

THE EFFECT OF THE TEAM GAMES TOURNAMENT LEARNING MODEL ON STUDENTS' COLLABORATION SKILLS IN GEOGRAPHY SUBJECTS AT SMA NEGERI 10 PEKANBARU

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ABSTRACT

This study aims to determine the Influence of the Team Games Tournament Learning Model on Students' Collaboration Ability in Geography Subjects. This study uses a quantitative approach with the Quasi Experimental method with a pretest-posttest control group design. The population in this study is grade XI students consisting of 4 classes. The sampling technique used Cluster Sampling, with class XI.4 as the control class and class XI.3 as the experimental class by providing the treatment of the Team Games Tournament learning model. Data collection was carried out by pre test and post test to see students' collaboration skills, complemented by observation and documentation. The data analysis in this study used parametric statistics with the T-Test test. The results of this study show that the Team Games Tournament learning model affects students' collaboration skills in the geography subject of Disaster Mitigation and Adaptation. The average increase in students' collaboration ability (pre test and post test) results in the experimental class was higher than in the control class, with the average comparison of the collaboration ability of students in the experimental class of 56.50 increasing to 62.35 with a percentage increase of 5.85%. Meanwhile, the average control class score of 48.98 increased to 51.23 with a percentage increase of 2.25%. Based on the results of the t-test hypothesis, a Sig.(2-tailed) value of 0.000 is obtained, then according to the basis for decision-making in the Independent Sample T-Test, if the $\text{sig} < 0.05$ ($0.000 < 0.05$) or $t_{\text{table}} > t_{\text{table}}$ ($5,518 > 1.664$), if the t_{table} is $> t_{\text{table}}$, then H_0 is rejected or H_a is accepted. Based on the explanation above, it can be seen that there is a significant influence of the Team Game Tournament learning model on students' collaboration abilities in Geography subjects at SMA Negeri 10 Pekanbaru.

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INTRODUCTIONS

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, to develop all the potentials that students have through the learning process Sutiono, (2021). Based on this understanding, it is known that education is an effort to develop the potential that students have that are needed by the community and the state.

Developing students' potential in accordance with the educational goals contained in Law No. 20 of 2003, a curriculum that is adaptive to the times is needed. The curriculum in Indonesia is structured based on the challenges of the 21st century, where in 21st century learning, innovation learning skills are the center. Students living in the 21st century must master scientific skills, have metacognitive skills, be able to think critically and creatively, and be able to communicate or collaborate effectively. (Manurung, 2019)

In addition, Miroh et al., (2019) also stated that students in the 21st century, one of the abilities that can be developed is the ability to collaborate. Based on these two statements, it can be seen that the ability to collaborate is one of the abilities that must be possessed by students in the 21st century.

Collaboration ability is the ability to exchange ideas or ideas and also feelings between students at the same level Lelasari et al., (2017). Meanwhile, collaboration in the learning process is a form of cooperation between students where students help each other and complete certain tasks to achieve predetermined goals (Rahayu et al., 2019)

From the two opinions above, it can be concluded that the ability to collaborate is one of the important skills that must be possessed by students in the 21st century. In the context of education, collaboration is defined as the ability of students to exchange thoughts, ideas, and feelings with peers, as well as work together to complete certain tasks. This includes helping each other and complementing each other to achieve the learning goals that have been set. Thus, the development of collaboration skills among students is essential to prepare them for the challenges of the modern era that demands interpersonal skills and effective cooperation

The students' collaboration ability can be seen from the contribution of students in the group, responsibility in carrying out tasks, participation in problem solving, working with others, and listening to the opinions of others. Students' collaborative skills in learning are used as one of the important skills in achieving effective learning outcomes. Through collaborative activities, students have the ability to cooperate and interact with other students to achieve learning goals. However, in reality, not all students have good collaboration skills (Wati, 2022)

The researcher conducted observations and interviews with a geography teacher, namely Mr. Muzahar S.Pd who teaches in class XI Social Studies at SMA Negeri 10 Pekanbaru. Based on the results of the interview, information was obtained that students' collaboration skills were still relatively low. This is proven based on data and findings obtained from observations and interviews with the teacher where according to the geography teacher some students have shown collaboration between students as evidenced by the interaction between students with each other in group discussion activities, but based on initial observations, it was also found that some students have not shown active involvement in discussion activities. The students are still less active in learning geography. It was recorded that some students in the class carried out activities that deviated from the learning objectives, such as discussing outside the context of the material, talking to friends outside the context of the discussion, playing, and even falling asleep during the discussion. This shows the need for a learning approach that encourages student active participation and collaboration. The data was obtained by the researcher from the notes of Geography teachers regarding student behavior during discussion activities. There are students who do not give opinions, do not take notes, and even play with their classmates while the discussion is going on. When asked by a teacher or friend, he answers briefly or even remains silent. It can be concluded that there are indications that students' collaboration skills, especially in class XI IPS 3 at SMA Negeri 10 Pekanbaru, are still relatively low. This can be seen from the results of observations and interviews with teachers, where some students are less active in participating in group discussions and tend to rely on group mates to complete assignments. Some students show collaboration, but many are inactive and only rely on group friends.

There are some students in the class who do not have the ability to cooperate or collaborate well and are less responsible for the tasks given by the teacher, such as lack of active participation in group discussions. Some students look passive and only rely on other members to do group assignments so it will be difficult to achieve the common goals that the teacher has set. Based on the results of the observations above, it was found that the problem was that group discussion activities were less effective because students used discussion activities to tell stories and did not solve the problems given by the teacher. In addition, most students also do not understand what to do, so only certain students complete group assignments.

According to Rahayu et al., (2019) problems like the above occur because at this time the learning activities carried out tend to be passive, where the learning approach uses a teacher center so that it is teacher-centered, so students only sit passively listening to the teacher's explanation. This is in agreement with Salay (2019) who states that this learning model where teachers convey knowledge to students turns out to make students passive because they only listen during the learning process so that students' creativity is less nurtured or even tends to be uncreative. In the Teacher Center approach, teachers do more teaching and learning activities in the form of lectures (lecturing), while students during the learning process only listen to lectures, only limited to understanding while taking notes, for those who feel they need it. Learning models like this will cause saturation for students, so that the learning carried out becomes uninteresting and tends to be boring.

According to Rahayu et al., (2019) teachers should no longer carry out learning conventionally, but based on the latest learning demands of the 21st Century. The role of the teacher is not only as a transfer of knowledge or the teacher is the only learning resource that can do anything (teacher center) but the teacher as an active mediator and facilitator to develop the active potential of the students in him. The solution to realize the success of teaching and learning activities is to choose the right learning model to improve collaboration skills.

One of the learning models that can make students active and foster students' collaboration skills is by using a TGT (Teams Games Tournament) type cooperative learning model. The Teams Games Tournament learning model is a cooperative learning model that places students in study groups of 3-6 members (depending on the number of students in the class) where group members are selected heterogeneously (W. Astuti & Kristin, 2017).

According to Ayu Oktavia (2024) in her journal, the TGT learning model provides opportunities to improve students' collaboration skills. The TGT learning model can foster positive relationships between students because with TGT students will grow in a group environment so that it requires teamwork and empathy for others. By focusing on healthy competition and teamwork, TGT can create an interactive and supportive learning environment. The theory that connects the Team Games Tournament learning model to students' collaboration skills is the theory of social constructivism. Research from Nurhikmawati, (2024) states that by combining elements of collaboration, competition, and a fun learning atmosphere, TGT supports the theory of constructivism that emphasizes hands-on experience as an effective way to build knowledge.

The application of the TGT learning model according to Albertus Hermawan, (2020) is by forming small groups consisting of four to six people who have different academic backgrounds, genders or genders, races, or ethnicities. Davis de Vries and Keith Edwards stated that the Teams Games Tournament (TGT) is a cooperative learning model. This method is the first learning model used at John Hopkins University. This learning model combines group discussions and games. A study by Berlmutter and de Montmollin showed that students in groups learn faster and more effectively when they complete tasks together and independently. In this case, the Teams Games Tournament learning model is very relevant to be used to support students' collaboration skills.

Geography education is a learning process that aims to develop students' understanding of the interaction between humans and the environment, as well as the relationship between various geographical phenomena. This education includes teaching about the physical and social aspects of geography, including an understanding of maps, locations, spaces, and environmental dynamics. Through geography education, students are taught to analyze and understand global issues, such as climate change, urbanization, and the use of natural resources (Pratama et al., 2024)

Geography learning, especially for grade 11 high school, is a branch of social science that leads students to understand the relationship between humans and their environment, with a focus on Indonesia's strategic position, the

distribution of natural resources, biodiversity, population dynamics, and disaster mitigation strategies. All of this is done not only theoretically, but also through the analysis of geosphere phenomena that occur around them. The Ministry of Education and Culture in Amelia et al., (2018) stated that Geography is expected to be a subject that is able to improve students' behavior and attitudes in living and practicing the religious teachings they adhere, behave honestly, be disciplined, responsible, caring (mutual cooperation, cooperation, tolerance, peace), be polite, responsive, and pro-active, and show an attitude as part of solutions to various problems in their environment. The aspects used to measure the achievement of these competencies are in the form of attitudes, knowledge, and skills.

Thus, the urgency of this research lies in the need to improve students' collaboration skills in accordance with the direction of the Independent Curriculum which emphasizes the importance of 5C skills (critical thinking, communication, collaboration, creativity, and character) in shaping student competencies using the Teams Games Tournament learning model. The difference between this research and the previous research that was researched was that it focused on the subject of Geography at the high school level. In addition, this study highlights continuous evaluation and improvement, especially related to the learning media used for the TGT method. The purpose of this study is to determine the Influence of the Team Games Tournament Learning Model on Students' Collaboration Ability in Geography Subjects at SMA Negeri 10 Pekanbaru.

RESEARCH METHODS

This study uses a quantitative approach. with quasi-experimental methods and research design in the form of pretest-posttest control group design. This research is a type of quasi-experimental research. This research was carried out at SMA Negeri 10 Pekanbaru which is located on Jalan Bukit Barisan, East Tangkerang, Kec. Prov. Riau. The subjects of this study are 40 students in grade XI social studies in the 2024/2025 school year. The object used in this study is the influence of the Team Games Tournament learning model on the collaboration ability of grade XI students of SMA Negeri 10 Pekanbaru.

The free variable in this study is the use of the Team Games Tournament learning model, while the bound variable in this study is the ability of students to collaborate in geography learning at SMA Negeri 10 Pekanbaru. The population in this study is all students of class XI IPS SMAN 10 Pekanbaru. The following is the number of students in class XI IPS SMAN 10 Pekanbaru. Sampling was done using the Cluster Sampling technique. In this study, the sample used by the researcher determined that students of grade XI IPS 3 will be an experimental class because the students are still less active in learning geography. There are students who do not give opinions, do not take notes, and instead play with their friends. When asked by a teacher or friend during the learning session about the material being discussed, he answered briefly or remained silent. while Class XI IPS 4 students will be the control class because the students are more active in learning geography.

The data collection technique of this study uses observation, questionnaire and documentation. The instrument test uses validity test and reliability test. Data analysis techniques used normality tests, homogeneity tests and t tests.

RESULTS AND DISCUSSION

Research Results

Observation results

The results of the recapitulation of teacher activity observations in using the Team Games Tournament learning model in geography subjects can be seen in the table below:

Table 1. Recapitulation of Observation Results of Teacher Activities in Experimental Classrooms

No	Learning activities with the Team Games Tournament learning model	Observations		
		1	2	3
1	At the beginning of teacher learning Delivering material in class presentations	4	4	5

2	The teacher conveys the goals, tasks, or activities that must be done students, and provide motivation.	3	4	5
3	The teacher divides the students into Small groups.	3	3	4
4	The teacher asks students to work in groups of 3 to 5 people whose members are heterogeny	2	3	3
5	After the teacher informs the material and the learning objectives, the group discusses with using LKS.	2	4	5
6	The teacher observes the group having discussions to solve problems together, giving each other answers and correcting if there are members group that is wrong in answering.	1	3	4
7	The teacher prepares questions related to the material, numbered as many as Number of students.	1	2	4
8	The teacher prepares the tools for the game, namely: game cards with numbers, Questions in Essay Form	2	3	5
9	The teacher instructed each group (team) to have the opportunity to answer the questions listed on the numbered cards available on the table at the Front of the class	2	2	3
10	Teachers reward the group with the highest score	2	4	4
11	Teacher guides Interesting Students Conclusions about the learning that has taken place.	3	5	5
12	The teacher closes the lesson with Greetings.	2	4	5
Total score		27	38	48
Maximum score		60	60	60
Percentage		45%	63,33 %	80%
Criteria		Enough Good	Good	Very Good

Table 1 above is the result of a recapitulation of the observation of teachers' activities in learning using the Team Games Tournament learning model in geography subjects from the first meeting to the third meeting in the experimental class can be completed well, where the observation of teacher activities reaches a percentage of 80% in the very good category. Furthermore, the results of the recapitulation of student activity observation using the Team Games Tournament learning model in geography subjects can be seen in the table below:

Table 2. Recapitulation of Observation Results of Student Activities in the Experimental Class



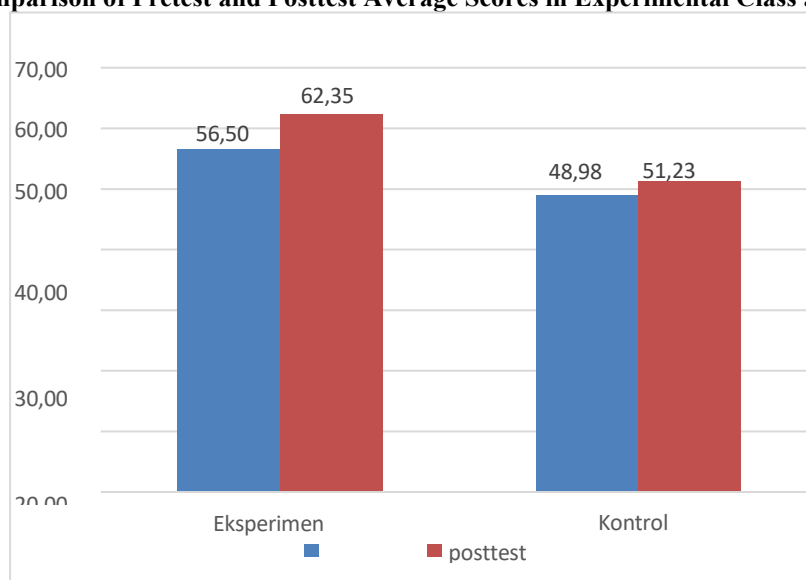
No	Learning Activities with Time Token Learning Model	Observations		
		1	2	3
1	At the beginning of student learning following the delivery of material in the presentation of the class	3	4	5
2	Students participate in the delivery of objectives, assignments, or activities that must be done by students, and provide motivation.	3	5	5
3	Students are divided into groups- Small group.	3	4	4
4	Students work in groups of 3 to 5 people whose members are heterogeneous	2	3	4
5	After the teacher informs learning materials and objectives, the group discussed using LKS.	3	3	4
6	Students in groups have discussions to solve problems together, give each other answers and correct if there are members of the group who are wrong in the Reply.	1	2	4
7	Students participate in the teacher's activities to prepare questions related to the material, numbered as many as Number of students.	2	3	5
8	Students participate in the teacher's activities to prepare tools for the game, namely: game cards equipped with numbers, questions in the form of an essay	2	2	4
9	Each group (team) gets the opportunity to answer the questions listed on the numbered card available on the table in front of the classroom	1	3	4
10	Students get rewards to the group that achieves the score The Highest Teacher	3	3	5
11	Students with the guidance of the teacher draw conclusions about Ongoing learning.	1	2	3
12	Students follow the closure Lessons with Greetings.	2	3	4

Total score	26	37	50
Maximum score	60	60	60
Percentage	43,33%	61,66%	83,33%
Criteria	Enough Good	Good	Very Good

Table 2 above is the result of a recapitulation of the observation of student activities in learning using the Team Games Tournament learning model in geography subjects from the first meeting to the third meeting in the experimental class can be completed well, where the use of the Team Games Tournament model can also be applied very well by students, which reaches a percentage of 83.33%.

Comparison of experimental class and control class collaboration skills

Graph 1. Comparison of Pretest and Posttest Average Scores in Experimental Class and Control Class



The results of the questionnaire data can be used to determine the classification of the level of collaboration skills of students both in general between two classes and student collaboration in experimental classes. The results of the percentage of student collaboration scores for the pretest and posttest students of the experimental class and the control class of each indicator are as follows.

Table 3. Experimental and Control class Collaboration Ability Indicator Score (pretest and posttest)

No	Indicator	Experiment		Control	
		Pretest	Posttest	Pretest	Posttest
1	I'm active during discussions Ongoing.	9,2	11,6	9,33	8,8
2	I contribute in Presenting the results of the thought.	9	10,93	8,47	9,13
3	I always listen to the ideas given by the group members during the Discussion.	9,2	11	9,47	9,6

4	I show an attitude compromise by being willing to accept a joint decision.	9,53	11,2	8,2	9,4
5	I am able to work with anyone, both fellow group members and no.	9,6	11	8,93	9,67
6	I always respect the ideas that the group members have expressed in the discussion Group	11,27	10,93	8,93	8,67
7	I am able to give my opinion in the discussion Group.	9,73	10,87	8,33	9,33
8	I listen to the opinions of the group members in Discussion.	10,53	11	9,87	9,47
9	I am able to divide tasks and work based on their abilities Group members.	10,87	10,53	7,67	8,33
10	I always work with group members with different individual views to create Verdict.	10,53	11,27	9,2	9,53
11	I always express my opinion politely and Yours sincerely,.	10,13	11,13	7,67	8,33
12	I prioritize the interests of the above group Individual Interests	11,27	10,8	8,67	8,27
13	I attended a discussion group in a timely manner.	10,73	11,53	7,93	9,6
14	I can afford to consider interests and needs of the larger group.	9,07	11,27	8,73	8,93
15	I and the group members completed the assignment On time.	10	11,2	9,2	9,53

Source : Processed Research Data 2025

Based on the table above, it is known that in the experiment posttest class, the highest indicator was "I attended the group discussion on time." with a score of 11.53%, while in the posttest control class, the highest indicator was "I am able to collaborate with anyone, both fellow group members and not" with a score of 9.67%. So it can be concluded that there is an increase in the learning model of team games tournaments on students' collaboration abilities in geography subjects at SMA Negeri 10 Pekanbaru.

Normality Test

Based on the output of the normality test using the Kolmogorov-Smirnov test using SPSS, the output is as follows:

Table 4. Normality Test

Tests Of Normality							
	Classes	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Students'	Pretest Experiments	.127	40	.103	.962	40	.199

Collaboration Skills	Posttest Experiment	.077	40	.200*	.972	40	.410
	Pretest Control	.120	40	.149	.951	40	.079
	Posttest Control	.122	40	.138	.972	40	.420

*. This Is A Lower Bound Of The True Significance.

A. Lilliefors Significance Correction

Source : Processed Research Data 2025

Based on table 4. The normality test of the above data can be concluded for all experimental and control class data in the pretest and posttest shows that the Kolmogorov Significance value is greater than the alpha which is 0.05. Thus, it can be said that the data from the above research that was tested has a normal data distribution. So that the data from the research results can be continued to the next stage of the analysis prerequisite test, namely the homogeneity test.

Homogeneity Test

Based on the tests carried out, the results of the homogeneity test can be seen based on the following table:

Table 5. Homogeneity Test Analysis Output

Test Of Homogeneity Of Variance					
		Levene Statistic	Df1	Df2	Sig.
Students' Collaboration Skills	Based On Mean	1.752	3	156	.159
	Based On Median	1.650	3	156	.180
	Based On Median And With Adjusted Df	1.650	3	130.730	.181
	Based On Trimmed Mean	1.724	3	156	.164

Source : Processed Research Data 2025

Based on table 5 above, it can be seen that the sig value based on mean is $0.159 > 0.05$ so that it can be concluded that the control and experimental class data are the same or homogeneous. Thus the data can be used for further testing.

Hypothesis Test

This hypothesis test was used to see the effect of the team games tournament learning model on students' collaboration skills in geography subjects at SMA Negeri 10 Pekanbaru. With the following hypothesis:

Ha: There is a significant influence of the Team Game Tournament learning model on students' collaboration skills in Geography subjects at SMA Negeri 10 Pekanbaru.

Ho: There is no significant influence of the Team Game Tournament learning model on students' collaboration skills in Geography subjects at SMA Negeri 10 Pekanbaru

Hypothesis Test Paired Sample T Test

The following are the test results using the Paired Sample T Test in the program SPSS.

Tabel 6. Hasil Uji Paired Sample T Test

Paired Samples Test							
	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower			

Pair 1	Pretest Experiment - Posttest Experiment	-5.850	10.923	1.727	-9.343	-2.357	3.387	39	.002
Pair 2	pretest Control- posttest Control	-2.250	13.181	2.084	-6.465	1.965	1.080	39	.287

Source : Processed Research Data 2025

Based on table 6 above, it is known that the experimental output obtained a Sig. (2-tailed) value of $0.002 < 0.05$, so it can be concluded that there is a difference in the average collaboration ability of students for the Pretest and Posttest experiments using the Team Game Tournament model. Based on the control output, a Sig. (2-tailed) value of $0.287 > 0.05$ was obtained, so it can be concluded that there was no difference in the average collaboration ability of students for pretest and posttest control without using the Team Game Tournament model.

Hypothesis Test Independent Sample T Test

The following are the results of the analysis of the independent sample t-test hypothesis that has been analyzed using SPSS 26.

Table 7. Uji Independent Sample T Test

		Independent Samples Test								
		Levene's Test For Equality Of Variances		T-Test For Equality Of Means						
		F	Sig.	T	Df	Sig. (2-Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval Of The Difference	
								Lower		Upper
Kemampuan Kolaborasi Siswa	Equal Variances Assumed	3.125	.081	5.518	78	.000	11.125	2.016	7.112	15.138
	Equal Variances Not Assumed			5.518	67.924	.000	11.125	2.016	7.102	15.148

Source : Processed Research Data 2025

The results of data processing were obtained, for the t-test a Sig.(2-tailed) value of 0.000 was obtained, then according to the basis for decision-making in the Independent Sample T-Test if the sig < 0.05 ($0.000 < 0.05$) then it can be concluded that H_0 is rejected and H_a is accepted. Based on the comparison of tcount with ttable, where the tcount obtained is 5.518 and ttable at the degree of freedom $df = 78$ with a significance level of 0.05 is 1.664; then it is known that the tcount $>$ ttable ($5,518 > 1,664$), if the tcount $>$ ttable then H_0 is rejected or H_a is accepted. Based on the explanation above, it can be seen that there is a significant influence of the Team Game Tournament learning model on students' collaboration abilities in Geography subjects at SMA Negeri 10 Pekanbaru.

N Gain Test

Normal gain is done to see the difference between the pretest and posttest scores. The search for the effectiveness value is obtained from the results of the N-gain that has been calculated beforehand. The calculation of N-gain is based on the availability of pretest and posttest contained in the formula:

$$N - \text{Gain} = \frac{S_{\text{posttest}} - S_{\text{pretest}}}{S_{\text{maximum}} - S_{\text{pretest}}} \times 100\%$$

Based on this formula, the N-gain results obtained as a calculation to see how effective the use of the Team Game Tournament learning model is to improve the collaboration ability of geography students are as follows:

Table 8. N-Gain Criteria

N-Gain interpretation categories		
No	Presentase	Classification
1	100-71%	Tinggi
2	70-31%	Sedang
3	30-1%	Rendah

Known:

Pretest Score : 56,50
Posttest Score : 62,35
Ideal score : 100,00

$$\begin{aligned} N - \text{Gain} &= \frac{S_{\text{postes}} - S_{\text{pretest}}}{S_{\text{maksimal}} - S_{\text{pretest}}} \times 100 \\ &= \frac{62,35 - 56,50}{100,00 - 56,50} \times 100 \\ &= \frac{5,85}{43,5} \times 100 \\ &= 13,44\%. \end{aligned}$$

Based on the results of the formula above, it is known that the influence of the Team Game Tournament learning model on students' collaboration ability in Geography subjects at SMA Negeri 10 Pekanbaru is 13.44% with a low category.

Discussion

This study was conducted to find out whether there is a significant influence of the Team Games Tournament learning model on students' collaboration skills in Geography subjects at SMA Negeri 10 Pekanbaru.

After examining the data, the results of the study showed a difference in the level of students' collaboration ability after learning was carried out using the Teams Games Tournament (TGT) learning model. This is obtained from the normality test, homogeneity test, and also the t test obtained. The results of the three tests showed that students' collaboration ability in learning geography using the Teams Games Tournament (TGT) learning model and without using the Teams Games Tournament (TGT) learning model after the pretest and posttest gave different results on the level of students' collaboration ability.

This is proven by the results of research carried out at SMA Negeri 10 Pekanbaru. In the normality test, the experimental class was obtained using the Teams Games Tournament (TGT) learning model in the pretest was 0.103 because the significance > 0.05 (more than 0.05) then the pretest normality test for the experimental class was normally distributed. Then for the pretest in the control class without using the Teams Games Tournament (TGT) learning model, it was 0.149 because the significance > 0.05, then the pretest normality test for the control class was normally distributed. And the posttest in the experimental class using the Teams Games Tournament (TGT) learning model was 0.200, due to the significance of

>0.05, the posttest normality test for the normalized experimental class, and the posttest for the control class that did not use the Teams Ges Tournament (TGT) learning model was 0.138, because the significance was >0.05, then the posttest normality test for the normalized control class was normal.

Then the value of the homogeneity test is known to be a sig value based on mean of $0.159 > 0.05$ so that it can be concluded that the control and experimental class data are the same or homogeneous. Thus the data can be used for future testing.

Furthermore, based on the results of the t-test hypothesis, a Sig.(2-tailed) value of 0.000 was obtained, then according to the basis of decision-making in the Independent Sample T-Test, if the sig < 0.05 ($0.000 < 0.05$), it can be concluded that H_0 is rejected and H_a is accepted. Based on the comparison of the tcount with the ttable, where the tcount obtained is 5.518 and the ttable at the degree of freedom $df = 78$ with a significance level of 0.05 is 1.664; it is known that the tcount is $>$ ttable ($5.518 > 1.664$), if the tcount is $>$ ttable, then H_0 is rejected or H_a is accepted. Based on the explanation above, it can be seen that there is a significant influence of the Team Game Tournament learning model on students' collaboration ability in the eyes Geography lessons at SMA Negeri 10 Pekanbaru.

Based on the results of the N-Gain test, it is known that the influence of the Team Game Tournament learning model on students' collaboration ability in Geography subjects at SMA Negeri 10 Pekanbaru is 13.44% with a low category.

In line with the research conducted by Fauziah, (2024) with the title "The Influence of the Team Games Tournament (TGT) Model on the Collaboration Ability of Grade XII-C2 Students at SMA Negeri 11 Semarang on Reduction and Oxidation Reaction Materials" the results of the study show that there is a significant increase in the application of the Team Games Tournament (TGT) Model to the Collaboration Skills of Grade XII-C2 Students at SMA Negeri 11 Semarang.

Concretely, the findings in this study also show that the application of the Teams Games Tournament (TGT) learning model has a positive impact on the teaching and learning process. Through the TGT learning stage, following modifications from Robert E. Slavin (2008), namely with the first step, the teacher conducts preliminary activities, core activities and closing activities, namely greeting and students start praying, asking how students are doing and starting to attend students, checking students' readiness in participating in learning activities, conducting perception, namely asking about previous material before entering new material, namely material on disaster mitigation and adaptation, motivate students and then convey the learning objectives on this day. After that, the teacher began to deliver material to students using powerpoint in the material on the definition, type, and impact of natural disasters. In the second stage, entering the core learning activity, the teacher divides students into 6 groups, each group of 6 or 7 people because the number of students in the class is 40 students. The teacher conveyed the learning model that will be used at today's meeting, namely the Team Games Tournament learning model with a question card game, after which the teacher informed each group to discuss carefully, re-study the material that had previously been presented by the teacher, then work on the questions in the LKS that were in accordance with the natural disaster material. Before starting, the teacher prepares questions related to Natural Disaster material, numbered as many as the number of students available. Then the teacher prepares tools for the game, namely: game cards equipped with numbers, good questions in the form of essays after that the teacher attaches 6 pieces of cardboard paper where each carton is filled with 7 question cards, so each student in the group gets the responsibility to answer all the questions that are already in the card of each group in turn. The teacher conveys the Steps to be done in learning with the model previously described above, after the game is over, the teacher gives rewards to the group that achieves the highest score.

By using the TGT Model in learning, it is proven that the TGT model has an influence in improving students' collaboration skills after learning compared to the previous one, as evidenced by the learning process using the TGT model, it was found that students became more active in discussing, sharing knowledge, and showing high enthusiasm in participating in each stage of the activity. At the time of team formation, students seem enthusiastic about finding their group friends who have been determined by the teacher and getting to know each other team members, creating a sense of togetherness and responsibility. This feeling of responsibility is what makes students study more actively and focused, thus having an impact on achieving higher learning outcomes.

In the stage of material presentation and group discussion, students take turns explaining their understanding, responding to friends' questions, and looking for additional references from package books and other sources. The classroom atmosphere becomes more lively because there is a two-way interaction between teachers and students as

well as between the students themselves. Students not only receive information from the teacher, but also learn from their peers through discussion and re-explanation of the material.

When entering the game or tournament stage, students show a healthy competitive spirit. They competed to answer questions quickly and precisely, while maintaining sportsmanship between groups. Students who were previously passive in conventional learning become more active, especially during tournament sessions. The atmosphere of the class was even more lively when student representatives came forward in front of the board to answer questions. Friends in the group give their full support by cheering, cheering, and even occasionally giving brief gestures or hints that are allowed in the rules of the game. Students encourage each other so that their group representatives can answer quickly and precisely, creating a dynamic and fun learning climate. Even students who are usually passive begin to be actively involved, both in answering questions and providing support to teammates.

This shows that the TGT model not only improves academic understanding, but also builds collaborative character, a sense of togetherness, and confidence in students. The next finding that the researchers found was that students showed high enthusiasm in participating in each learning session because they felt involved and valued.

5. Conclusion

Based on the results of research at SMA Negeri 10 Pekanbaru, it was concluded that there was a significant influence on students' collaboration abilities between classes that used the Team Games Tournament (TGT) learning model and classes that did not use it. The normality test showed normal distributed data with a significance value of > 0.05 , and the homogeneity test produced a sig based on mean value of 0.159 (> 0.05), indicating homogeneous data. The results of the hypothesis test showed a Sig. (2-tailed) value of 0.000 (< 0.05), so that H_a was accepted and H_o was rejected, which means that the TGT model has a significant effect on improving students' collaboration skills in Geography subjects. This study provides empirical evidence that the TGT model is effective in improving students' collaborative skills, so it is recommended to be applied more widely in the learning process.

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