

**THE EFFECT OF DRILL EXERCISES TO IMPROVE PASSING ABILITY IN VORJAS VOLLEYBALL CLUB****Ahmad Syahril¹, Yasir Arafat², Bayu Iswana³**^{1,2} Physical Education, University of PGRI Palembang
Corresponding Author E-mail: ahmadsahril1517@gmail.com**Abstrak**

Penelitian ini bertujuan untuk mengetahui pengaruh latihan *drill* terhadap peningkatan kemampuan *passing* bawah pada pemain klub bola voli VORJAS. Populasi pada penelitian ini berjumlah 13 atlet voli putra, dengan tehnik pengambilan sampel secara *purposive sampling*, sehingga diperoleh 10 atlet berusia 11 sampai 13 tahun sebagai responden penelitian. Metode yang digunakan dalam penelitian ini adalah *eksperimen one group pretest-posttest*, tehnik pengumpulan data tes *batteray* keterampilan bolavoli dari AAHPERD dan tehnik analisis data uji normalitas menggunakan *shapiro-wilk*, uji hipotesis menggunakan *paired sample t-test*. Hasil analisis data menunjukkan nilai uji-t sebesar 6,708, lebih besar dari t-tabel 2,262 (df = 9, N = 10). Rata-rata nilai pretest adalah 4,50 dan posttest 6,00, dengan selisih peningkatan 1,50 atau sebesar 33,33%. Karena $t_{hitung} > t_{tabel}$, maka H_0 ditolak dan H_a diterima. Dengan demikian, dapat disimpulkan bahwa latihan *drill* berpengaruh terhadap peningkatan kemampuan *passing* bawah pada atlet klub bola voli VORJAS.

Kata Kunci: Latihan; Drill; Passing; Bawah; Voli**Abstract**

This study aims to determine the effect of *drill* practice on improving lower *passing* ability in VORJAS volleyball club players. The population in this study amounted to 13 male volleyball athletes, with *purposive sampling* techniques, so that 10 athletes aged 11 to 13 years old were obtained as study respondents. The methods used in this study are *one group pretest-posttest experiments*, data collection techniques for *batteray* football skills from AAHPERD and normality test data analysis techniques using *shapiro-wilk*, hypothesis tests using *paired sample t-test*. The results of the data analysis showed a t-test value of 6.708, greater than the t-table of 2.262 (df = 9, N = 10). The average pretest score was 4.50 and posttest 6.00, with a difference of 1.50 or 33.33%. Because the calculation $> t_{table}$, H_0 is rejected and H_a is accepted. Thus, it can be concluded that *drill* exercises have an effect on improving the lower *passing* ability in VORJAS volleyball club athletes.

Keywords: Exercise; Drill; Passing; Below; Volleyball**ARTICLE INFO**

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INTRODUCTION

Exercise is a very important physical activity in human life to maintain physical health and fitness. In addition, sports are also a means to achieve achievements, especially in the field of volleyball. Law Number 11 of 2022 concerning Sports serves as the legal basis for the implementation of sports in Indonesia. Article 59 paragraph (3) in this Law reflects a change in the provisions in Law Number 3 of 2005 concerning the National Sports System. The difference lies in the change in the text of Article 59 paragraph (3) letter d, which now adds rules regarding reasonable income in accordance with the standards set for professional sports [1]. The sport of volleyball was first introduced by William G. Morgan in 1895 in the United States[2].

Volleyball is one of the sports that is very popular with the public, both men and women. This sport requires simple equipment and has been known in Indonesia since the Dutch East Indies colonial era. After Indonesia's independence, volleyball began to be competed as an official sport at the 1951 National Sports Week (PON). In 1955, the Indonesian Volleyball Association (PBVSI) was established as the parent organization of volleyball sports in Indonesia. Since then, volleyball has become one of the popular sports in Indonesia, played at various levels, ranging from school subject matter, recreational activities, to competitions. Volleyball competitions in Indonesia have existed since the 1990s, becoming a means for athletes to compete at the national level. The Indonesian national volleyball team has also achieved a number of achievements at the international level [3].

In the game of volleyball, there are several basic techniques that must be mastered by a volleyball player in order to play well, these basic techniques include serves, *passing*, blocks, and *smash*. Of these several techniques, the sample that is the focus of the sample is the bottom passing. Underpass is a technique used by players to pass the ball to teammates so that it can be played back on their court. In addition, the bottom pass is also very important in supporting attacks or smashes. This is because effective smash can only be achieved if it is preceded by accurate and perfect passing [4].

Passing down is one of the first basic techniques taught to players. Movements in the lower passing technique involve the coordination of several parts of the body, such as the position of the legs, the body, both hands, and advanced movements. All of these body elements are interconnected and inseparable in their execution to produce a quality and perfect underpass [5].

The training method is a systematic approach used by the trainer to achieve the objectives in carrying out the training program and materials. The use of inappropriate or incorrect methods can affect the results of the exercise. A competent coach can choose and apply methods that suit the player's needs, based on factors such as age group and others. In addition, training facilities and infrastructure also have an important role in supporting the training process and matches. Lack of adequate facilities can cause

various obstacles in training, including difficulties for trainers in carrying out pre-planned training methods and programs [6]. To improve optimal bottom passing ability requires measured and structured training, drill method training is one of the training methods that can be used to increase the ability to pass down in volleyball. The *drill* method is generally used to develop agility or skills that have been learned. *Drill* is an approach that aims to improve skill and proficiency by teaching a specific movement, in which the athlete is instructed to perform the movement repeatedly according to the instructions given by the coach [6].

Based on observations on October 18, 2024, researchers observed a phenomenon on the Vorjas volleyball court in Jasdram II Sriwijaya, Sukarami District, Palembang City, When passing under volleyball, the accuracy of the ball was still lacking, so that the accuracy of the *bottom passing* had not led to the friend who was *given the pass*, this usually happens because the ball is not in the right direction so that the direction of the ball is not in the desired direction. The coach also explained that children who took part in the training were still in the learning stage so there were still many shortcomings when making the bottom pass. From these problems, researchers see that athletes need variation training that can improve their lower passing ability. To improve the ability of the bottom passing in the Vorjas volleyball club, the researcher used the drill method

METHOD

This study uses quantitative research with a pre-experimental type. The design of this study is *one group pretest-posttest* to athletes of the VORJAS volleyball club with a total of 10 athletes aged 11-13 years. The sample in this study uses purposive sampling, according to [7] the purposive sampling *technique*, which is the determination of the sample with certain considerations. So that the total athletes used as a sample reflect the characteristics of the population that have been known before. This research was carried out with 16 meetings, the first meeting was briefed on the research, the next meeting was done *pretest* first and then given treatment and *post test*. In one week the training was held 5 times. This research lasted for 1 month at the Vorjas volleyball club field, Jalan Letjen Harun Sohar, Kebun Bunga, Sukarami District, Palembang City, South Sumatra. This design can be described as follows:

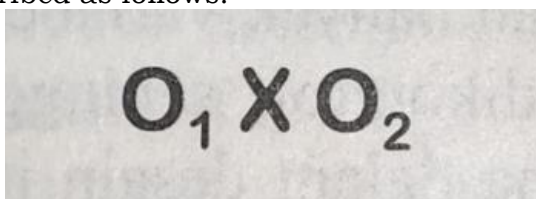


Figure 1. One-group pretest-posttest design
(Source : [7])

Information:

X : Treatment, learning using multimedia

O1 : Initial data collection / *pretest* before using multimediaO2 : Collection of final data / *posttest* after using multimedia

The normality test is a test that is carried out to analyze the distribution of data whether the data is distributed normally or not. Test normality with the IBM SPSS program using *the Shapiro-Wilk* approach. The *Shapiro-Wilk method* is a test that is carried out to determine the random data distribution of a data sample of less than 50 samples. This test is said to be normally distributed when the significance value is more than 0.05 (sig. > 0.05) [8]. After the normality test is carried out and the data is proven to be normally distributed, the next step is to conduct a hypothesis test. Hypothesis testing is a temporary answer to a problem, or it can also be interpreted as a temporary conclusion about the relationship between one variable and another with the help of SPSS software. In this study, the hypothesis test used was the *Paired Sample T-test* with the help of SPSS software, which was used to make decisions. With the criterion H_0 if the t_{count} is $< t_{table}$ and minus H_0 if it has another price. The degree of freedom of the distribution list t is $(n-1)$ with a significant level of 5% tested through two parties.

RESEARCH RESULTS

Data Description Results

After the initial test or *pretest*, it is continued by providing treatment in the form of *drill exercises* which are carried out 14 times in meetings starting on Wednesday, February 26, 2025 at 19:30 WIB. When providing treatment, the researcher first provided an explanation and examples of the implementation of *drill exercises* used, the *drill exercises* used were *drill exercises passing* to the wall and bounce ball *drill training*. After the athlete understands or explains the training program, the athlete performs *the drill treatment* given by the researcher correctly until it is completed. The end of the implementation of this drill training program will be followed by conducting a final test (*posttest*) on March 23, 2025 using the same instrument when conducting the initial test (*pretest*), namely the *ball skills batteray* test from AAHPERD. After the research ended, the researcher submitted a report to the chairman of the Vorjas volleyball club that the research process from start to finish had been completed.

Thus, through the recapitulation table of the results of the validation test above, it shows that the results of the multimedia validity test of learning based on the aspects of material, language and media/IT are very feasible to be used in learning physical education, sports and health materials of physical fitness training activities with an average score of 86.94%. For more details, it can be seen through the following image:



Table 1. Data Pretest-Posttest

NO	NAME	PRETEST	POSTTEST
1	Aldis	6	7
2	Naufal	4	6
3	Abi	4	5
4	M. Zakki	5	6
5	Hanif	3	5
6	Rizki	5	7
7	Zidan	7	8
8	Dimas	4	7
9	Radit	3	4
10	Septian	4	5

Furthermore, the above pretest-posttest frequency distribution can be shown in the diagram below:

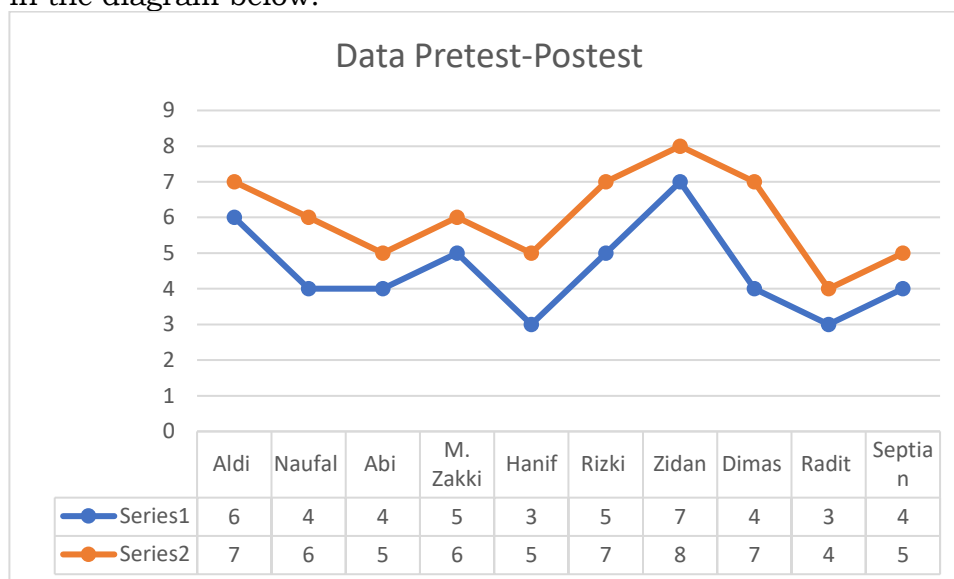


Figure 1. Test Result Diagram
(Source: Researcher Document, 2025)

In the data from *the pretest* results that have been tested on 10 samples that were carried out before being given treatment, the *results of the pretest* were the smallest with a value of 3 and the largest value of 7. Meanwhile, the data on *the results of the posttest* that have been given treatment, the smallest results get a score of 4 and the largest results get a score of 8.

Data Analysis Results

Testing the normality of data in experimental research is a condition that must be met before conducting hypothesis testing. Data from *the pretest* and *posttest* using the volleyball skills *batteray* test instrument from AAHPERD were tested using *the Shapiro Wilk* test with the help of SPSS 26 software, with the test criteria saying what is normal if the significance is more than 0.05 (sig.>0.05), if the significance value is less than 0.05 (sig.<0.05) then the data is not distributed normally. The results of the normality test data of the lower passing ability test at the Vorjas volleyball club can be seen in the table below:

Table 2. Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
posttest	.189	10	.200 [*]	.940	10	.550
pretest	.253	10	.069	.903	10	.238

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

(Source: Researcher Document, 2025)

Based on the table above, the value of the calculation of *the test of volleyball's passing ability* under the *pretest* was 0.238 >0.05, while the *posttest* value was 0.550 >0.05. Based on the criteria for normality testing of the data that has been tested in normal distribution and continued hypothesis testing.

The hypothesis testing technique in this study used *a paired sample T-test* for decision-making.

- If the value of sig. (2-tailed) < 0.05, then there is a significant influence of *drill* exercises to improve the lower *passing* ability in the Vorjas volleyball club H_a accepted and H_0 rejected.
- If the value of sig. (2-tailed) > 0.05, then there was no significant effect of *drill* exercises to improve the lower *passing* ability in the Vorjas volleyball club H_0 accepted and H_a was rejected.
- Based on the results of the calculation of the hypothesis test above, the *pretest* and *posttest calculation values* were obtained, namely $t = 6.708$ where $t_{table} = 2,262$ with $N = 10$ and $df = 9$, so that it can be concluded that $t_{count} = 6.708$ is more accurate than t_{table} then H_0 is rejected and H_a is accepted or there is a significant influence of *drill* practice to improve the lower *passing* ability of the Vorjas volleyball club by 33.33%.



DISCUSSION

This study aims to find out whether there is an effect of *drill* practice to improve the bottom passing ability in the Vorjas volleyball club. Starting with conducting a *pretest* using a *volleyball skills* batteray test from AAHPERD, after obtaining initial data the athletes were given *treatment* for 14 meetings by providing drill training materials and the last posttest meeting. By using a *group of pretest-posttest* which aims to compare before and after treatment, so that it can be found out whether there is a significant influence of *drill* practice to improve the lower *passing* ability of the Vorjas volleyball club.

After conducting research for 16 meetings, the researcher collected data and analyzed the data, where *the results of the pretest-posttest* were tested with the help of SPSS 26 software and obtained a t-test value of -6.708 where $t_{table} = 2.262$ with $df=9$ and $N = 10$. To find out if there is an effect of *drill* exercises to improve the lower *passing ability* of the Vorjas volleyball club, it is seen from the results of the average score in *the pretest* = 4.50 and the average score of *the posttest* 6.00, there is a difference between *the pretest* and *posttest* scores with a range of 1.50 values. Based on the comparison of the results of the difference in the average score of *the pretest* and the average score of *the posttest*, it can be seen that the percentage increase in the lower *passing* ability in the Vorjas volleyball club was 33.33% after being given a *drill practice*. With these results, it can be concluded that there is a significant influence of *drill* exercises to improve the ability of lower *passing* in the Vorjas volleyball club.

This is in line with research that there is a significant influence of (Susanto et al., 2021) *drill* exercises on improving bottom passing ability in volleyball games in extracurricular students of SMP Negeri 2 Karang Rawang. The habit of repeatedly passing down through structured exercises has a positive impact on improving these skills, which can be seen from the students' abilities that continue to develop over time. Furthermore [9] based on the results of data analysis, it can be concluded that *drill* variation exercises have an effect on the underpass ability of female students at SMA Negeri 2 Tapung. This is shown by the t_{cal} value of 5.88 which is greater than the t_{table} of 2.14, as well as an increase in lower passing ability by 31.48%. The difference between this study and the previous study can be seen from the sampling which used *total sampling* and in this study used *purposive sampling*, to conduct *pretests* and *posttests* there were differences in the screening instruments using *the wall pass* test while in this study a *battery* was used ten AAHPERD volleyball capabilities in data collection. With this result, the drill method as a form of training makes athletes unconsciously accustomed to doing down passes repeatedly, this habit gradually has a positive impact on improving the athlete's ability to make down passes in



volleyball. From the results of this study, it can be concluded that exercises that are done repeatedly with the correct movements can increase the ability to pass down in the Vorjas volleyball club.

CONCLUSION

Based on the results of data analysis, it can be concluded that there is an effect of drill exercises to increase the ability of the lower passing in the Vorjas volleyball club with a value of $t = 6.708$ greater than t of the table, then H_0 is rejected and H_a is accepted and the increase in the lower passing is 33.33%.

PLAGIARISM STATEMENT

The author states that this article has met the criteria for plagiarism

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