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Improving Students' Learning Interest Using Cooperative Learning: The TGT Model in Fourth Grade IPAS

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ABSTRACT

This study aims to enhance elementary students' learning interest in Science and Social Studies (IPAS) through the application of the cooperative learning model, Teams Games Tournament (TGT). The research was conducted as Classroom Action Research (CAR) involving two cycles, each consisting of two meetings. Data were collected using a yes/no learning interest questionnaire and observation sheets measuring both teacher and student activity. The TGT model was implemented through five main stages: class presentation, team study, games, tournaments, and rewards. The results demonstrated a substantial increase in the implementation quality of teaching activities, with teacher activity scores improving from 85.3% in Cycle I to 97.1% in Cycle II, and student activity scores from 82% to 97%. Furthermore, students' average learning interest rose from 50.8% in the first cycle to 83% in the second. Improvements were also observed across all interest indicators, including attention, enjoyment, curiosity, and participation. These findings indicate that the TGT model effectively supports a student-centered, interactive, and engaging learning environment, fostering emotional involvement and active participation. Therefore, the TGT model is recommended as a promising instructional strategy for increasing learning interest in primary education settings.

1. Introduction

Education is widely acknowledged as a fundamental pillar for national development. A well-structured and high-quality education system is essential for producing competent individuals who contribute to the social, cultural, and economic advancement of a country (Pratiwi et al., 2023). Education plays a dual role—not only as a medium for transmitting knowledge and skills, but also as a means of developing individual character grounded in national identity, cultural values, and moral philosophy such as Indonesia's Pancasila (Sujana, 2019). In the classroom, learning becomes the central space where the interaction between teacher and students materializes, enabling the transfer of knowledge and the realization of educational objectives (Sanjani, 2020).

Within this learning process, students' interest in learning plays a vital role. Learning interest is defined as the internal desire and enthusiasm of learners to engage in educational activities, driven by personal curiosity rather than external enforcement (Azizah et al., 2024). When students are genuinely interested in learning, they are more likely to participate actively, retain knowledge better, and perform more effectively. Recent studies have emphasized that learning interest significantly enhances students' comprehension and academic achievement across various subjects (Gustika et al., 2023). Thus, educators and curriculum developers must prioritize strategies that stimulate student interest through engaging and meaningful learning experiences.

In the context of Indonesia's elementary education, *Ilmu Pengetahuan Alam dan Sosial* (IPAS), or Natural and Social Sciences, is a critical subject that bridges the natural sciences (biology, physics, and environmental science) and social sciences (civics, geography, and history). It aims to foster a holistic understanding of the relationship between living and non-living things and their environment. Through IPAS, students are introduced to scientific inquiry and social awareness from an early age, helping them to become informed and responsible citizens (Pratiwi et al., 2023); (Nurhayati et al., 2022).

However, despite the importance of this subject, challenges remain in achieving the intended learning outcomes. At SD Negeri Lasoani, a public elementary school in Indonesia, fourth-grade students have exhibited a consistently low level of interest in the IPAS subject. This issue is reflected in students' passive classroom behavior, lack of enthusiasm in learning activities, and limited participation in collaborative discussions. Observations have shown that even during group-based tasks, students tend to work individually, showing minimal engagement with peers. Such conditions not only hinder the learning process but also limit the development of communication and social interaction skills, which are integral to 21st-century competencies.

Further analysis indicates that one of the contributing factors to this phenomenon is the continued use of conventional, teacher-centered learning methods. In this traditional approach, teachers dominate classroom discourse while students act as passive recipients of information. While efficient for knowledge delivery, this method often fails to engage students emotionally or cognitively, resulting in boredom, reduced motivation, and reluctance to participate actively. Consequently, students may avoid asking questions or expressing difficulties, which ultimately leads to poor comprehension and lower academic performance.

To overcome these challenges, there has been a growing interest in the implementation of more interactive and student-centered instructional models, particularly those that encourage cooperative learning. Cooperative learning emphasizes group collaboration, shared goals, and mutual responsibility among students. One widely recognized model within this framework is the Team Games Tournament (TGT), which integrates cooperative learning principles with elements of academic competition. In TGT, students are grouped into small teams and engage in structured games or quizzes that test their understanding of the subject matter.

This gamified approach transforms the classroom into an energetic and enjoyable learning environment, motivating students to participate more actively.

TGT model not only stimulates student interest but also fosters a sense of responsibility and solidarity within learning groups (Nurhikmawati et al., 2024; Putri et al., 2023; Rofiah et al., 2024). The structure encourages higher-performing students to assist those who are struggling, creating a positive peer support system. TGT enhances classroom dynamics by promoting student autonomy, increasing engagement, and improving overall comprehension of complex material. As students compete in a friendly environment, they develop intrinsic motivation to study, driven by both individual and collective achievement goals (Rahmadhani Anis Safira & Sukardi, 2024; Rofiah et al., 2024).

Several empirical studies support the effectiveness of the TGT model in primary education. For instance, (Dewi Aisah et al., 2023; Virna Putri Risia et al., 2024) conducted a study on fifth-grade students and found a significant improvement in their learning outcomes and participation in IPAS following the implementation of TGT. Another study by (Pratiwi et al., 2023) demonstrated that fourth-grade students at SDN 02 Taman showed increased interest and motivation to learn IPAS after being taught through the TGT model. These findings underscore the potential of TGT as a viable solution to the persistent issue of low student engagement, especially in subjects perceived as abstract or difficult.

Despite these promising outcomes, the implementation of TGT in various educational settings—particularly in rural or under-resourced schools—remains limited. This gap presents an opportunity for further exploration, especially to assess the applicability of the model in different learning environments. Moreover, there is a need to evaluate how the model affects not only cognitive learning outcomes but also affective factors such as interest, motivation, and collaboration. Therefore, the objective of this study is to investigate the implementation of the Team Games Tournament (TGT) cooperative learning model as a strategy to enhance learning interest in IPAS among fourth-grade students at SD Negeri Lasoani. The study aims to contribute to the growing body of literature on cooperative learning while offering practical recommendations for improving classroom engagement in elementary education.

2. Methodology

This study employed Classroom Action Research (CAR) aimed at enhancing students' learning interest in Science and Social Studies (IPAS) through the implementation of the cooperative learning model, specifically the Teams Games Tournament (TGT) type. A descriptive qualitative approach was used to emphasize the process of action implementation and the observable changes in students as a result of the instructional intervention. The research design followed the model developed by Kemmis and McTaggart, which consists of four cyclic stages: planning, action, observation, and reflection. These stages were conducted iteratively, and the reflection outcomes from each cycle were used to improve the

subsequent cycle. The research was carried out over two cycles, with each cycle comprising two instructional meetings.

The study was conducted at SD Negeri Lasoani, located on Jalan Mantikulore No. 5c, Lasoani Subdistrict. This site was selected based on its openness to instructional innovation and the active support from both teachers and students. The subjects of the research were fourth-grade students, and the object of the study was the implementation of the TGT model to increase student interest in learning IPAS. In the planning phase, the researcher identified the problem of low student interest in learning and subsequently developed instructional modules aligned with the principles of the TGT model and the IPAS curriculum.

These modules contained structured learning activities incorporating educational games and group-based competitions. Research instruments were also prepared, including student learning interest questionnaires, student activity observation sheets, and teacher activity observation sheets to assess the implementation fidelity of the TGT model. Heterogeneous student groups were formed based on academic abilities and social characteristics. Supporting materials such as question cards, scoreboards, and visual media were provided to facilitate the TGT activities.

The action phase was carried out in accordance with the developed module. Students engaged in small group discussions, educational games, and structured academic tournaments in an engaging and collaborative learning environment. The teacher acted as a facilitator, guiding the learning process, encouraging participation, and maintaining a conducive classroom atmosphere.

Observations were conducted concurrently with the instructional process. The student activity observation sheets were used to document students' activeness, enthusiasm, and participation. In parallel, the teacher activity observation sheets assessed the extent to which the instructional steps of the TGT model were implemented. These instruments provided a comprehensive view of the model's implementation from both the teacher's and students' perspectives. Upon completion of each cycle, a reflection phase was conducted to evaluate the effectiveness of the instruction and inform necessary revisions for the next cycle. Data were collected through questionnaires and observations. The learning interest questionnaire was administered at the end of each cycle and consisted of closed-ended statements with two response options: **"Yes"** and **"No."** A response of "Yes" was scored 1, while "No" was scored 0. The total score obtained by each student was converted into a percentage using the formula:

$$P_m = \frac{m}{M} \times 100\%$$

Where *m* represents the total score achieved by the student, and *M* is the maximum possible score. The resulting percentages were then categorized into five levels of learning interest, as presented in Table 1.

Table 1. Categories of Students' Learning Interest

Average Learning Interest (%)	Category
$91 < P_m \leq 100\%$	Very High
$83 < P_m \leq 90$	High
$75 < P_m \leq 82$	Moderate
$37 < P_m \leq 74$	Low
$1 < P_m \leq 36$	Very Low

Meanwhile, the observation results for both teacher and student activities were analyzed and classified into the following implementation levels—very poor, poor, moderate, good, and very good—reflecting the quality and consistency of the TGT model application during the learning process, as presented in Table 2.

$$\text{Percentage} = \frac{\text{Number of checkmarks in the data}}{\text{Total number of instructional stages}} \times 100\%$$

Table 2. Criteria for the Implementation of Learning Activities by Students and Teachers

Percentage (%)	Category
87,60–100	Low
62,60 – 87,50	High
37,60–62,50	Moderat
25,00–37,50	Low
0,00–24,90	Very Low

The success of this study was determined by two main indicators. First, student learning interest had to reach at least the "high" category based on the questionnaire results. Second, the implementation of the TGT model was considered successful if the teacher and student activity observations were both categorized as "very good." With a carefully planned approach and the use of relevant research instruments, this study offers meaningful insights into the development of cooperative learning strategies aimed at increasing student interest at the elementary school level, particularly in the subject of IPAS.

3. Results and Discussion

The implementation of the Teams Games Tournament (TGT) cooperative learning model was carried out in two action research cycles. In each cycle, learning activities were structured following the TGT syntax, which includes class presentation, group work, games, tournaments, and team recognition. During class presentations, the teacher delivered the main concepts, which were then discussed in heterogeneous student groups. Each group consisted of students with varying academic abilities to ensure peer tutoring and active collaboration.

The tournament stage involved competitive quizzes where representatives from each group competed by answering questions to earn points for their teams (Figure 1). These activities were designed to increase motivation, foster healthy

competition, and encourage deeper understanding of the material. Team recognition was given based on accumulated scores, which further stimulated student enthusiasm and participation. Throughout the process, observations were conducted to assess the implementation of the model, teacher and student activities, and student learning interest.



Figure 1. Students participating in a TGT tournament activity during Cycle II

The findings of this study indicate that the implementation of the cooperative learning model, specifically the Teams Games Tournament (TGT) type, positively influenced students' learning interest. This is supported by data on the implementation of the learning model, student activity levels, and changes in students' interest in learning throughout two action research cycles.

Based on observations of teacher activities, the implementation level of the TGT model increased from 85.3% in the first cycle (categorized as Good) to 97.1% in the second cycle (categorized as Very Good). Despite this improvement, several teacher activities were not fully executed in both cycles, such as checking student attendance, providing opportunities for students to ask questions, and conducting reflection. This indicates that the teaching process became more effective over time as adjustments were made in response to reflections from the first cycle.

Student learning activities also showed significant progress, with observational data revealing an increase from 82% in the first cycle (Good) to 97% in the second cycle (Very Good). Nonetheless, a few student actions were still suboptimal, particularly in responding to attendance checks, initiating questions during learning, and summarizing the lesson. The increase in student activity confirms their growing engagement in the learning process.

The most notable improvement was seen in students' interest in learning, measured using a binary (yes/no) response questionnaire. In the first cycle, 90% of students were in the Low category, and 10% in the Very Low category, with no students in the Medium, High, or Very High categories. However, in the second cycle, there was a marked shift: 40% of students reached the Very High category, 20% High, 10% Medium, and only 30% remained in the Low category, with no students in the

Very Low category. The average interest score increased from 50.8% in the first cycle to 83% in the second (Table 3).

Table 3. Average Student Learning Interest per Cycle

Cycle	Average Learning Interest (%)	Category
Cycle I	50.8%	Low
Cycle II	83%	High

When analyzed by individual indicators, the increase in learning interest is consistent. The interest indicator improved from 49% to 80%, enjoyment rose from 40% to 82.5%, attention increased from 56% to 85%, and participation from 59% to 85% between the first and second cycles, respectively (Table 4).

Table 4. Student Learning Interest by Indicator

Indicator	Cycle I (%)	Cycle II(%)
Interest	49%	80%
Enjoyment	40%	82,5%
Attention	56%	85%
Participation	59%	85%

The increase in learning interest can be attributed to the structured steps within the TGT model, which include class presentation, team study, games, tournaments, and recognition. The class presentation phase serves as an initial stimulus that captures students' attention and triggers curiosity through interactive and engaging delivery of learning material. This is followed by the team study stage, where students collaborate within heterogeneous groups, promoting peer interaction and mutual support. This cooperative setup fosters a socially rich learning environment aligned with Vygotsky's sociocultural theory, which emphasizes the role of social interaction in cognitive development.

The games and tournament stages bring competitive and enjoyable elements to the learning process. Educational games designed around lesson content create a playful yet meaningful atmosphere, encouraging students to prepare thoroughly and participate actively. Healthy competition motivates students intrinsically to perform well—not only for themselves but also for their teams. This aligns with Slavin's (1995) assertion that competitive elements in TGT significantly enhance student engagement.

Lastly, the recognition component provides positive reinforcement through awards or verbal praise, which builds students' confidence and encourages consistent participation. This step plays a critical role in sustaining motivation and cultivating a sense of achievement. These findings are consistent with prior studies. For example, cooperative learning models involving interactive games and reward systems foster student enthusiasm and meaningful engagement (Rizki et al., 2024). TGT effectively enhances affective outcomes, especially learning interest, in primary education (Matitaputty et al., 2023; Prasetyo, 2018; Sukasih, 2018).

Siregar et al. (2024) also found that the TGT learning model, even when implemented with supporting media such as a medium box, was capable of significantly improving student learning outcomes. While this present study focused on interest rather than academic achievement, the underlying mechanism remains similar—TGT promotes active involvement, competition, and enjoyment in learning. These aspects are instrumental in shaping student interest and engagement (Siregar et al., 2024).

Moreover, another research highlighted that TGT positively influences both students' attitudes and academic performance in mathematics, particularly in probability. The increased willingness to participate and motivation to succeed during game-based learning activities corresponds with the behavioral changes observed in this study (Veloo & Chairhany, 2013). Additionally, the study by Rahmadhani and Sukardi emphasized the effectiveness of TGT in literary learning, showing that structured group interaction and tournament-style activities can deepen conceptual understanding and raise enthusiasm. This aligns with the results of the present study, in which student interest significantly improved after the implementation of the TGT model (Rahmadhani Anis Safira & Sukardi, 2024).

Overall, this study concludes that the TGT model effectively enhances students' learning interest through its structured, collaborative, and motivating framework. The model facilitates a student-centered learning environment that is both enjoyable and conducive to active engagement, making it a promising approach for broader implementation in primary education settings.

4. Conclusion

This research has demonstrated that the implementation of the Teams Games Tournament (TGT) cooperative learning model can significantly enhance students' interest in learning Science and Social Studies (IPAS) at the elementary level. Through a two-cycle Classroom Action Research approach, it was found that the structured phases of TGT—namely class presentation, group study, educational games, tournaments, and recognition—encouraged active student participation, fostered collaboration, and created a positive and engaging classroom atmosphere. These elements collectively contributed to a noticeable increase in students' learning enthusiasm, attention, and motivation.

The study achieved its research objectives, as indicated by improvements in both the implementation of the learning model and the growth in student interest levels. The teacher's ability to manage the TGT model and the students' involvement in the learning process were critical factors that led to the successful application of the model. Future studies may explore the long-term impact of TGT on other affective or cognitive domains and its adaptability to different subjects or educational levels. It is also recommended to further investigate strategies for optimizing individual components of the TGT model to maximize its effectiveness.

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