The Effect of Ballhandling and Agility Training on Extracurricular Women's Basketball Dribble at Public Vocational High School 1 Kedawung

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Article Info

Abstract

This research is motivated by the achievements of students who take extracurricular basketball at Public Vocational High School 1 Kedawung female participants due to poor dribble skills. The purpose of this research is to analyze the difference between the dribble crossover method and the two ball dribble method to the basketball dribble results the difference in the effect of high and low agility on basketball dribble results. Interaction of methods and agility to basketball dribble results. The method used is an experiment with 2x2 factorial design. Research Samples 24 female participants were taken by random technique from a total of 44 female participants. The instrument of agility illonis agility test. The instrument measures dribble using the basketball dribble test. ANOVA data analysis techniques were significant $\alpha = 0.05$. Data collection techniques use the illonis agility test to measure agility and the basketball dribble test to measure dribble. The result of the research is that there is a difference in the effect of the method of ball-handling crossover dribble and two ball dribble exercises on the average basketball dribble yield of 9.917 while the average two-ball dribble is 8.333. There are differences in the effect of high and low agility on basketball dribble results. The average results of the high agility group of 9.750 low agility group of 8.500. There was an interaction of ball handling, and agility exercises, dribble ball handling crossover exercises with high agility of 11.167 were greater than the ball-handling two-ball dribble method by an average of 8.333.

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INTRODUCTION

Basketball games and sports can form a healthy young generation, unyielding spirit, enthusiasm, and high discipline, which will directly have implications for student learning productivity and student achievement. It is said so because there are many values that can be taken in the game of basketball including being together in a team, never giving up in facing every match to be the best, high morale to be the best, discipline in undergoing training and during the game to get the foremost, responsibility in carrying out certain positions as a player, and so forth (Faruq, 2009).

In general, the game of basketball has elements that must be mastered in addition to shooting techniques, which must be mastered and considered in the basketball game, namely: throwing and catching the ball, dribbling, footwork techniques, pivoting, techniques of deception fakes, and rebounds. In the game of basketball, there are several elements that influence, including physical endurance fitness, agility, flexibility, speed, coordination, decision making quickly motor movement, and strength. This element is the basis for the basketball game to run competitively. This element must always be trained in a programmed manner so that the players maintain their physical condition and play methods when the basketball game is held.

To improve performance, it is, of course, necessary to improve the basic techniques of basketball sports such as passing, dribbling, and so on following applicable regulations. Through a variety of techniques, players get the chance to improvise movements like *bounce pass*, *lay-up*, *spin dribble*, and *behind the back dribble*. *Dribble* is one of the most dominant basic techniques used in basketball. Because of its use, namely to bring the ball forward or to the opponent's area in addition to passing.

Revealed by Kosasih, and Santoso (2008) that dribble is a movement that must lead to *the ring*. Dribbling techniques are an inseparable part of the game of basketball. Dribbling is an assault weapon that must be mastered by every player. Improving dribbling skills, players need to have agility and agility in playing. The agility of the player influences the ability of the team. Such agility can be used in techniques dribble to get past an opponent quickly; rarely an athlete can do agility by doing dribble because when dribbling the athlete's ball cannot control the ball when it is reflected the floor.

Agility in basketball is very influential because of the characteristics of basketball which have elements of dribbling, passing, catching, and shooting. With these characteristics, the basketball game requires high agility to outwit opponents with dribbles or with movements without the ball. Strength is an element of physical condition that is very important in sports because it can help improve components such as speed, agility, and accuracy, Nurhidayah, Rahayu, and Waluyo (2014).

According to Resanto, Soegiyanto, and Rahayu (2012) every basketball player when going to attack the opponent's area must be preceded by dribbling in advance, both by the player positioned as a forward, guard and center. One interesting side of the basketball game is that it dribbles in both direction and speed through the opponent and then puts the ball into the basket.

There are several motors for dribble basketball training that can be used including ball handling training methods crossover dribble and two ball dribble, methods of implementing the implementation of plans that have been prepared in training activities so that objectives are achieved, in the training process the training methods are needed to help achieve the training objectives, the more appropriate the training method is, the more effective and the training objectives will be achieved, Darmawan (2013).

Dribble skills in addition to being influenced by external factors such as the training method used, also influenced by internal factors, one of the internal factors that affect dribble skills according to Supian (2014) is a physical ability as well as strength, speed, agility, balance, endurance, power, and eye and hand coordination, when the game takes place often there is a loss of the ball due to lack of exploitation of the ball in the dribble, can easily be captured by the opposing player and

sometimes lose the ball due to his own mistakes. Researchers took the basketball dribble test with a few female extracurricular female participants of Public Vocational High School 1 Kedawung, Cirebon District during the training. With the results of dribble skills that are still low. Therefore, the researcher wants to know the effect of ball handling and agility training methods on basketball dribble skills.

The objective to be achieved through this research is to analyze the difference in influence between ball handling training methods and agility on basketball dribble skills. The results of this study are expected to be a reference material for further research in developing basketball playing skills so that one's basketball playing skills can develop well so that basketball playing achievement increases.

METHODS

The research method used in this study is an experimental, research design used in a 2x2 factorial design. Experimental research is research that is used to look for the effect of certain treatments on others under controlled conditions, the controlled conditions referred to are the results of the research being converted into

numbers, for the analysis used is to use statistical analysis (Sugiyono, 2015).

The possibility of a moderator variable that influences the independent treatment variable of the outcome of the dependent variable. This means that two factors are studied. The first factor is the effect of dribble crossover training methods and agility on basketball dribble skills. The second factor is the effect of two ball dribble training and agility on basketball dribble skills. In this study, treatment was given for 12 meetings with three meetings each week.

According to Kardiyono, Dumadi, and Khomsin (2014) states that exercise with a frequency of three times a week will provide an opportunity for the body to adapt to the training load received.

RESULTS AND DISCUSSION

The research data obtained in this study are the results of the initial test (pre-test) and the final test (post-test) dribbling ability. Preliminary test data is data of test results at the beginning of the study before being given, or the treatment (treatment) and the final test data is the data of the final test results after being given or the treatment.

Table 1. Pre-test and Post-test Result Data of High Agility

No.	Dribble two ball			Dribble cross over		
	Pre-test	Post-test	Difference	Pre-test	Post-test	Difference
1	6	8	2	5	8	3
2	7	10	3	6	7	1
3	7	9	2	6	9	3
4	5	7	2	5	8	3
5	5	8	3	7	9	2
6	4	8	4	6	9	3
	Average		2.67	Average		2.5

Table 2. Pre-test and Post-test Result Data of Low Agility

No.	Dribble two ball			Dribble cross over		
	Pre-test	Post-test	Difference	Pre-test	Post-test	Difference
1	6	10	4	5	8	3
2	7	12	5	9	11	2
3	5	10	5	6	8	2
4	4	10	6	8	10	2
5	7	11	4	7	9	2
6	11	14	3	5	6	1
	Average		4.5	Average		2

Normality Test from pre-test and post-test data on basketball dribble ability The significance value used in this study was α

0.05. Therefore, referring to the significance value, the hypothesis proposed in this study is rejected H_0 if the significance value > α 0.05, thus

the research results can be said to be normally distributed.

Table 3. Normality Test Results

Test	Group	Kolmogorov-Smirnov[a]		
		Statistic	df	Sig.
Pre-test	A_1B_1	.209	6	.200*
	A_1B_2	.254	6	.200*
	A_2B_1	.279	6	.160
	A_2B_2	.180	6	.200*
Post-test	A_1B_1	.293	6	.117
	A_1B_2	.293	6	.117
	A_2B_1	.267	6	.200*
	A_2B_2	.185	6	.200*

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

Based on the results of the normality test using the Liliefors test with the help of SPSS, the initial test results and the final test results obtained are $p_{values} > \alpha_{value}$ of 0.05. Because the $p_{value} > \alpha_{value}$ of 0.05, the initial test results data and the final test dribbling ability are normally distributed.

Homogeneity test from the pretest and posttest results of basketball dribble skills The purpose of this test is to find out and test whether the research sample used in this study has the same variance homogeneous or not. The hypothesis proposed in this study is the hypothesis is rejected if the $p_{value} > \alpha_{value}$ of 0.05. Therefore it can be concluded that the samples used in this study are from the same group homogeneous.

Table 4. Homogeneity Test Results

Test	Levene statistic	df_1	df_2	Sig.
Pre-test	1.532	3	20	.237
Post-test	1.177	3	20	.343

Based on the results of homogeneity test data on the initial test and the final test of dribbling ability using the Lavene test with the help of SPSS, the p value> α of 0.05 was obtained. Therefore it can be concluded that the research sample used in this study came from the same group homogeneous.

Then the results of the hypothesis test from this study are there are differences in the effect of the dribbling ball handling crossover training method, and two ball dribble res and two ball dribble on the results of basketball dribble on

female extracurricular participants of Public Vocational High School 1 Kedawung Cirebon

Table 6. Basketball Dribble Skill Improvement Results

Ball handling	Mean	Std. error	95% confidence interval	
			Lower bound	Upper bound
Two ball	8.333	.392	7.516	9.151
Cross over	9.917	.392	9.099	10.734

The results of the analysis showed that there were significant differences in the method of ball-handling crossover dribble and two ball dribble training for female extracurricular participants at Public Vocational High School 1 Kedawung Cirebon, as evidenced by the ANOVA test results obtained by $F_{value} = 8.167$ with significant values = .010, with a significant level of 0.010 < 0.5.

Dribble crossover training is better than two ball dribble in improving dribble skills. The dribble crossover training method has an average increase in dribble skills of 9.917 while the two-ball dribble has an average increase of 8.333.

Then it can be seen that the ability of basketball dribble increases by using the dribble crossover ball handling training method rather than the two ball dribble ball handling training method. The results of this study support the results of previous studies, Suriani (2018) that there is a significant effect of crossover training on dribbling learning outcomes in basketball games

There is a difference in the effect of high and low agility on the results of basketball dribble on female extracurricular participants of Public Vocational High School 1 Kedawung Cirebon.

The results of the second hypothesis test, there are differences in influence between participants who have high agility and participants who have low agility on dribble skills. It can be seen in Table 7 that the calculation results using the two-way ANOVA test obtained $F_{value} = 5.090$ with a significance value of 0.035 < 0.05.

The results of this statistical test show that the high agility group is better than the low agility group on dribble ability. This can be seen from the average results obtained by the high agility

group of 9.750 greater than the low agility group, which obtained an average of 8.500.

Table 7. Estimated Marginal Mean for The Agility of Dribble Ability

Agility	Mean	Std. error	95% confidence interval	
			Lower bound	Upper bound
Low	9.750	.392	8.933	10.567
High	8.500	.392	7.683	9.317

According to Gafur (2014) agility is needed when dribbling a basketball to be able to always move according to the situations and conditions faced by participants, and if participants do not have agility, it will be difficult to dribble by changing direction or place. According to Fatahillah (2018) agility is an attempt by a person to run his whole body to contribute to the ability of dribbling basketball in different situations and directions that change rapidly with short movements of time without losing balance.

The third hypothesis is the interaction between ball handling training methods and agility towards basketball dribble skills in female extracurricular participants at Public Vocational High School 1 Kedawung Cirebon.

Table 8. Two-way ANOVA Statistics Results

Source	Type iii sum of squares	df	Mean square	F	Sig.
Ball handling * Agility	9.375	1	9.375	5.090	.035

Anova calculation results as in Table 8 show that the third hypothesis testing is the interaction between ballhandling training methods and agility to the ability of basketball dribble skills in female extracurricular participants at Public Vocational High School 1 Kedawung Cirebon shows that $F_{value} = 5.090$ with a significant value of 0.035 can be concluded that there is an interaction between training methods. Ball handling and agility in female extracurricular participants at Public Vocational High School 1 Kedawung Cirebon.

As explained by Reynaud (2011) explains agility is the most important thing in a variety of sports. This is considered to be rapid body movement with changing directions, usually based on responses to certain types of cues.

Singh, Boyat, and Sandhu (2015) agility is the ability to maintain or control body position while quickly changing direction during a series of movements.

After being tested, there was an interaction between the method of ball handling training two-ball dribble and crossover dribble and agility high and low to the basketball dribble skills of female participants in the extracurricular basketball of Public Vocational High School 1 Kedawung Cirebon.

Figure 1. Interaction Results of Ball Handling Training Methods and Agility against Dribble Skills
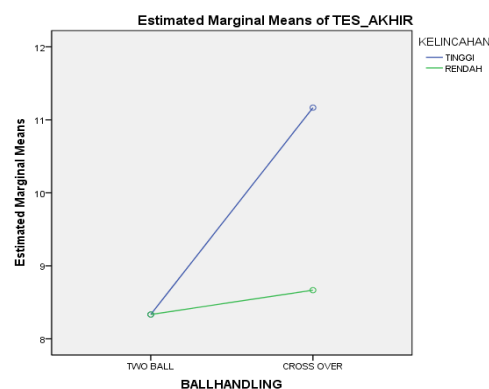
CONCLUSION

There is a significant difference in the effect of the training method of ballhandling crossover dribble and two ball dribble on basketball dribble skills in female extracurricular participants at Public Vocational High School 1 Kedawung Cirebon. 2. There is a significant difference in effect between participants who have high agility and participants who have low agility on basketball dribble skills in female extracurricular participants at Public Vocational High School 1 Kedawung Cirebon. 3. There is an interaction between the dribble, two ball dribble ballhandling crossover training methods and the agility to the basketball dribble skills of female participants in extracurricular Public Vocational High School 1 Kedawung Cirebon.

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