



Improving Lay Up Shoot Skills with the Teams Game Tournament Model in Basketball Learning

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Abstract. The Teams Game Tournament (TGT) is a physical education learning method aimed at improving psychomotor skills. In physical education, the TGT method can be implemented in basketball learning, particularly for lay-up shooting skills. Many studies have applied the TGT method, but there is limited research indicating that TGT learning needs to be packaged more attractively to increase students' motivation and enthusiasm. This research aims to test the TGT method to improve lay-up shooting skills in basketball by making the TGT method more engaging. The participants were 22 high school students, both male and female. Data collection techniques included tests and document analysis of relevant articles. The data analysis technique was quantitative descriptive, and the study results indicated that the mean score increased from pretest (53.86) to posttest (63.32), with a significance value of $0.000 < 0.05$ and a mean difference of 9.46. In conclusion, the TGT learning method significantly improves lay-up shooting skills in basketball learning. It is hoped that this research will provide knowledge for teachers to apply the TGT method. However, further research is needed with larger samples and by considering not only psychomotor aspects but also affective and cognitive perspectives.

Keywords: Needs Analysis, Android-based Learning, Physical Education, Active learning.

1 Introduction

Physical education contributes to student progress by optimizing affective, cognitive, and psychomotor aspects [1], [2]. Through the teaching skills of a competent teacher, students' progress can be effectively facilitated. As students have different characteristics, teachers need to understand the strengths and weaknesses of each student. In relation to teaching activities, this involves a discussion of pedagogy.

Sports pedagogy examines a sub-discipline of sports science that serves as a foundation for all practices in the field of sports, which have educational purposes [3]. The scope of sports pedagogy includes content knowledge, general pedagogical knowledge, pedagogical content knowledge, curriculum knowledge, knowledge of educational content, knowledge of learners and their characteristics, and knowledge of educational goals [3]. When discussing the application of a learning method to increase attention, proficiency, and skills, it relates to content knowledge. Studies suggest that content knowledge is associated with mastery of movements, with the substance being games and sports, aimed at understanding and practicing each concept [3]. This includes sports such as volleyball, badminton, football, sepak takraw, tennis, basketball, and others, indicating the need for a methodical approach to develop movement mastery abilities.

Existing methods include Teaching Games for Understanding (TGfU), experiential learning, problem-based learning, project-based learning, and Teams Game Tournament (TGT) [4]–[7]. While these methods have good empirical evidence, the author is particularly interested in studying the TGT method in the context of implementing basketball learning from a physical education perspective.

The TGT method focuses on group-based learning, where students from diverse backgrounds collaborate. The main objectives are to foster socialization skills and improve lay-up shooting skills in basketball. During the games phase, groups consist of students with varying levels of proficiency in basketball, with more skilled students acting as leaders for those who need improvement. In this phase, groups compete against each other in a half-field basketball setup, with points and wins monitored by a referee. After the game, the teacher guides students in reflecting on their learning experiences from the team and game phases. Following the games, a tournament is held to test the students' mastery of lay-up skills, where groups compete against each other in performing lay-up shots. The teacher, acting as a referee, assesses the students based on the preparation, execution, and final stance of their lay-up movements using an assessment rubric. The winning group is then rewarded to recognize their participation and effort in the TGT learning process.

Although several previous studies have applied the TGT method, the author notes that further research is needed to refine this approach for enhancing basketball shooting skills. Researchers need to consider aspects such as motivation to ensure that students remain enthusiastic about participating in physical education learning methods [8]. Therefore, in this context, the author aims to conduct further research to test the effectiveness of the TGT learning method in improving lay-up shooting skills in high school basketball learning, with a focus on time efficiency and more engaging learning experiences to boost student enthusiasm in physical education.

2 Method

The research method was an experiment with a one-group pretest-posttest design conducted over 16 meetings [9]–[12]. Participants in this research were 22 high school students, both male and female. Data collection techniques included observation and tests. The quantitative descriptive data analysis techniques presented the mean, maximum, minimum, and standard deviation values. The hypothesis was tested using the Wilcoxon test analysis [7], [13]. The instrument for assessing lay-up ability, adopted from Wicaksana's research, uses an assessment rubric that evaluates the sequence of preparation, execution, follow-through, and final attitude [14]. The procedures for the Teams Game Tournament (TGT) learning model can be explained as follows:

Introduction

- a. The teacher provides direction and motivation for the sequence of material
- b. The teacher gives directions for warming up and stretching

Core Learning

- a. The teacher gives shooting directions
- b. The teacher arranges groups containing 5 students in one group
- c. 1 group consists of a variety of students, there are several students who have good basketball basics
- d. Students who have good basketball basics become leaders to teach lay-up material
- e. Then, after the material has been achieved and completed, the teacher provides learning from a cognitive perspective about what has been given
- f. Then the teacher continues learning from a psychological perspective

Team Phase

Each group consists of 5 students, including those with basic basketball skills who act as leaders within the group. These leaders provide direction and motivation to students who are less proficient in basketball skills. The focus of the learning is on developing lay-up shooting skills.

Game Phase

During the games phase, groups come together to compete on a half-court basketball area. A referee oversees this phase to ensure the game is conducted in an orderly manner. The referee is responsible for recording the scores and determining the winners. The team that consistently wins and accumulates the most points is declared the champion.

Tournament Phase

The tournament phase follows the completion of the games phase. During the tournament phase, groups compete against each other in performing lay-up shooting techniques. The goal of this tournament is for students to execute as many lay-up shots as possible.

3 Results

The results of this research present descriptive results of the mean, minimum, maximum, standard deviation and hypothesis testing using the Wilcoxon test. Results are presented as follows:

Table 1. Descriptive analysis results

Variable	N	Min	Max	Mean	SD
Pretest	22	28	76	53.86	11.374
Posttest	22	47	91	63.32	12.077

Based on the results of the descriptive analysis, it can be seen that the mean posttest score is 63.32, while the mean pretest score is 53.86, meaning the posttest score is better than the pretest score. The results are more clearly presented in the following diagram

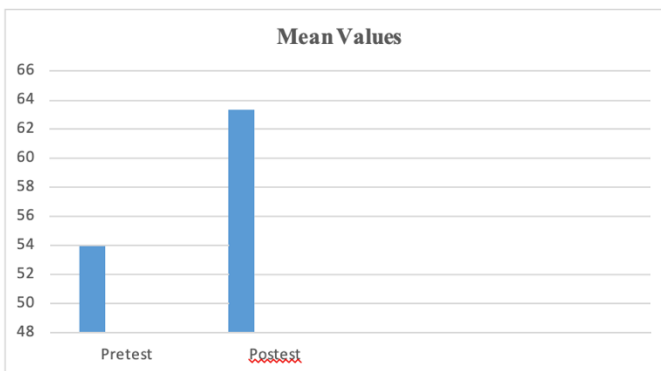


Fig. 1. Results of the mean pretest-posttest score for lay-up skills

Table 2. Wilcoxon analysis results

Variable	Mean	Difference	Significant
Pretest	53.86	9.46	0.000
Posttest	63.32		

Based on the Wilcoxon test results, the significance value was found to be 0.000, which is less than 0.05. This indicates a significant difference between the pretest and posttest scores, with an average increase of 9.46 points. Therefore, the Teams Game Tournament (TGT) learning model has a positive influence on the development of lay-up skills in basketball for high school students.

4 Discussion

The research results show that the application of the Teams Game Tournament (TGT) learning model has a significant influence on lay-up shooting skills for high school basketball students. This is evident from the mean pretest score of 53.86 and the mean posttest score of 63.32, indicating an improvement. The significance value of 0.000, which is less than 0.05, confirms that there is a significant difference between the pretest and posttest scores, with an average increase of 9.46 points.

The application of learning models to support student progress is essential. Teachers must innovate to enhance students' cognitive, affective, and psychomotor skills. Physical education aims to develop social skills, leadership qualities, empathy, and cooperation. This aligns with previous studies indicating that physical education optimizes affective, psychomotor, and cognitive aspects [2], [15], [16]. Adequate physical education fosters problem-solving skills, ethics, independence, social interaction, and leadership [17], which are achieved through appropriate learning methods.

The TGT learning model optimizes psychomotor aspects, cooperation, enthusiasm, and motivation. It focuses on group learning, where students with varying basketball skills and diverse backgrounds work together. Previous studies have highlighted that TGT groups are heterogeneous, including differences in academic abilities, gender, ethnicity, and social status [18].

The TGT learning model is particularly suitable for improving learning in large ball games like basketball. A fundamental aspect of basketball that students need to master is the lay-up shot. This skill is crucial as it involves dribbling the ball, jumping, and shooting using the lay-up technique. Previous studies emphasized the importance of concentrating on the initial stance, execution, follow-through, and final stance in lay-up shooting [18]. Therefore, it is necessary to assess students' lay-up abilities, provide targeted instruction, and evaluate the outcomes.

The TGT learning model is an effective method for enhancing high school students' lay-up shooting skills. Previous studies have shown that using the TGT method significantly improved basketball shooting learning outcomes, with a reported improvement of 59.57% [8]. Additionally, TGT has been shown to enhance learning outcomes for basketball passing in high school [19]. Another study found that the TGT model improved chest pass learning outcomes in basketball [20].

Based on the author's research, the TGT learning method significantly improves lay-up shooting skills in high school basketball. This finding aligns with previous research supporting the positive impact of the TGT learning model on basketball learning outcomes.

However, continuous improvement is necessary. Teachers should enhance their personal and team competence, staying updated with the latest teaching methods and knowledge. This is related to pedagogical aspects, including content knowledge, which is crucial for guiding students through the socialization process in physical activities and mastering necessary skills [3].

5 Conclusion

Based on the research results and discussion, it can be concluded that the Teams Game Tournament (TGT) learning method has a significant influence on lay-up shooting skills in basketball for high school students. It is hoped that this research will provide valuable knowledge for teachers, enabling them to apply the TGT method to improve student learning outcomes. However, this research is not without limitations. Further studies should increase the sample size and consider adding dependent variables that include not only psychomotor aspects but also affective and cognitive perspectives.

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