

## The Effect of Training in Various Kinds of Active Bottom Drill Drills on Increasing Pasing Accuracy Down Onupper Class Boys Students of Primary School Perumnas Condongcatur

Budi Dermawan<sup>1</sup>

<sup>1</sup>STKIP PGRI Pacitan, Indonesia

### ARTICLE INFO

#### Keyword

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### ABSTRACT

This study aims to determine the effect of various types of active lower pass drill drills on increasing the accuracy of the lower pass in the volleyball game of upper class male students at SD Perumnas Condongcatur. This research uses an experimental method, the research design is "Control Groups Pretest-Posttest Design". Population In this research, there were 24 male students from the upper class at SD Perumnas Condongcatur. The sample taken from the total sampling results was 24 students. The instrument used to test the accuracy of the lower fitting is the modified Braddy Volley Ball Test. Data analysis uses the t test. The results of the analysis show that: (1) There is a significant effect of practicing various types of active bottom pass drill drills on increasing pass accuracy in volleyball games for upper class male students at SD Perumnas Condongcatur., with  $t_{count5,409} > t_{table 2.20}$ , and a significance value of  $0.000 < 0.05$ , a percentage increase of 22.22%. (2) The experimental group with various kinds of active lower fitting drill drills was better at increasing the accuracy of lower fitting male students in the upper classes of SD Perumnas Condongcatur than the control group, with  $t_{count2,902} > t_{table} = 2.07$  and  $sig. 0.008 < 0.05$  and the average difference is 3.6667.

### Introduction

Volleyball is a sport that is familiar to society and has many fans in both lower and upper classes. According to Suharno (2018: 12) in the game of volleyball there are various basic techniques, and to be able to play you must first really master these basic techniques. Mastery of the basic techniques of playing volleyball also determines whether a team wins or loses in the game in addition to their physical and mental condition. In the game of volleyball, techniques are also needed that support volleyball players so that they can play well. Technique is a way of doing or implementing something to achieve certain goals effectively and efficiently (Muhajir, 2003: 19). Thus, technique in volleyball is how to play the ball effectively and efficiently. Muhajir (2003: 19) believes that good game techniques are always based on theories and laws that apply in science that support the implementation of game techniques such as biomechanics, anatomy, physiology, kinesiology and other supporting sciences and are based on game rules. applicable. In order to increase maximum performance in the sport they are involved in, a student really needs to pay attention to the determining factors. The determining factors include: (1) Physical condition or level of physical fitness, (2) Technical ability or skills possessed, (3) Environmental problems, (4) Mental, (5) Trainer (Sajoto, 1988: 68). According to Suharno (2018: 68) to be able to master the game of volleyball well and perfectly, it is necessary to master basic techniques well. The basic techniques in volleyball are: (1) service, (2) passing, (3) pass (set-up), (4) smash (spike), (5) Dam (block). Each sport has its own techniques and tactics, and volleyball is no different. One of the basic techniques for playing volleyball is passing. The passing technique is the most basic of the existing basic techniques, therefore it is important to give it because it is one of the determining factors for the

Corresponding Author: Budi Dermawan

STKIP PGRI Pacitan, Indonesia

Email: [benefactor2507@gmail.com](mailto:benefactor2507@gmail.com)

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success of the game. Pasing is basically the basic key in the game of volleyball, so it is absolutely necessary for all players to master it. Perfect mastery of basic techniques can be achieved by doing continuous exercises and using good training methods. According to Suharno (2018: 36) bottom fittings are divided into three types, namely; (a) Normal bottom fitting, (b) One-handed bottom fitting, (c) One-handed bottom fitting with sliding. Pasing is basically the basic key in a volleyball game, so it is absolutely necessary for all players to master it. Perfect mastery of basic techniques can be achieved by doing continuous exercises and using good training methods. After servicing, fittingbottom in volleyball is very important. Because the start of a volleyball game is a good bottom pass. To learn lower passing requires patience and perseverance from a student and Physical Education teacher. At Perumnas Condongcatur Elementary School, every student needs to learn the lower passing movement for approximately three months. Starting from the correct stance technique, then followed by hand and foot movements without the ball. The foot position for the stance is that the right foot is further forward then the toe of the left foot is parallel to the heel of the right foot. Students can quickly learn the skills of lower passing technique if the trainer makes good demonstrations and can know the strengths and weaknesses of each child being trained. By looking at the mistakes made by Perumnas Pikancatur Elementary School students, teachers can correct wrong movements and provide training programs that are safer, more effective and efficient so that students can more quickly master the techniques being trained. Volleyball is a fast game where we have to really focus on the game. The ball we will receive is not necessarily what we expect, so it requires us to move closer to the ball first before hitting it.

Based on the results of observations, various types of drills have often been practiced, but the movements carried out are less active or only static, students do not move much. The volleyball game will look interesting if the ball is saved from the opponent's attack. Mastering the basic techniques of lower passing with its various variations is absolutely essential to be taught from an early age in order to support students' lower passing abilities to become better. The bottom post is usually used to receive service or receive. A good bottom pass is the first step to planning an attack, because without receiving the service ball and directing the ball towards the feeder well, the possibility of getting points is very small. Most of the students, especially teenagers, still use the bottom pass technique when passing the ball or setting up to the spiker. If the bottom pass is not accurate enough, it will be difficult for a feeder to pass the ball to the smasher. To defend more firmly and firmly, use the bottom pass, because the most appropriate technique for the bottom pass is that the hand position is strong, tight and must always be under the ball when receiving an attack from the opponent. This will be successful, resulting in a good ball game and the opportunity to spike to get points. will occur. In the bottom pass, the thing that cannot be ignored is the accuracy factor in the bottom pass. Accuracy in making the bottom pass is very necessary in the game of volleyball, with accuracy in making the pass, it will be easier for a feeder to provide feedback to the smasher. According to Suharno (2018: 32) accuracy is a person's ability to direct a movement towards a target according to its purpose. In other words, accuracy is the correspondence between the will (desired) and the reality (results) obtained against certain targets (goals). To be able to perform the lower passing correctly, a player must continue to practice, one of which is the lower passing drill. Lower passing drill training, players are trained with an active lower passing drill to create automatic movements in performing the lower passing. By practicing the bottom pass drill, it is hoped that the accuracy of the ball in making the bottom pass will increase. From the above background, this research needs to be carried out with the title "The effect of various types of active lower pass drill drills on increasing the accuracy of the lower pass in the volleyball game of upper class male students at SD Perumnas Condongcatur".

## Research Methodology

This research method is experimental research. According to Setyo Nugroho (2017: 36) experimental research is usually recognized as the most scientific research of all types of research because researchers can manipulate treatments that cause something to happen.. The research design used is "Control Groups Pretest-Posttest Design", namely a research design that has a pretest before being given treatment and a posttest after being given treatment, so it can be known more accurately, because it can be compared with those held before being given treatment (Sugiyono, 2001: 64 ). In this research, the author wanted to find out whether there was an effect of various types of active bottom fitting drilling exercises on increasing bottom fitting accuracy. The research design is as follows:



**Figure 1. Research Design Control Groups Pretest-Posttest Design**

Information:

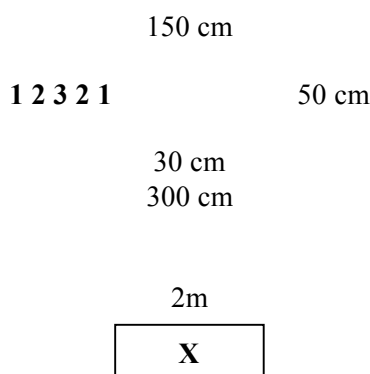
Group A with various kinds of active bottom drill drills

Group B as the control group (training with a trainer outside of treatment)

In this study, the research population was all upper class male students at SD Perumnas Condongcatur. The sample in this study was all 24 upper class male students at SD Perumnas Condongcatur. According to Sumadi Suryabrata (2013: 76) an operational definition is a definition that is based on the properties of the thing being defined that can be observed. In order to avoid misinterpretation in this research, the following operational definition will be presented which is used in this research, namely:

1. Practicing various kinds of lower fitting drill drills is a form of lower fitting drilling training with various forms of active movement with a variety of exercises and aims to improve the accuracy of the lower fitting.
2. The control group is the group that trains with the volleyball course teacher itself but practices outside of treatment, for example practicing serves, smashes, blocks, etc. The control group in this study was used as a comparison group.
3. Accuracy is a person's ability to make a bottom pass with the correct technique with the aim of directing the ball into the target precisely towards the desired target. The accuracy of the bottom pass is measured using a modified Braddy Volley Ball Test. The score is obtained by passing under the target 10 times.

Suharsimi Arikunto (2002: 136) research instruments are tools or facilities used by researchers in collecting data so that their work is easier and better. Data collection in this research was a measurement test which was used for initial measurements (pretest) and final measurements (posttest) using the bottom fitting accuracy test. The instrument used is a precision testpasingunder a modification of the Braddy Volley Ball Test. The size for the Braddy test before modification was a target on a wall measuring 152 cm wide, with a distance of 335 cm from the floor for women and 350 cm for men (Suharno, 2018: 67). Data collection instruments are tools selected and used by researchers in their collecting activities so that these activities become systematic and easier (Suharsimi Arikunto, 2006: 134). In this study, the instrument used was the bottom pass accuracy of the modified Braddy Volley Ball Test, which has a validity of 0.921 and a reliability of 0.820 (Amri Hartanto Thesis, 2012), namely a target on a wall measuring 150 cm wide, with a distance of the target plot from the floor. 300 cm.



**Picture 2. Bottom Fitting Accuracy Test**  
(Modification of Braddy Volley Ball Test (Thesis, Amri H, 2012))

Hypothesis testing uses the t-test using the SPSS 16 program, namely by comparing the mean between group 1 and group 2. If the calculated t value is smaller than the t table, then Ha is rejected, if the calculated t is greater than the t table then Ha is accepted. To test the hypothesis in this research, the researcher used the help of the SPSS 16 program. To determine the percentage increase after being given treatment, the percentage increase calculation was used using the following formula (Sutrisno Hadi, 1991: 34):

$$\text{Percentage increase} = \frac{\text{Mean Different} \times 100\%}{\text{Mean Pretest}}$$

$$\text{Mean Different} = \text{mean posttest} - \text{mean pretest}$$

## Results and Discussion

This study aims to determineThe effect of practicing various types of active bottom pass drill drills on increasing bottom pass accuracy in volleyball games for upper class male students at SD Perumnas Condongcatur, the results of the pretest and posttest research on bottom pass accuracy are described as follows:

### 1. Pretest and Posttest Bottom Fitting AccuracyExperimental Group

The results of the research are described using descriptive statistical analysis as follows, for pretest results the minimum value =10.0, maximum value = 21.0, average (mean) = 16.5 with standard deviation (std. Deviation) =3.42, swhile for the posttest the minimum score = 16.0, the maximum score =25.0, average (mean) =20.16with standard deviation (std. Deviation) =2.75. Details can be seen in the following table.

**Table 1. Description of Pretest and Posttest Statistics Experimental Group Bottom Fitting Accuracy**

Statistics	Pretest	Posttest
n	12	12
Average	16,5000	20.1667
Standard deviation	3.42451	2.75791
Minimum value	10.00	16.00
Maximum value	21.00	25.00

## 2. Pretest and Posttest Control Group Bottom Fitting Accuracy

The results of the research are described using descriptive statistical analysis as follows, for pretest results the minimum value =12.0, maximum value = 21.0, average (mean) = 16.58 with standard deviation (std. Deviation) =3.08, while for the posttest the minimum score = 11.0, the maximum score =22.0, average (mean) =16.5 with standard deviation (std. Deviation) =3.39. Details can be seen in the following table.

**Table 2. Description of Pretest and Posttest Statistics Control Group Bottom Fitting Accuracy**

Statistics	Pretest	Posttest
n	12	12
Average	16.5833	16,5000
Standard deviation	3.08835	3.39786
Minimum value	12.00	11.00
Maximum value	21.00	22.00

## Data Analysis Results

Data analysis is used to answer the proposed hypothesis. Before data analysis is carried out, it is necessary to test the prerequisites for analysis, namely the normality test and homogeneity test. The results of the prerequisite tests and hypothesis tests can be seen as follows:

### 1. Prerequisite Test

#### a. Normality test

The normality test is intended to determine whether the variables in the study have a normal distribution or not. The normality test calculation uses the Kolmogorov-Smirnov Z formula, with processing using the SPSS 16 computer program. The results are as follows.

**Table 3. Normality Test**

Group	p	Sig.	Information
<i>Pretest</i> Experiment Group	0.811	0.05	Normal
<i>Posttest</i> Experiment Group	0.904	0.05	Normal
<i>Pretest</i> Control Group	0.847	0.05	Normal
<i>Posttest</i> Control Group	0.999	0.05	Normal

From the results of the table above it can be seen that the data *pretest* and the *posttest* has a p value (Sig.) > 0.05, then the variable is normally distributed. Because all data is normally distributed, the analysis can be continued.

#### b. Homogeneity Test

The homogeneity test is useful for testing the similarity of samples, namely whether or not the variance of samples taken from the population is uniform. Homogeneity rule: if  $p > 0.05$ , then the test is declared homogeneous, if  $p < 0.05$ , then the test is said to be inhomogeneous. The homogeneity test results of this research can be seen in the following table:

**Table 4. Homogeneity Test**

Group	df1	df2	Sig.	Information
<i>Pre-test</i>	1	22	,664	Homogeneous

From tableonYou can see the pretest value sig. p 0.664 > 0.05 so the data is homogeneous. Because all data is homogeneous, data analysis can be continued with parametric statistics.

### Hypothesis testing

#### a. Comparison of Pretest and PosttestExperimental Group Bottom Fitting Accuracy

The t-test was used to test the first hypothesis which reads "There is a significant effect of practicing various types of active lower fitting drill drills on increasing the accuracy of lower fittings for upper class male students at SD Perumnas Condongcatur", based on the results of the pretest and posttest. If the results of the analysis show a significant difference, then practicing various types of active lower fitting drill drills will have an influence on improving students' lower fittings. The research conclusion is declared significant if the calculated t value > t table and the sig value is smaller than 0.05 (Sig < 0.05). Based on the results of the analysis, the following data was obtained.

**Table 5. T-test Pre-Test and Post-Test ResultsExperimental Group Bottom Fitting Accuracy**

Group	Average	t-test for Equality of means				
		t ht	etc	Sig.	Difference	%
Pre-Test	16,5000	5,409	2.20	0,000	3.66667	22.22%
Post-Test	20.1667					

From the results of the t-test it can be seen that t is calculated5,409and t table 2.20 (df=11) with a significance p value of 0.000. Therefore, t count5,409> t table 2.20, and the significance value is 0.000 < 0.05, then this result shows that there is a significant difference. Thus the alternative hypothesis (Ha) which states "There is a significant effect of practicing various types of active lower fitting drill drills on increasing the accuracy of lower fittings for male students in the upper classes of SD Perumnas Condongcatur", is accepted. This means that practicing various kinds of active bottom fitting drills has a significant influence on increasing the accuracy of the bottom fitting for male students in the upper classes of SD Perumnas Condongcatur. From the pretest data there is an average16.5, then at the posttest the average reached20.1667. The magnitude of the increase in the accuracy of the bottom fitting can be seen from the difference in the average value, which is equal to3.66667, with a percentage increase of 22.22%.

#### b. Posttest Comparison of Lower Passing Accuracy of the Experimental Group with the Control Group

The second hypothesis reads "The experimental group that practiced various kinds of active lower pass drill drills was better at increasing the accuracy of the lower pass in volleyball games for upper class male students at SD Perumnas Condongcatur than the control group", which can be determined through a posttest between the groups that practiced various kinds of drill pass drills. under active control group posttest. Based on the results of the analysis, the following data was obtained.

**Table 6. Posttest t test for experimental group and control group**

Group	Average	t-test for Equality of means			
		t ht	t tb	Sig.	Difference
Experimental Group	20.1667	2,902	2.07	0.008	3.66667
Control Group	16,5000				

From the t test results table above, it can be seen that the calculated t is2,902and t-table (df = 22) = 2.07, while the significance value is p 0.008. Because t counts2,902> t table = 2.07 and sig. 0.008 < 0.05, meaning there is a significant difference between the experimental group posttest and the control group posttest. Thus, the hypothesis which states "The experimental group with various kinds of active lower pass drill drills was better at increasing the accuracy of the lower pass in the volleyball game of upper class male students at SD Perumnas Condongcatur than the control group", was accepted. So the experimental group by practicing various kinds of active bottom pass drill drills was better at increasing the accuracy of the bottom pass in volleyball games for upper class male students at SD Perumnas Condongcatur than the control group. Based on the results of the analysis, the average posttest difference value for the experimental group was obtained20.1667, the mean posttest score for the control group was16.5,seen from the difference in posttest scores of3.66667.

This study aims to determineThe effect of various types of active lower pass drill drills on increasing the accuracy of the lower pass in the volleyball game of upper class male students at SD Perumnas Condongcatur. The analysis was carried out using the t test to determine the effect of practicing various types of active bottom fitting drills on increasing bottom fitting accuracy. The treatment was given for 16 meetings with a frequency of 4 times a

week for 90 minutes each session. Based on the analysis, it shows that this training method has a significant effect on increasing students' lower fitting accuracy.

### **1. Effects of Exercise Various Types of Active Lower Passing Drill Drills**

The analysis results show that there is an increase accuracy of the bottom pass in the volleyball game of upper class male students at SD Perumnas Condongcatur after being given various kinds of active bottom pass drill drills. This is shown by the calculated t value  $= 5,409 > t \text{ table } 2,20$ , and the significance value is  $0.000 < 0.05$ , meaning there is a significant influence. Thus, the hypothesis which states "There is a significant effect of practicing various types of active bottom drill drills on increasing the accuracy of the bottom pass for male students in the upper classes of SD Perumnas Condongcatur", is accepted. This means that practicing various types of active bottom fitting drill drills has a significant influence on increasing students' bottom fitting accuracy.

### **2. The Experimental Group is Better than the Control Group**

The analysis results show that experimental group By practicing various kinds of active bottom drill drills, it was better than the control group in increasing the accuracy of the bottom pass for male students in the upper classes at SD Perumnas Condongcatur. This is shown by t count  $2,902 > t \text{ table } = 2.07$  and sig.  $0.008 < 0.05$ , meaning there is a significant difference between the experimental group posttest and the control group posttest. Judging from the difference in posttest scores between the experimental group and the control group posttest, it was  $3.66667$ . So the experimental group by practicing various kinds of active bottom pass drill drills was better at increasing the accuracy of the bottom pass in volleyball games for upper class male students at SD Perumnas Condongcatur than the control group. Mastering the basic technique of lower passing in volleyball is important because the success of a team in a volleyball match is largely determined by passing. The lower pass technique is always used in the game to receive serve, defend against an opponent's attack or to organize an attack. This lower passing technique must be learned from an early age and is the basis for beginner students to develop other lower passing techniques. When playing volleyball, students are required to always actively move around the field. Because when playing volleyball, the direction the ball will be placed in is not necessarily what is expected, so it requires moving closer to the ball so that it can be positioned well. Apart from being able to be positioned well, the direction of the ball must also be directed towards the feeder so that it is easier for the feeder to organize attacks or make varied passes, so that attacks are not easily read by the opponent. Increased accuracy of the bottom pass in the group that was given various kinds of active bottom pass drill drills, namely one touch bottom pass, 1 touch bottom pass variation, bottom pass combination of two foot steps to the right - to the left, bottom pass a combination of forward rotation and touching the floor. Meanwhile, in the control group, the sample was not given various kinds of active lower pass drill drills, the sample only practiced with their own coach, but the exercises were carried out outside of treatment, for example practice smashes, serves and so on, so that the sample did not experience improvement in passing technique. underneath. When practicing various types of active bottom drill drills, students are required to always actively move around in the field. This will be very helpful because when playing volleyball, the direction the ball will be aimed at is not necessarily as expected, so it requires you to move closer to the ball so that it can be positioned well. Because the effect is still there, it means there is an error in the training program.

### **Conclusion**

Based on the results of data analysis, descriptions, testing of research results, and discussion, a conclusion can be drawn, namely: There is a significant effect of practicing various types of active lower pass drill drills on increasing the accuracy of the lower pass in the volleyball game of upper class male students at SD Perumnas Condongcatur., with t count  $5,409 > t \text{ table } 2,20$ , and a significance value of  $0.000 < 0.05$ , a percentage increase of  $22.22\%$ .

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