



The Influence of Drill Method on Underhand Serve in Sepak Takraw

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Keywords

Underhand Serve;
Sepak takraw; Citra
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Abstract

This research is motivated by the low accuracy of underhand serves among students in the sepak takraw extracurricular. The purpose of the research is to determine the effect of the drill method on the improvement of underhand serve skills. This research is a quasi-experimental study with a one group pretest-posttest design. The research subjects are the extracurricular students of Citra Kartika Club at SDN 2 Jungsemi. The research instrument uses a sepak takraw service test. The data analysis technique used is the t-test (paired sample t-test). Based on the research data obtained on the underhand serve skill in the game of sepak takraw among extracurricular students of the Citra Kartika Club at SDN 2 Jungsemi, the pre-test variable with a sample size of 10 students had an average score of 18.70, with a minimum score of 16 and a maximum score of 22. The post-test variable with a sample size of 10 students had an average score of 28.10, with a minimum score of 25 and a maximum score of 30. The t-test results show that drill training has an effect on the Underhand Serve Skill. This can be proven by the significance value of the t-test $0.00 < 0.05$. The results of this study are expected to serve as a reference for coaches in improving the quality of basic technical training.

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INTRODUCTION

According to (Ambarwati & Raharjo, 2022), extracurricular activities are a sequence of organized and planned activities that are carried out continuously in order to accomplish particular objectives by involving a group of individuals. According to Darmawan, 2016:352 (Ahmad et al., 2023), extracurricular activities allow students to discover their potential based on their skills and interests so that they can be cultivated for optimal success. According to (Panuntun & Raharjo, 2015) extracurricular activities are student self-development activities that are carried out outside of school hours in order to develop and expand students' talents, interests, potential, and will in accordance with what they love, including sports.

Therefore, it can be inferred that ekstrakurikuler activities are those that are carried out outside of the classroom by students who are motivated and enthusiastic in order to fulfill their wawasan or to maximize their abilities in order to achieve optimal performance in both academic and olahraga settings. According to (Agustina et al., 2023), the functions of ekstrakurikuler activities in a single educational setting are: pengembangan, sosial, rekreatif, and career preparation.

Ekstrakurikuler olahraga activities have a great deal of potential to help students develop their gerak keterampilan. According to the statement (Yulianti et al., 2020), ekstrakurikuler activities are beneficial and important because they provide students with a sense of accomplishment and can serve as a gauge of school growth or progress that is frequently observed by students or the general public. In addition, ekstrakurikuler activities for students also serve as a means of fostering interests, talents, hobbies, and personality.

Physical education and sports include efforts to improve the quality of human morals and personality, discipline and sportsmanship, as well as enhancing achievements that can foster national pride. Achievement is a measure of a nation's progress and plays an important role in the development and improvement of the quality of human resources (Tifal, 2023). Sports and physical education are important parts of national education because they help improve and shape human cognitive, affective, and psychomotor aspects through physical activity (Mustafa, 2022). Sepak takraw is a sport that supports this development.

Sepak takraw is a game played on a four-sided court, rectangular in shape, flat, and either indoor or outdoor. The court is divided by a net. The ball used is made of rattan. This game uses all parts of the body except the hands and arms. Players are divided into 2 teams, each consisting of 3 players on the court and 1 substitute player outside the court. According to (Mamu et al., 2022), sepak takraw can be described as a combination of sepak takraw and volley-ball that develops agility and fitness for its players.

This game mainly uses the feet and all body parts except the hands (Artyhadewa, 2017). The objective of each team is to return the ball in such a way that it falls onto the opponent's court or causes the opponent to commit a violation or make a mistake (Ikhwan, 2023). In sepak takraw, kicking is the dominant movement. It is said that kicking skill is the mother of the game of sepak takraw because the ball is played with the feet, starting from the beginning of the game until scoring points (Syam, 2022).

Sepak takraw is a complex sport game that demands physical coordination, balance, and high-level technique. The basic techniques in playing sepak takraw include sepak sila, sepak kuda, sepak badak, sepak cungkil, heading, memaha, mendada, menapak, sepak mula, smash kedeng, and blocking (Idial et al., 2024). The techniques in playing sepak takraw are grouped into several categories, namely kicking techniques, service techniques, defensive techniques, and smash techniques (Artyhadewa, 2017). One of the most crucial basic techniques in this game is sepak mula (service). In sepak takraw, sepak mula is not merely a sign of the beginning of the game, but also the first attack that can directly produce points.

Sepak mula is the initial kick in playing sepak takraw, performed by the tekong within the sepak mula circle when the ball has been tossed by the right apit. Service ability in sepak takraw plays an important role in achieving success in the game. Through service, a team can score points (Hermawan, 2020). If a team fails to perform the service, it will not gain points; conversely, if a team successfully performs the service, it will obtain points.

In addition to the consistency of the ball toss from the wing player (apit), the success of sepak mula is also determined by the contact of the ball with the foot (usually the inner part),

the leg swing, and power control so that the ball accurately passes over the net. The drill method is a training method carried out repeatedly with the aim of familiarizing athletes with performing a particular technique (Massa et al., 2022). According to (Zulfahmi, 2022), the drill method is a teaching technique in which students carry out practice activities in order to gain greater dexterity or skills from what has been learned. In sepak takraw, this method is applied by continuously performing services from the same point toward a specific target area on the opponent's court within a certain duration or number of repetitions.

The drill methods that can be carried out so that students perform serves better can be done by using a hanging ball, using kicking targets, and using a ball that is thrown or moved directly out of the reach of the student who will perform the serve.

Research on drill methods in sepak takraw is generally conducted on the general population or advanced adolescent athletes focusing on the overhead serve. This study provides novelty by focusing on interventions with variations in drill methods on the low kick technique, specifically for a population of talented young athletes within the ecosystem of a high-achieving club, namely the Citra Kartika Club at SDN 2 Jungsemi. Through this measured training approach, the method's effectiveness can be tested more validly on subjects who already have high competitive motivation.

The sport of sepak takraw is not unfamiliar among the people of Jungsemi Village, Kendal Regency, because sepak takraw is a sport famous for its outstanding achievements, especially at SD N 2 Jungsemi, since sepak takraw is one of the leading sports in Kendal Regency. The sepak takraw extracurricular program at SDN 2 Jungsemi is directly supervised by the Citra Kartika sepak takraw club, which is one of the large and accomplished clubs in Kendal Regency. Every year, SDN 2 Jungsemi always wins the Regional Student Sports Week (POPDA) championship of Kendal Regency, then the students or athletes represent Kendal Regency at the Residency Region level up to the Central Java level.

The Citra Kartika Club's extracurricular sepak takraw activity at SDN 2 Jungsemi is an effort to improve sepak takraw skills and foster sepak takraw achievements at the student level. SDN 2 Jungsemi in Kendal Regency has a brilliant track record in sepak takraw. Under the direct auspices of the Citra Kartika Club, one of the largest and most successful clubs in the region, the school has consistently dominated the Regional Student Sports Week (POPDA) Championships from the district level to representing the Residency and Central Java levels. However, based on direct observations of the Citra Kartika Club extracurricular students at SDN 2 Jungsemi, a significant gap was found. Despite having a winning culture, the students' lower-level sepak takraw skills are not optimal. Common mistakes that are often repeated include: the ball failing to cross the net (getting stuck), the ball falling outside the opponent's court line, and the ball's direction being too monotonous so that it is easily read and anticipated by the opponent.

This is thought to be due to the lack of training variations that emphasize repetition and the conventional methods used. To address this, training methods that focus on repetition are needed to foster automation. The drill method, or focused training, is a teaching technique that emphasizes the continuous repetition of a specific skill to improve proficiency and accuracy. This method aims to develop "muscle memory" or movement automation in students. By providing a measured and repetitive training load, it is hoped that students' eye-foot coordination in contact with the ball will significantly improve.

METHODS

This type of research uses a quantitative approach. This quantitative approach is written using a systematic literature review method by analyzing and evaluating relevant literature (Faried et al., 2025). States that quantitative research is a systematic and objective method for collecting and analyzing data that involves the use of numerical data to obtain and analyze relevant and reliable information about certain phenomena or problems (Lestari et al., 2024).

The method used in this research is the experimental method. The experimental method is a study that provides treatment to the research object. This research design uses a one-group pretest-posttest design in which an initial test and a final test will be conducted. According to (Willian, 2019), the one-group pretest-posttest design is a research design that

provides a pretest before treatment or drill method. training is carried out for 12 meetings with a frequency of 3 times a week. The training is focused on repeated serves with target point areas, followed by a posttest to observe changes after the treatment is given.

The population in this study consisted of all students participating in the Citra Kartika Sepak Takraw Club extracurricular activity at SDN 2 Jungsemi, totaling 15–20 students. The sampling technique used was purposive sampling, namely students who actively participated in the Citra Kartika Sepak Takraw Club extracurricular at SDN 2 Jungsemi and had experience participating in competitions. The sample was around 10 students. The instrument used was the sepak mula (serve) test instrument from Nurhasan (2001). The opponent's court was divided into several zones with different scores (scores 1 to 5). Each student was given the opportunity to perform 10 serves. The instrument in this study used a skill test for performing the sepak mula as shown in the following image:

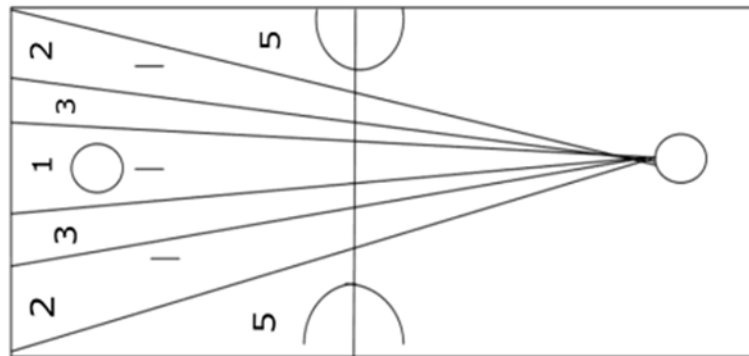


Figure 1 : research instrument

Data analysis in this study used the SPSS22 application. The methods used include descriptive statistical analysis to describe the pretest and posttest data. The analysis steps include: (1) Prerequisite Test: Including the normality test using Kolmogorov-Smirnov to ensure the data is normally distributed. (2) Hypothesis Test: Using a Paired Sample T-Test at a significance level of Sig 2-tailed = 0.05. If $p < 0.05$, then there is a significant effect of the drill method.

RESULTS AND DISCUSSION

This study was conducted from April 21 to May 11 over 12 meetings, namely on Wednesday, Friday, and Saturday. In measuring the results of the underhand kick or service skills in sepak takraw games, a sepak takraw underhand kick (service) test was used. In this case, the researcher found that the assessment of underhand kick training showed a significant increase; these results were obtained by subtracting the post-test results from the pre-test results. The following is a table describing the results of the underhand kick test:

Table 1 : Descriptive Statistics

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	improvement
Pre Test	10	16	22	18,70	1,889	
Post Test	10	25	30	28,10	1,595	9,40
Valid N (listwise)	10					

(Source: Data SPSS 22)

The data above shows that the pre-test results of the training had a minimum score of 16, a maximum score of 22, a mean of 18.70, and a standard deviation of 1.889. Meanwhile, the post-test results of the training had a minimum score of 25, a maximum score of 30, a mean of 28.10, and a standard deviation of 1.595. This shows that the pre-test results improved in the post-test after the treatment was given.

Table 1. Test of Normality

Tests of Normality							
Class	Kolmogorov-Smirnov^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Pre Tes	,145	10	.200*	,964	10	,835	
Post Tes	,214	10	.200*	,912	10	,295	
Results							

Based on the data in the table above, it can be concluded that the results of the normality test on the research data show that all significance values are greater than the p-value of 0.05 (read as sig), therefore the data are normally distributed for both the pretest and post-test.

Table 2. Test of Homogeneity
Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Results	Based on Mean	,231	1	18	,637
	Based on Median	,205	1	18	,656
	Based on Median and with adjusted df	,205	1	17,67	,657
	Based on trimmed mean	,230	1	18	,637

Based on the data in the table above, it can be concluded that the homogeneity test results obtained show that all significance values are greater than the p-value of 0.05, so the data are homogeneously distributed. This indicates that the requirements for the t-test can be continued.

Table 3 Paired Sample T-Test

Paired Samples Test									
Paired Differences									
Pair		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
1	Pre-Test Post-Test	9,40	2,01	0,64	10,84	7,96	14,78	9	,000

Based on the table above, it shows that the data from the experimental group in the pre-test and post-test has differences or an effect between each variable's data. This can be seen from the significance value, where the Sig. (2-tailed) value is 0.000. Because the significance value is less than ($\alpha = 0.05$), H_0 is rejected and H_a is accepted. Therefore, it can be concluded that there is a significant effect of the Drill Method on the basic underhand kick skills in the sepak takraw game among extracurricular Students of Citra Kartika Club at SDN 2 Jungsemi.

The serve is a kick made by the server toward the opponent's court as a way to start the game. The serve is a very important element in the sport of sepak takraw because points or scores can be obtained by the team that initiates the serve (Rizky Dhisma Agung Pambudi & Sugeng Sulendro, 2021). A good serve will be very beneficial to the flow of the game, because the serve can become the first attack of a sepak takraw team.

The drill method is a teaching method that provides repeated skill training to students, and takes them directly to the training location to observe the process, purpose, function, usefulness, and benefits of something. Thus, drill training is a process carried out to instill certain habits in preparing for the best possible condition that can be achieved. Preparing the best possible conditions to be achieved (Bahtra et al., 2022).

Data analysis in this study empirically proves that the implementation of training methods has a positive and significant impact on improving the skills of the underhand kick in the extracurricular students of Club Citra Kartika at SDN 2 Jungsemi. The effectiveness of the intervention is clearly visible from the very contrasting differences in student performance between before and after the training program is implemented. Before receiving treatment (pre-test), students' underhand kick abilities were in a relatively low category with a group average score of 18.70, a minimum score of 16, and a maximum score of 22. However, after students were given intervention in the form of a structured training method training program, the students' average score at the time of the post-test increased substantially to 28.10, with minimum scores rising to 25 and a maximum reaching 30. Empirical evidence of this change in performance is supported by the results of the t-test which showed a significance value of 0.00, which means it is much smaller than the specified significance level ($p < 0.05$), so that the hypothesis proposed in this study can be accepted convincingly.

Theoretically, the performance experienced by the Citra Kartika Club students occurred because the training method facilitated the formation of muscle memory and the automation of continuous movements. In line with Bastia's view, drill training is essentially a planned process carried out to instill certain habits in preparing athletes for optimal condition. This is reinforced by (Roestiyah, 2012), who stated that the drill training method is a teaching technique that emphasizes repetitive practice activities so that students achieve a level of dexterity or skill much higher than they have previously learned. Given that the study subjects were elementary school age, the motor coordination system between their eyes and feet is generally not fully mature. Therefore, when students perform the low-start sepak takraw technique from the same point towards a specific target continuously, the neural pathways in the brain that regulate movement mechanisms will strengthen (Massa et al., 2022).

This consistent and repetitive training pattern ultimately shifts the students' movement patterns from the cognitive phase, where they still have to think hard about how to kick, to the autonomous phase, where kicking occurs reflexively with a high degree of precision. This ability optimization is supported by the use of various aids, such as hanging balls, which are very effective in locking the consistency of the inside of the foot contact with the ball. Furthermore, the provision of visual targets in the opponent's field also successfully minimizes technical errors that have been frequently complained about, such as the ball getting stuck in the net or falling outside the field boundary lines. The results of this study are also strongly supported by the findings of (Putra et al., 2021), which confirm that kicking skills are the most dominant and crucial movement in sepak takraw, thus requiring a high intensity of repetitions in training sessions to create solid technical stability on the field.

Furthermore, the successful transition of students' abilities from pre-test to post-test in this study aligns with research by (Rizky Dhisma Agung Pambudi & Sugeng Sulendro, 2021) which emphasizes that serving is not merely a signal for the start of a game, but rather a form of first attack that is crucial for a team's points. Through the measured training load, students' fundamental weaknesses in the underhand serve aspect such as monotonous ball direction and easy anticipation by the opponent can be significantly reduced. Another interesting aspect of this study is the characteristics of the subjects who are part of the Citra Kartika Club ecosystem, a sports club with a tradition of winning in the Kendal Regency POPDA event. The characteristics of students who already have capital in the form of high achievement motivation make the drill

method intervention much more effective when compared to the general school student population.

This situation aligns with the theory of (Nufa & Istichomahwati, 2025), which states that well-managed and fostered extracurricular activities will act as a primary barometer of a school's development or progress in the eyes of the community and parents. By refining basic kick-off techniques using this drill method, the quality of the training process at SDN 2 Jungsemi has transformed from a conventional pattern to a scientific approach in the realm of early childhood sports development. Another positive impact evident in the post-test scores is the equitable distribution of technical quality among all students. With the lowest score increasing uniformly from 16 to 25, the implementation of this training method has proven to be able to boost the collective performance of all team members evenly, rather than relying solely on the individual talents of one or two star players.

CONCLUSION

Based on the research results and data analysis that have been conducted, it can be concluded that the implementation of the drill method has a positive and significant influence on improving the skills of the low kick in sepak takraw game in extracurricular students of Club Citra Kartika at SDN 2 Jungsemi. The implementation of this structured and repetitive training has been proven to be able to significantly improve the quality and accuracy of students' serves. Quantitatively, this success is shown by a surge in the average score of students' performance from the low category of 18.70 in the pre-test, shooting up drastically to 28.10 in the post-test. The success of this intervention was also statistically strengthened through a t-test which produced a significance value of 0.00 ($p < 0.05$), which means that the research hypothesis is convincingly accepted.

Through constant repetition of movements, this exercise successfully builds muscle memory and accelerates the transition of students' motor skills to the automated phase of precise movement. The use of various aids, such as hanging balls and visual targets on the opponent's field, has also proven effective in minimizing basic technical errors and successfully improving the overall skill level of the low-kick among all team members. The results of this study are expected to serve as a reference for coaches in improving the quality of basic technical training as well as providing a variation of training.

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