

The Effect of Racket Training and Throwing Against the Wall on the Receiving Results of SepakTakraw Games at Riau Province State Sports High School

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ABSTRACT: The purpose of this study is to determine the effect of racket training and throwing against the wall on the results of receiving in sepaktakraw games in students of Riau Province Sports State High School. The research method used is to apply experimental research with a pre-test and post-test group design. The sample in this study were 20 students of Riau Province Sports State High School, with a total of 20 students, given treatment/training in the form of receiving using a racket and throwing against the wall. The t-test was used in the analysis of this study. The results obtained after the study showed that there was a significant difference with a significance value of 0.000 between the passing against the wall and racket training methods. The results that can be stated are better and more effective, namely by using training using wall media or throwing against the wall. Passing training with wall media is more effective in forming students to mature their first ball control techniques, so they can be better prepared to face serves or attacks given by opponents in a sepaktakraw match.

KEYWORDS: Racket training, Throwing against the wall, Receiving results, Sepak takraw, Students, State Sports High School, Riau Province.

I. INTRODUCTION

Sepaktakraw is a traditional sport originating from Indonesia that has long been popular in the country, widely played by Indonesians, especially those living in coastal areas such as the Riau Islands, western Sumatra, and Makassar. This sport combines elements of art, skill, and strategy, requiring agility, flexibility, and high team coordination. Initially, sepaktakraw was played by aristocrats in South Sulawesi, with 6-9 people forming a circle in an open space as entertainment to fill leisure time. Sepaktakraw is a game that is a combination of volleyball.

The ball must be in the air and played with all parts of the body except the hands. Sepaktakraw clearly demonstrates the same skills and abilities as those used in soccer. The basic techniques required are similar to those in soccer: heading the ball, kicking with the inside of the foot, with the instep, and controlling with the chest and thigh. Therefore, most soccer players can also play sepaktakraw.

Sepaktakraw consists of three players: the tekong, the right flank, the left flank, and two reserve players. Each team is only allowed to touch the ball three times, whether played alone or by all three players. In sepaktakraw, many techniques must be mastered by a player to be able to play the real sepaktakraw, and the art of playing sepaktakraw can be seen, including the kickoff (service), roll smash, kedeng smash, block, heading, and the first ball (receive). These five techniques are difficult and require a long time to perfect, so an athlete must gradually train each technique. Sepaktakraw coaches do not analyze the match on each individual's receive. The lack of scientific knowledge currently developing shows that receiving is one of the factors causing defeat in sepaktakraw (Ramadhan, 2018).

Service is one of the first ball reception techniques from the opponent's attack, which must be mastered by each player, which aims to avoid failure in receiving the service from the opponent's attack. A team will not attack well, if the reception of the ball is one form of technique in an effort to defend the area from the opponent's first receive attack (receiving the service) is not good. Receiving the service is one form of defense as well as the beginning of an attack because if a team can receive the ball well, it means that the team has succeeded in defending the opponent in the form of an initial attack in the form of a service, so that the team can control the attack to kill the ball in the opponent's area to get additional points or points.

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Many athletes participating in matches fail to receive the first ball or receive, as research by Hakim (2017) shows that the biggest contributor to points in a sepaktakraw match is personal errors such as receiving, the ball getting caught in the net, and the ball going out of bounds experienced by the opposing team with a total of 32.78%. Athletes cannot play sepaktakraw well because receiving the ball is difficult to master. In order for an athlete to receive well, a player must master the receiving technique well. Mastery of the first ball can be trained with certain methods. Serious training carried out diligently and programmed can improve sports achievements.

Seriously carried out training diligently is progressive training. Meanwhile, programmed training is training that contains clear objectives, the material is in accordance with the characteristics of the sport being coached and the available time is arranged precisely and clearly and has alternative training strategies that are appropriate to the form of activity and material provided. In the game of sepak takraw kicking is very important, it can be said that the ability to kick is the mother of sepak takraw, because the ball is mostly played by kicking using parts of the foot from the start of the game until scoring or points. Likewise, the first ball receive can be done using the head and can also be done with the feet. Forms of receiving training can be done in several ways, including using a tennis racket by being hit with the hand by a coach or training partner, practicing receiving by throwing the ball against the wall, the rebound of the ball is received by the head and feet.

II. RESEARCH AND METODE

A. Research Design and Sample

This research falls into the category of quasi-experimental research. Experimental research is a research method used to determine the causal relationship between two or more variables by providing certain treatments to groups of observed subjects, then measuring the effect of these treatments on the dependent variable (Sugiyono, 2019). This study used a quasi-experimental approach because the situation in the field did not allow for complete control of external variables. For example, sample grouping was not carried out completely randomly (randomized control trial) due to limited access and the specific characteristics of the population studied, namely students of Riau Province's Sports State High School who are active in sepak takraw. Therefore, this study implemented a quasi-experimental design that still allows researchers to manipulate the independent variable, while maintaining relative control over other variables. This study used a pretest-posttest control group design with the independent variables being racket hitting and wall throwing exercises, and the dependent variable being receiving ability. There were two experimental groups, each given a different treatment: Experimental Group I received racket hitting exercises, while Experimental Group II received wall throwing exercises.

The population in this study were all eleventh-grade students at Riau Province's Sports State Senior High School who actively participated in the sepak takraw extracurricular. The research sample was taken using a purposive sampling technique, resulting in a sample of 20 students. The sample was randomly divided into two groups: 10 students were assigned to the racket training group and 10 students were assigned to the wall-throwing training group.

B. Data Collection Techniques and Research Instrument

The data in this study were obtained from observations and receiver tests conducted directly by the research sample from both research groups. This test was designed to measure students' ability to perform receiver movements in sepak takraw. In this test, students received 10 receive attempts, through accurate serves. This assessment indicator included the extent to which the receiver received the ball well within the designated area. The closer the ball was to the designated target area, the higher the score the student would receive. The score was on a scale of 0-5.

C. Data Analysis Techniques

The research data was analyzed using a quantitative descriptive approach that applies statistical tests using SPSS software. Quantitative analysis is used to describe the research object based on data obtained directly from the sample or population without generalizing or drawing general conclusions (Sugiyono, 2019:153). Quantitative data analysis was obtained from the results of the receiver test conducted by students in the form of scores on a scale of 0-5. Paired sample t-tests or t-tests were used to see the differences in pre-test and post-test results and to compare the effectiveness of the two training methods given to the students.

III. RESULT

A. Research Data Description

Based on the results of data processing, below will be presented an overview of the pre-test and post-test results for the racket hitting practice group and the wall throwing group, which were obtained during the implementation of the research.

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a) Description of the pre-test data for the racket

The pre-test data for the racket was obtained before the students were given racket training or treatment and throwing against the wall. The results can be seen in the table below.

Table 1. Description of pre-test data results received

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Pretest Raketan	10	15	23	18.9	2.762	7.433
Pretest Tembok	10	15	23	19	2.981	8.889

If presented in a line diagram, the descriptive results of the pre-test receive data can be seen in the image below.

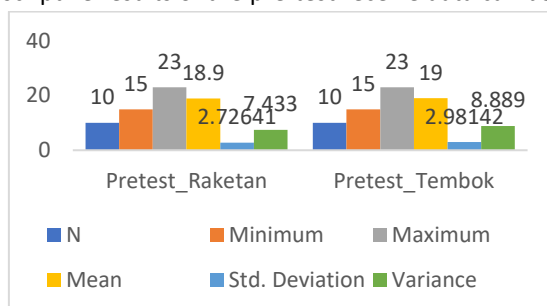


Figure 1. Descriptive data of pre-test results received

Based on the results of the data processing above, it is known that the average receive ability in the racket group before treatment was 18.9 with a standard deviation of 2.726 and a variance of 7.433, with the lowest score of 15 and the highest of 23. Meanwhile, in the wall throw group, the average was 19 with a standard deviation of 2.981 and a variance of 8.889, with the same minimum and maximum scores, namely 15 and 23. These data are the results of the pre-test of students' receive ability before being given each training treatment.

b) Research Hypothesis Testing

This study aims to determine the effect of racket training and wall throws on receiving ability in sepak takraw. To address this question, the first step was to examine the improvement in results in both groups using a t-test, using the statistical software Statistical Product and Service Solutions (SPSS). The results of the analysis are presented in the following table.

Table 2. Paired Sample Test Results Receive Results

	Mean	T	Df	Sig. (2 tailed)
Pretest Raketan – Posttest Raketan	-8.90000	-12.891	9	.000
Pretest Tembok – Posttest Tembok	-9.20000	-8.493	9	.000

Based on the results of the Paired Samples Test presented above, it is known that the significance value for both groups is 0.000, which is smaller than $\alpha = 0.05$. This indicates that there was a significant increase in students' receiving abilities in both the racket training group and the wall throwing group after being given the treatment.

Judging from the mean improvement scores for both groups, the wall-throwing group showed higher results, with a mean of 9.2, compared to the racket-using group, which had a mean of 8.9. Therefore, it can be concluded that wall-throwing training is more effective in improving sepak takraw receiving ability than racket-using training.

Table 3. Independent Sample Test Results Received Results

F	Sig	T	Df	Sig. (2-tailed)
2.643	.000	-.234	18	.000

The results of the independent samples test in Table 9 above show that the gain of the racket group and the wall throw group obtained a significance value of 0.000, which is smaller than $\alpha = 0.05$. Based on these results, it can be concluded that there is a significant difference between the racket group and the wall throw group in improving the ability to receive sepak takraw.

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IV. DISCUSION

a. The effect of providing racket throwing training on the ability to receive sepak takraw results.

This training method has proven effective for sepak takraw athletes in improving their mastery of the first ball. Training using racquet throws is very useful for simulating real-life situations when receiving attacks from opponents on the court. In first ball training, athletes need to master basic techniques such as sepak takraw (sila), sepak kura (turtle), memaha (hammer), and head play. Each technique has a specific function: sepak takraw is effective for receiving hard and sharp balls, sepak kura (turtle) for slow or foley balls, thigh for hard and flat balls, and head for overhead balls. This method greatly supports the development of basic sepak takraw techniques, particularly in the aspect of receiving the first ball. Therefore, systematic training such as racquet throws is one of the appropriate ways to improve this ability.

There are advantages and disadvantages to the training method using a racket throw, namely as follows:

Table 4. Advantages and disadvantages of the racket training method

Excess	Lake
1. More varied ball directions, thus avoiding boredom on the field. 2. Improved reflexes when receiving the first ball. 3. Improved technique when receiving the first ball. 4. Faster ball speed and rhythm. 5. Athletes are more focused on receiving the first ball thrown by the coach or their teammates. 6. Closer to implementing the real game.	1. The level of difficulty is quite high. 2. If you don't have good basic skills, this method won't work optimally.

a. The effect of training with throwing against a wall on the ability to receive sepak takraw results

The wall-throwing training method is very beneficial for sepak takraw athletes, not only as a variation of training but also to improve body reflexes and concentration. Through this exercise, athletes become more accustomed to anticipating the direction of the incoming ball. The basic techniques practiced include the sepak takraw (sila), sepak kura (turtle), memaha (hammer), and heading. Each technique has a specific function: the sepak takraw is used to receive fast balls to the right or left side, the sepak kura is effective against sharp attacks or drop shots, the thigh is used to receive flat balls or those aimed at the stomach, while the header is used to receive balls coming from above.

There are advantages and disadvantages to the method of training by throwing against the wall, including the following:

Table 5. Advantages and disadvantages of the wall throw training method

Excess	Lake
1. Can control the speed and direction of the ball yourself. 2. Can focus more on every touch of the ball when receiving the first ball. 3. Improves technique when receiving the first ball.	1. Boredom is easy, because in practice this movement is done alone. 2. The bounce/direction of the ball can be known in advance, so the athlete already knows where the ball will come/bounce.

b. The effect of throwing exercises against a wall is better than training using a racket on the ability to receive sepak takraw.

Each variation or training method has varying levels of effectiveness depending on the desired goal. Sepaktakraw is a sport that relies primarily on the anaerobic energy system, as its activities require high intensity over short periods of time, such as when receiving a serve or the first ball. Therefore, a proper training regimen is required to optimally hone the ability to receive the first ball.

There are advantages and disadvantages to each training method, which can be seen in the table below:

Table 6. Advantages and disadvantages of racket and wall throws

Throw From The Racket	Throw To The Wall
Advantages: 1. More varied ball directions, preventing boredom on the field.	Advantages: 1. Can control the speed and direction of the ball yourself. 2. Can focus on every touch when receiving the ball.

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2. Improved reflexes when receiving the first ball. 3. Improved technique when receiving the first ball. 4. Faster ball speed and rhythm. 5. Athletes are more focused on receiving the first ball thrown by the coach or their teammates.	3. Improves technique when receiving the ball. 4. Trains reaction speed when receiving. 5. Improves reflexes when receiving the ball. 6. Closer to real-life game applications. 7. The direction of the ball received cannot be predicted, unlike in game situations.
Weaknesses: 1. Quite a high level of difficulty 2. If you don't have good basic skills, this method won't work optimally.	Weaknesses: 1. Easily bored because it is done individually. 2. The direction of the ball's bounce is already known, so the athlete already knows the direction the ball will go after it bounces off the wall.

V. CONCLUSIONS

Based on the results of the research and discussion, it can be concluded that: (1) The racket throwing training method has an effect on improving the ability to receive the first ball in sepaktakraw students at the Riau Province Sports State High School; (2) The wall throwing training method also has a positive effect on this ability; (3) The wall throwing training is proven to be more effective than training using a racket in improving the receiving results; (4) Both training methods, both with a racket and bouncing against the wall, have a significant impact on improving the skill of receiving the first ball, with the test results showing significance ($p < 0.05$), which means that the increase occurred significantly, not by chance; (5) Overall, both methods can be used as effective training alternatives to develop receiving skills in sepaktakraw games in Riau Province Sports State High School students.

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