THE EFFECTIVENESS OF BASKETBALL SHOOTING TRAINING MODEL ON IMPROVING SHOOTING CAPABILITIES OF BASKETBALL PLAYERS IN PASURUAN REGENCY

Hendra Mashuri*
Nusantara University of Kediri of United of Teachers in Indonesia Republic*
hendramashuri@unpkediri.ac.id*

Abstract

Shooting in a basketball game plays an important role in achieving the goal of the basketball game. Given that the basketball game tip is to insert the ball into the opponent's basket, therefore a good shooting technique is owned by every bolabasket player. Efforts to improve basketball shooting skills by using a basketball shooting practice model through a combination approach. The model combines shooting and physical engineering components supporting shooting techniques and using dill and games methods. The purpose of this research is to test the effectiveness of basket ball shooting practice model through combination approach. The research approach used is quantitative. This type of research is an experiment with randomized control group pre-test post-test design. The population of this study was a total of basketball players in Pasuruan District, the sample of this study amounted to 120 with 60 as the experimental group and 60 players as the control group. The data retrieval used is battery test shooting. Data analysis technique using t-test.The results showed that basketball shooting practice model through combination approach can improve basketball shooting ability with t-count value 33,262> t-table 2,00. So it can be concluded that the model of basketball shooting practice is effective against improving the shooting ability of basketball players.

Keywords: Basketball Shooting, Combination Approach.Training Model.

The basketball game is a game played by two (2) teams each of five (5) players. The goal of each team is to print the numbers into the opponent's basket and try to prevent the opposing team from scoring numbers (Perbasi, 2012: Article 1, paragraph 1). Attempts to score a number by inserting the ball into an opponent's basket in accordance with the rules of the bolabasket game. To facilitate the effort must be supported by several factors: physical factors, techniques, tactics, and also mental.The basket ball game has some basic techniques that can help the player to reach the goal of the basketball game. But a very important technique is shooting technique, because just by doing a shot, the basketball team can score and win the game. Shooting is the most important skill in basketball. The fundamental skills of passing, dribbling, defense, and rebound may enable you to get high percentage of shot, but you must still be able to make the shot (Wissel, 2012). The basketball shooting ability must be mastered by every player because every player has a chance to score and can provide high satisfaction for players who can insert the ball into a basketball basket (Paye and Paye, 2013). Shooting ability should be done well and right from the start, if not done incorrectly it will be difficult for players and coaches to fix it so that the shots are ineffective and efficient (Paye and Paye, 2013).

they's opinion in Chi-Yang Tsai, Wei-Hua Ho, Yun-Kung Lii, and Chin-Lin Huang (2006) about the shooting that shooting is the most frequently used technical Action. That opinion means that shooting is the basic way to get value in a basketball game and for that reason shooting is often done. Priyanto (2011) points out that the victory in the basketbal game is always determined by the number of balls that go into basketball or basket counted with numbers. The more teams get the numbers, so the team is the winner. The attempt to put

the ball into a basket or basket is shooting. So shooting is a technique that can determine the victory of a basketball team. Ranjith and Kumar (2014) provide a method or way of shooting that is generally used is a player facing a basket with feet shoulder width apart, knees slightly bent, and back straight. The basketball player places the ball at the fingertips of the dominant hand and is above the head, with the other hand supporting the sides of the ball. To shoot the ball, the player's elbow should be aligned vertically with the sleeve facing the basket. The ball is fired by extending the bent corner of the knee and straightening the arm used for shooting. The ball rotates from the fingertips and the wrist supports with a flexible move downward. When firing, the arms are in a straight position with the wrists bending down and the fingers pointing down. There is a stationary moment after releasing the ball, this is usually called a follow-through, and if done correctly will improve the accuracy of the shot.

Basic shooting techniques have a variety of types, namely set-shot, lay-up shot, and jump-shot. Set-shot is performed in a standing position with the feet not leaving the floor, usually used for free-throw (Nathial, 2014). Jump-shot is a type of shot by adding a jump when shooting (Kosasih, 2008). While lay-up shot is used near the basket after a cut or drive (Wissel, 2012). The three basic types of shooting techniques must be mastered properly and correctly by every basketball player. Therefore every basketball player should do intensive training in order to get good shooting ability and true.

Training to improve shooting basketball shooting techniques always through the shooting technique training phases, the funmental stage, practice stage, and automatic stage (Martens, 2012). Mental stage is an exercise that makes the players' brains look for relationships with previous activities that have been learned, look for easy movement patterns, and start building new neural connections. Practice stage is an exercise to improve the quality of the exercises to improve the technique that is lacking in the fundamental stage. Automatic stage is the stage of motion training that is adjusted to the condition of the game, where players will perform good shooting and true when in a condition ready to shoot. The ability to attract basketball players apart from being influenced by firing skills, is also influenced by the physical conditions that support it. Tangkudung and Puspitorini (2012) suggest that basketball shooting techniques are always supported by basic biomotor skills, namely strength, flexibility, endurance, precision, and coordination. Therefore, to improve the basketball shooting skills, need to be improved also basic biomotor components that support the skills of shooting basketball players. So the basketball shooting practice model by combining the shooting technique practice and the basic biomotoric support capability is perfect for producing players with good and correct shooting abilities.

Combined combination exercises are skills training combined with other aspects that support such skills (Gordon, 2009). Exercise by combining the components of the needs contained in a sport can improve motor performance significantly even greater than the program done separately (Sebastian and Nageswaran, 2016). Thus combining the engineering and physical training of supporters is an exercise model that is capable of significantly improving motor performance and greater influence from individual exercise programs.

The combination-style exercise also incorporates two or more training methods in practice practice (Lumintuarso, 2013). The incorporation of the exercise model is used to increase the power output or optimization of the energy generation capacity that allows for greater output increases from larger energy delivery from individual training due to the more comprehensive biomotic increase (Haff and Nimphius, 2012). Vickers (2003) mentions that combining components (physical and engineering) in exercises that combine drill and play is a "smart-combination" because in the exercise the movement is coupled and supported by physical enhancement, which is wrapped with drill methods for enhancement capabilities that are then adjusted With the method of playing to automatically movement when facing the real game.

The basketball shooting practice model with combination approach also combines drill and play drills. Drill exercises are applied during the fundamental stage and practice stage. Exercise with play approach is applied during automatic stage. Drill training is done by doing repetition by observing the principle of practice. While the exercise with a play approach adjusted to the conditions of the basketball game .

The combination of shooting and physical training exercises supporting shooting capability wrapped with a combination of drill and games methods in one model is believed to be able to improve the shooting ability of a basketball player. This is based on in one basketball player practice doing shooting technique training and physical training supporting shooting with drill and games method that makes players not feel bored, even fun.

METHOD

The approach of this research is quantitative where the data obtained is data in the form of numbers. The type of research used is experiment with bolabasket shooting model through combination approach as treatment. The design of this study was randomized control group pre-test post-test. The population in this study was a basketball player in Pasuruan district who registered in the basketball club. The sample of this study is 6 players in each basketball club. The number of basketball club sampled is 5 clubs, so the number of sample research is 60 basketball players. The control group used the same amount of 60 players with conventional exercise treatments.The research instruments used are basketball battery shooting test consisting of set-shot test, 2-point jump-shot test, 3-point jump-shot test, and lay-up shot test. Some of the test items have been tested for validity and reliability. The set-shot test item gets a validity score of 0.92 (> 0.36), a 2-point jump-shot test obtains a validity score of 0.74 (> 0.36), a 3-point jump-shot test obtains a validity value of 0.8 (> 0.36), and the lay-up shot test obtained a validity score of 0.92 (> 0.36). Based on these values then the battery test basketball shooting declared valid. The reliability value of battery test basketball shooting is 0.63 (> 0.36), it can be declared reliable. Data analysis techniques begins by descripting raw data first. Then continued with different or average test. The technique used is the mean difference test between groups using t-test. To facilitate the calculation, researchers used the program SPSS 16.0 for Windows.

RESULT

Data Description

Data description shows illustration data of the pre-test and post-test result from experiment group and control group. See the table.

Table 1. Data description of pre-test and post-test shooting basketball group experiment

	***Shooting* of Basketball (Exp)**		
	Pre-test	***Post-test***	**different**
Average	37,65	53,32	15,67
SD	3,01	4,14	3,65
Varian	9,04	17,17	13,31
Maks	44,00	61,00	23,00

Min	31,00	46,00	9,00
%	41,61		

Based on the table above, can be concluded that the average of pre-test from shooting basketball ability in experiment group is 37,65, meanwhile the average of post-test is 53,32. The average of differences is 15,67. That thing shows that there are an increasing ability in shooting in the amount of 41,61%.

Pre-test shooting of basketball data shows standard deviation 3,01 with varian 9,04. Data of post-test is 4,14 with varian 17,17. While the data different between pre-test and post-test show 3,65 with varian 13,31. Maximal value of post-test is 61 and minimal is 46. Maximal value of differences between pre-test and post-test is 23 and minimal is 9.

Table 2. Description data of pre-test and post-test basketball shooting group control

	***Shooting* of Basketball**		
	Pre-test	***Post-test***	**Different**
Average	36,55	40,07	3,52
SD	3,23	3,98	3,54
Varian	10,46	15,83	12,53
Maks	43,00	51,00	12,00
Min	30,00	32,00	-5,00
%	9,62		

Based on the table above, can shows that the average of pre-test basketball shooting ability control group is 36,55, meanwhile the average of post-test is 40,07. The different average of basketball shooting ability is 3,57. There are increase ability of basketball shooting in the amount of 9,62%.

Pre test data of basketball shooting shows standard deviation 3,23 with varian 10,46. Post-test data shows 3,98 with varian 15,83. While the different shows 3,54 with varian 12,53. Maximal value of post-test is 51 and minimal is 32. Different maximal value in pre-test and post-test is 12 and minimal value is -5.

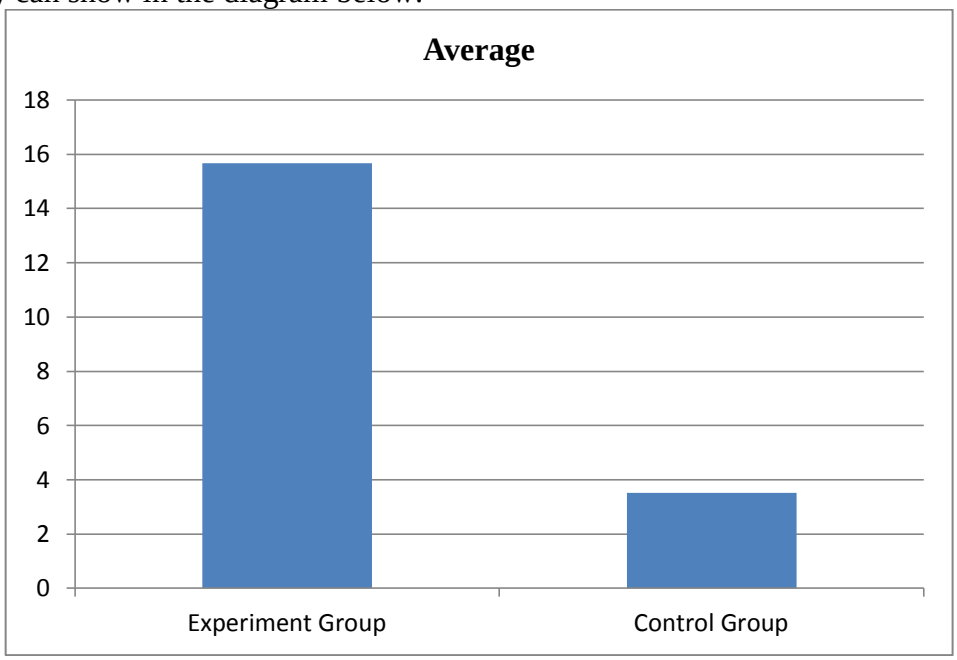
From that, it can be concluded that data description between control group and experiment group is like the details below.

Table 3. Recapitulation of data description between experiment group and control group

Group	**Average**		
	Pre-test	***Post-test***	**Different**
Experiment	37,65	53,32	15,67
Control	36,55	40,07	3,52

From the table above shows that in experiment group, the average of shooting ability in pre-test is 37,65. In post-test is 53,32. The change of shooting ability after doing the treatment of shooting model through combination approach is 15,67 . While in control group, the average in pre-test is 36,55. And post test is 40,07. The change of shooting ability is 3,53. From the details show that the basketball shooting model through combination approach

increase the basketball shooting ability. The increase and the different of basketball shooting ability can show in the diagram below:



Graph 1. The different result of the coaching between experiment group and control group

From the graph 4.1 know that experiment group using model of basketball shooting practice through combination approach give more increasing from experiment group that use conventional practice.

Effectiveness exam

Exam result of different average in experiment group is:

Table 4. Different exam result (paired sample t-Test) experiment group

Paired samples test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
PostTestExp - PreTestExp	1.56667E1	3.64839	.47100	16.60915	14.72419	33.262	59	.000

From the comparation value t-amount and t-table can concluded that Ho rejected and Ha accepted because value of t-amount= 33,262 > t-table = 2,00. In other words there is a significant increasing from the giving model of basketball shooting through combination approach toward the ability of basketball shooting player.

Result of the different average in control group is:

Table 5. Result of the different exam (Paired sample t-test) control group

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	PostTest Kont – PreTestKont	3.51667	3.53909	.45689	2.60242	4.43091	7.697	59	.000

From the comparation value t-amount and t-table can concluded that Ho rejected and Ha accepted because value of t-amount= 7,697 > t-table = 2,00. In other words there is a significant increasing from the practice conventional shooting toward the ability of basketball shooting player.

Result of the different average is:

Table 6 Result of different exam (paired sample t-test) experiment group and control group

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	Experiment group – Control Group	1.21500E1	5.16121	.66631	10.81672	13.48328	18.235	9	.000

From the comparation value t-amount and t-table can concluded that Ho rejected and Ha accepted because value of t-amount= 7,697 > t-table = 2,00. In other words there is a significant differences from the basketball shooting model through combination approach and conventional shooting practice toward increasing ability of basketball shooting. So it can be concluded that practice model of basketball shooting through combination approach is more effective to increase the shooting ability to basketball player than using conventional shooting practice.

DISCUSSION

Based on the results of data analysis, it can be concluded that the basketball shooting practice model through a combination approach effectively improves the shooting ability of basketball players. Training by combining technical and physical exercises provides enhancements to the physical supporting shooting set a balanced by the use of good and correct techniques. Combining skills with skills support aspects is an effective and efficient way to improve those skills (Gordon, 2009). Skill in question is a basketball shooting

technique combined with supporters in the form of biomotoric ability basketball shooting.Training by combining several components in basketball shooting skills can improve basketball shooting skills. This is justified by Sebastian and Nageswaran (2016) which indirectly states that the exercise by combining the components of the needs contained in a sport is able to improve motor performance significantly even greater than the program done separately.

In addition, the basketball shooting practice model with a combination approach that incorporates two training methods has a positive impact on improving basketball shooting skills. This is an excellent strategy of training so as to have a very positive effect on practice management practice and practice time (Andrejic, 2012). Exercise by combining two methods is highly desirable to increase the power output (Haff and Nimphius, 2012).

Based on these explanations it is very clear that the basketball shooting practice model through a combination approach can provide enhancement of basketball shooting skills empirically and theoretically. So this shooting practice model can be a solution to the problems and meet the expectations of the coach and basketball players will need a more effective and varied model of exercise.

CONCLUSION

After analyzing the data and discussion of research results, it can be concluded that the model a basketball shooting practice through a combination of effective approach to improve the shooting ability of basketball players. The basketball shooting practice model through a combination approach is also more effective in enhancing basketball shooting skills than conventional exercises.

REFERENCES

Andrejic, Ognjen. 2012. "The Effects Of A Plyometric And Strength Training Program On The Fitness Performance In Young Basketball Players". *Physical Education and Sport* Vol. 10, No 3.

Gordon, Dan. 2009. *Coaching Science*. Cornwall: Learning Matters Ltd.

Haff, Gregory dan Nimphius, Sophia. 2012. "Training Principles for Power". *National Strength and Conditioning Association*, Vol. 34, No. 6.

Hey dalam Tsai, Chi-Yang, Ho, Wei-Hua, Lii, Yun-Kung, dan Huang, Chin-Lin. 2006. "The Kinematic Analysis of Basketball Three Point Shoot After High Intensity Program". *XXIV ISBS Symposium, Salzburg-Austria.*

Kosasih, Danny. 2008. *Fundamental Basketball. First Step to Win.* Semarang: Karangturi Media.

Lumintuarso, Ria. 2013. *Teori Kepelatihan Olahraga.* Jakarta: Kementrian Negara Pemuda dan Olahraga.

Martens, Rainer. 2012. *Successful Coaching. Fourth Edition*. Champaign, IL: Human Kinetics.

Nathial, Mandeep Singh. 2014. "Analysis of Set Shot in Basketball in Relation with Time to Perform the Course and Displacement of Center of Gravity". *American Journal of Sport Science*, Vol. 2 (5).

Paye, Burrall dan Paye, Patrick. 2013. *Youth Basketball Drills. Second Edition*. Champaign, IL: Human Kinetics.

Perbasi. 2012. *Peraturan Resmi Bolabasket 2012*. Jakarta: PB Perbasi.

Priyanto. 2011. "Pengaruh Metode Latihan dan Power Tungkai terhadap *Shooting* Free Throw". *Jurnal Media Ilmu Keolahragaan Indonesia*, Vol. 1 (2).

Ranjith, P. dan Kumar, P. Rajini. 2014. "Biomechanical Analysis of Set Shot in Basketball". *STAR Physical Education*, Vol. 2, Issue 11 (1).

Sebastian, Princy dan Nageswaran, A.S. 2016. "Impact of Combined Training Modulates Technical Parameters of Basketball Players". *Global Journal for Research Analysis* Vol. 5, No 6.

Tangkudung, James dan Puspitorini. 2012. Wahyuningtyas. *Kepelatihan Olahraga. Pembinaan Prestasi Olahraga, Edisi II*. Jakarta: Cerdas Jaya.

Vickers, Joan N. 2003. "Decision Training: An Innovative Approach to Coaching". *Canadian Journal for Women in Coaching*, Vol. 3, No 3.

Wissel, Hal. 2012. *Basketball Steps to Success. Third Edition.* Champaign, IL: Human Kinetics.

Yusmawati. 2014. "Upaya Peningkatan Hasil Belajar Lay-up Bolabasket". *Journal of Physical Education, Health and Sport*, Vol 1 (2).