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Effect of Drill Passing Down With Walls and Pairs Against Accuracy of Underpass in Volleyball Game



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ABSTRACT ARTICLE INFO

The purpose of the study. This study aims to determine the difference in the effect of paired bottom passing exercises and bottom passing exercises reflected against the wall on the level of lower passing ability of MTSs YPPU Karimunting men's volleyball extracurricular participants, Bengkayang Regency.

Materials and methods. The design of this study is a two group pretest-post test design. The sample of this study was students participating in extracurricular men's volleyball MTSs YPPU Karimunting with a total of 30 students. The instrument used in this study was the bottom passing ability test. Data analysis techniques use t-tests through normality tests, homogeneity tests, and hypothesis tests.

Results. The results showed: (1) There was a significant effect of paired bottom passing training on the level of lower passing ability of MTSs YPPU Karimunting men's volleyball extracurricular participants, it can be seen that t count is 2.131 > t table (1.746), while p value (0.000) < 0.05. (2) There is a significant effect of lower passing training reflected against the wall on the level of lower passing ability of MTSs YPPU Karimunting men's volleyball extracurricular participants, it can be seen that the results of the t test obtained t count of 2.160 > t table (1.771), while the p value (0.000) < 0.05.

Conclusions. These results mean that there is a significant effect of pair-bottom passing training on the level of lower passing ability of men's volleyball extracurricular participants at MTSs YPPU Karimunting, Sungai Raya Kepulauan sub-district, Bengkayang district.



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INTRODUCTION

Volleyball is one of the most popular sports in society. The game of volleyball is loved by people of all ages, children, youth, and adults, both men and women. This is proven because volleyball is often played in schools, offices, and villages (Muttagin et al., 2016). Volleyball is a sport that is played by two teams on a playing field separated

abcde Authors' Contribution: a-Study design; b-Data collection; c-Statistical analysis; d-Manuscript preparation; e-Funds collection.



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by a net, so players must work together and support each other to become a compact and tough team (PP PBVSI, 2021).

Basic volleyball techniques are an important part of playing volleyball as a basis for the perfection of a volleyball game (Suhairi & Dewi, 2021). Technique in volleyball games can be interpreted as a way to play the ball effectively and efficiently in accordance with the applicable game rules to achieve optimal results Yunus in (Supriatana & Suhairi, 2021). Volleyball is a team game played by two teams where each team consists of six people on the field ((Khotimah, 2020). There are several basic techniques that must be mastered by every volleyball player, including service (first punch) there is underhand service and overhand service, passing (passing the ball) there is overpassing and under passing, smash (attack, there are several types of smash, namely open smash, smash quick, smash long), block (block the ball) (Matušov et al., 2018). Passing down is one of the basic techniques that must be mastered in playing volleyball. Passing over aims to receive the first ball either to pass to the tosser or feeder in an effort to provide an attack to gain points (Abbas & Reflianto, 2018). Efforts to improve the ability to pass under the training required as early and as often as possible. Regular practice with increasing intensity settings will have an increasing impact on skills (Harsono, 2017). In addition to improving exercise skills, it has many benefits for all people, especially teenagers, apart from filling free time for motorsports and the working power of the heart and lung functions (Suhairi & Arifin, 2022).

There are several studies that have been carried out, namely by Nasrulloh, (2019) Physical Education Health and Recreation FIK UNY entitled Effects of pair bottom passing exercises and bottom passing exercises reflected on the wall on the level of lower passing ability of extracurricular participants in men's volleyball at SMP Negeri 2 Mirit, Kebumen Regency. The results of this study 1) there is an effect of pairing lower passing exercises on the level of lower passing ability obtained t-count 3.079 > t-table 2.201 2) There is an effect of lower passing exercises reflected on the wall on the level of lower passing ability obtained t-count 3.960 > t- table 2.201 3) there is no significant difference between the underhand passing exercise in pairs and the underpass exercise reflected off the wall on the level of under passing ability obtained t-count 0.212 <t-



table 2.201 with the form of the double and paired drill treatment by adding repetitions and sets in every meeting. Another research that is a relevant study comparison is research conducted by (Sukmananta, 2014) UNDIKSA Sports Coaching Education entitled Effects of Paired Down Passing Training and Bottom Passing to Walls on Lower Passing Ability. passing under with the result of t-count 20.28 > t-table 2.042 2) training passing down to the wall affects the ability to pass down with the result t-count 8.49 > t-table 2.042 3) training on passing under in pairs gives more influence better than bottom to wall passing on bottom passing ability with an average value of 42.06 > 35.50, in this study, the treatment was also given in the form of wall-passing drills and paired drills with the addition of repetitions and sets.

Based on the observations of researchers on students at MTsS YPPU Karimunting there is still a lack of accuracy in volleyball underhand passing. Students do not practice the basic technique of passing underhand so there are many inappropriate passes and the defense when receiving attacks from opponents is still not good. It can be seen that there are students who have not been able to do basic techniques properly, especially underhand passing. Students feel afraid, lack confidence, and have complaints of arm pain which results in students being lazy and reluctant to make passing movements. Then, students make random passes, the important thing is that the ball crosses the net and falls in the opponent's area. Thus, it is hoped that it will be possible to improve students' skills in carrying out the volleyball underhand technique and form self-confidence in students so that they are more courageous in playing volleyball. Given these problems, the researcher is interested in conducting a research entitled "The Effect of Lower Passing Exercises with Walls, and in Pairs, on the Accuracy of Lower Passing in Volleyball Games". So that with this research we can find out the effect of the two forms of training which will be applied to students participating in the men's volleyball extracurricular MTSs YPPU Karimunting, Sungai Raya Kepulauan District, Bengkayang Regency.



MATERIALS AND METHODS

Study participants

The population used was all class VII male players who practiced volleyball at MTsS YPPU Karimunting, totaling 30 people. Meanwhile, the meaning of the sample according to (Arikunto, 2021) says that the sample is part or representative of the population being studied. In this study, the sample used was 30 male students of class VII at MTsS YPPU Karimunting. The entire sample does a pretest first, then the data obtained is sorted from the best based on the ability of students to do underhand passing. Then students are grouped using the ordinal pairing technique.

Study Organization

This research is experimental research and is included in the form of a two-group pretest – post-test design. Two pre-test - post-test design is a design by taking one measurement at the beginning (pre-test) before treatment (treatment) and after that another measurement (post-test). This research group was formed by ordinal pairing based on the initial test (pretest) and then given treatment with paired bottom passing exercises and bouncing the bottom passing drills against the wall for 16 practice times. As stated by (Sutarjo, 2009), in order to provide good training and to obtain maximum results, training must be carried out at least 10-16 times (Daryanto & Hidayat, 2015). After being given training (treatment) for 16 times of practice, then the final test (post-test) is taken. Ordinal pairing is done by grouping students based on ranking. First-ranked students are in the left group, second-ranked students are in the right group, then fourth-ranked students are in the left group, and so on.

Table 1. Design Research

Group	Pretest	Treatment	Posttest
	0	Χ	Ο

Test and measurement procedures

The entire sample does a pretest first, then the data obtained is sorted from the best based on the ability of students to do underhand passing. Then students are grouped using the ordinal pairing technique. The data collection techniques for



passing down to the wall and in pairs are as follows: (1) Testing the ability to pass down; This test is used to collect data on passing abilities using walls and pairs. The dimensions for the underpass test using a wall are flat and smooth walls with a length of 1.52 m, a line thickness of 2.54 cm, and a height of 3.35 m from the floor. Meanwhile, the dimensions for the underpass test in pairs are a pole measuring 2.30 m and a field with an equilateral rectangular shape with a size of 4.5m x 4.5m, and (2) Questionnaires, to measure students' confidence levels. If all the data is collected, the next step is to analyze the data, the data analysis technique used to answer the formulated research problem, and the data collected is analyzed. Prior to testing the hypothesis, a prerequisite test was carried out consisting of a normality test and a homogeneity test (Gunawan; & Sudarmanto, 2005). The purpose of the normality test is to find out whether the data is normally distributed or not. The rule used to determine whether a distribution is normal is if p < 0.05 the distribution is said to be abnormal. Normality testing using the help of Microsoft Excel. After the normality test is carried out, then the homogeneity test is carried out. The homogeneity test aims to test whether the variances are homogeneous or not. The homogeneity test also uses the help of Microsoft Excel. If F_{count} < F_{table} means homogeneous, and if F count > F table means not homogeneous (Sugiyono, 2010).

RESULTS

Before giving the treatment, the researcher conducted a pretest first to obtain initial data which would later be used as a comparison to see the level of change resulting from the treatment given. In this experiment, two groups were used: the wall-mounted group and the pair-to-wall group. The results of the lower pass pretest data are described as follows:

Table 2. Pretest Passing Results in Volleyball

Wall Exercise Group		Paired Exercise Group		
Mean	25,57143	Mean	26,75	
Median	23	Median	25	
Modus	22	Modus	25	
Standard Deviation	5,652968	Standard Deviation	6,403124	
Range	15	Range	22	



Based on the results of data processing, it is known that the exercise group reflected the wall has a mean value = 25.57143; Median = 23; mode = 22; Standard Deviation = 5.652968, and range = 15. In the paired exercise group, the mean = 26.75; Median = 25; mode = 25; Standard Deviation = 6.403124 and range = 22.

After giving treatment for 16 meetings with meeting duration not exceeding 48 hours or 3 meetings a week for each group by carrying out exercises according to the training program provided. To answer the hypothesis or provisional conjecture related to how much improvement resulted from the treatment given, and in accordance with the experimental research provisions, a final test (posttest) was carried out in the form of a bottom pass test. The post-test results can be seen in Table 2. The following:

Table 3. Post Test Volleyball Results for Pairs and Groups Reflected on the Wall.

Wall Exercise Group		Paired Exercise Group		
Mean	31,85714	Mean	34,625	
Median	30	Median	32	
Modus	30	Modus	30	
Standard Deviation	5,141941	Standard Deviation	6,751543	
Range	15	R ange	24	

Based on the results of data processing, it is known that the exercise group is reflected on the wall to obtain a mean value = 31.85714; median = 30; mode = 30; standard deviation = 5.141941 and range = 15. In the paired exercise group, the mean = 34.625; median = 32; mode = 30; standard deviation = 6.751543 and range = 24.

Calculation of normality aims to determine whether the sample comes from a normally distributed population or not. The criteria used to determine whether a distribution is normal is if the significance of the p count > 0.05 (5%) the distribution is declared normal and if the significance is calculated p < 0.05 (5%) the distribution is said to be abnormal. The results of the normality test of this study can be seen in the following table:

Table 4. Normality Test Results

Data	Р	Sig 5%	Information	
Paired pretest	0,771	0,05	Normal	
Posttest in pairs	0,873	0,05	Normal	
The pretest is reflected off the wall	0,881	0,05	Normal	
The posttest is reflected off the wall	0,837	0,05	Normal	



The results in the table above show p values > 0.05, so it can be concluded that the pretest and posttest data for both paired groups and reflected off the wall are normally distributed. The homogeneity test aims to test the similarity of the sample, namely whether or not the sample variance is taken from the population. In the homogeneity test, the rule used to determine whether a test is homogeneous is if p > 0.05 the test is declared homogeneous, and if p < 0.05 the test is declared non-homogeneous.

Table 5. Homogeneity Test Results

Exercise Group	F	Р	Sig 5%	Information
in pairs	0,416069	0,420047	0,05	Homogen
Bounced off the wall	2,576927	0,368858	0,05	Homogen

Based on the test results shown in the table above, it can be concluded that the variance of the data in the paired practice group and reflected off the wall is homogeneous (p>0.05). The criterion for rejecting or accepting the hypothesis is to compare the calculated t value with t table. The criterion is to accept the hypothesis if t count is greater than t table. In addition to this method, we can also draw conclusions by comparing the p value with 0.05. The criterion is to accept the hypothesis if the p value is less than 0.05 (p>0.05).

Table 6. Hypothesis Test Results

Group	df	t table	t count	P	Sig 5%	Information
in pairs	15	1,746	2,131	0,000	0,05	Ha diterima
Bounced off the wall	13	1,771	2,160	0,000	0,05	Ha diterima

Based on the results of the t test shown in the table above, the paired group obtained a t count of 2.131 > t table (1.746), while a p value (0.000) < 0.05. In the group reflected off the wall, the t-value was 2.160 > t-table (1.771), while the p-value (0.000) < 0.05. These results can be interpreted that there is a significant effect of underhand passing exercises in pairs and underpass exercises reflected off the wall on the level of underpass ability of men's volleyball extracurricular participants at MTSs YPPU Karimunting.



DISCUSSION

Passing is the earliest basic technique taught to school children. Underpass is done by using both fingers to be passed or played on the field of play alone. The movement pattern of the under passing technique involves several movements of the limbs including foot position, body position, follow-up motion. These body parts are a series of underhand passing movements that cannot be separated in their implementation to produce good and perfect underpass quality. Volleyball games are expected to foster students' talents, interests and skills so that they can produce talented and accomplished athletes. From the results of exercises and observations of teachers who train extracurricular volleyball, there are some students who are gifted in playing volleyball. Therefore it is necessary to have a variety of exercises that can increase abilities and students don't feel bored in participating in volleyball training. The results of lower passing ability increased due to drill training for all groups. As stated in research (Alamsyah, Eka Supriatna, 2020) that a good training schedule will be more optimal if it is carried out repeatedly so that there is a significant increase in the use of drills in an effort to improve skills in playing volleyball. With routine treatment with overload it can indirectly increase the endurance of athletes (Supriatna et al., 2023). The significance in this study was also influenced during the treatment in this study also applied several variations and combinations both in the wall-mounted group and in the paired-pair group. Various variations and combinations can make training and learning more interesting, so that participants don't get bored in carrying out the exercises (Suhairi et al., 2020).

The results of the lower passing ability t test above obtained: (1) There is a significant effect of pair passing training on the level of lower passing ability of the men's volleyball extracurricular MTSs YPPU Karimunting, Bengkayang district. The results of the t test obtained the value of t count of 2.131 > t table (1.746), while the value of p (0.000) <0.05; (2) There is a significant effect of paired underpass training on the level of lower passing ability of the men's volleyball extracurricular participants at MTSs YPPU Karimunting, Bengkayang district. The result of the t test is 2.160 > t table (1.771), while the value of p (0.000) <0.05. (3) Based on the results of the research, to



practice the skills of doing underhand passing can be developed by practicing underpassing in pairs and practicing underpassing by bouncing off the wall with a variety of exercises. By implementing variations of the lower passing exercise, the training atmosphere will not be boring. For beginners it is better to use the bottom passing exercise in pairs, while those who have good lower passing skills use the bottom passing exercise bouncing off the wall. Because the bottom passing exercise bouncing off the wall is more difficult to do than the pair bottom passing exercise. In addition to variations in seriousness in practice and motor skills, it is also a determining factor for mastery of technical abilities to play volleyball (Hujjatul et al., 2019). Sincerity, discipline, and posture in training determine the success of mastering the lower pass (Christiana, 2017).

CONCLUSION

Based on the above research results, it can be concluded (1) The results of the t-test obtained a t count value of 2.131 > t table (1.746), while the p-value (0.000) <0.05. These results mean that there is a significant effect of pair bottom passing exercises on the level of lower passing ability of men's volleyball extracurricular participants MTSs YPPU Karimunting, Bengkayang district; (2) The results of the t-test obtained t count of 2.160 > t table (1.771), while the value of p (0.000) <0.05. These results mean that there is a significant effect of pair-bottom passing training on the level of lower passing ability of men's volleyball extracurricular participants at MTSs YPPU Karimunting, Sungai Raya Kepulauan sub-district, Bengkayang district.

CONFLICT OF INTEREST

The unavailability of special wall bouncing boards for volleyball practice, which only uses the walls of the school building so it takes a long time to do the right movements on the wall. The availability of different quality balls, balls with good quality and poor quality makes the experience of each participant's passing motion different and it is difficult to make adjustments to be an obstacle when the exercise is applied to each group.



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APPENDIX

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