

The Effect of Training Methods and Concentration on The Result of Free Shooting on Extracurricular Woman's Basketball in SMA Negeri Mayong

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Abstract

This study aims to determine the difference effect between training methods using ropes and hoops on free-throw results with different concentration levels, differences in free throw shooting skills between students who have high and low concentration levels, the effect of interaction between training methods and concentration levels on shooting ability free throw. This study uses an experimental method with a 2 x 2 factorial design. The data analysis technique in this study uses ANOVA. Based on the results of the study, there was a significant difference in effect between the training methods using rope and hoops to the results of free-throw shooting ($F_{\text{value}} = 4.87$ and $F_{\text{table}} = 4.26$), there were significant differences in the results of free-throw shooting abilities between students who had high levels of concentration and low ($F_{\text{value}} = 4.31$ and $F_{\text{table}} = 4.26$), there is a significant interaction effect between the training method and concentration level on the results of free-throw shooting ($F_{\text{value}} = 5.74$ and $F_{\text{table}} = 4.26$). The conclusion from the results of the study is the training method, and the concentration level is the variables that influence the increased ability to do free throws. Each player has different abilities, especially when someone is under pressure, which certainly cannot provide maximum results. Every trainer must understand this condition by giving some specific training and treatment methods as a solution.

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INTRODUCTION

Sports in schools should indeed be managed professionally, starting from the facilities and infrastructure needed to the learning methods used. Because professionalism in managing each subject can be said to be one of the measures of professionalism that can be taught in schools, and it requires priority scales to choose if they really want to develop sports specifically, determining the priority of one type of sport should also be considered by students' interest in the sport to be chosen. One type of sport that is gaining popularity and is in high demand by teenagers, mainly foreign and domestic students is basketball (Priyanto, 2014).

Nowadays, basketball is one of the most popular and popular sports in the community, both from children to adults (Eko Rusdiansyah, 2013). Basketball is one of the most popular team games in Indonesia and is a popular sport. The basketball game has developed quite rapidly because this type of basketball is not only an achievement sport but also as an educational and recreational sport (Tifani, 2016). A basketball game played on a rectangular field equipped with rings on both sides of the width of the field. The standard size of a basketball court is 28m X 15m, has a penalty area that is 5.80m away from the width of the court, and the diameter of the middle circle and 3.60m penalty circle. The height of the reflection board is 2.90m, while the ring is 3.05m (0.15m from the height of the reflecting board). The basketball hoop diameter is 45cm (Sunarsih in Mirdayani, 2012).

Basketball sports achievements, many factors affect primarily physical and technical factors, according to Adika Fatahilah (2018). Basketball games consist of several techniques, namely: passing, dribbling, and shooting. Shooting is an essential skill Vic Amber in Gilang Chairullah (2018). Many students do not master these basic techniques well. For example, shotting this technique is a basic technique that must be learned by a basketball player, according to Inten P, Bayu I, Arwin (2017). Shooting consists of several types, namely: one handset shot, jump shot, hook shot, lay-up shot, under

basketball, reversing up, slam dunk, and free throw (Imam Sodikun, 2012).

Free shots are one of the opportunities that players get to be more open and free to put the ball in the ring. Success in free shots, in addition to throwing or shooting techniques, is also under the influence of exercise routines, relaxation, confidence, and concentration. Basketball games indeed cannot be separated from the basic techniques of the game; one of the kinds of throws is shooting. In basketball, shooting plays a very important role; according to Heri Rustono (2017). A free throw basketball game is one of the essential items to score and can be one of the winning factors of a team. Free throw shots are obtained when the opposing player makes a mistake when a player is trying to put the ball in the ring. Mayong State High School is fostering achievements through extracurricular activities, one of which is basketball extracurricular activities. The National Sports System Law Article 20 of 2007 states that achievement sports are carried out with every talent, ability, and potential for achievement.

In a game that takes place, the determination of victory is seen from the productivity of the team putting the ball into the ring, while the shots of Public Senior High School Mayong women's basketball team often do not enter the ring. When getting free shots due to an offense or otherwise in a match, many female basketball players in Public Senior High School Mayong, when doing free throws in a hurry, need about 1-3 seconds, whereas, in basketball rules, free throw shots are given 5 seconds for one shot. So it can be seen that the players are in a hurry and can not calm down to concentrate when making shots, especially shooting free throw so that the shot does not enter even the shot away from the ring. Another reality in the field shows that in the training session there is no specific training program in making free throw shots made by the trainer, due to the fact that players when shooting free throws are less able to concentrate or concentrate on entering into the ring, players are limited to shooting without doing the implementation process the right one like setting the shooting position, set the breath is

useful to center themselves so that they can focus more on making shots. Therefore concentration is essential for free throws in basketball because concentration is one of the factors that influence the success in shooting, especially free throws, according to Noris A. K., Sudarso (2014).

Mental preparation in the face of the match is also something that needs attention. Primarily children need to be accustomed to thinking positively, given the confidence that in the competition, he will be able to display the skills he has trained according to Indra Darma Sitepu (2018).

The evaluation program in every progress is always carried out by the Senior High School Mayong basketball extracurricular trainer team, especially the women's team. From the results of the evaluation, I obtained some data and the progress of the results of extracurricular exercises that can be used as a reference for development and consideration in providing training material in the form of simulations or treatments. The results evaluation are used a material consideration to provide an action both individually and in a team, which becomes a policy of the training team.

Table 1. Recapitulation of The Evaluation Results of The Women's Basketball Extracurricular Team

Categori	Passing (%)	Shooting (%)	Dribling (%)
Less	-	23 (73%)	-
Enough	7 (22%)	4 (12%)	8 (25%)
Good	16 (50%)	4 (12%)	18 (56%)
Very good	9 (28%)	1 (3%)	6 (19%)

From the above data below, the average basketball shooting of Public Senior High School Mayong, girls are said to be not good, seen from the data table above. Seeing the events, free throw shots have not been specially trained, in this case, so that players, when competing and getting free throws, can carry out well and successfully. So Mayong State High School needs to be given treatment methods of training and high concentration of emphasis to focus more on playing, especially when doing free throws.

One form and method of learning that can be applied in learning basketball games with the aim that students can experience changes in

behavior, habits, and skills in making free shots in the basketball game, is learning to do free shots using a range of tools according to Iman Rubiana (2017).

Rope and loop training media are tools that are used to improve the accuracy of basketball shooting abilities. This media uses support poles and ropes, where the pole has several high stages, namely the first stage 2.75 meters high and the second stage 3 meters Shooting a good basketball that is paying attention to views, balance, hand position, elbow placement and rhythm of shooting. Shooting exercises should be done repeatedly so that an increase in shooting results (Danny Kosasih, 2008). In addition to the goal to the ring, the importance of training to use the media rope to the results of basketball shooting is on the movement of the ball which is possible to soar in a parabola with the aim of the ball to the ring and can put the ball into the ring. With a distance that has been made and measured a certain height can make the ball movement soar perfectly and provide good basketball shooting results. With media that have been created and trained as well as good basic shooting movements, it is possible to get maximum results for basketball shooting.

The process of training is an activity carried out by someone to improve specific abilities. Basketball is an expertise in the ability to be able to play basketball. This, of course, must be supported by attitude and seriousness in doing so. The use of methods in training will also affect the results, which can undoubtedly be seen from one's abilities. The rope and loop method is felt very helpful in terms of improving basketball playing abilities, especially in the free-throw technique. According to research that has been conducted by Muhammad Ridwan with the title "the effect of training using rope and hoop media on the accuracy of the free throw of basketball games for extracurricular male students at SMA Negeri 15 Bandar Lampung" states that the use of the loop and rope method is very helpful for students participating in extracurricular activities in SMA N 15 Bandar Lampung in reminding the ability of basketball free throw. Also, the use of the hoop and rope method is one of the

breakthroughs in the development of training methods to avoid boredom from students.

The basketball game will run well if the supporting factors of the game are well mastered. The exercise of the four aspects must be carried out regularly, planned, and continue to improve the performance of a basketball athlete. In a basketball game, every athlete must have basic technical skills and their application on the field both when and when playing with conditions of high physical pressure and stamina because the level of individual accuracy will affect the success of a team to win a match.

Free throws are penalty shots, which are given by the referee to the attacking team because the opposing team makes a mistake (foul) according to Taryono (2010). Errors in making free throw moves, apparently have an impact that can be detrimental to a team. Among them cause the ball is not right on target, so the opportunity to score is reduced according to Ido N A, Saichudin, Desiana M (2018). Winning in a basketball game is always determined by the number of balls that enter the basket or basket calculated by numbers. The team that gets more points, then the team, is declared the winner, according to Priyanto (2012).

Contextually, concentration is the concentration of the mind to a particular object (Puput Wicaksono, 2014). Concentration is the ability to focus attention on a certain thing and is not interrupted by an internal stimulus or external stimulus that is not relevant. Internal stimuli are sensory and mental disorders, such as feeling tired and anxious. External stimuli are disturbances from outside the self, such as audience cheers and referees' decision errors (Aji S., 2012). Someone will do a responsive both the attitude and action based on the stimulus he receives. The same thing happens in the application of one's psychological knowledge; if his condition is unstable, especially under pressure, the concentration will decrease. Good concentration and maintained will help a player implement the technique well.

METHODS

The method used in this study is an experimental method with a 2 x 2 factorial design. Sudjana (1995) factorial experiments are experiments that are almost the same or the same level, a factor combined or crossed with all levels of each factor in the experiment. In factorial designs, two or more variables are manipulated simultaneously to determine the effect of each of the dependent variables, in addition to the effects caused by interactions between variables.

The population used in this study were all female students who took extracurricular basketball in SMA N Mayong, which totaled 32 students. Characteristics in this population are female sex. This study uses a population of female students participating in basketball extracurricular activities at SMA N Mayong in 2018/2019 Academic Year.

The sampling technique used was purposive random sampling. The sample in this study was drawn from the results of population qualifications that met the research requirements. From a total of 32 students who are the study population, then conducted tests and concentration measurements using a concentration test (Grid Concentration Test).

The concentration level of students is taken using tests and measurements using the Grid Concentration Test instrument. Grid Concentration Test is a concentration test with an athlete's procedure that sequentially sequences the smallest value 00 to the largest 99 in a box column for 1 minute. The more students who sort the numbers for 1 minute, the level of concentration of students can be said to be better. Conversely, the fewer students who order numbers in 1 minute, it can be said that the concentration levels of these students are also lower.

Research conducted by a researcher basically must know the type of data analysis that will be used in formulating research results. Thus the researcher will obtain relevant results on the object to be studied so that it can be trusted. According to Sudjana (2005) that data must be truly "honest," that is, the truth must be reliable.

In this study, the data taken consisted of 2 types, namely: the initial test data and the final test. The test was carried out on the basketball court in SMA N Mayong.

The data analysis technique used is the two-way analysis of variance (ANOVA) at $\alpha = 0.05$. If the F value obtained (F_0) is significant, the analysis is continued with the range test. Sudjana (2005) to meet the assumptions in the Anova technique, a normality test (Lilliefors test), and Variance Homogeneity test (using the Bartlett test) were conducted.

RESULTS AND DISCUSSION

Based on the results of research and analysis of data that has been done, states that there is a significant difference in effect between the training methods using rope and hoops on the results of free-throw shooting ($F_{\text{value}} = 4.87 > F_{\text{table}} = 4.26$), there are differences in the results of the ability to shoot free throw Significantly between students who have high and low concentration levels ($F_{\text{value}} = 4.31 > F_{\text{table}} = 4.26$), there is a significant interaction effect between the training methods and concentration levels on the results of shooting free throw ($F_{\text{value}} = 5.74 > F_{\text{table}} = 4.26$).

Difference between Influence Rope and Hoop Method Against Free Throw Results

Based on the results of the first hypothesis testing, it turns out there is a real difference in effect between groups of students who get the method of training using a rope and groups of students who get the method of exercise using a hoop to the ability to do free throws. In the group of students who got the training method using the rope, media had an increased ability to do free throws better than the group of students who got the training method using the hoop. Exercise to do free throw using a rope more leverage because the position of the ball will parabolic and leads directly to the ring. When students do free throw drills using ropes, they become very accustomed to doing free throw. This is based because during training as if there is a rope obstacle that must be

passed before the ball leads directly to the ring so that the ball being shot becomes parabolic and can be maximized.

The Difference in The Ability to Do Free Throws between Students Who Have High and Low Concentration Levels

Based on the second hypothesis testing, it turns out there is a significant difference effect between groups of students with high levels of concentration and low levels of concentration on the ability of students to do free throws. In the group of students with a high level of concentration have increased skills to do free throws better than groups of students with a low level of concentration. In the group of students who have a high concentration level has a higher potential than students who have a low concentration level. Concentration is a modality for doing free throw exercises because if students can be calmer in shooting, they will get more maximum results. Concentration is one's ability to practice focus and calm in doing a thing by integrating eye movements (views) with direction and abilities effectively. Free throw includes movements that require a high level of calm, and if students do free throws in a hurry, then the results will undoubtedly be less than the maximum. This is based because the free throw is a combination of several movements that must be carried out in an integrated manner and harmony with a high level of calm and focus. The success in free throwing is influenced by the ability and concentration of students in carrying out these movements in an integrated and harmonious manner.

The Interaction between The Training Methods With The Concentration Level of The Free-Throw Ability

From the description of the summary results of the analysis of variance of two factors, it appears that the main factors of research in the form of two factors show a real interaction. For the purposes of testing the AB interaction form, the table below is formed.

Table 2. Interaction of Factors and Methods with Free-Throw Ability

Factor	A = Exercise method				
	Level	A ₁	A ₂	Average	A ₁ - A ₂
Level of Concentration	B ₁	50	49.57	49.785	0.43
	B ₂	49.71	48.14	48.925	1.57
	Average	49.855	48.855	49.35	1
	B ₁ - B ₂	0.29	1.43	0.86	

The interaction between the two applied research factors to determine the ability of students to do free throws can be seen in the following figure:

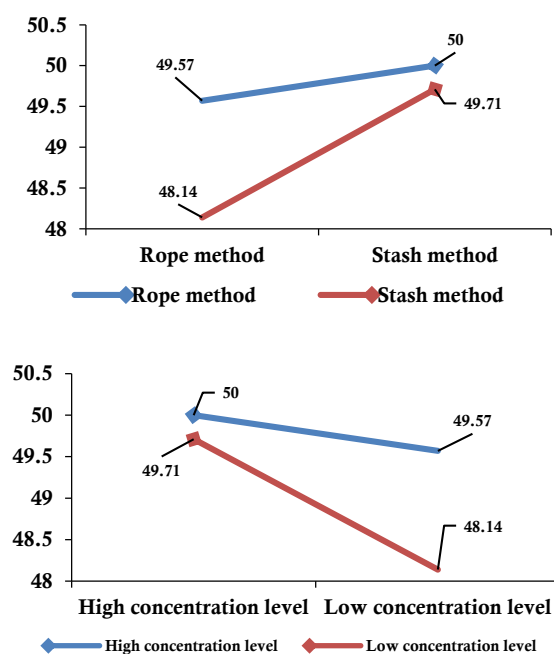


Figure 1. Form of The Interaction of The Amount of Change Increased The Ability of Free Throw

Based on the picture above, that the shape of the line changes the value of the ability to do free throws is not parallel and crosses. The line has a meeting point between the use of the method in training and the level of concentration. This means there is a significant interaction between the two. The figure shows that the level of concentration has a significant effect on the results of the free-throw exercise. The effectiveness of the use of the free throw exercise method is influenced by the classification of the concentration levels of students. The effectiveness of the use of the method in the free throw exercise is influenced by the level of

concentration that is owned by students. Based on the results of the research achieved, it turns out students who have high levels of concentration have an increased ability to do free throws that are good if trained using the rope method rather than the hoop method.

CONCLUSION

The conclusions from the results of this study contain the development of broader ideas if examined further. Training methods and concentration levels are variables that affect the ability to do free throws. The training method and concentration level are variables that affect the increase in the ability to do free throws. Each player has different abilities, especially when someone is under pressure, which certainly cannot provide maximum results. Every trainer must understand this condition by providing some training methods and special treatment as a solution. Each player has different abilities, especially when someone is under pressure, which certainly cannot provide maximum results. Every trainer must understand this condition by providing some specific training and treatment methods as a solution.

CONCLUSION

Simpulan hendaknya merupakan jawaban atas pertanyaan penelitian, dan diungkapkan bukan dalam kalimat statistik. Ditulis sepanjang satu paragraf dalam bentuk esai, tidak dalam bentuk *numerical*.

REFERENCES

Aji, Sukma. 2012. *Buku Olahraga Paling Lengkap*. Pamulang: ILMU Bumi pamulang.

- Adika Fatahilah. 2018. Hubungan Kelincahan Dengan Kemampuan Dribbling Pada Siswa Ekstrakurikuler Bola Basket. *Jurnal Gelanggang Olahraga* 1 (2):11-20.
- Danny Kosasih. 2008. *Fundamental Basketball First Step to Win*. Semarang: CV. Elwas Offset.
- Eko Rusdiansyah. 2013. Upaya Meningkatkan *Shooting Free Throw* Permainan Bola Basket Dengan Metode *Strength* Pada Siswa Kelas X Akutansi 2 SMK Negeri Nanga Pinoh. *Jurnal Pendidikan Jasmani Kesehatan dan Rekreasi*, Volume 1, Nomor 1, Juli 2014, Hal. 64-68
- Gilang Chairullah. 2018. Pengaruh Latihan *Emagery* Terhadap *Shooting* Bola Basket Pada Peserta Didik Ekstrakurikuler SMAN 7 Pontianak. [Onlin jurnal.untan.ac.id > index.php > jpdpb > article > viewFile](http://onlin.jurnal.untan.ac.id/index.php/jpdpb/article/viewFile).
- Heri Rustono. 2017. Meningkatkan Pembelajaran *Shooting* Bola Basket Dengan Media Gambar. *Jurnal Pendidikan Olahraga*, Vol. 6, No. 2, Desember 2017.
- Ido.N.A, Saichudin, Desiana.M. 2018. Analisis Gerak *Free Throw* Terhadap Keberhasilan Menembak Di TIM Bolabasket FIK Universitas Negeri Malang. [journal2.um.ac.id/index.php/sport-science>article> download](http://journal2.um.ac.id/index.php/sport-science/article/download).
- Iman Rubiana. 2017. Pengaruh Pembelajaran *Shooting Free Throw* dengan alat Bantu Rentang Tali Terhadap Hasil *Shooting Free Throw* Dalam Permainan Bola Basket. *Jurnal Siliwangi* Vol.3. No.2 2017.
- Indra Darma Sitepu. 2018. Manfaat Permainan Bola Basket Untuk Anak Usia Dini. *Jurnal Pretasi* Vol. 2 No. 3, Juni 2018 : 27-33.
- Intan.P, Bayu.I, Erwin. 2017. Meningkatkan Kemampuan Lay Up Permainan Bola Basket Dengan Penerapan Metode Pembelajaran Kooperatif Tipe *Student Team Achievements Divisions* (STAD) Siswa Kelas X MIPA SMA Negeri Bengkulu Tengah. *Jurnal Ilmiah Pendidikan Jasmani*, 1(1) 2017.
- Mirdayani. P. 2012. Pengembangan Model Permainan Bola Basket Taki Sebagai Media Pembelajaran Pendidikan Jasmani, Olahraga dan Kesehatan Siswa Sekolah Dasar Kelas Atas di Kota Gorontalo. *Journal of Physical Education and Sports*.
- Noris A.K, Sudarso. 2014. Hubungan Tingkat Konsentrasi Siswa Dengan Ketepatan *Free Throw* Dalam Permainan Bola Basket (Studi Pada Peserta Ekstrakurikuler Bola Basket SMA Negeri 1 Sooko Mojokerto 2013/2014. *Jurnal Pendidikan Olahraga dan Kesehatan* Volume 02 Nomor 01 Tahun 2014, 249 – 252.
- Poole, J.L. 2009. “*Application of Motor Learning Principles in Occupational Therapy*”. *The American journal of Occupational Therapy*. Vol. 45 No. 6, pp. 531-537.
- Priyanto. 2012. Pengaruh Metode Latihan *Wall Shooting* dan Mata Tertutup terhadap Hasil *Shooting Free Throw*. *Jurnal Media Ilmu Keolahragaan Indonesia*. 2(2). Hlm 103
- Priyanto. 2014. Latihan *Shooting Free Throw* dengan Menggunakan Modifikasi Bola. *Jurnal Media Ilmu Keolahragaan* 4 (1) 2014.
- Sodikun, Imam. 2012. *Olahraga Pilihan Bolabasket*. Jakarta: Fakultas Ilmu Keolahragaan Universitas Negeri Yogyakarta.
- Taryono. 2010. Perbandingan Antara Latihan Kekuatan Otot Lengan Dengan Gerakan Bench Press Dan Push up Terhadap Hasil Tembakan *Free Throw* Dalam Permainan Bola Basket. *Jurnal Motion* Volume I. No. 1
- Tifani. 2016. *Hubungan Antara Self Talk Dengan Kepercayaan Diri Pada Atlet Bola Basket Di Kota Palembang*. *Jurnal Ilmiah PSYCHE*. Universitas Bina Darma: Volume 9 No 01, Tahun 2016: 61-72.
- Undang-undang RI No 3 Tahun 2005 Tentang Sistem Keolahragaan Nasional. Kementrian. Negara Pemuda dan Olahraga Republik Indonesia
- Wicaksono, Puput. 2013 *Kontribusi Konsentrasi terhadap Hasil Shooting Under Basket*. ejournal.unesa.ac.id/article/8762/article.pdf.
- Wahyuni. 2013. Penerapan Pendekatan Modifikasi Untuk Meningkatkan Efektifitas Teknik Dasar *Dribble* Bola Basket Pada Siswa Kelas V Sdn Simomulyo V/102 Surabaya. *Jurnal Pendidikan Olahraga dan Kesehatan*, (Online), 1(03): 498-502.
- Wicaksono, A.J & Laksmiwati H. 2013. Hubungan *Self Efficacy* dengan Ketepatan *Free Throw* pada Pemain *National Basketball League* Klub Cls Knights, (Online), 1 (02): 1-5, (ejournal.unesa.ac.id/article/3486/17/article)
- Yadav, S.K. (2011). “*Construction of an objective skill test for Lay-up Shot in basketball*” *International Journal of Physical Education*,. *Internat. J. Phy. Edu.*, 4 (1) : 23-24.