

## THE INFLUENCE OF TEAM GAME TOURNAMENT (TGT) MODEL ON THE LEARNING OUTCOMES OF GRADE 4 STUDENTS IN MALAKA SARI 01 ELEMENTARY SCHOOL

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### ABSTRACT

*This study explores the effect of the Team Game Tournament (TGT) learning model on the learning outcomes of Grade 4 students at Malaka Sari 01 Elementary School. The TGT model, as a cooperative learning strategy, engages students in collaborative and competitive group activities aimed at enhancing cognitive, affective, and psychomotor domains. The research employs a quasi-experimental design involving 60 students, divided into experimental and control groups. Data was collected through pre-tests and post-tests, with statistical analysis conducted using SPSS 25 to evaluate normality, homogeneity, and t-tests. The findings reveal a significant improvement in the learning outcomes of students exposed to the TGT model, with the experimental group demonstrating higher post-test scores compared to the control group. The study concludes that the TGT model fosters active participation, teamwork, and engagement, leading to improved academic performance and better comprehension of IPAS (Natural and Social Sciences) subjects. The results underscore the potential of TGT as an effective pedagogical tool to create enjoyable and meaningful learning experiences for elementary students.*

### KEYWORDS

*Team Game Tournament (TGT), Elementary Education, Experimental Research, Educational Innovation*



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### INTRODUCTION

Children are one of the phases in which a person is still learning to develop himself. In the process of development, children are always able to master their heritage in the form of thought, attitude and action with awareness and full responsibility. By learning the habits that occur around them, the majority of the intelligence of a child today cannot be separated from the influence of technology and information, but a child is able to be recognized by the surrounding

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environment. One way to increase a child's knowledge is to bring the child closer to the world of education.

Education is an important part of human life. The means of education is human, especially for children who are still in the process of growing and developing and cannot even determine what is good or not good to imitate. In other words, education can be said to be an effort to develop the personality and abilities of children so as to achieve good personal and social life patterns. Efforts to improve the quality of education by improving the quality of an efficient and interesting learning process.

Learning is related to the concept of learning and teaching. There is interaction between teachers and students in the learning process, so that it affects changes in the behavior of a child which includes skills. In this case, a teacher is able to create something that attracts students' learning attention such as seeing the times and the preferences of children in general. Basically students are very happy with something interesting. This statement shows that in an interesting learning process for children, namely by using one of the learning models.

Based on the results of pre-research at Malaka Sari 01 State Elementary School located on Jalan Malaka III, Malaka Sari, Duren Sawit, East Jakarta City, by conducting interviews with the education staff of SDN Malaka Sari 01 Pagi and the characteristics of one of the students of SDN Malaka Sari 01 Pagi, obtained information about the usual learning process, and students of SDN Malaka Sari 01 Pagi in learning activities are more active and innovative if the learning model is interesting and up to date. However, in teaching and learning activities, the majority of students feel bored and difficult to understand because the learning model used is not maximized so that teachers must manage unique learning.

The learning model is one of the ways used to support the learning process. Innovative learning models will encourage students to actively provide responses, feedback and make it easier for students to understand lessons. Based on the preferences of children, especially low-grade students, who have just adapted to entering high grades, namely by using the *Team Game Tournament (TGT)* model, the teacher uses a learning model by making several groups and is given in conducting tournaments in the implementation of learning.

*Team Game Tournament (TGT)* is also used to puzzle out subject matter and improve learning outcomes. *Team Game Tournament (TGT)* is one of the unique alternative materials used in learning and is favored by children so that it affects the knowledge, attitudes and skills of a child and even attracts students' attention in learning.

*Team Game Tournament (TGT)* is commonly known to the wider community, namely Snakes and Ladders and Crossword (TTS), but the object of research that is no less interesting for student learning outcomes is one of them, namely *puzzles*. *Team Game Tournament (TGT)* is one of the learning models that form a group game, where this model is to find out cooperation and care for fellow friends and encourage students in learning, such as group games in conducting tournaments.

Researchers want to prove that students can make groups and conduct tournaments outside the classroom. The tournament is carried out by directing each group to a predetermined place, then when it is finished then doing a practicum, and

the group that has done all these activities then the group is declared to have won the game. This can be associated with IPAS learning and can improve student learning outcomes. Student learning outcomes can be reviewed from various subjects, especially IPAS subjects. IPAS lessons can show the development of knowledge and abilities of elementary school students.

IPAS which has a variety of diverse sub-materials. The teacher as a facilitator, where the teacher is able to determine the best media associated with the theme to be discussed. Through IPAS learning, students can interact with the people closest to them to find out about an event around them so that they increase their knowledge, determine attitudes and good behavior, and improve their skills based on the direction of a teacher, the ability of students to deal with problems experienced in their lives.

The implementation of IPAS learning should be fun and improve children's mindset in action. Learning that is accompanied by a learning model, namely *Team Game Tournament (TGT)*. With the uniqueness and attractiveness of the *Team Game Tournament (TGT)* model, it is very suitable as a media tool for IPAS learning. The effect of *Team Game Tournament (TGT)* is very large on the results of students' learning comprehension in IPAS lessons. Therefore, in designing this research, the researcher has the idea to associate the *Team Game Tournament (TGT)* model which is in accordance with IPAS learning to determine the learning outcomes of children.

Based on the background of the problem, there are several issues identified, namely the majority of students feel bored in understanding learning, the use of learning models that are less interesting, students' difficulties in understanding lessons, and very low learning outcomes. This study limits the problem to the effect of the *Team Game Tournament (TGT)* model on the learning outcomes of IPAS grade 4 students at SDN Malaka Sari 01 Pagi. The formulation of this research problem is "Is there an effect of the *Team Game Tournament (TGT)* Model on the learning outcomes of IPAS grade 4 students at SDN Malaka Sari 01 Pagi?" This research is expected to provide academic benefits by increasing the capacity of education through the *TGT* model on the learning outcomes of IPAS grade 4 students. The practical benefits include making it easier for students to understand the material, making learning conditions more effective and efficient, providing creative references for teachers in classroom learning, and establishing standardization in teaching and learning activities in schools to achieve the best learning outcomes.

Researchers will identify the learning model, namely *Team Game Tournament (TGT)* by creating groups that conduct tournaments and are associated with IPAS learning. Because in the learning process for grade 4 SDN Malaka Sari 01 Pagi already uses an independent curriculum, and uses question and answer learning methods and discussions, so that children know how to give advice to be smart, understand the theory of lessons and experiments conducted by students. Based on these problems, the researcher is interested in discussing the problems of IPAS learning by conducting research in improving IPAS learning outcomes by using the *Team Game Tournament (TGT)* learning model for grade 4 students of SDN Malaka Sari 01 Pagi.

## **Literature Review**

### ***Definition of Learning***

Learning is a process where someone starts an activity to learn new things in life, so as to gain new knowledge and add insight. According to Aunurrahman (2019), learning habits are learning strategies that humans carry out every day so that they make changes in the learning activities carried out. Dalyono (2020) defines learning as an effort to make progressive changes in behavior, attitudes, and actions. Oemar Hamalik (2020) sees learning as a process of receiving knowledge absorbed from the environment through observation with the help of the five senses. From these various opinions, it can be concluded that learning is a process of change in a person through the acquisition of knowledge that affects behavior, attitudes, and actions.

### ***Learning Outcomes***

Learning outcomes are the abilities of students obtained after completing exercises in learning. According to Aunurrahman (2019), learning outcomes are changes that occur in students in cognitive, affective, and psychomotor aspects. These changes are used as a consideration for students and teachers to determine graduation (Nugraha et al., 2020). Hilmiatussadiyah (2020) added that changes in attitudes and skills are also learning outcomes. Thus, learning outcomes include achievements in the aspects of knowledge, attitudes, and skills of students.

### ***The Nature of Natural and Social Sciences (NSP)***

IPAS is a new subject in the Merdeka curriculum that combines Natural and Social Sciences. According to Denda Suryadien et al. (2022), IPAS includes the study of the characteristics, phenomena, and interactions of biotic and abiotic components that exist in the universe, associated with human life as individuals and social beings. Research by Marwa et al. (2023) shows that elementary school teachers welcome the IPAS subject because it has a positive impact on the learning process. With Merdeka curriculum, teachers have more time to explore learning methods and models that appeal to students. The learning objective of IPAS is to support and foster students' curiosity about the surrounding environment.

### ***IPAS Learning Outcomes***

IPAS learning outcomes include achievements in aspects of knowledge, attitudes, and skills. IPAS learning in elementary schools is carried out by combining natural and social science concepts in one study guide book in accordance with the Merdeka curriculum. Thus, IPAS learning outcomes include various aspects that students gain from the learning process.

### ***Team Game Tournament (TGT) Model***

The Team Game Tournament (TGT) model is a cooperative learning model conducted in groups. This model places students in learning groups consisting of 4-6 students with different backgrounds of ability, gender, and race. TGT ends with a game or tournament, where students work together in teams to complete tasks.

According to Hermawan (2020), TGT helps students collaborate and compete through academic tournaments, thus fostering a sense of responsibility and passion for learning. The steps in implementing TGT include presenting the class, forming heterogeneous groups, implementing games and tournaments, and rewarding winners. The advantages of TGT are that it encourages active participation of all students, fosters mutual respect, increases the spirit of learning, and makes learning more fun. However, the disadvantages of TGT are that it takes a long time and requires educators to be good at choosing subject matter.

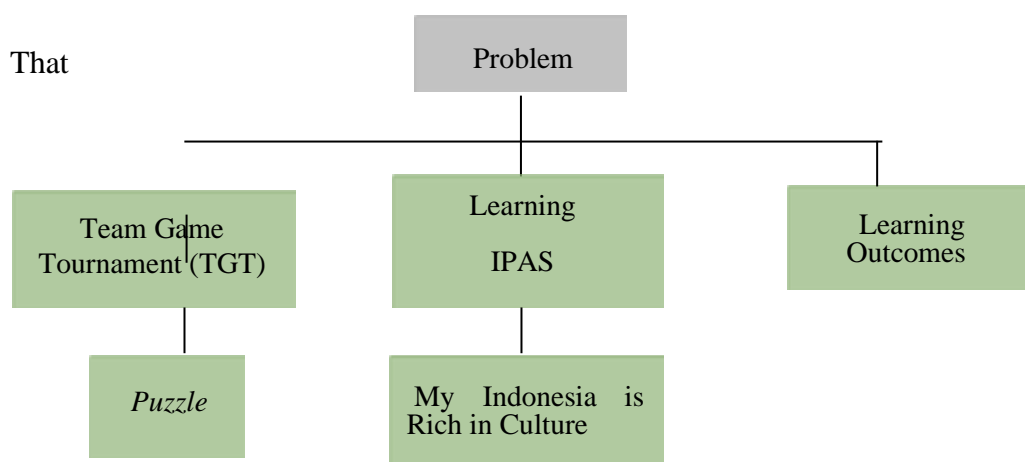
### Relevant Research Results

Research by Nur Endah Hikmah Fauziyah and Indri Anugraheni (2020) entitled "The Effect of the TGT (Team Games Tournament) Learning Model in View of Critical Thinking Skills on Thematic Learning in Elementary Schools" shows that students' critical thinking skills in IPAS learning increased after using the TGT model. Before using TGT, the average student score was 63.27, while after using TGT, the average score increased to 74.12. The results of data analysis with one sample T-test showed  $t$  count 60.208 greater than  $t$  table 1.698 and significance value  $<0.05$ .

Research by Davi Sofyan, Sandra Arhesa, and Muzzofi Al Fazri (2020) with the title "The Effect of Team Games Tournament Type Learning Cooperative Model on Basketball Passing Learning Outcomes" shows an increase in students' basketball passing ability after using the TGT model. Before treatment, the average student score was 15.2 and after treatment it increased to 16.9. The hypothesis test results show the  $t$ -count value of 7.67 is greater than the  $t$ -table of 1.725, so the hypothesis is accepted. This study concludes that the TGT type cooperative learning model improves the learning outcomes of basketball passing at SMAN 1 Sindangwangi.

### Framework of Thought

Based on the description and formulation of the problems that the researchers described in the previous chapter, the framework in this study is



### **Research hypothesis**

Hypothesis is a statement or temporary answer that is used to solve a problem in research whose truth must be proven first. then the hypothesis is formulated as follows:

**Ho** = There is no effect of Team Games Tournament (TGT) on the learning outcomes of Grade 4 students at SDN Malaka Sari 01 Pagi.

**HI** = There is an Effect of Team Games Tournament (TGT) on the Learning Outcomes of Grade 4 Students at SDN Malaka Sari 01 Pagi

## **RESEARCH METHOD**

### **Research Objectives**

This study aims to improve student learning outcomes using the Team Game Tournament (TGT) learning model on IPAS material. The research will be conducted at Malaka Sari 01 Pagi State Elementary School located in East Jakarta. The research will take place in May 2024, semester 2 of the 2023/2024 school year.

### **Research Methods**

This research uses an experimental method with a quantitative approach, using a quasi-experimental design with a non-equivalent control group. This research involves an initial test (pretest) before treatment and a final test (posttest) after treatment. Researchers will provide the TGT learning model to grade 4 students to examine the improvement of student learning competencies in the affective and psychomotor domains.

### **Population and Sample**

The population of this study was all grade 4 students at SDN Malaka Sari 01, with a sample consisting of 60 students in grades 4A and 4B. The sampling technique used was saturated sampling, where all members of the population were used as research samples.

### **Treatment Design**

The research will apply TGT learning model on IPAS material with the topic of Indonesian traditional games. Students will conduct learning outside the classroom in groups, arrange puzzles, and practice traditional games. If there are obstacles, learning will be carried out in the classroom.

### **Data Collection Technique**

The instruments used to collect data include pretest and posttest to measure student learning outcomes. The validity and reliability of the instruments were tested using the SPSS version 25 program. The data collected will be analyzed using normality and homogeneity tests, as well as the t-test to test the hypothesis.

### **Data Analysis**

Data were analyzed using the SPSS version 25 program for normality, homogeneity, and t tests. Normality tests were conducted using the Kolmogorov-Smirnov method, while homogeneity tests were conducted using the Levene method. The t test was used to test the research hypothesis, with a significant level of 5%.

### **Research Hypothesis**

The hypothesis of this study is whether there is an effect of the Team Game Tournament (TGT) learning model on the learning outcomes of IPAS grade 4 students at SDN Malaka Sari 01 Pagi. The hypothesis was tested using the t-test, where  $H_0$  is accepted if  $t_{count} < t_{table}$  and  $H_1$  is accepted if  $t_{count} > t_{table}$ . The significant level used is 5%.

## **RESULT AND DISCUSSION**

### **Description of Research Results**

This study aims to evaluate the impact of the *Team Game Tournament (TGT)* learning model on IPAS learning outcomes of 4th grade students of SDN Malaka Sari 01. The methodology used is a quantitative survey with a *quasi-experimental design* and a sample of 60 students. Data was collected through a *non-equivalent control group design*.

The results showed that there was a significant impact in student learning outcomes based on further analysis. Students who studied using the *Team Game Tournament (TGT)* model tended to have better learning outcomes compared to students who did not use the *Team Game Tournament (TGT)* model.

This research shows that the TGT learning model is effective in influencing student learning outcomes. Cooperation in learning groups can create a more supportive learning environment, which in turn has a positive impact on student learning outcomes.

### **Analysis Requirement Test**

In testing the requirements for analyzing the effect of the *Team Game Tournament (TGT)* model on grade 4 IPAS learning outcomes, it can be done through several steps. The following is a description of the process that must be done:

#### 1. Research Design

In this study, the researcher concept by forming two groups:

- a. Experiment Group: Class 4A students who used the TGT learning model.
- b. Control Group: Class 4B students who used conventional learning methods.

#### 2. Data Collection

Data collection of IPAS learning outcomes from both groups before and after the application of the TGT model. By having pre-test and post-test values for each group.

**Table 1. Pretest-Posttest Results of Class 4 A (Experiment)**

No.	Student Name	Pretest	Postes
	Score		
1	MAULANA	80	84
2	AINIYA	76	88
3	FAHRI	74	92
4	ALIANDO	80	100
5	ANAN	72	96
6	ALMA	80	92
7	ANDRE	64	64
8	ARJUNA	76	88
9	AYU	72	100
10	AZZAM	76	92
11	MOZA	80	100
12	DYEANI	72	80
13	FATHAN	84	92
14	STARS	76	84
15	ARA	84	76
16	JASMINE	74	84
17	KENNEDY	64	96
18	AMAR	80	74
19	DAMIR	76	100
20	NAYLA	64	84
21	NOVAL	76	100
22	PADILAH	64	64
23	OKI	74	76
24	NISA	74	92
25	RAUF	76	76
26	RIVAN	84	74
27	SURYA	64	92
28	ADONIA	80	84
29	FAEYZA	84	74
30	ZAHRA	80	88

**Table 2. Pretest-Posttest Results of Class 4 B (Control)**

No.	Student Name	Pretest	Postes
	Score		
1	ALWAN	80	80
2	ALYA	74	88
3	AMIRA	76	92
4	AMOURA	72	88
5	ANISAH	80	72
6	CHEREN	80	88
7	DAUGHTER	64	92



8	ELISABETH	72	64
9	FAKIH	76	84
10	FANESSA	76	96
11	FARIDA	80	84
12	MALTA	84	80
13	STARS	72	72
14	DAFFA	76	92
15	FAHRI	80	88
16	FIKI	74	84
17	IKHWAN	76	72
18	ZICO	64	84
19	NAUFAL	76	84
20	AINI	64	76
21	QUEENSY	76	92
22	FARABI	64	76
23	RAYNAR	74	76
24	REVAN	74	80
25	EMIR	76	92
26	SOFI	80	96
27	STARS	64	80
28	TIARA	76	80
29	YOGI	84	92
30	SHAFI	80	80

### 3. Analysis Requirement Test

Before conducting hypothesis testing, to ensure significant data that meets several basic assumptions:

#### a. Normality Test

The normality test is carried out to ensure that the data is normally distributed using the Kolmogorov-Smirnov test. The technique of testing the normality test of this study, researchers used the help of the *Statistical Product and Service Solutions (SPSS) version 25 for windows* program.

**Table 3. Tests of Normality**

Value	Class	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	Pretest Class A	.149	30	.087	.889	30	.005
	Posttest Class A	.144	30	.114	.933	30	.058
	Pretest Class B	.148	30	.093	.896	30	.007
	Posttest Class B	.124	30	.200*	.954	30	.211

\*. This is a lower bound of the true significance.

#### a. Lilliefors Significance Correction

Based on Table 3 shows that using the *Team Game Tournament (TGT) learning* model can improve IPAS learning outcomes in class 4A with an average value of 0.087 to 0.114, while class 4B with an average value of 0.093 to 0.200. So

it can be concluded that there is a relationship between the average value of student IPAS learning outcomes before and after using the *Team Game Tournament (TGT)* learning model.

b. Variance Homogeneity Test

The variance homogeneity test was carried out to ensure that the variances of the two groups were homogeneous using the Levene test. The technique of testing the homogeneity test of the variance of this study, the researcher used the help of the *Statistical Product and Service Solutions (SPSS) version 25 for windows* program.

**Table 4. Test of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
Results	Based on Mean	2.525	1	58	.117
	Based on Median	2.140	1	58	.149
	Based on Median and with adjusted df	2.140	1	53.848	.149
	Based on trimmed mean	2.468	1	58	.122

Based on the analysis results in table 4, it can be seen that the *Team Game Tournament (TGT) learning* model can improve IPAS learning outcomes. The increase in learning outcomes from the lowest 0.122%. to the highest 0.149% with an average of 0.117%. The average learning outcomes before using the *Team Game Tournament (TGT) learning* model and after using the *Team Game Tournament (TGT) learning* model experienced a significant increase of 0.117%.

**Hypothesis Testing**

Tests conducted by researchers based on data collected from research results. According to Suharsimi Arikunto in Hardani *et al.*, (2020), Hypotheses are temporary answers to research problems, until proven through collected data. In this test, researchers conducted an unpaired *t-test (Independent t-test)* to test the difference between the experimental group and the control group in the *post-test*. The technique of testing the hypothesis of this study, researchers used the help of the *Statistical Product and Service Solutions (SPSS) version 25 for windows* program.

**Table 5. Independent Samples Test**

Levene's Test for Equality of Variances		t-test for Equality of Means			95% Confidence Interval of the Difference		
F	Sig.	t	df	Sig. (2- taile d)	Mean Differe nce	Std. Error Differe nce	Lower Upper

Value	Equal variances assumed	4,304	0,042	2,076	58	0,042	4,533	2,183	0,163	8,903
	Equal variances not assumed			2,076	51,185	0,043	4,533	2,183	0,151	8,916

Hypothesis testing results,  $H_0$  = there is no significant difference in student IPAS learning outcomes before using the *Team Game Tournament (TGT) learning model* and after using the *Team Game Tournament (TGT) learning model* and  $H_1$  = there is a significant difference in student IPAS learning outcomes before using the *Team Game Tournament (TGT) learning model* and after using the *Team Game Tournament (TGT) learning model*. From table 4.4 it appears that the Sig value. (2-tailed)  $(0.042) < \alpha (0.05)$  and  $t_{count} = 2.076 < t_{table} = 2.131$  so that  $H_0$  is rejected. So it can be concluded that there is a significant difference in student IPAS learning outcomes before using the *Team Game Tournament (TGT) learning model* and after using the *Team Game Tournament (TGT) learning model*.

### Discussion of Research Results

Based on the results of the research analysis, it can be seen that the use of the *Team Game Tournament (TGT) learning model* in each lesson improves student learning outcomes. The increase in learning outcomes in each lesson has a different percentage level. There are also those whose percentage of ownership is low, sufficient, and high. This is influenced by various factors, both internal and external to students. Internal factors or factors that come from within the individual, such as the level of cognitive ability (knowledge), thinking style, ability, interest, talent, health status, and others. External student factors or factors outside the individual, such as family, time, school environment, school conditions, school location, research topics, and others.

### Research Limitations

This study was only conducted in one school with a limited sample. The results of this study may not be generalizable to a wider population without further research involving more schools and a larger sample.

## CONCLUSION

Based on the analysis of the *Team Game Tournament (TGT) learning model*, it can be concluded that the *Team Game Tournament (TGT) learning model* is able to improve the IPAS learning outcomes of grade 4 students at SDN Malaka Sari 01, ranging from the lowest 0.122% to the highest 0.149% with an average of 0.117%. The data showed that the average post-test score of students in the experimental group using the TGT model was higher than students in the control group using conventional learning methods. By applying the TGT learning model, it can create

a more meaningful, fun, and effective learning experience for elementary school students, especially in IPAS learning.

The application of the *Team Game Tournament (TGT)* learning model in learning IPAS grade 4 SDN Malaka Sari 01 brings many positive benefits. In addition to improving learning outcomes with the learning strategy, TGT also increases students' motivation, social skills, and critical thinking skills, and even affects the improvement of a positive learning atmosphere in students.

Suggestions for future research are to use more and relevant articles or sources. Researchers are expected to be more careful in filtering and selecting research results to be used in meta-analysis, as well as paying attention to statistical methods so that the meta-analysis results are more accurate.

It is recommended that other schools try to apply the TGT learning model in IPAS learning or other subjects to see its effectiveness in different contexts. Further research should also be conducted to strengthen these findings and explore other factors that may influence the success of the TGT model.

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