research conducted at SMA Negeri 14 Gowa aims to determine the difference in the average economic learning outcomes of students who have implemented the Two Stay-Two Stray learning model with Teams Games Tournament. The sample in this study was class X.1 as Experiment I with 36 students and class X.4 as Experiment 2 with 36 students. The cooperative learning model type Two Stay-Two Stray with Teams Games Tournament has a learning objective of finding information from problems given by the teacher and trying to find answers through a discussion process with group members. The difference in the average economic learning outcomes of students can be seen from the hypothesis test. However, before testing the hypothesis, the researcher must first conduct a prerequisite test, namely the normality test and the homogeneity test.

The normality test is intended to determine whether the data studied is normally distributed or not and the data is normally distributed if the significance level is greater than 0.05. After the normality test was carried out with SPSS 26 Shapiro-Wilk, it can be seen that the data is normally distributed. This can be seen from the significant value of 0.032 obtained for Experiment 1 Two Stay-Two Stray (TSTS), a significant value of 0.068 for Experiment 2 Teams Games Tournament (TGT). So it can be concluded that the data is normally distributed. The homogeneity test is carried out to determine whether the data has a homogeneous variant or not and if the significant number (sig) based on mean> 0.05, then the variation of each sample is the same or the data is homogeneous. After conducting a homogeneous. This can be seen from the value (sig) based on mean is 0.178> 0.05, then it can be concluded that the variation of Experiment 1 and Experiment 2 data is the same or the data is homogeneous. After conducting the prerequisite test, a hypothesis test is carried out.

Hypothesis testing using an independent t-test is carried out to determine whether there is a difference in the average of students in Experiment 1 and Experiment 2 after different learning models are carried out in different classes and if sig. (2-tailed) <0.05 then H0 is rejected or there is a difference in the average of students. After conducting a hypothesis test with SPSS 26, it can be seen that there is a difference in the average learning outcomes of students in economics who applied the Two Stay-Two Stray cooperative learning model with

Teams Games Tournament in class X of SMA Negeri 14 Gowa. This can be seen from the sig. (2-tailed) value of 0.043 < 0.05. The average value of the Two Stay-Two Stray model is 79.94, the lowest value is 70, the highest value is 87. While the average value of the Teams Games Tournament is 81.75 with the lowest value is 78, the highest value is 89. Thus it can be concluded that the learning outcomes of students who use the Teams Games Tournament (TGT) learning model are higher than Two Stay-Two Stray (TSTS). Based on the theory, this TGT learning model has advantages, the TGT learning model applies a learning method in small groups in which there are game elements in its application so that it can improve student learning outcomes. The results of this study are also in accordance with the research conducted by Made Budi Iswara (2017), there are differences in student learning outcomes taught by the TGT learning model and the TSTS learning model in the subject of Economics. The TGT type cooperative learning model is more effective than TSTS on the learning outcomes of class X students of SMA Negeri 14 Gowa.

CONCLUSION

The results of this study can be concluded that there is a difference in the average learning outcomes of students after the implementation of the Two Stay-Two Stray (TSTS) cooperative learning model with the Teams Games Tournament (TGT) cooperative learning model as indicated by the Sig value (2-tailed) $0.043 \le 0.05$ at SMA Negeri 14 Gowa. The average learning outcomes of students who applied the Teams Games Tournament learning model (81.75) were higher than Two Stay-Two Stray (79.94).

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