



## Effects of Individual vs. Partner Forearm-Passing Drills on Seventh-Grade Volleyball Passing Skill.

**Erwin Tafonao<sup>1</sup> \***

Bina Guna College of Sports and Health, Medan, Indonesia

**Devi Catur Winata<sup>2</sup>**

Bina Guna College of Sports and Health, Medan, Indonesia

### Abstract.

#### Background

This study aims to determine how much influence individual and paired underhand *passing* training has on the *underhand passing skills* of seventh-grade students at Pelita Middle School. The problem in this study is There are still many basic mistakes made during training and matches, training has not been adjusted to the players' needs as a whole.

#### Objectives

The results of the t-test analysis show that the calculated t for individual passing exercises is 30 and for paired passing exercises is 23.75 and the t-table is 1.833. Furthermore, these prices are consulted with the t-table price at a significance level of  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9, so these results show that there is a significant difference. Thus the alternative hypothesis ( $H_a$ ) which reads " There is an influence of individual passing training and pair passing training on the underhand *passing skills of grade V students of Baitul Aziz Elementary School in 2025*. The results of the t-test analysis can be seen that the t count of individual passing training is 30 and pair passing training is 23.75 and t table is 1.833, then the price is consulted with the t-table price at a significance level of  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9 then this result shows that there is a significant difference. Thus the alternative hypothesis ( $H_a$ ) which reads " There is an influence of individual passing training and pair passing training on the underhand *passing skills* of grade VII students of Pelita Middle School in the 2024/2025 academic year.

#### Methods

#### Results

*This study aims to determine the effect of individual and paired underhand passing training on the underhand passing skills of seventh-grade students at Pelita Junior High School. The problem in this study was that many fundamental errors were still made during training and matches, and the training had not been fully adapted to the players' needs.*

#### Conclusion

*The results of the t-test analysis showed that the calculated t-value for individual passing training was 30, for paired passing training was 23.75, and the t-table was 1.833. These values were then compared with the t-table value at a significance level of  $\alpha=0.05$  with  $df = n-1$  ( $10-1$ )=9. These results indicate a significant difference. Thus the alternative hypothesis ( $H_a$ ) which reads "There is an influence of individual passing training and pair passing training on the underhand passing skills of fifth grade students of Baitul Aziz Elementary School in 2025. 0.05 with  $dk = n-1$  ( $10-1$ ) = 9, then this result shows that there is a significant difference. Thus the alternative hypothesis ( $H_a$ ) which reads "There is an influence of individual passing training and pair passing training on the underhand passing skills of fifth grade students of PELITA Elementary School in 2025*

**Keywords: Forearm Passing, Volleyball Drills, Individual Training, Partner Training, Dan Seventh-Grade Students.**

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\*Correspondence: [Erwin@gmail.com](mailto:Erwin@gmail.com)

Correspondence author **Erwin Tafonao**

Correspondence Author Bina Guna College of Sports and Health, Medan, Indonesia

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## INTRODUCTION

Education is able to realize and can change individuals for the better, from uncivilized to civilized, education in general makes individuals complete and becomes an effort to change bad things into good ones so that education is very important for the continuity of life. With education, you can get a better life and make individuals more ready to face the future.

In education, the teaching and learning process is essential for acquiring knowledge and preparing individuals to become confident and confident in managing their lives. Education is not limited to formal education; it can also be pursued and obtained through non-formal means. This means that as long as there is a will, education can be obtained and pursued anywhere, with the goal of transforming and improving individuals. One form of education obtained and studied in formal education is physical education. The benefits that can be gained from physical education are not limited to school but also in everyday life. Physical education plays a role in survival, from jumping and throwing to many other activities.

In physical education learning, students will gain something related to pleasant personal impressions, various creative and innovative expressions, movement skills, physical fitness, healthy lifestyles, knowledge and understanding of human movement, and will also form a better personality.

The world of education, one of which is physical education, is a part that cannot be separated from good physical motor activity, thus it can develop abilities and skills that can be useful for daily life, carried out in a sustainable manner and is able to develop socially and develop emotional abilities so that health is better in terms of social and emotional aspects.

In teaching, good teaching methods and styles are needed in the learning process to determine how the approach process is in learning, and there are many that are often used in the physical education learning process, including command teaching styles, reciprocal teaching styles, inclusive teaching styles and many more.

Physical education is a discipline that exercises the body's parts in a structured and systematic manner to promote physical fitness. Achieving a healthy body requires exercise and coordination, resulting in a healthy body and a strong mind. In physical education, the movements learned are integrated into sports, with values and goals that foster healthy habits from an early age.

Sport involves physical activity to improve the body and mind, with the primary goal of improving health and fitness. However, exercise must be planned with a long-term and short-term training program and performed regularly to effectively develop skills and abilities.

Exercise can be done individually or in groups. Many people enjoy exercising in groups or teams . One sport that involves groups and teams is soccer. This game requires many people to participate. Because sports involve elements of sportsmanship , discipline, teamwork, and strengthening bonds, group play has become a popular activity for everyone. One very popular group game is volleyball, where a game consists of six players and requires an equal number of opponents, allowing for collaborative play.

Based on the needs analysis, volleyball achievement has two elements and factors that influence it: external factors and internal factors. Internal factors are factors from within a person,

such as physical condition, basic technical skills, tactics or strategies, and a strong mental spirit. While external factors are factors that influence a person from outside the body, arising from outside such as coaches, infrastructure, family, nutrition, and so on. Therefore, it can be said that internal and external factors can be prioritized for better future performance.

Basic volleyball techniques include serving, underhand passing, overhand passing, blocking, and smashing. Passing is a fundamental technique that must be mastered. Mastering the passing and underhand passing skills is crucial for controlling the game.

Based on observations conducted at Baitul Aziz Private Elementary School, fifth-grade students' underhand passing skills in volleyball were found to be suboptimal. This was evident during inter-class volleyball lessons, where several students were unable to control the ball effectively using the basic underhand passing technique. Furthermore, during the underhand passing test, fifth-grade students at Baitul Aziz Private Elementary School were unable to master underhand passing. This prompted researchers to conduct an experimental exercise during the volleyball learning process.

In analyzing the training methods used in the volleyball learning process, the basic technique of underhand passing requires several effective learning methods. One example is individual passing exercises against a wall or in the air, with underhand passing in pairs. This study examines which training methods influence underhand passing ability in volleyball. It is hoped that these training methods will influence underhand passing ability in volleyball.

Based on the problems that have been described in the background of the problem above, the author wants to conduct research related to the problems that have been described above in detail with the research title "The Effect of Individual Underhand *Passing and Paired Underhand Passing Practice Forms* on Class VII Students of Pelita Private Middle School in the 2024/2025 Academic Year.

## **METHOD**

### **Research Design**

*The Pre-test-Post-test Control Group Design* research design, there are two groups selected randomly, then given a *pre-test* to determine the initial state of whether there is a difference between the experimental group and the control group. The *pre-test results* are good if the experimental group's scores are not significantly different (Sugiyono, 2012: 113). *Pre-test-Post-test Control Group Design* in this design there are two classes selected randomly. The two classes are the control class and the experimental class. Then given a *pre-test* to determine the initial state of whether there is a difference between the experimental group and the control group. After *the pre-test is given*, treatment is given to the experimental class. Finally, a *post-test is given* to both classes. Finally, the two classes are compared (Alfianika, 2018: 133). In accordance with the objectives of the research, a *quasi-experimental method* will be used with *the time series experiment* design (Yusuf 2005: 231-234). This is aimed at finding out cause and effect

relationships. In implementing this plan before given treatment on subject, moreover formerly Several observations were made on the sample, followed by a *pre- test* on all players selected as samples in the study . Afterward, individual and pair training sessions were conducted for 16 sessions. After the treatment, a final test ( *post -test* ) was conducted on underhand *passing* skills . The total number of sessions was 18.

### **Participant**

This research was conducted in Medan, Indonesia, and involved students of Class VII of Pelita Private Middle School in the 2024/2025 academic year. In this research, Total Sampling was used , *meaning* that the sampling technique for all Class VII students of Pelita Private Middle School in the 2024/2025 academic year was 20 people.

### **Data Analysis**

Technique collection data Which used in study This is as follows

#### **Observation**

Sukmadinata (2013: 220) states that observation is a technique or method of collecting data by observing ongoing activities. Observations are carried out with do observations during the research process.

Test learning outcomes

Sugiyono (2016: 194) stated that "tests are generally used For evaluate And measure results Study students, especially cognitive learning outcomes related to mastery of teaching materials in accordance with teaching objectives". There are several tests carried out, namely the initial test and the final test.

#### **Test initial (pretest)**

Initial tests were conducted before treatment administration. Initial test done to know the abilities possessed by students before the implementation of the individual underhand passing training method for class VII students.

#### **Test end (posttest)**

The next step is a posttest to determine whether or not there is an influence of the form of paired underhand *passing exercises* on the volleyball underhand *passing ability* of class VII students at Pelita Private Middle School.

#### **Documentation**

Documentation is a data collection technique by collecting and analyze documents, Good document written, pictures, or electronic (Sukmadinata, 2013:221). Documents are records of past events, which can be in the form of writing, pictures, or monumental works by someone (Sugiyono, 2017:240). The documents collected were selected according to the focus and objectives of the problem.

### **Technique Analysis Data**

To determine the extent to which the form of individual underhand *passing training and* underhand *passing training in pairs influences the underhand passing ability* of volleyball for grade VII students. The power obtained is analyzed using the statistical formula of the "t-test" analysis

technique.

Before processing the data, a normality test was performed to determine whether the samples used were normally distributed. After the normality test was conducted, the formula used in this study was the "t-test" formula as follows:

$$t = \frac{MD}{\sqrt{\frac{\sum x^2}{N(N-1)}}}$$

With information This:

MD = mean difference from deviation (d) between/ *pre-test* and *post-test*

$\sum x^2$  = total squared deviation

N = many Subject

Dv = or db is N-1 (Arikunto, 2020:125)

## RESULTS AND DISCUSSION

### Results

*Underhand Passing Skills Pretest Data* The data were taken on May 5, 2025, followed by 16 targeted training sessions, with a frequency of 3 sessions per week, on Monday, Thursday, and Sunday. *Posttest data* were taken on June 17, 2025.

The first step taken by the researcher was to identify the problem to be studied by observing the *underhand passing* skills of seventh-grade students at Pelita Private Middle School in 2025, both in terms of their mastery level and enthusiasm for participating in the training. This was done to observe changes that occurred after the training in terms of passing ability results.

Before conducting the research, the researcher first interviewed the coach with the aim of obtaining information regarding the *passing* skills of seventh-grade students at Pelita Private Middle School in 2025. After that, the researcher provided training and conducted a post-test.

The action taken before carrying out the method is to plan what will be implemented through the training program, after which the researcher carries out the research stages.

The stages are:

- a. The researcher introduces himself and explains the purpose and objectives of the research.
- b. Researchers Explain Volleyball Underhand Passing Techniques.
- c. Researchers explain the Volleyball Underhand Passing Skills Training Program
- d. After implementing the training program for 16 meetings, participants took a posttest using the Passing test instrument.

After carrying out the research, the test results were obtained from the pretest and posttest results.

## 1. Determining the mean and standard deviation of individual training groups

**Table 5 Pretest and Posttest Data for Group A**

NO	Name	X <sub>1</sub>	X <sub>2</sub>	X <sub>1</sub> <sup>2</sup>	X <sub>2</sub> <sup>2</sup>
1	Zakaria	7	9	49	81
2	Satrio	6	7	36	49
3	Salmanhadi	6	8	36	64
4	Izza	5	6	25	36
5	January	5	6	25	36
6	Angga	4	6	16	36
7	Ahmad Rasyid	4	6	16	36
8	Kelvin	4	6	16	36
9	Lukman	4	7	16	49
10	Dendi	3	5	9	25
Amount		48	66	244	448
Average		4.8	6.6	24.4	44.8

To determine the influence of research variables, hypothesis testing was carried out using the t-test statistical formula. The calculation results were as follows:

**Table 11. Hypothesis Test of Group A Passing Result Data Individual Training**

NO	Name	X1	X2	X1 <sup>2</sup>	X2 <sup>2</sup>	D	D <sup>2</sup>
1	Zakaria	7	9	49	81	2	4
2	Satrio	6	7	36	49	1	1
3	Salmanhadi	6	8	36	64	2	4
4	Izza	5	6	25	36	1	1
5	January	5	6	25	36	1	1
6	Angga	4	6	16	36	2	4
7	Ahmad Rasyid	4	6	16	36	2	4
8	Kelvin	4	6	16	36	2	4
9	Lukman	4	7	16	49	3	9
10	Dendi	3	5	9	25	2	4
Amount		48	66	244	448	18	36
Average		4.8	6.6	24.4	44.8	1.8	3.6

Based on the results of the analysis in Table 11 above, it can be seen that the calculated  $t$  is 30 and the  $t$  table is 1.833. Furthermore, the price is consulted with the  $t$  table price at a significance level of  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9, then this result shows that there is a significant difference. Thus, the alternative hypothesis ( $H_a$ ) which reads " There is an influence of the form of individual training on the underhand *passing skills* of fifth grade students of Baitul Aziz Elementary School in 2025 ", is accepted .

**Table 12. Hypothesis Test of Data from the Results of Group B Passing in Paired Practice**

No	Name	X1	X2	X1 <sup>2</sup>	X2 <sup>2</sup>	D	D <sup>2</sup>
1	Hermansyah	7	9	49	81	2	4
2	Neston	6	7	36	49	1	1
3	Good	5	8	25	64	3	9

4	Ferry	5	6	25	36	1	1
5	Mhd. Dandi	5	6	25	36	1	1
6	Yogi	5	7	25	49	2	4
7	Bayu Zeta	4	6	16	36	2	4
8	Erwin	4	6	16	36	2	4
9	Yahya	4	6	16	36	2	4
10	Bagas	3	6	9	36	3	9
Amount		48	67	242	459	19	41
Average		4.8	6.7	22.9	45.9	1.9	4.1

Based on the results of the analysis in Table 12 above, it can be seen that the calculated  $t$  is 23.75 and the  $t$  table is 1.833. Furthermore, the price is consulted with the  $t$  table price at the significance level  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9, then this result shows that there is a significant difference. Thus, the alternative hypothesis ( $H_a$ ) which reads " There is an influence of the form of paired training on the underhand *passing skills* of class VII students of Pelita Middle School in 2025 ", **is accepted** .

## Discussion

Based on the analysis of the research data, it can be seen that normal distribution has a significant influence on the underhand passing skills of class VII students of Pelita Middle School through individual and group training forms, conclusions are drawn from the results of the t-test.

This study aims to determine the effect of individual and paired training forms on the underhand *passing skills* of fifth grade students of Pelita Junior High School in 2025. The study began with a pre-test to determine students' underhand passing abilities before being given treatment, giving treatment for 16 meetings with individual and paired passing exercises, and then after the treatment was completed, a post-test was conducted to determine students' passing abilities after being given treatment. Treatment was carried out with a post-test once in the field.

It is known from the results of the t-test that individual passing and pair passing exercises have an influence on *the underhand passing skills* of class VII students of Pelita Middle School in 2025. The implementation of individual and pair passing exercises carried out based on the principles of training has an influence on the *underhand passing skills* of class VII students of Pelita Middle School in 2025.

From the discussion above, the average for Group A's pretest was 4.8 and the average post-test score was 6.6, while the standard deviation value for Group A's pre-test was 1.24 and the standard deviation value for the post-test was 1.17. Meanwhile, the average for Group B's pretest was 4.8 and the average post-test score was 6.7, while the standard deviation value for Group A's pretest was 1.13 and the standard deviation value for the post-test was 1.05.

For the Normality test of Group A Pretest, the  $L_{\text{Count value}} = 0.0735$ , while the  $L_{\text{Table value}}$  with  $Dk = 10$  at the level of  $\alpha = 0.05 = 0.258$ . So that  $L_{\text{Count}} < L_{\text{Table}}$  ( $0.0735 < 0.258$ ) . For the Post Test, the Normality test of Group A, the  $L_{\text{Count value}} = 0.195$ , while the  $L_{\text{Table value}}$  with  $Dk = 10$  at the level of  $\alpha = 0.05 = 0.258$ . So that  $L_{\text{Count}} < L_{\text{Table}}$  ( $0.195 < 0.258$ ). Thus, the data from the Pretest results of *the Underhand Passing Skills* of Individual Passing Practice for Grade V Baitul Aziz Students in 2025 are Normally Distributed

For the Normality test of Group B Pretest, the  $L_{\text{Count value}} = 0.1286$ , while the  $L_{\text{Table value}}$  with  $Dk = 10$  at the level of  $\alpha = 0.05 = 0.258$ . So that  $L_{\text{Count}} < L_{\text{Table}}$  ( $0.1286 < 0.258$ ). For the Post Test of Group B Normality test, the  $L_{\text{Count value}} = 0.2486$ , while the  $L_{\text{Table value}}$  with  $Dk = 10$  at the level of  $\alpha = 0.05 = 0.258$ . So that  $L_{\text{Count}} < L_{\text{Table}}$  ( $0.2486 < 0.258$ ). Thus, the data from the Pretest results of students' *Underhand Passing Skills* in Paired Passing Practice for Grade VII Students of Pelita Middle School in 2025 are Normally Distributed

The results of the t-test analysis can be seen that the calculated t of individual passing practice is 30 and the paired passing practice is 23.75 and the t table is 1.833. Furthermore, the price is consulted with the  $t_{\text{table price}}$  at a significance level of  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9, then this result shows that there is a significant difference. Thus, the alternative hypothesis ( $H_a$ ) which reads " There is an influence of individual passing practice and paired passing practice on the *underhand passing skills* of class VII students of Pelita Middle School in 2025

## CONCLUSION

Based on the results of data analysis, description, testing of research results, and discussion, it can be concluded that there is an influence of individual *passing and pair passing* exercises on *the underhand passing skills* of Class VII students of Pelita Private Middle School in the 2024/2025 Academic Year.

The results of the t-test analysis show that the calculated t for individual passing exercises is 30 and for paired passing exercises is 23.75 and the t-table is 1.833. Furthermore, these prices are consulted with the  $t_{\text{table price}}$  at a significance level of  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9, so these results show that there is a significant difference. Thus the alternative hypothesis ( $H_a$ ) which reads " There is an influence of individual passing training and pair passing training on the *underhand passing skills of class VII students of Pelita Private Middle School in the 2024/2025 Academic Year*. The results of the t-test analysis can be seen that the t count of individual passing training is 30 and pair passing training is 23.75 and t table is 1.833. Furthermore, the price is consulted with the  $t_{\text{table price}}$  at a significance level of  $\alpha = 0.05$  with  $dk = n-1$  ( $10-1$ ) = 9, then this result shows that there is a significant difference. Thus the alternative hypothesis ( $H_a$ ) which reads " There is an influence of individual passing training and pair passing training on the *underhand passing skills* of class VII students of Pelita Private Middle School in 2025.

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## AUTHOR CONTRIBUTION STATEMENT

This research was conceptualized and designed by Erwin Tafonao, who developed the research objectives and methodology, managed data collection, coordinated with participants, and supervised fieldwork at STOK Bina Guna Medan. Devi catur winata performed data analysis, interpreted the findings, and contributed significantly to the preparation of the manuscript. All authors participated in the revision of the manuscript, approved the final version for submission, and take full responsibility for the integrity and accuracy of the work.

## CONFLICT OF INTEREST AND FUNDING

The Authors Declare No Conflict Of Interest Related To The Conduct, Authorship, Or Publication Of This Study.

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