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The Influence of the TGT (Teams Game Tournament) Method on Student Motivation and Learning Outcomes

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ABSTRACT

Low student motivation and learning outcomes remain a persistent challenge in science education, particularly when conventional teaching methods such as lectures dominate classroom practices. This study aims to determine the influence of the application of the Teams Game Tournament (TGT) learning method in an effort to increase student motivation and learning outcomes in the food chain material of science subjects. This research is a Classroom Action Research (PTK) which is carried out in two cycles. Each cycle consists of four stages, namely planning, implementation, observation, and reflection. The subject of the study is 21 students of class VII A MTSN 9 Indramayu. The data collection technique used observation, tests, and learning motivation questionnaires. The results showed that the application of the TGT method could increase students' overall learning motivation from 59.3% (Medium category) in cycle I to 77.0% (High category) in cycle II. Intrinsic motivation increased from 59.0% to 75.0%, extrinsic motivation from 59.0% to 78.0%, and situational motivation from 60.0% to 78.0%. Student learning outcomes also increased from an average score of 45.0 in the first cycle to 68.4 in the second cycle (an increase of 23.4 points or 52.0%). The percentage of learning completeness increased from 31.8% in the first cycle to 77.3% in the second cycle. Student activity increased from 40.9% in cycle I to 100% in cycle II. This study proves that the TGT method is effective in increasing student motivation and learning outcomes in science learning food chain materials.

INTRODUCTION

An effective teaching and learning process is one of the important factors in achieving educational goals. The choice of the right learning method has a great influence on the success of the learning (Deak & Santoso, 2021; Ekawati, 2018; Wahyuni & Naim, 2019). Conventional learning methods such as lectures often make students feel bored, less motivated, and inactive in the learning process (Abdel Meguid & Collins, 2017; Sanjaya, 2016). This is in line with the problems found in class VII A MTSN 9 Indramayu, where science learning of food chain materials still uses the lecture method, which results in low motivation and student learning outcomes.

Based on the initial observations made, it can be seen that most students do not pay attention to the teacher's explanations, tend to be passive, and look bored. This has an impact on the low learning outcomes of students in science subjects, especially in food chain materials. From the initial data obtained, the average score of students only reached 45.0 with a completion percentage of 31.8%, far below the Minimum Completeness

Criteria (KKM) set at 60. One of the efforts to overcome these problems is to implement more innovative and interesting learning methods. The Teams Game Tournament (TGT) method is one of the cooperative learning methods that combines group activities with intergroup competitions (Slavin, 2015). This method allows students to learn in a fun, competitive, and actively engaging atmosphere, so it is expected to increase student motivation and learning outcomes.

According to Baah et al. (2023) the TGT method has several advantages, including: involving all students regardless of status differences, providing opportunities for students to interact and discuss with peers, increasing students' motivation, confidence, and social attitudes, and making the learning process more enjoyable. In addition, previous research by Purwanti (2018) and Nugraha (2017) showed that the TGT method is effective in improving student motivation and learning outcomes in various subjects. This study contributes to the existing literature by specifically examining the implementation of the TGT method within the context of food chain material in junior secondary education using a Classroom Action Research approach. Unlike previous studies (Jean-Baptiste & Maher, 2022; Nugraha, 2017; Purwanti, 2018), which generally focus on broader subjects, this study emphasizes the integration of cooperative learning and contextual science material, as well as iterative cycle-based improvements. Therefore, this research offers a more practical and context-specific contribution to improving science learning outcomes (Tang, 2016).

Based on these research gaps, this study aims to analyze the effect of implementing the Teams Game Tournament (TGT) method on student motivation and learning outcomes in science learning, specifically on food chain material. This research adopts a Classroom Action Research (CAR) approach to systematically improve the learning process through iterative cycles. The novelty of this study lies in three main aspects the integration of three dimensions of learning motivation (intrinsic, extrinsic, and situational) within a single intervention model, the application of the TGT method in a specific science topic (food chain) at the junior secondary level and the use of a cyclical CAR design to capture dynamic improvements in both motivation and learning outcomes. The expected benefits of this research include providing practical contributions for teachers in selecting effective learning strategies, enriching the theoretical development of cooperative learning models, and supporting policy-making in improving the quality of science education (Nofriansyah et al., 2024; Tonga et al., 2025; Wahyuningsih et al., 2021).

Based on the identified problems and theoretical framework, this study proposes that the implementation of the TGT method can positively influence student learning motivation and learning outcomes. It is hypothesized that the integration of game-based competition, teamwork, and reward systems within the TGT method will enhance intrinsic, extrinsic, and situational motivation, which in turn will lead to improved cognitive, affective, and psychomotor learning outcomes. Thus, the TGT method is expected to create an engaging, student-centered learning environment that facilitates active participation and meaningful learning experiences.

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METHODS

This research is a Classroom Action Research (PTK) or Classroom Action Research which aims to improve the quality of the process and learning outcomes in the classroom Creswell & Creswell (2023). The PTK model used follows the concept of Kemmis and McTaggart with four stages, namely planning, acting, observing, and reflecting which are carried out in two cycles. This research was carried out at MTSN 9 Indramayu in the even semester of the 2024/2025 school year. Cycle I will be held on April 15, 2025, and cycle II will be held on April 23, 2025. The subjects in this study are 21 students in grade VII A MTSN 9 Indramayu. The selection of subjects was based on initial observations that showed low motivation and student learning outcomes in science subjects.

Research Procedure

This research was carried out in two cycles, with each cycle consisting of four stages as follows:

1. **Planning Stage**: Preparing a Learning Implementation Plan (RPP) using the TGT method, preparing learning materials, compiling observation sheets, preparing learning media, and compiling evaluation instruments.
2. **Implementation Stage**: Carry out learning in accordance with the lesson plan that has been prepared. In cycle I, learning is carried out by lecture method (initial observation), while in cycle II the TGT method is used with stages: class presentation, team formation, games, tournaments, and team recognition.
3. **Observation Stage**: Observe the learning process using observation sheets to find out the activities of teachers and students, as well as the conditions of students' learning motivation.
4. **Reflection Stage**: Analyze the results of observations and evaluations to be used as a basis for improvement in the next cycle.

Data Collection Techniques

The data collection techniques used in this study include:

1. Observation: Used to observe the learning process, teacher and student activities, and students' learning motivation conditions. Observations were carried out using observation sheets that had been prepared.

2. Test: Used to measure student learning outcomes on cognitive, affective, and psychomotor aspects. The test is carried out at the end of each cycle.
3. Questionnaire: Used to measure students' learning motivation before and after the application of the TGT method. The questionnaire consisted of 30 questions with a Likert scale of 1-4 which were divided into three aspects of motivation, namely intrinsic motivation (10 items), extrinsic motivation (10 items), and situational motivation (10 items). The questionnaire data analysis used a percentage formula with a minimum score of 210 (21 respondents × 10 items × 1) and a maximum score of 840 (21 respondents × 10 items × 4) for each motivation aspect.
4. Documentation: Used to collect data in the form of photos, videos, and other documents that support research.

Data Analysis Techniques

The data that has been collected is analyzed using quantitative descriptive analysis techniques (Amiza & Syofyan, 2023; Hasanah et al., 2020). Data from observations, learning motivation questionnaires, and learning outcome tests are analyzed and presented in the form of tables and graphs. The indicators of the success of this study are:

1. Students' motivation to learn increased from the Low category to the High category.
2. The average student learning outcomes reached ≥ 60 in accordance with the KKM.
3. The learning completion percentage reached ≥ 75%.
4. Student activity reached ≥ 85%.

RESULTS AND DISCUSSION

Cycle I (Initial Observation)

a. Learning Activities by Teachers

Based on observations made in the first cycle, it can be seen that teachers are still using the lecture method in learning science of food chain materials. Of the 10 aspects observed, teachers only carried out 5 aspects (50%), namely conveying learning objectives, encouraging active student participation, providing feedback on student responses, evaluating learning, and reflecting at the end of learning. Meanwhile, the other 5 aspects (50%) were not implemented, namely conducting perception, using learning media, using varied learning methods, providing students with opportunities to ask questions, and providing assignments/follow-ups.

b. Student Activities

Student activities in the first cycle showed that only 15 students (68%) paid attention to the teacher's explanation, 5 students (22.7%) actively asked questions, 5 students (22.7%) actively answered questions, 5 students (22.7%) did assignments enthusiastically, while 10 students (45.5%) looked bored/unfocused and 10 students (45.5%) interacted with their friends. The average student activity in the first cycle only reached 40.9%, which is included in the low category.

c. Student Learning Motivation Condition

The condition of students' learning motivation in cycle I was measured using a questionnaire with 30 question items divided into three motivational aspects. The results of the analysis showed that intrinsic motivation which includes students' earnestness, perseverance, and internal enthusiasm in learning achieved a score of 493 out of a maximum total of 840, or equivalent to 59.0% who are included in the Medium category. Extrinsic motivational aspects that reflect external motivations such as the desire to get good grades and recognition were also at the same level with a score of 498 out of a maximum total of 840, or equivalent to 59.0% in the Medium category.

Meanwhile, situational motivation related to students' responses to learning methods and classroom atmosphere showed slightly higher results with a score of 505 out of a maximum total of 840, or equivalent to 60.0% who are still included in the Medium category. Overall, the average student learning motivation in the first cycle reached 59.3% which was in the Medium category, indicating the need to improve learning methods to increase student motivation in learning food chain materials.

d. Learn

The learning outcomes of students in the first cycle showed that the average cognitive score was only 45.0 with the number of students completing 7 students (31.8%), the affective average score was 50.2 with the number of students completing 8 students (36.4%), and the psychomotor average score was 52.5 with the number of students completing 9 students (40.9%). The overall score is still below the KKM set, which is 60 for cognitive aspects and 70 for affective and psychomotor aspects.

e. Notes on the Shortcomings of the Learning Methods Used by Teachers

Some of the shortcomings of the learning methods used by teachers in the first cycle include:

1. Teachers use the lecture method and this results in students tending to be passive.
2. Teachers do not use varied learning media and cause students to get bored and chat.
3. Students tend to be afraid of teachers because teachers often ask sudden questions and use high tones.

Cycle II (Application of the TGT Method)

a. Implementation of the TGT Method

The application of the TGT method in cycle II consists of 6 stages, namely the class presentation stage, team formation, games, tournaments, team recognition, and closing activities. Of the 23 aspects observed, 22 aspects (95.7%) had been implemented well, only 1 aspect (4.3%) was not implemented, namely the researcher provided follow-up on the closing activity.

b. Student Activities During the Implementation of the TGT Method

Student activities during the implementation of the TGT method in cycle II showed a significant increase. All students (100%) are active in group discussions, enthusiastically participate in games, be active in tournaments, help each other in teams, and show positive competition. Only 3 students (13%) looked bored/unfocused.

c. Student Learning Motivation Conditions After the Implementation of TGT

The condition of students' learning motivation after the application of the TGT method in cycle II showed a significant increase in all aspects of motivation. Intrinsic motivation increased significantly from 59.0% in the first cycle to 75.0% in the second cycle with a difference of 16.0 percentage points. This increase shows that students are more earnest, diligent, and have a strong internal drive to learn food chain materials after experiencing learning with the TGT method.

The extrinsic motivation aspect showed the highest increase among the three aspects with an increase from 59.0% to 78.0% or an increase of 19.0 percentage points. This shows that the reward system, intergroup competition, and recognition in the TGT method successfully increase students' external drive to excel and obtain the best results for their teams. Meanwhile, situational motivation also increased substantially from 60.0% to 78.0% with a difference of 18.0 percentage points. This improvement reflects the positive response of students to the TGT learning method which is more interactive, fun, and involves elements of play in the learning process.

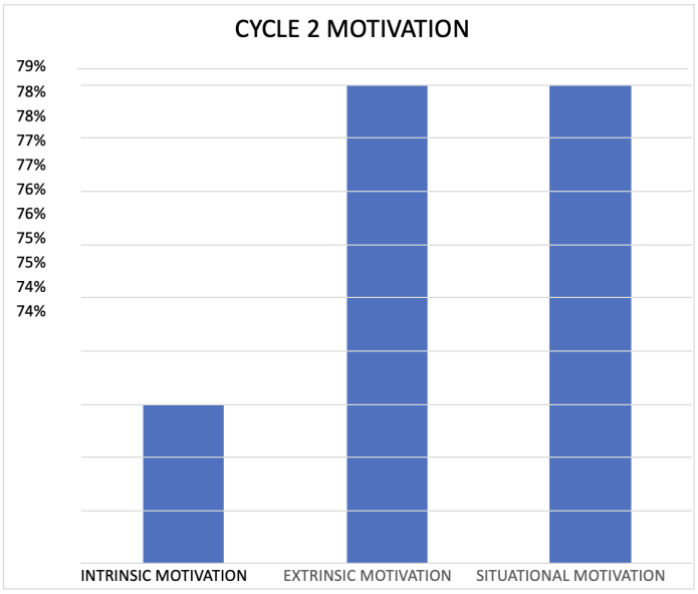

Figure 1. Motivation Cycle 2

Overall, the average student learning motivation in cycle II reached 77.0% which was in the High category, showing the success of the TGT method in increasing student learning motivation with an average increase of 17.7 percentage points from cycle I. This achievement proves the effectiveness of the TGT method in creating a learning environment that motivates and encourages the active participation of all students.

d. Learning Outcomes After TGT Implementation

Student learning outcomes after the application of the TGT method in cycle II showed a significant improvement. The cognitive average increased to 68.4 with 17 students completing 17 students (77.3%), the affective average score increased to 74.2 with the number of students completing 19 students (86.4%), and the psychomotor

average score increased to 76.8 with the number of students completing 20 students (90.9%). The overall value of this has reached and exceeded the set KKM.

e. Record of Successful Implementation of the TGT Method

Some of the successful implementation of the TGT method in cycle II include:

1. Students actively participated in learning activities with participation reaching 100% during the implementation of the TGT method.
2. Students show a high spirit of competition, especially when their scores lag behind other groups.
3. Visual-based learning media (video) has succeeded in attracting students' attention and increasing their understanding of food chain materials.
4. Teamwork is well established, all students help each other in teams (100% of students are active in group discussions).
5. The reward system and the announcement of scores transparently succeeded in increasing students' extrinsic motivation with an average score of 2.83 (High category).

f. Notes on Obstacles to the Implementation of the TGT Method

1. The obstacle faced in the application of the TGT method in cycle II is that when the group is divided, there are several students who have difficulty choosing a group.
2. Some students are still too dominant in the group, it is necessary to pay attention to the involvement of all members.
3. The time needed for the tournament is quite long, it needs more efficient time management.
4. Occasional commotion occurs during games due to the high enthusiasm of students

Comparison of Cycle I and Cycle II Results

Based on the results of the research in cycle I and cycle II, the comparison can be seen as follows:

Table 1. Cycle 1 and 2 Comparison Table

Aspects	Cycle 1	Cycle 2	Improvement
Intrinsic Motivation	59% (moderate)	75% (High)	16%
Extrinsic Motivation	59% (moderate)	78%(High)	19%
Situational Motivation	60% (Medium)	78%(High)	18%
Average motivation	59% (moderate)	77%(High)	17,7%
Average Learning Outcomes	45	68,4	23%
Completion Percentage	31,8%	77,3%	45,5%
Student Activities	40,9%	100%	59,1%

Source: Data Processed

Increased Student Learning Motivation

The results of the study show that the application of the TGT method has succeeded in increasing students' learning motivation comprehensively in all aspects of motivation. Average increase in motivation from 59.3% (Medium category) in cycle I to 77.0% (High category) in cycle II with a difference of 17.7 percentage points showing the effectiveness of the TGT method in creating a motivating learning environment.

The extrinsic motivation aspect showed the highest increase of 19.0 percentage points (from 59.0% to 78.0%). This indicates that the elements of competition, reward system, and recognition in the TGT method are very effective in increasing students' external motivation to excel (Hakim et al., 2025). Students become more motivated to get the best score for their team, get recognition from teachers and friends, and feel satisfaction when their team wins the tournament.

Situational motivation also increased significantly by 18.0 percentage points (from 60.0% to 78.0%). This improvement shows that the TGT method has succeeded in creating a fun, interactive, and non-boring learning atmosphere. The use of games and tournaments in learning makes students more enthusiastic and actively involved in the learning process.

Meanwhile, intrinsic motivation increased by 16.0 percentage points (from 59.0% to 75.0%). Although the increase is relatively smaller than the other two aspects, it still shows that the TGT method is able to foster students' internal drive to learn. Students become more earnest, diligent, and have a strong desire to understand the learning material.

This increase in learning motivation is in line with Widyastuti (2017) research which shows that the TGT method can increase students' learning motivation because of the elements of games and competitions that make learning more interesting and fun. The TGT method is able to change the learning paradigm from teacher-centered to student-centered, so that students feel more involved and have responsibility for their learning process.

Improving Student Learning Outcomes

The application of the TGT method has also succeeded in improving student learning outcomes in science subjects of food chain materials. The cognitive average increased from 45.0 in the first cycle to 68.4 in the second cycle (an increase of 52.0%), with the percentage of learning completeness increasing from 31.8% in the first cycle to 77.3% in the second cycle. This improvement shows that the TGT method is effective in improving students' understanding of food chain materials.

Factors that contribute to this improvement in learning outcomes include:

a. Class Presentation Stage: In this stage, the researcher conveys the material in an outline using video media about the food chain that is interesting, so that students can more easily understand the basic concepts of the material.

b. Team Building Stages: The division of students into heterogeneous groups allows for peer tutoring, where smarter students can help less smart students understand the material.
c. Game and Tournament Stages: In this stage, students compete with other group members who have equal academic abilities, so that all students have an equal opportunity to contribute to their team's score. This makes students more motivated to learn and understand the material well.
d. Team Recognition Stage: Awarding the winning team awards recognizes students' efforts and hard work, so that they feel valued and more motivated to learn.

This improvement in learning outcomes is in line with Hidayat (2019) research which shows that the TGT method can improve student learning outcomes because this method allows students to learn in a fun and competitive atmosphere.

Increase in Student Activity

The increase in student activity was also significant, from 40.9% in the first cycle to 100% in the second cycle. In cycle I, most students look passive, bored, and unfocused in learning. On the other hand, in cycle II, all students were active in group discussions, enthusiastically participated in games, were active in tournaments, helped each other in teams, and showed positive competition.

The TGT method succeeds in creating an interactive and collaborative learning atmosphere, where students not only learn from teachers but also from fellow students through discussions and teamwork. This is in line with the theory of constructivism which emphasizes that knowledge is built by students themselves through interaction with the environment and others (Trianto, 2014).

Obstacles and Solutions for the Implementation of the TGT Method

Although overall the implementation of the TGT method has succeeded in improving student motivation and learning outcomes, there are several obstacles faced, especially at the team formation stage. Some students have difficulty choosing a group, which can be caused by social factors or an unwillingness to join a particular student. To overcome these constraints, teachers can use a more structured group-building strategy, for example by dividing groups based on academic ability, gender, or other relevant criteria. In addition, teachers also need to motivate students to work together with all friends, not just with their favorite friends. This is important for building students' social skills and creating an inclusive learning environment.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that the application of the TGT (Teams Game Tournament) method in learning science, particularly food chain material, has significantly improved the learning motivation of grade VII A students at MTsN 9 Indramayu. Intrinsic motivation increased from 59.0% to 75.0% (a 16.0% increase), extrinsic motivation from 59.0% to 78.0% (a 19.0%

increase), and situational motivation from 60.0% to 78.0% (an 18.0% increase), with the overall average motivation rising from 59.3% (medium category) in the first cycle to 77.0% (high category) in the second cycle. In addition, the implementation of the TGT method also enhanced student learning outcomes, as reflected in the increase of the average score from 45.0 in the first cycle to 68.4 in the second cycle (an increase of 23.4 points or 52.0%), and the improvement of learning completeness from 31.8% to 77.3%. Student activity also showed a substantial rise from 40.9% in cycle I to 100% in cycle II, indicating full student engagement during the learning process. Furthermore, there is a positive correlation between increased learning motivation and student learning outcomes, confirming that the TGT method is effective in simultaneously improving both aspects, with extrinsic motivation showing the highest response, highlighting the important role of competition and rewards in the learning process.

These findings imply that the TGT method can be widely implemented as an innovative and interactive learning strategy to enhance both motivation and academic achievement in science education and other subjects. Future applications should consider integrating TGT with digital learning platforms or gamification technologies to further strengthen student engagement. In addition, teachers are encouraged to adapt the TGT approach to different learning contexts and student characteristics, while future research is recommended to explore its long-term impact, scalability, and effectiveness across diverse educational settings and subjects.

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