



The Effect of Wall-Rebound Training On Underhand Passing Skills In Volleyball Among Students Participating In The Volleyball Extracurricular Activity At Sma Negeri 10 Bandar Lampung

Nanda Meysurah¹, Joan Siswoyo², Muhammad Fajril Rifaldo³, Suwarli⁴

^{1,2,3,4} Physical Education Study Program, Faculty Of Teacher Training And Education, Lampung University, Indonesia.

Abstract

This study aimed to determine the effect of wall-rebound training on underhand passing skills in volleyball among students participating in the volleyball extracurricular activity at SMA Negeri 10 Bandar Lampung. The research employed an experimental method with a pre-test and post-test design. The sample was divided into an experimental group that received wall-rebound training and a control group that received conventional training. The research instrument was an underhand passing skill test in volleyball. Data were analyzed using the normality test, homogeneity test, and t-test with a significance level of 0.05. The results showed that the data were normally distributed and homogeneous. The first hypothesis test indicated a significant effect of wall-rebound training on underhand passing skills in the experimental group, with $t\text{-value} = 19,379 > t\text{-table} = 2.145$ and $\text{Sig.} = 0.000 < 0.05$. The second hypothesis test revealed a significant difference in underhand passing skills between the experimental group and the control group. Furthermore, the third hypothesis test showed a significant difference in the improvement of underhand passing skills between the experimental group and the control group, with $t\text{-value} = 2.107 > t\text{-table} = 2.048$ and $\text{Sig.} = 0.044 < 0.05$. It can be concluded that wall-rebound training is effective in improving underhand passing skills in volleyball among students participating in the volleyball extracurricular activity at SMA Negeri 10 Bandar Lampung.

Keywords: Wall-Rebound Training, Underhand Passing, Volleyball

Correspondence author: Nanda Meysurah, Universitas Lampung, Indonesia.
Email: nandameysurah23@gmail.com



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INTRODUCTION

Sport is one of the important aspects of national development because it not only functions to improve physical fitness, but also to shape character, strengthen national unity, and become a vehicle for achievement coaching. Sports in Indonesia are growing rapidly, both as recreational activities, education, and achievements. This is in line with the vision of national development which places sports as one of the pillars in the formation of superior human resources

One of the most popular sports in Indonesia is volleyball. Volleyball is loved by various groups, ranging from school students, students, communities, to the general public. Volleyball is also an achievement sport that is officially competed in various events, such as the National

Sports Week (PON), Proliga, Asian Games, and the SEA Games. In the game of volleyball, there are four main basic techniques, namely serve, passing, smash, and block. Among these techniques, the bottom pass is a very fundamental skill.

One alternative exercise method that can be applied is exercises using wall reflective media. This exercise provides students with the opportunity to repeatedly practice the lower passing independently or in groups, so that it can improve consistency, accuracy, and ball control. According to Bompa & Haff (2021), the effectiveness of training lies in the frequency of repetition of movements accompanied by feedback, so that athletes or players can improve their technique gradually. In line with that, Rahman (2022) emphasized that the use of simple media such as a bouncing wall is able to improve the basic skills of volleyball because it provides a stable and repetitive ball response.

Exercises using wall reflective media have advantages because they are practical, economical, and easy to apply in the school environment. Wall media allows students to get direct feedback from the bounce of the ball, so students can correct technical errors independently. According to the theory of motion learning, the repetition of movements accompanied by feedback is the main key in the formation of good motor skills. The more often students perform the lower passing movements with the correct pattern, the coordination, precision, and ball control will increase.

Thus, it can be affirmed that the ability to pass down is a fundamental skill that every volleyball player must master. However, the reality on the field shows that the mastery of this technique is still not optimal, including in the extracurricular environment of volleyball at SMA Negeri 10 Bandar Lampung. Therefore, it is necessary to conduct further research on the effectiveness of the exercise method using wall bounce media as an alternative in improving the ability to pass down. Based on this description, the researcher is interested in conducting a study entitled *The Effect of Training Using Wall Bounce Media on Volleyball Underpassing Ability in Volleyball Extracurricular Students of SMA Negeri 10 Bandar Lampung*.

METHOD

This study uses an experimental method, experimental research involves two or more groups to compare the results after being given different treatments. This method was chosen

because it is in accordance with the purpose of the study, which is to determine the effect of practice using wall bounce media on the ability to pass under volleyballs in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung in 2025.

In this study, the population is all students who are members of the volleyball extracurricular activities of SMA Negeri 10 Bandar Lampung which totals 30 people. In this study, the sample criteria used saturated samples, namely the entire population was used as a research sample. Thus, all students who are members of the volleyball extracurricular of SMA Negeri 10 Bandar Lampung as many as 30 people are used as samples. This research will be carried out in August 2025. This research was carried out on students who participated in volleyball extracurricular activities at SMA Negeri 10 Bandar Lampung

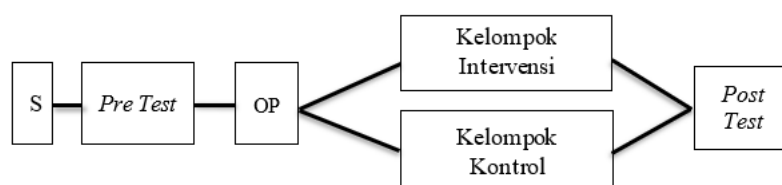


Figure 1. Research Design

Information:

Pre tests : Initial test of the bottom passing

ON : Ordinal pairing or grouping

Treatmen : Experimental group (using bounce ball exercises)

Non treatment : Kelompok control (non treatment)

Post test : Bottom passing final test

Based on the title of the study — The effect of practice using wall bounce media on the ability to pass under volleyball in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung, the variables used in this study consist of:

1. The free variable (X) is an exercise using wall bounce media. This variable is the treatment given by the researcher to the experimental group.
2. The bound variable (Y) is the ability to pass under the volleyball. This variable is influenced by the treatment given, so it is measured through the results of the lower passing skill test before and after treatment.

3. Thus, the relationship between the two variables of this study is the effect of training using wall bounce media (X) on the ability to pass under volleyball (Y) in extracurricular students of SMA Negeri 10 Bandar Lampung

The research data in this study are the results of the volleyball bottom passing skill test in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung in 2025, both before and after being treated in the form of exercises using wall reflection media. Data Collection Techniques In this study, the method used was an experiment and test of volleyball's under-passing ability. In this study, the instrument used was a test of bottom passing skills using Wall media. This instrument refers to the form of the —wall volley testl from Nurhasan (2010), which has been standardized and widely used in the measurement of basic skills of the game of volleyball, especially in assessing the ability of coordination, accuracy, and control of passing techniques.

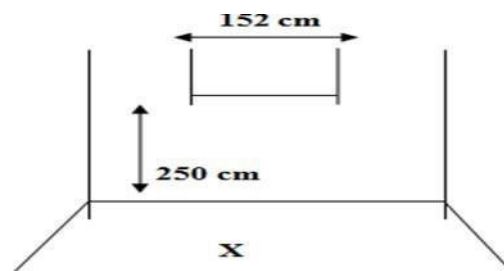


Figure 2. Lower Passing Proficiency Test Instrument

Data Analysis Techniques

1. Analysis Prerequisites Test
 - a. The Normality Test, used to test the distribution of data whether the population is normally distributed or not. For the purpose of the normality test in this study, the SPSS Shapiro-Wilk Test was used.
 - b. The Homogeneity Test, is used to find out that the sample data group comes from a population that has the same variance. Homogeneity testing is carried out by analysis through the SPSS program.
2. Hypothesis test, which is used for research hypothesis test, namely the difference test or the T test. The Paired Sample T-Test is a method used to compare two mean groups of the same (dependent) sample. In principle, the Paired Sample T-Test serves to test whether the average difference between two paired samples is real. Before the analysis was carried out Paired Sample T-Test.

RESULTS AND DISCUSSION

Results

The data obtained from the pre-test and post-test were then analyzed using descriptive statistics, which included mean values, standard deviation, median, mode, maximum value, and minimum value. This analysis aims to provide a general overview of the passing ability of students before and after being given treatment. The description of the data from the research results is presented as follows.

1. Pre-Test and Post-Test Results of Groups Participating in Exercises Using Wall Reflection Media

Table 1. Descriptive Statistical Experimental Group

Data	<i>Pre-Test</i>	<i>Post-Test</i>
Mean	33,00	40,53
Median	36	43
Mode	42	42
Hours of deviation	10,337	10,020
Maximum	49	54
Minimum	15	24

When viewed from the comparison of pre-test and post-test results, there was an increase in the average score of 7.46 points, an increase in the median of 6 points, and an increase in the minimum and maximum scores. This shows that after participating in an exercise program using wall bounce media, students in the experimental group experienced an increase in their ability to pass under volleyballs. Thus, the practice using wall bounce media has a positive influence on improving the ability to pass under volleyball in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung.

Table 2. Frequency Distribution of Lower Passing Ability

Experimental Group Volleyball

Interval	Category	Frequency		Percentage	
		Pre-Test	Post-Test	Pre-Test	Post-Test
≥50	Excellent	0	3	0%	20%
40-49	Good	3	7	20%	47%
30-39	Enough	7	1	47%	7%
20-29	Less	3	4	20%	27%
<20	Very Less	2	0	13%	0%
Quantity		15	15	100%	100%

The change in distribution showed that after participating in the exercise using wall bounce media, the ability to pass under volleyball students in the experimental group increased, which was characterized by an increase in the number of students in the good and excellent categories and a decrease in students in the very low category.

2. Control Group Pre-Test and Post-Test Results

Table 3. Descriptive Statistic Control Groups

Data	Pre-Test	Post-Test
Mean	33,07	32,73
Median	37	37
Mode	38	38
Hours of deviation	10,532	10,257
Maximum	48	49
Minimum	15	15

The change in values that occurred in the control group was relatively small compared to the group that followed the exercise using wall reflective media. This shows that without practice using wall bounce media, the improvement in students' volleyball underpass ability tends to be insignificant.

Table 4. Frequency Distribution of Lower Passing Ability

Volleyball Control Group

Interval	Category	Frequency		Percentage	
		Pre-Test	Post-Test	Pre-Test	Post-Test
≥50	Excellent	0	0	0%	0%
40-49	Good	4	4	27%	27%
30-39	Enough	6	6	40%	40%
20-29	Less	2	2	13%	13%
<20	Very Less	3	3	20%	20%
Quantity		15	15	15	100%

This shows that without treatment in the form of training using wall reflective media, the improvement in volleyball underpassing ability in the control group tends to be small and does not experience significant changes.

Analysis Prerequisites Test

1. Normality Test

Table 5. Normality Test

Groups		Count	Tables	Say.	Remarks
Experimental Group	<i>Pre Test</i>	0,177	0,220	0,073	Normal
	<i>Post Test</i>	0,161	0,220	0,107	Normal
Control Group	<i>Pre Test</i>	0,173	0,220	0,068	Normal
	<i>Post Test</i>	0,121	0,220	0,240	Normal

Based on these results, it can be concluded that all pre-test and post-test data in the experimental group and control group are distributed normally, so that the research data has met the assumption of normality and can be continued to the next stage of statistical testing.

2. Homogeneity Test

Table 6. Homogeneity Test

Variabel	Calculation n	Table	Say.	Remarks
Experimental Group	0,026	4,196	0,874	Homogeneous
Control Group	0,004	4,196	0,949	Homogeneous

The decision-making criterion in the homogeneity test is that if the value of $F_{cal} < F_{table}$ or the significance value (Sig.) > 0.05 , then the data is declared homogeneous. A summary of the homogeneity test results is presented in the table above. Thus, it can be concluded that the data on volleyball passing ability in the experimental group and the control group are homogeneous, thus meeting one of the prerequisites for hypothesis testing using parametric statistical tests.

Hypothesis Test Results

1. Experimental Group and Control Group Influence Test

Table 7. Experimental Group and Control Group Influence Test

Data	Tcount	Table	Sig.	Information
Experimental Group	19,379	2,145	0,000	There is a significant influence
Control Group	0,627	2,145	0,541	No significant influence

This shows that there is a significant difference between the results of the pre-test and post-test after being treated in the form of exercises using wall reflective media. Thus, training using wall bounce media had a significant influence on the improvement of volleyball underpass ability in the experimental group. Thus, it can be concluded that training using wall bounce media has a significant effect on improving volleyball underpassing ability in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung.

2. Comparison Test of Experimental Group and Control Group

Table 7. Test Comparison Post-Test
Groups Eksperimen and Control Group

Data	Calculation	Table	Sig.	Information
Post-Test Experiments and Controls	2,107	2,048	0,044	There Are Significant Differences

This shows that there is a significant difference between the post-test results of volleyball under-passing ability in the experimental group and the control group. Thus, it can be concluded that practice using wall bounce media has a real influence on improving volleyball bottom passing ability in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung compared to students who are not given practice using wall bounce media.

Discussion

Based on the results of the data analysis that has been presented, it can be seen that the practice using wall bounce media has a significant influence on the ability to pass under volleyball in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung. This is evidenced by the results of hypothesis testing which showed an increase in the ability to pass down in the experimental group and a significant difference when compared to the control group.

The results of the Hypothesis 1 test show that there is a significant effect of training using wall bounce media on the improvement of volleyball underpass ability. The results of the t-test in the experimental group showed a greater t_{cal} value than the t_{table} with a significance value of less than 0.05, so H_{01} was rejected and H_{a1} was accepted. These findings show that exercises using wall reflective media are effective in improving volleyball's underpass ability.

The results of the Hypothesis 2 test showed a significant difference in the ability to pass down between the experimental group that was given the training using wall reflective media and the control group that was given the conventional training. These results show that H_{02} is rejected and H_{a2} is accepted. These differences show that the training method has an important role in improving basic volleyball technique skills.

The results of the Hypothesis 3 test showed that there was a significant difference in the improvement in volleyball underpassing ability between the experimental group and the control group after being given the treatment. The results of the post-test value comparison test showed that H_{03} was rejected and H_{a3} was accepted. This shows that the increase in the lower passing ability in the experimental group did not only occur internally, but was also higher than the increase that occurred in the control group

Thus, the overall results of this study show that the exercise using wall reflective media is not only statistically effective, but also supported theoretically and empirically. This exercise is in accordance with the principles of movement learning, the theory of physical adaptation, as well as the concept of modern exercise methods that emphasize repetition, variety, and feedback. Therefore, practice using wall bounce media can be recommended as one of the effective training methods in fostering basic volleyball passing techniques in extracurricular activities at school.

CONCLUSION

Based on the results of the research and hypothesis testing that has been carried out, the conclusions of this study are as follows: Practice using wall bounce media has a significant effect on improving the ability to pass under volleyball in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung. Thus, H_{01} is rejected and H_{a1} is accepted. There was a significant difference in volleyball underpassing ability between the experimental group that was given training using wall reflective media and the control group that was given conventional training. Thus, H_{02} is rejected and H_{a2} is accepted. There was a significant difference in the improvement in volleyball passing ability between the experimental group and the control group after the treatment. Thus, H_{03} is rejected and H_{a3} is accepted. Overall, it can be concluded that training using wall bounce media is an effective training method in improving volleyball bottom passing ability in volleyball extracurricular students of SMA Negeri 10 Bandar Lampung.

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