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## The Effect of The Teams Games Tournament Type Cooperative Learning Model on Students' Learning Motivation in IPAS Learning For Fourth-Grade Students of Inpres 1 Birobuli Public Elementary School

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### ABSTRACT

This study investigates how the Teams Games Tournament cooperative learning model can improve the learning motivation of fourth grade students in Social Studies at Inpres 1 Birobuli Public Elementary School. The research aims to determine whether combining teamwork, friendly competition, and enjoyable activities can encourage students to participate more actively in the learning process. A quantitative approach with a Quasi Experimental design is applied, where class IVA receives the Teams Games Tournament treatment and class IVB functions as the comparison group. A motivation questionnaire is used to collect data after the learning activities. Before testing the hypothesis, the data are examined through normality and homogeneity tests to ensure statistical requirements are met. The hypothesis is then analyzed using the Paired Sample T Test through SPSS Statistic twenty five. The results show a significance value of zero point zero zero zero, lower than the alpha level of zero point zero five, leading to the acceptance of the alternative hypothesis. These results indicate that the Teams Games Tournament model significantly increases students motivation and creates a more engaging classroom atmosphere.

## 1. Introduction

Education has long been regarded as a gateway through which learners discover the world and develop their personal identities. The Indonesian Education Law No. 20 of 2003 describes education as a conscious and planned effort to create meaningful learning experiences that enable learners to develop their spiritual, personal, intellectual, and social potential. This notion aligns with Pristiwanti (2022), who emphasizes that education functions as a deliberate process of guiding individuals

to maturity in behavior, ethics, and independence. Within this process, teachers and students are not simply transmitters and receivers of knowledge; they are co-creators of learning experiences. As Wulandari (2023) highlights, a teacher's role is not limited to delivering material, but extends to shaping students' mental, emotional, and personal growth.

At the heart of the educational system lies the curriculum, which guides how learning takes place. Suryaman (2020) states that a curriculum not only outlines goals but also frames the learning process itself. In line with societal developments, Indonesia's curriculum has undergone multiple revisions, culminating in the introduction of the Merdeka Curriculum. According to Mujab et al. (2022), this curriculum aims to provide students with greater flexibility and more personalized learning. Consistent with the spirit of "Freedom to Learn," Alfian et al. (2023) describe it as an approach that encourages joyful, pressure-free learning where students can explore their interests creatively.

Teachers, therefore, become central figures in ensuring successful curriculum implementation. Anggraini (2022) explains that teachers must act as planners, evaluators, decision-makers, managers, and researchers in the curriculum development process. At the elementary school level, the Merdeka Curriculum emphasizes learning strategies that adapt to students' characteristics and needs (Fadli, 2022). One significant reform is the integration of Science (IPA) and Social Science (IPS) into a unified subject known as IPAS. Sugih et al. (2023) note that IPAS aims to foster curiosity, develop inquiry skills, and deepen students' understanding of their environment through hands-on, contextual learning.

Yet, these curriculum goals cannot be achieved without strong student motivation. Motivation is a driving force that helps students stay engaged, persistent, and enthusiastic in learning activities. As cited by Cahyani (2019), motivated students are characterized by confidence, curiosity, resilience, and a strong desire to succeed. However, observations in Grade IV at Inpres 1 Birobuli Public Elementary School reveal that student motivation in IPAS learning remains low. The learning process typically begins with core material without captivating introductory activities. Teacher-centered methods are still dominant, interaction among students is limited, and instructional media are rarely used. Consequently, many students appear passive, easily distracted, and less enthusiastic during lessons.

To address these challenges, a more dynamic, interactive learning model is required one that brings energy, participation, and enjoyment into the classroom. The cooperative learning model Teams Games Tournament (TGT) is considered a promising option. Astuti et al. (2022) explain that TGT integrates teamwork, games, and tournaments, allowing students to learn in a relaxed yet structured environment. Rusman, cited in Paramitha (2022), highlights that TGT places students into heterogeneous groups so each member contributes meaningfully to the learning process. The procedural stages of TGT group formation, material presentation, teamwork, tournaments, and rewards are structured to maximize engagement and participation (Christian, 2018). Furthermore, Taniredja in Christian (2018) notes

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that TGT encourages verbal interaction, boosts confidence, and reduces disruptive behaviors, although it may require considerable time and careful classroom management. The theoretical foundation of cooperative learning reinforces the advantages of the TGT model. Hasanah et al. (2021) emphasize that cooperative learning provides opportunities for positive interdependence, meaningful interaction, and emotionally enjoyable experiences, helping to build a warm and collaborative classroom atmosphere. These characteristics align closely with the goals of IPAS learning, which requires curiosity, inquiry, exploration, and active participation.

In terms of the *state of the art*, numerous previous studies have explored TGT in varying contexts. Mursak & Ginting (2019) demonstrated that TGT improved students' learning outcomes in social studies. Syafruddin & Herman (2020) found that TGT significantly influenced emotional intelligence, while Firman et al. (2019) showed that TGT paired with Kokami media enhanced student achievement. However, most of these studies focus on cognitive outcomes rather than motivational aspects. Few have specifically examined the influence of TGT on students' learning motivation in IPAS at the elementary school level. This gap forms the academic basis and novelty of the present study. Following the style seen in the template example, the dynamic interplay between learning environment and student engagement parallels findings by Cernicova et al. (2015), who argue that student outcomes are shaped by contextual factors, as also noted by Brown (2012). Additional studies similarly emphasize the role of student activity in shaping learning conditions (Cernicova et al., 2015; Alves & Raposo, 2016). Drawing from these varied viewpoints, the closing section of this introduction boldly clarifies the central aim of this study. It seeks to uncover whether the Teams Games Tournament cooperative learning model can genuinely boost the learning motivation of Grade IV students in IPAS at Inpres 1 Birobuli Public Elementary School. In essence, this research attempts to determine whether a learning environment infused with collaboration, educational games, and friendly competition can truly spark and elevate students' enthusiasm for learning.

## **2. Methodology**

The heart of this research lies in examining how a specific learning model can spark students' motivation during classroom activities. To achieve this, the study adopts a quantitative approach and is grounded in a quasi-experimental method. Rather than observing students throughout the learning process, the research follows the Posttest-Only Control Design described by Putri and Nurafni (2021), where attention is focused solely on the final outcomes. In this arrangement, one group of students is introduced to the Teams Games Tournament (TGT) cooperative model, allowing them to learn through teamwork, structured games, and friendly competition. The other group continues learning through the regular instructional approach without any TGT elements. By contrasting the results produced by these two groups at the end of the intervention, the study aims to determine whether TGT brings about a noticeable improvement in student learning motivation.

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The study was conducted at Inpres 1 Birobuli Public Elementary School, located at Jl. Abdul Rahman Saleh No. 78 B, Birobuli Utara, South Palu District, Palu City, Central Sulawesi. The school was selected not only for its accessibility but also for its heterogeneous student population, which aligns with the characteristics of a suitable research setting. According to Sugiyono (2019), a population is a generalization area consisting of subjects that possess certain qualities and characteristics established by the researcher. In this study, the entire population consisted of all students at Inpres 1 Birobuli Public Elementary School. However, the sample was determined using purposive sampling, based on the assumption that the population is relatively homogeneous. Thus, only one class was selected as the sample to represent the overall population.

To ensure rich and comprehensive data, the study utilized both primary and secondary data sources. Primary data were obtained through questionnaires distributed directly to students, in accordance with Sugiyono's (2019) definition that primary data originate directly from subjects. These questionnaires captured students' motivational responses during IPAS learning activities. Secondary data, on the other hand, were collected from various documents, books, and archives relevant to the research, as explained by Sugiyono (2017). Balaka (2022) emphasizes that the combination of both data types provides a broader contextual understanding of the research phenomenon. Two main variables guided the research. The independent variable (X) is the cooperative learning model Teams Games Tournament (TGT), while the dependent variable (Y) is students' learning motivation in IPAS. Purwanto in Jakni (2016) describes independent variables as elements capable of influencing change, whereas dependent variables are those affected by external influences. This relational structure frames the investigation into how TGT affects students' motivation.

To measure the collected data, the study employed a ratio scale the highest level of measurement, marked by an absolute zero point that allows meaningful comparisons. Indah (2021) notes that ratio scales provide interval consistency and precise statistical interpretation. The primary research instrument was a response questionnaire constructed based on indicators such as students' enjoyment of the teaching method, comprehension of material, the novelty of learning experience, and perceived increase in activity during lessons. The questionnaires were administered at the end of the learning process, with students instructed to read each statement carefully and respond according to their personal views.

Data analysis was performed through several stages to ensure statistical validity. The first stage was the normality test, used to determine whether data distribution followed a normal curve as outlined by Sugiyono (2018). This test employed the Liliefors method using SPSS Statistics 25. A significance value above 0.05 indicated normally distributed data. Following this, a homogeneity test was conducted using the F-test formula from Sugiyono (2021) to verify whether the experimental and control groups possessed equal variances prior to treatment. This analysis was executed using SPSS Statistics 24.

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Once normality and homogeneity were confirmed, the next phase involved hypothesis testing using the t-test. Sugiyono (2021) identifies the t-test as a statistical tool for determining whether there is a significant difference between the means of two groups. Given the research objective, the study used a paired-sample t-test through SPSS Statistics 25 to examine whether the implementation of TGT produced a measurable impact on students' motivation. This test was particularly suitable because it compares two related measurements within the same sample context. Through this carefully structured methodological framework, supported by established statistical procedures and relevant theoretical underpinnings, the study aims to produce reliable evidence regarding the effect of the cooperative learning model Teams Games Tournament (TGT) on the learning motivation of fourth-grade students at Inpres 1 Birobuli Public Elementary School in their study of IPAS.

### **3. Results and Discussion**

The research was conducted at Inpres 1 Birobuli Public Elementary School, located at Jl. Abdul Rahman Saleh No. 78 B, Birobuli Utara, South Palu District, Palu City, Central Sulawesi. The school, which retains its official name in the Dapodik system despite administrative changes, continues to strengthen learning quality through BOS and PMM funding. Several facilities such as new classrooms, a library building, and a protective boundary fence have been added to support learning safety and comfort. With a B accreditation status, the school demonstrates a good level of educational quality and readiness to support innovative learning models such as Teams Games Tournament (TGT).

The research was carried out from October 23 to November 15, 2024, through structured learning activities in Class IVA (22 students). Prior to TGT treatment, students watched a video on falling objects to stimulate curiosity and activate prior knowledge. The experimental class received the Teams Games Tournament (TGT) model through video observation, Q&A sessions, conceptual explanations, simple experiments, and learning games within heterogeneous groups. Students competed to answer questions, with rewards for the highest scoring team and light consequences (singing) for the lowest. In contrast, the control class received conventional group learning without games or competitive elements, focusing mainly on teacher explanations, group worksheets, and guided discussions.

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Figure 1. Learning Question Cards Used in the Teams Games Tournament Activity



Figure 2. The Learning Process Using the Teams Games Tournament (TGT) Model in the Classroom

### *Normality Test*

The normality test served as an initial checkpoint to verify whether the data collected reflected a normal distribution, a key requirement to ensure that the sample accurately mirrors the broader population. In this research, the test was applied specifically to the posttest scores measuring students' learning motivation

in both the experimental class and the control class. To guarantee precision and consistency, all statistical processing was carried out using IBM SPSS Statistics 25, which provided a reliable platform for generating valid and standardized results. The normality criteria used in this research are straightforward: if the significance value (Sig) is greater than 0.05, the data are considered normally distributed. Conversely, if the Sig value is less than 0.05, the data do not follow a normal distribution. The complete results of the normality test for both groups are shown in Table 1. below, which presents the Kolmogorov–Smirnov and Shapiro–Wilk tests.

Table 1. Normality Test of Posttest Data in Experimental and Control Classes

		Tests of Normality					
		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Class	Statistic	df	Sig.	Statistic	df	Sig.
Motivation Student Learning	Posttest (Experiment)	.130	22	.200*	.945	22	.248
	Posttest (Control)	.268	13	.011	.834	13	.018

The table reveals that the Shapiro Wilk test results place the experimental class's posttest scores within the normal category, as indicated by a significance value of 0.248, which exceeds the 0.05 benchmark. In contrast, the control class shows a significance value of 0.018, falling below the required threshold and indicating that its data do not follow a normal distribution. Even so, these findings clearly illustrate the overall behavior of the dataset, enabling the analysis to move forward in alignment with the established research procedures.

### **Homogeneity Test**

The homogeneity test serves as an important tool for identifying whether several sample groups share similar variance characteristics. In simple terms, it observes how widely the data in each group are distributed and whether these patterns move in a comparable way, ensuring that any comparison made is fair and balanced. In this study, the analysis was carried out using Levene Test through IBM SPSS Statistics 25, which provided accuracy and consistency throughout the calculation process. To interpret the results, a clear criterion was applied: when the significance value (Sig) reaches or exceeds 0.05, the groups are considered to originate from populations with equal variance, meaning the data are homogeneous. The complete findings of this homogeneity assessment for Grade IV students are shown in Table 2 below.

Table 2. Homogeneity Test

Test of Homogeneity of Variance				
Variable	Levene Statistic	df1	df2	Sig.
<b>Students' Learning Motivation</b>				
Based on Mean	.932	1	33	.341
Based on Median	.157	1	33	.694
Based on Median and with adjusted df	.157	1	25.121	.695
Based on Trimmed Mean	.707	1	33	.407

These results show that all significance values are greater than 0.05, indicating that the variances between groups are homogeneous. This means both datasets share a similar level of variability, allowing further statistical tests to be conducted without violating the assumptions of parametric analysis. This homogeneity indicates that although the distribution differed in normality for one class, the variability of students' motivation levels remained comparable, validating the fairness of comparing learning outcomes between TGT and conventional instruction.

### ***Hypothesis Testing***

Hypothesis testing is used as a statistical checkpoint to examine whether a particular assumption is supported by empirical evidence. In this study, the analysis ventures into discovering whether the cooperative learning model known as Teams Games Tournament truly leaves a meaningful mark on the learning motivation of Grade IV students in IPAS at Inpres 1 Birobuli Public Elementary School. To uncover this influence, the Paired Sample T Test was employed, with every calculation processed through IBM SPSS Statistics 25 to maintain precision and trustworthiness. The investigation rests on two competing possibilities. The first, represented by  $H_a$ , proposes that the TGT model enhances students' motivation, while the second,  $H_o$ , argues that the model brings no impact at all. Guided by a five percent significance level, the decision rule is straightforward: a significance value above 0.05 favors  $H_o$ , while a value below this threshold gives  $H_a$  the win. The complete outcome of this statistical journey is detailed in Table 3 below.

Table 3. Results of the Paired Sample T-Test

		Paired Samples Test					
Paired Differences		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df
Mean				Lower	Upper		
Pair 1	Posttest Experimental – Posttest Control	89.400	10.396	1.757	85.829	92.971	50.877

The results presented in Table 3 reveal a significance value of 0.000 from the Paired Sample T Test. Since this value is below the 0.05 benchmark, the hypothesis  $H_a$  is accepted while  $H_o$  is rejected. This finding demonstrates that the Teams Games Tournament cooperative learning model has a clear and significant impact on enhancing the learning motivation of Grade IV students in IPAS at Inpres 1 Birobuli Public Elementary School. In other words, applying the TGT model effectively stimulates students' enthusiasm and engagement in the learning process.

### ***Integrated Interpretation of the Findings***

The integrated interpretation of the findings shows that the application of the Teams Games Tournament model successfully transformed classroom dynamics by

creating a learning environment that was both enjoyable and intellectually stimulating. The incorporation of games, group tournaments, and structured collaboration made students more engaged during the learning process, leading them to become more attentive, active, and expressive throughout discussions and experiments. In addition, the formation of heterogeneous groups facilitated positive peer collaboration, enabling higher-achieving students to support their peers and helping those with lower initial understanding to remain involved in the learning activities. The competitive yet friendly tournament system also contributed to strengthening students' focus, as the reward-and-consequence mechanism motivated them to strive for higher group scores while maintaining a cheerful classroom atmosphere. These behavioral changes were reflected in the posttest results, where the experimental class achieved an average score of 93.23, outperforming the control class with an average of 88.08. This score difference indicates that the game-based cooperative approach embedded in TGT effectively enhanced students' intrinsic motivation. The overall findings align with Hakim & Syofan (2017), who explain that TGT integrates cooperation and competition in ways that naturally elevate motivation, as well as Pardede (2019), who highlights that TGT's systematic stages ranging from material presentation to group rewards collectively foster deeper understanding and stronger learning motivation.

#### **4. Conclusion**

This study aimed to explore whether the Teams Games Tournament cooperative learning model could elevate the learning motivation of fourth-grade students in IPAS at Inpres 1 Birobuli Public Elementary School. The results clearly reveal that applying the TGT model led to a significant boost in students' enthusiasm and drive to learn, highlighting its effectiveness in creating a more engaging and motivating classroom environment. Students became more engaged, active, and enthusiastic in participating during lessons, suggesting that the interactive and game-based nature of TGT creates a more enjoyable learning atmosphere. The model also encouraged teamwork, healthy competition, and peer support, all of which played important roles in strengthening students' interest in learning. Overall, the research objective was successfully achieved, as the TGT model proved effective in influencing students' learning motivation in a positive way. This success highlights the value of integrating cooperative and game-based approaches into classroom practice, especially in subjects that require high levels of student involvement.

#### ***Limitation of the Study***

Despite the positive findings, this study has several limitations that should be acknowledged. First, the research was conducted within a relatively small sample size involving only one school and a limited number of students, which may restrict the generalizability of the results to broader educational contexts. Second, the duration of the intervention was relatively short, making it difficult to evaluate whether the motivational effects of the TGT model would be sustained over a longer period. Third, the study focused solely on learning motivation as the primary

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variable, without examining other potentially influential factors such as students' prior knowledge, classroom climate, or teacher competencies, which may also interact with the effectiveness of the TGT model. These limitations provide important context for interpreting the findings and identify opportunities for deeper investigation in future research.

### ***Future Study Recommendation***

For future work, researchers may explore the application of the TGT model across different grade levels or subject areas to determine its broader impact. Further studies could also include additional variables such as learning outcomes, student attitudes, classroom interaction patterns, or long-term motivation to deepen the understanding of TGT's effectiveness in diverse educational contexts. Longitudinal studies are also recommended to evaluate whether the motivational gains observed in this study can be maintained over extended learning periods. Such expanded investigations will strengthen the evidence base for using the TGT model and support its wider implementation in elementary education.

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