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The Effectiveness of the Wall Pass and Diamond Pass Practice Method on Short Passing Accuracy

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Abstract The purpose of this study was to determine the effect and more effective results of the wall pass and diamond pass training methods on the short passing accuracy of players. Information collection was carried out by observing 20 SSB Perseramang players aged 14-17 years old by observing the training process and matches taking place in 2021. Research data was collected by conducting initial tests and final tests using the short passing test instrument to determine the short passing ability of players. The test result data showed that the experimental group 1 had an average initial test score of 3.40 and a final test score of 4.40 with a difference of 1.0 increase. In the test results, the experimental group 2 had an average initial test score of 3.80 and a final test score of 6.10 with a difference of increase of 2.30. The value of the paired difference test for experimental groups 1 and 2 was 0.0001 and 0.000 ($p < 0.05$). This means that the wall pass and diamond pass exercises have an influence on the accuracy of short passing. From the comparison of the average increase in the two groups, this study reveals that diamond pass exercises have a better and more effective effect than wall pass exercises on improving short passing accuracy of SSB Perseramang players aged 14-17 years. The coach should provide diamond pass exercises to improve the accuracy of the short passing of players and supervise the course of practice.

Keywords Wall Pass, Diamond Pass, Accuracy, Short Passing

1. Introduction

Football is a situational team sport, measuring individual and group performance makes it a complex activity [1]. Football is an art and includes many decisions that will determine the outcome of a match [2]. Open play in football includes game transitions after a loss in possession and attacking efficiency [3]. The tension and effort during the game will change depending on the performance on the field [4]. Football games aim to score as many goals as possible against the opponent's goal and keep their own goal so as not to concede a goal from the opponent [5].

Passing ability is very important in the development of young football players [6]. More quality stimuli that players receive, more opportunities they have in improving their skills and knowledge of what to do [7]. The wall pass

exercise method is carried out to improve the accuracy of short passing. Efforts to improve passing techniques can be done with wall pass exercises [8]. The usefulness of doing a wall pass will often occur depending on the conditions between the players involved that are close to each other [9]. Another form of passing practice variation is the diamond pass method. Diamond exercise is a form of passing exercise which is carried out by forming diamonds with the same passing direction then followed by a rotation of positions [10]. Variations of passing exercises that are carried out regularly have an impact on increasing short passing skills. The coach must be able to understand the technical and physical changes of his players during the match in order to provide the correct handling in the next training [11]. Through structured training, a good process will improve the condition of the players [7].

Kick accuracy is an important component in soccer performance [12]. The accuracy of short passes is considered to be related to the skill of maintaining ball possession [2]. Accuracy is the ability of a person to direct something towards a specified target, which can be a distance or a direct object [13]. In football, good passing accuracy will make it easier for colleagues who receive the ball. Players in professional leagues have a high number of successful passes [14]. Goal scoring represents the ultimate goal of football and this is achieved when the player takes an accurate kick [15].

With the advantages of technology that can be applied to sports, performance and analysis are carried out strictly in the coaching process as a basis for providing useful feedback for coaches and athletes [3]. Coaching is carried out because young football players will often be involved in various competitions, both domestic and international [11]. In junior or youth competitions, the format is adapted to the characteristics of the players so the rules are often modified to suit the physical development of children and adolescents [16].

Based on the observations made, it was found that there were still many players who had a low level of short passing accuracy. SSB Perseramang players have not mastered the short passing technique well and still often pass not on target. The purpose of this study is to apply the wall pass and diamond pass training methods so that they can have an effect on increasing short passing accuracy.

2. Materials and Methods

Sample

The population in this study was all SSB Perseramang players, totaling 84 players. Population does not have to mean a number of people. It can also refer to the total number of items or cases that are the subject of our research [17]. The sample used in this study was 20 players from SSB Perseramang KU 14-17 years old. The sampling technique carried out by the researcher was purposive sampling technique. The purposive sampling technique, also called assessment sampling, is a deliberate choice of a participant because of the qualities the participant possesses [17]. The purposive sampling technique is done by taking the subject not based on strata, random or regional but based on a certain purpose [18]. The sample was selected based on certain characteristics, namely SSB Perseramang players in the 14-17 year age group.

Statistical Analytics

Collecting data by making observations at SSB Perseramang in the Cepogo Village area, Boyolali Regency. The sample was taken pre-test data to determine the initial short passing ability. The purpose of implementing the short passing test is to measure the level of accuracy of short passing to a predetermined target. The steps for implementing the Sukatamsi short passing test [19] are as follows:

1. The testee stands behind the kicking line with the ball placed at a point 10 meters in front of the goal or target.
2. The testee is given a signal from the tester to prepare to take a kick.
3. The testee is given the opportunity to kick 10 times. Kicking with the inside of the right foot 5 times and kicking with the inside of the left foot 5 times.

The kick is declared failed if the ball is placed beyond the kick limit or less than 10 meters from the target or the ball is kicked out of the target area. The technique of assessing this test is to calculate the success of the testee or sample in kicking right at a predetermined target. The sample is given 10 kicking opportunities. The assessment is done by counting the balls that enter or pass through the goal with a width of 1 meter and get a value of 1. If the ball goes out or does not enter the target, it gets a value of 0. The final score of the player is the number of balls that enter the target.

The next step is to give treatment or exercise 3 times a week for a total of 16 meetings. About several times the frequency of exercise, it is stated that the frequency of exercise should be practiced at least three times a week [20]. The last step is taking post-test data to determine the final ability of the sample after being given training. The data analysis technique was carried out by conducting a normality test, and then continued with a paired sample t-test.

3. Result

The results of the research short passing scores of 20 SSB Persemarang KU players 14–17 years who were divided into 2 groups with 10 players each are given below. The experimental group I was given the wall pass method of passing exercise and the second experimental group the

diamond pass method of passing. These two training methods are given to increase the accuracy of short passing. The following is the score of each player before and after being given the practice of the wall pass method, which is illustrated in the Experimental Group Passing Score Result Diagram I.

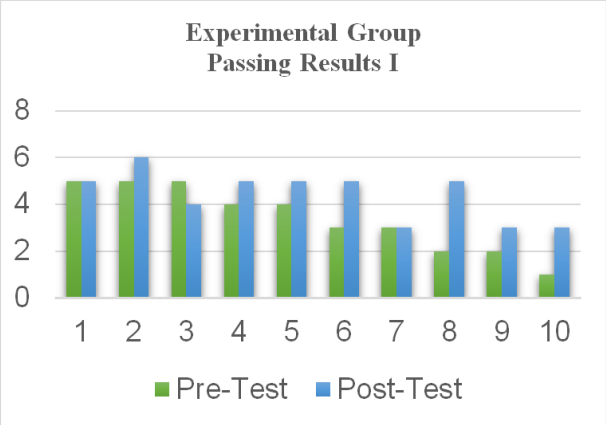

Figure 1. Experimental Group Passing Results Diagram I

Based on data figure number 1 from the passing scores of the experimental group I, it showed that the lowest and highest scores before being given wall pass exercises were 1 and 5, 2 players did not experience an increase or decrease while 7 players experienced an increase in short passing accuracy scores.

Then the other 10 players of SSB Perseramang KU 14-17 years old were also given training with the diamond pass method as the experimental group II. The score results before and after being given passing practice with a diamond pass in the experimental group II are depicted in the Experimental Group II Passing Result Diagram.

Based on data figure number 2, the passing results of the experimental group II showed that there were no players who experienced a decrease in their passing results, 1 player did not experience a decrease or increase (fixed) and 9 players experienced an increase in their passing results. This shows that the players who were given diamond pass training experienced a significant increase. The lowest and highest pre-test scores obtained by SSB Perseramang players respectively were 2 and 5. After being given diamond pass practice, the lowest and highest post-test scores were 5 and 7.

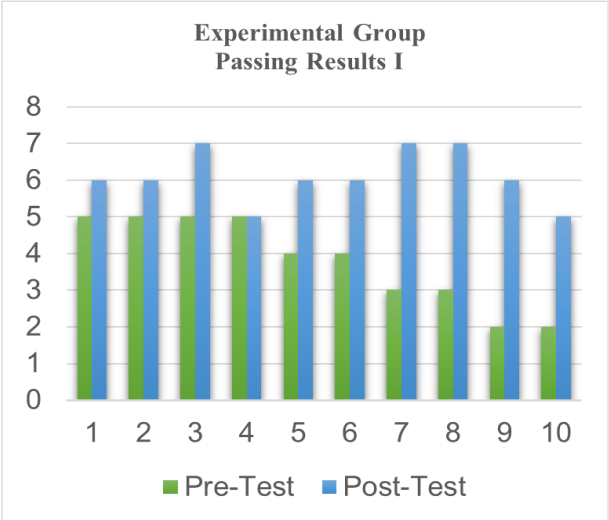

Figure 2. Experimental Group Passing Results Diagram II

Normality Test

The normality test value is used to determine the data is normally distributed. In the short passing test score data on all samples that were carried out for the initial and final tests, they are presented in the normality test table below:

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test					
		PreTest	PostTest	PreTest	PostTest
		Kelompok I		Kelompok II	
N		10	10	10	10
Normal Parametersa,b	Mean	3,40	4,40	3,80	6,10
	Std. Deviation	1,430	1,075	1,229	,738
Most Extreme Differences	Absolute	,168	,312	,236	,254
	Positive	,136	,204	,164	,254
	Negative	-,168	-,312	-,236	-,246
Kolmogorov-Smirnov Z		,533	,985	,745	,803
Asymp. Sig. (2-tailed)		,939	,286	,636	,539

a. Test distribution is Normal.

b. Calculated from data.

Based on data table number 1, the pre-test and post-test scores of the experimental group I were 0.939 and 0.286 respectively, while the test scores of the experimental group II for the pre-test and post-test were 0.636 and 0.539, respectively. Drawing conclusions with a critical level of 0.05, it is known that the significance value for the results of the pre-test and post-test experimental groups I and experiment II is more than 0.05 ($p > 0.05$) so that it can be concluded that the data comes from a normally distributed population. So that it can be continued with the paired sample test (paired sample t-test).

Paired Sample T-Test

After the requirements test which includes the normality test, it is stated that all data groups are normally distributed. Then the test requirements are declared eligible, so that it can be continued with hypothesis testing. The initial hypothesis (Ho) states that there is no effect of training on short passing accuracy for SSB Perseramang KU 14-17 players in 2021. The alternative hypothesis (H1) states that there is an effect of training on short passing accuracy for SSB Perseramang KU 14-17 players in 2021. The alternative hypothesis (H1) is accepted if the significance value is less than 0.05 ($p < 0.05$).

The significance value from data table number 2, the paired sample t-test of the experimental group I was 0.023, less than the critical level of 0.05 ($p < 0.05$) so that the alternative hypothesis (H1) was accepted and it could be concluded that there was an effect of the wall pass exercise method on increasing accuracy, short passing to SSB Perseramang KU players 14-17 years old.

The significance value from data table number 3, the paired sample t-test experimental group II is 0.001, less than the critical level of 0.05 ($p < 0.05$), so that the alternative hypothesis (H1) is accepted and it can be concluded that there is an effect of the diamond pass training method on increasing accuracy of short passing for SSB Perseramang KU players 14-17 years old.

4. Discussion

The Effect of Wallpass Training on Short Passing Accuracy

The efficiency of a players or team in passing can be measured in term of accuracy [21]. Wall pass exercises are used to improve the direction of the accuracy of the bottom pass in football games [8]. Muscle activity can be believed to affect muscle strength and size in the long term [22]. In the implementation of the experimental group I's passing exercise which was given a wall pass exercise, the sample did a pre-test to determine the initial ability as a benchmark for the player's basic skill level. The wall pass is a very special pass because its performance involves a combination of two players, the goal of which is to get a blank space for the player who started the wall [23]. Based on the results of the test and data processing, the lowest score was 1 and the highest was 6. After all samples had tested 10 times with the right and left feet, the next step was to give a wall pass exercise. Club players performed better than drop-outs in dribbling speed and wall passes [24].

Table 2. Paired Sample T-Test Experiment Group I

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Pos t-Test	-1,000	1,155	,365	-1,826	-,174	-2,739	9	,023

Table 3. Paired Sample T-Test Experiment Group II

Paired Samples Test									
		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Pos t-Test	-2,300	1,418	,448	-3,314	-1,286	-5,129	9	,001

The training was given 3 times a week for a total of 16 meetings with an intensity of 70%-85%. Then the sample will be post-tested to determine the final ability after being given training or treatment. From the results of the post-test scores, the highest score is 6 and the lowest is 3. From the results of the pre-test and post-test passing of SSB Perseramang KU players 14-17 years old, the average pre-test score is 3.40 and the post-test score is 4.40, so that the average difference or increase in the passing score results is 1.0. Wall passes are a great solution to open gaps when defenders are too tight in the area [25]. The application of the wall pass pattern will be better if it is supported by good Inter Team Communication (ITC) [26].

The Effect of Diamond Pass Practice on Short Passing Accuracy

The higher the passing accuracy of the players in the match, the more interesting the match will be to watch [27]. In the application of passing exercises to the experimental group II who were given diamond pass training, the sample did a pre-test to determine the initial ability as a benchmark for the player's basic skill level. One-group post-test pre-test design was adopted to examine changes in students' self [28]. Diamond passing practice has an effect on players' passing and control abilities [29] .

Based on the results, the lowest score was 2 and the highest was 5. After all samples had tested 10 times with the right and left feet, the next step was to give a diamond pass exercise. The training was carried out 16 times with an intensity of 70%-85%. Then the sample will be post-tested to determine the final ability after being given training or treatment. From the results of the post-test score, the highest score was 7 and the lowest was 5.

From the results of the pre-test and post-test passing of SSB Perseramang KU players 14-17 years old, the average pre-test score was 3.81 and the post-test score was 6.10 so that the average difference or increase in the passing score was 2.30. There is an effect of diamond passing practice on ground pass accuracy [30]. These results are in line with research from Azmil Age et al, in their journal entitled "The Effect of Diamond Pass Exercises with 1:1 Intervals on Passing Ability in Football Games" with results showing that diamond pass exercises affect the passing ability of soccer players [10].

The Effectiveness of Wall Pass and Diamond Pass Exercises to Increase Short Passing Accuracy

Kicking the ball is a technique that is done by pushing the ball with the feet. The main goal is to kick the ball to pass the ball, clear the defensive area and score goals into the opponent's goal [31]. Passes in football are meant to escape pressure applied by opposing players, advance in the match, keep the opposing team in control, and provide opportunities to score goals [23].

It is known that the wall pass training method has an effect on increasing the passing accuracy of SSB Perseramang KU players 14-17 years old. Then, giving the diamond pass training method to SSB Perseramang KU 14-17 players which was carried out at the same time also had a significant effect on the short passing accuracy of players. With these two exercises, players can improve passing accuracy so that it helps in the process of mastering the game in a match. Attacking transitions made by passing quickly by involving midfielders and forwards will result in more goals [32].

The main purpose of diamond passing practice is to improve the quality of passing and control of players to avoid the ball being snatched by the opponent and to accelerate the movement of the ball in competition or practice [29]. The results of the pre-test and post-test scores of the experimental group I with the wall pass exercise method have a value of 3.40 and 4.40 respectively so that the average passing test score increases by 1. While the results of the pre-test and post-test scores, the experimental group II test with the diamond pass training method had a value of 3.80 and 6.10 respectively so that an increase in the average passing test score was 2.30. There is a significant effect of diamond pass training on the level of accuracy of football passing [33]. Based on the results of this study, coaches can incorporate wallpass and diamond pass practice pattern with varied players and techniques, in the long term in accordance with adaptation and skill development [34].

Table 4. Score Results Mean

Group	Mean		
	Pre-Test	***Post-Test***	**Difference**
Experiment I	3,40	4,40	1,0
Exeriment II	3,80	6,10	2,30

5. Conclusions

Based on the results of the research, data analysis and discussion of research results, it was concluded that there was an effect of the wall pass method of passing practice on increasing the accuracy of short passing in SSB Perseramang players KU 14-17 years old. There is also the effect of passing practice with the diamond pass method on increasing passing accuracy for SSB Perseramang KU players 14–17 years old. The application of the passing practice with the diamond pass method is better and more effective than the wall pass method in increasing the passing accuracy of SSB Perseramang players KU 14–17 year old.

Based on the results of the study, the suggestion from the author is that it is better for a football player aged 14-17 years to add passing practice with the wall pass and diamond pass methods so that the level of short passing

accuracy can increase and achieve better performance. Coaches and football players can apply drills with the diamond pass method to increase the accuracy of passing down more effectively. In the application of the diamond pass training method, it needs to be done regularly with supervision from the trainer to get maximum results

Supporting Agencies

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Disclosure Statement

No potential conflict of interest was reported by the authors.

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