The Implementation of The Think-Pair-Share (TPS) Learning Model to Improve Learning Outcomes of Forearm Passing in Fifth Grade Students at Public Elementary School 03 Pondok Ranggon, East Jakarta

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Abstract

This study aims to examine the effectiveness of the Think-Pair-Share (TPS) learning model in improving forearm passing skills among fifth-grade students at Public Elementary School 03 Pondok Ranggon, East Jakarta. The research utilized a quantitative approach with a quasi-experimental design involving one group pre-test and post-test. A total of 30 students participated as research subjects. The instrument employed was a volleyball forearm passing performance test, which had been validated for its reliability and relevance to the learning objectives. Data were analyzed using descriptive statistics and paired sample t-test to measure the significance of improvement before and after the implementation of the TPS model. The findings revealed a significant increase in students' forearm passing performance after the intervention. The average post-test scores showed marked improvement compared to the pre-test results, indicating the effectiveness of the TPS model in motor skill learning. The TPS strategy promoted meaningful student engagement, peer interaction, and deeper understanding of skill execution through structured collaboration. These results support the application of student-centered learning models, such as TPS, in physical education to foster both cognitive and psychomotor learning outcomes. This research suggests that implementing the TPS model can be a practical and impactful approach to enhancing volleyball skill acquisition in elementary school physical education settings.

How to Cite

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INTRODUCTION

Learning is a process that involves interaction between students and teachers and students with students where from these interactions students are expected to gain understanding and progress in learning outcomes about the teachings obtained in learning situations. In the implementation of learning, it is always related to several factors, one of which is the internal factors of the students concerned. Internal factors of students are factors that arise from within students, such as students lacking interest in the learning material provided. (Anggraini et al. 2020)

The purpose of education is to foster personal harmony and unity in order to achieve the goal of organic, harmonious, and dynamic human life. Achieving changes in the cognitive, affective, and psychomotor domains of students is the goal of education in schools. These three domains are also the main objectives of learning in the context of physical education. In addition, the main goal of physical education is to develop the physical fitness of each student in order to participate in school activities that support learning. (Pamungkas, Wahyudi, and Putri 2024)

Physical Education, Sports, and Health plays a strategic role in shaping students' character and motor skills from an early age. Through Physical Education, Sports, and Health, students not only learn about movement and sports skills, but also develop discipline, responsibility, and cooperation within the context of games (Bailey et al., 2018). In the context of elementary education, mastery of basic game techniques, including volleyball, serves as an essential foundation that supports children's physical and social development.

Physical education is an inseparable part of human life, through physical education humans can learn more things related to affective, congnitive, and psychomotor which are human provisions to achieve life goals.(Susanto et al. 2021)

A learning model is a plan or a pattern used as a guide in planning classroom learning. In essence, the word "model" has different definitions according to the field of science or knowledge that adopts it. The teacher's learning model can help students to help or get information, ideas, skills, ways of thinking, and express their own ideas. (Pratama, Jasmani, and Ilmu n.d.)

In education, there are many models of techniques for delivering material and learning so that students can easily understand, especially physical education teachers. The way of delivery is very important because it can increase student movement and satisfying learning outcomes effectively and efficiently, the learning model is directed at increasing student activity in the teaching and learning process so that the teaching and learning process takes place optimally between teachers and students. (Swadesi and Kanca 2018)

Cooperative learning model type Think-pair-share cooperative learning model is designed so that students are trained to communicate to express various ideas that are in their minds during the learning process, both to the teacher and their friends. This can be seen from the stages of Think-pair-share learning, namely thinking, pairing and sharing. In the pairing and sharing stages, communication skills are needed to convey ideas to others so that they can be understood. (Maharani and Rahman 2016)

The think pair share strategy is one type of cooperative learning designed to influence student interaction patterns, students are formed into groups, from these groups, students discuss to solve problems in learning activities. Between groups interact with each other to discuss the results of solving the problem, thus creating social dynamics in the learning activity.(Menggunakan and Sirkuit 2014)

Volleyball is a widely recognized game. In 1895, Willian G Morgan was a physical education teacher in the United States who invented the game of volleyball, Volleyball games will be difficult for people who do not know volleyball. This is because in mastering the game of volleyball must endure pain when passing, and hitting, as well as techniques in the game. Volleyball matches can be up to five sets of play for 1 hour 30 minutes, The basic steps of volleyball must have been mastered so that it can be a variety and the game can run well. Good mastery of the basic steps of volleyball is the beginning of good volleyball game tactics. Basic volleyball technique is an important element for players and even teams because if they do not have good technique, the match does not run perfectly.(Ari et al. 2021)

Volleyball is one of the game sports included in the subject matter of physical education. The techniques in the game of volleyball consist of serving, passing up, passing down, blocking, and smash Volleyball is a fun game sport because it can adapt to various conditions that may arise in it, can be played with a varied number of people such as beach volleyball with 2 players If the player does not master the basic techniques, especially the lower pass, the formation of the attack strategy will not run smoothly so that the feeder will have difficulty placing a good ball for

the attackers because the success of the attack depends on the good and bad of the lower pass itself. Basically, the reality in the field shows that the average student still cannot do the lower pass correctly. (Septiana, Komara, and Jatnika 2022)

Problems that are often encountered by teachers physical education teachers in the learning process is the problem of learning methods. Using learning methods that are appropriate to the learning material can optimize the PE learning process at school. For this reason, physical education teachers are required to be creative in carrying out the PE learning process in accordance with the curriculum. (Ramadhan and Ihsan 2023)

Forearm passing is one of the fundamental techniques in volleyball. This technique plays a crucial role in building a team's offense, especially in receiving serves or the opponent's first ball. However, it requires body coordination, proper hand positioning, and the ability to accurately control the direction of the ball. Without proper mastery of forearm passing, students tend to struggle in fully participating in volleyball games (Jeong & So, 2022).

By applying the Think-Pair- Share type cooperative learning model which aims to invite students to play a more active role in the physical education learning process, especially in learning volleyball passing material. In this learning model, students learn in small groups to learn the material and solve the problems given, and students are given the opportunity to build their own knowledge by giving meaning to each material learned through real experience. (Suliaji 2019)

Field observations indicate that the mastery of forearm passing skills at the elementary school level remains relatively low. This is supported by findings at Public Elementary School 03 Pondok Ranggon, East Jakarta, which show that more than 60% of fifth-grade students are unable to perform forearm passing with the correct technique. This lack of skill is believed to stem from the use of conventional, teacher-centered learning approaches, which do not adequately encourage active student participation or understanding of movement (Khoirudin et al., 2021).

According to Inarman and Tono (2013) every student activity in learning lower passing by using the learning method of ball throwing training, has increased from each cycle. Student learning completeness based on the final test results, according to (School standards) out of 22 students, in cycle I action I there were 8 students who were not complete, and students who completed their learning with a total percentage of completeness of 59.09%, while the criteria for learning completeness in cycle I Action II there were 7 students who were not complete and those who completed their learning were 15 students with a percentage of completeness of 68.18%. Cycle II Action I there were 4 students who were not complete and there were 18 students who were complete with a percentage of completeness of 81.82%, in cycle II Action II there were 2 students who were not complete and 20 students who were complete with a percentage of completeness of 90.91%. student response to learning by using the method of throwing catching the ball learning lower passing the results are positive. Meanwhile, according to Wijatmiko (2012), the learning outcomes of lower passing increased after taking action in the form of learning lower passing using the ball from cycle 1 to cycle 2. (Bashfahan and Rosiyanti 2024)

The role of a teacher is very important in applying the right learning model. Therefore, the researcher tried to provide one alternative solution to the problem by applying the Think Pair Share type cooperative learning model. This learning is believed to be able to overcome the above problems because this learning model requires students to want to propose problems faced, cooperate, discuss and interact with their respective group members. Here students not only learn and accept what is presented by the teacher, but can learn from other students and have the opportunity to teach other students.(Widiastuti and Ganesha 2014)

In Physical Education, Sports, and Health learning, instructional models that emphasize active student participation have been proven to enhance motor skill learning outcomes. One instructional model that has gained attention in educational literature is the Think-Pair-Share (TPS) model. TPS is part of a cooperative learning strategy designed to increase student engagement in the processes of thinking, discussing, and sharing knowledge in a collaborative atmosphere (Slavin, 2020; Gillies, 2019). This model is highly relevant for use in teaching sports skills, which require observation, practice, and peer interaction.

The TPS model consists of three main stages: (1) Think, where students are given time to reflect and analyze information individually; (2) Pair, in which students work in pairs to discuss their thoughts; and (3) Share, where they present their discussion results to the larger group or class. In the context of forearm passing instruction, the Think stage can be used to analyze the correct movement techniques, the Pair stage for practicing in pairs and providing mutual feed-

back, and the Share stage for demonstrating the practice outcomes and discussing them collaboratively (Jeong & Kim, 2023).

Several previous studies have confirmed that the implementation of the Think-Pair-Share (TPS) learning model can have a positive impact on student learning outcomes. For example, a study by Salas et al. (2020) found that TPS enhances student participation, information retention, and conceptual understanding in motor learning. Similarly, research by Mahendra & Wahyudi (2021) showed that the TPS model fosters self-confidence and communication skills within the context of Physical Education, Sports, and Health instruction.

However, the application of the TPS model specifically in improving forearm passing skills in volleyball at the elementary school level has not been extensively explored. This is noteworthy, considering that the TPS model—emphasizing practice, collaboration, and reflection—is highly aligned with the principles of motor learning and sport pedagogy. Therefore, further research is needed to examine the extent to which this model is effective in enhancing students' forearm passing performance in elementary school settings. So the formulation of this research problem is whether the application of the Think-Pair-Share (TPS) learning model can improve the learning outcomes of volleyball lower passing in class V students at Public Elementary School 03 Pondok Ranggon, East Jakarta? and how much influence does the Think-Pair-Share learning model have on improving students' lower passing motor skills in PE learning?

This research presents a novelty by applying the Think-Pair-Share (TPS) learning model specifically in the context of learning psychomotor skills, namely forearm passing in volleyball for elementary school students. To date, the TPS model has mostly been used to improve learning outcomes in the cognitive domain, such as literacy and science, and has rarely been applied to sport learning based on motor skills. This approach provides a new perspective that collaborative strategies such as TPS are not only effective in improving theoretical understanding, but can also strengthen the mastery of basic movements in sport. By engaging students in independent thinking, paired discussion and active sharing of understanding, TPS promotes a participatory and reflective learning environment. This makes TPS a relevant and innovative learning model to be applied in physical education at the primary level, especially in efforts to improve learning outcomes of practical and structured sport techni-

ques. This finding adds a scientific contribution to the development of active learning approaches in the context of physical education based on an independent curriculum.

This research was conducted at Public Elementary School 03 Pondok Ranggon, East Jakarta, with a focus on fifth-grade students. By examining the influence of the Think-Pair-Share (TPS) learning model on forearm passing learning outcomes, this study aims to provide strong empirical evidence and a meaningful contribution to the development of more effective, engaging, and participatory teaching models in Physical Education, Sports, and Health..

METHODS

This study employed a quantitative method with a quasi-experimental approach using a one-group pre-test post-test design. This design involved one group of students who received treatment in the form of the implementation of the Think-Pair-Share (TPS) learning model, with their performance compared before (pre-test) and after the treatment (post-test) (Sugiyono, 2021).

The research subjects consisted of 30 fifth-grade students from Public Elementary School 03 Pondok Ranggon, East Jakarta, who participated in Physical Education, Sports, and Health lessons during the even semester of the 2024/2025 academic year. The sampling technique used was purposive sampling based on the following criteria: actively participating in Physical Education, Sports, and Health lessons, having no physical disabilities, and being willing to follow all phases of the study.

The steps of the research procedure were as follows:

Pre-Test
Students were given a lower passing skill test to assess their initial abilities.

Treatment:
The Think-Pair-Share (TPS) learning model was implemented over six sessions, each lasting 2 x 35 minutes.
Think Stage: Students observed a demonstration of the underhand passing technique and individually reflected on how to perform the movement.
Pair Stage: Students practiced in pairs while discussing the correct techniques.
Share Stage: Students presented their findings/experiences in front of the class and received feedback from the teacher.

Post-Test
The lower passing skill test was administered

again to measure improvement in learning outcomes.

The instrument used is an observation sheet for lower passing skills, adapted from the Brumbach Forearm Pass Test (Marasati, 2022). The aspects evaluated include: body position, hand position, ball direction accuracy, and ball control. The assessment is conducted using a 1–5 scale.

The data from the pre-test and post-test were analyzed using a paired sample t-test through the latest version of SPSS software. This test is used to determine whether there is a significant difference between the pre-test and post-test scores. The significance level is set at $\alpha = 0.05$.

RESULTS AND DISCUSSION

This study was conducted to determine the effect of applying the Think-Pair-Share (TPS) learning model on the improvement of lower passing skills among fifth-grade students at Public Elementary School 03 Pondok Ranggon, East Jakarta. Before performing inferential statistical tests (t-test), a descriptive analysis was first conducted on the pretest and posttest data. The following table presents the descriptive statistics for the pretest and posttest results of students' lower passing skills.

Table 1. Data Description

Phase	N	Mean	Standard Deviation	Highest Score	Lowest Score
Pretest	30	58,27	7,56	70	45
Posttest	30	75,60	6,48	88	63

Based on the data **Table 1**, it can be seen that there was an improvement in the average score from 58.27 during the pretest to 75.60 during the posttest. Additionally, the standard deviation in the posttest (6.48) is slightly smaller than in the pretest (7.56), indicating that the posttest data is more homogeneous or evenly distributed.

The highest score also increased from 70 to 88, while the lowest score increased from 45 to 63. This indicates that, in general, there was an improvement in lower passing skills across the entire range of participants after the implementation of the Think-Pair-Share (TPS) learning model.

The normality test is used to determine whether the pretest and posttest data are normally distributed. In this study, the Shapiro-Wilk test was used because the sample size is less than 50 participants (N = 30). The significance (Sig.) value for the pretest is 0.123 and for the posttest is 0.089. Since both values are greater than 0.05, it can be concluded that the pretest and posttest data are normally distributed.

The homogeneity test aims to determine whether the variances between the pretest and posttest data are the same (homogeneous). This test was conducted using Levene's Test. The significance value in the Levene's test is 0.386, which is greater than 0.05. This indicates that the data meet the homogeneity assumption, meaning the variance between the pretest and posttest groups is the same.

The t-test is used to determine whether there is a significant difference between the pretest and posttest scores after the treatment using the TPS learning model.

The results of the Paired Sample t-test show that the mean score increased by 17.33 points. The t-value was 11.745 and the significance value (p-value) was 0.000, which is less than 0.05. Therefore, it can be concluded that there is a significant difference between the pretest and posttest scores.

Thus, the implementation of the Think-Pair-Share (TPS) learning model significantly improved the underhand passing skills of the fifth-grade students at Public Elementary School 03 Pondok Ranggon, East Jakarta.

The results of the t-test show a significant difference between the pre-test and post-test scores of the students after the implementation of the TPS learning model. The average post-test score increased significantly, indicating that the students experienced improvement in mastering the underhand passing technique.

The TPS model worked effectively because it created an active and reflective learning environment, where students not only received information but also processed, discussed, and applied it. This aligns with the constructivist learning theory, which emphasizes that knowledge is built through social interaction and direct experience (Vygotsky, 1978).

In the "Think" phase, students are given the opportunity to think individually about the correct underhand passing technique based on the teacher's demonstration and instructions. This process helps build initial understanding. Next, in the "Pair" phase, students work together in pair exercises. This interaction encourages observation skills, feedback exchange, and movement correction, which are essential components in motor skills learning (Magill & Anderson, 2021).

The "Share" phase reinforces learning by encouraging students to share their experiences with the group or class. In addition to training communication skills, this process also strengthens conceptual understanding through open discussion. This strategy has been proven effective in creating high student engagement (Gillies, 2019; Salas et al., 2020).

Compared to conventional methods, the TPS approach not only focuses on the end result but also on the learning process. This is important in the context of physical education, where the learning experience and student enjoyment play a crucial role in the success of the learning process (Bailey et al., 2018).

CONCLUSION

This study shows that the application of the Think-Pair-Share (TPS) learning model has a significant impact on improving the underhand passing skills of fifth-grade students at Public Elementary School 03 Pondok Ranggon. Through an active, collaborative, and reflective approach, students are able to better understand and practice movement techniques more effectively.

The TPS model is well-suited for Physical Education, Sports, and Health learning as it enhances interaction, motivation, and students' self-confidence. Therefore, this strategy is recommended as part of an innovative, enjoyable, and meaningful learning experience at the elementary school level.

It is also expected that the findings of this study will offer practical recommendations for Physical Education teachers to adopt cooperative learning strategies in teaching basic sports skills, particularly in volleyball. This is essential to foster a learning process that is enjoyable, collaborative, and meaningful for elementary school students.

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