Advances in Social Science, Education and Humanities Research, volume 443
International Conference on Science and Education and Technology (ISET 2019)

The Effect of Training on the Increasing of the Skill Lay Up Shoot Basketball Games Extracurricular Participants Basketball Students of SMA Negeri 1 Woha

Rabwan Satriawan
Universitas Negeri Semarang
Semarang,Indonesia
rabwansatriawan91@gmail.com

Khairul Amar
Universitas Negeri Semarang
Semarang,Indonesia
amarbima90@gmail.com

Abstract—This study aims to determine the effect of imagery training on improving the lay up shoot skills of students participating in the extracurricular basketball of SMAN 1 Woha. The method of this research is experiment. The design of this study uses a pretest-posttest control group design. In this design there are two groups chosen randomly, then given a pretest to find out the initial state is there a difference between the experimental group and the control group. The population used in this study were 34 students participating in the basketball extracurricular at SMAN 1 Woha. The sampling technique in this study used purposive sampling technique. With the number of samples taken as many as 20 extracurricular basketball participants from SMAN 1 Woha. The instrument in this study is a lay up shoot test from Imam Sodikun with a test validity of 0.509 and a reliability test of 0.675. The results showed that there was an increase in the results of lay up shoots of students participating in the basketball extracurricular at SMA N 1 Woha. This is indicated by the value of t arithmetic = 4.389> t table = 2.101 and the significance value of p is 0.000 <0.05, meaning there is a significant influence. Thus the hypothesis which reads "there is an influence of imagery training on improving basketbal lay up shoot skills for students participating in extracurricular basketball activities in SMA N 1 Woha", was accepted. This means that imagery training has a significant effect on improving the results of lay-up shoots for students taking basketball extracurricular activities at SMA N 1 Woha.

Keywords: imagery training, lay up shoot, basketball

I. INTRODUCTION

Basketball games have some basic techniques that absolutely must be mastered by basketball players in order to play well, including them shooting, passing, dribbling and pivot. Some basic techniques are further divided into several types for example shooting techniques, shooting techniques consisting of jump shoot, hook shoot, set shoot and lay up shoot(Dedy Sumiyarsono, 2002). Of the several types of shooting that are quite difficult to learn by beginner basketball players usually are lay up shoots, because lay up shoots have a series of movements that is quite complex compared to other types of shoots, other than that when in a game a basketball player will not always get a situation ideal for laying up shoot easily so it will be difficult to do this shoot.

The lay-up is a tough shot to make because every time it is used, the shooter is approaching the basket at a different angle and varying speeds stands (Duncan, Hall, Wilson, & Rodgers, 2012). A player will find where he has to do lay up shoot techniques with a situation that is not ideal, namely with the position of an angle or speed that is not good in a game, this can be caused by a strict guarding of the opposing player or a match situation that forces a player have to lay up shoot in a disadvantage. Therefore lay up shoot is one of the techniques that is difficult to learn by a novice player because this technique has the complexity of footwork and eye and hand coordination and habituation to perform this technique with situations that are not ideal so that a lay up shoot can be mastered well.

Lay up shoot training will often be done when training with various forms of training, sometimes lay up shoots are combined with passing exercises, fast break exercises, and other forms of training. These forms of training are intended so that the players will get used to doing lay up shoot movements so that there is automation of movement. Automation of a technique in a sport apart from the drill method can also be done with an exercise that may still not be familiar in schools, the exercise that can be done is imagery.

Imagery training is one way to help a novice player to be able to master a technique more easily by imagining the movements in the technique.

A basketball player can improve their overall skills through mental imagery. For example, players that want to improve their shooting can take a few minutes and mentally “imagine” being a successful shooter. Each step in the shooting

process can be visualized and "felt" through imagery (Buckles, 2004).

The terms imagery, visualization, and mental training have been used in a variety of ways by researchers, sports psychologists, coaches and athletes to describe powerful mental training techniques (Taylor & Wilson, 2005 : 1).

Imagery training is one of the effective training methods to be provided for a player, no exception for a beginner basketball player who wants to master a complex skill (difficult) in the occupied sports. because with imagery training a player will practice how to do the technique in mind. In the process of imagery training a player will put each movement in accordance with the working limbs, so that the nerves that move the limbs will get used to a technique that is being learned in his mind. In the end the movements that have been stored in the mind of the player can be easier to do when practicing the real techniques on the field. One important consideration in the development of guided imagery interventions is the intervention dose. Research has consistently shown that even a small dose of imagery can significantly influence cognition and performance (Morris, T., Spittle, M., & Watt, 2005).

(Monty P. Satiadarma, 2000) the functioning of imagery mainly because in imagery, a person does exercise like physical exercise, only the magnitude is reduced, but overall this is also a mirror of physical activity. In this activity on a smaller scale, the function of the nerves that work is actually the same as physical training, only in physical exercises the amount of nerve that works is greater. This view is based on the view of psychoneuromuscular theory. (Rattanakoses, Geok, & Abdullah, 2012) the imagery program does improve mental skills of Thailand adolescent athlete in visual and kinesthetic imagery abilities.

(Taylor, J., & Wilson, 2005) emphasized that the power of imagery lies in its use as a structured program that combines writing with audio scripts designed to handle certain sports techniques so that athletes can improve their performance. (Vealey, R., & Greenleaf, 2006) explains that imagery can be used to create new internal experiences by arranging pieces of the image in various forms. The purpose of mental imagery training is to produce sports experiences so that athletes feel accurately as if they were actually doing sports (Holmes, P. & Collins, 2001).

Imagery is actually a form of simulation, it is similar to a real sensory experience (e.g., seeing, feeling, or hearing), but entire experience occurs in the mind (Weinberg, Robert S and Gould, 2002).

Imagery training is a suitable method for use in schools that have athletes who excel at basketball. SMAN 1 Woha is one of the schools that has achievements in the field of sports, especially the best basketball branch in Bima Regency. Many titles have been won at the Regency and Provincial level, all thanks to good coaching and hard work training done by students as players and also support from a fairly large school. Related to the various achievements of SMAN 1 Woha, there are problems that are often faced by this school in forming a solid basketball team related to nurseries in class X students, where in the beginning of the team formation, the average class X students who take extracurricular basketball still have not mastered many skills. Basic basketball well, so it takes hard work from the coach to be able to form good basic skills so that students become mature players in terms of skills and mental. Therefore the purpose of this study is to determine the effect of imagery training to improve shoot up shoot skills for beginner players who are still sitting in class X, so that it will be proven whether this imagery training can improve lay up shoot skills, and in the end can also be one of the coach's solutions in providing imagery training in basketball training for novice players.

Based on the above study, the hypothesis can be formulated that there is an influence of imagery training on improving the basketball shoot shooter basketball playing skills of the extrarkuricular basketball participants of students SMAN 1 Woha.

II. METHODS

This research is an experimental research by providing treatment that has been made in the experimental group. The experimental research method is a research method used to look for the effect of certain treatments on others under controlled conditions (Sugiyono, 2017). The design of this study uses "Pretest-Posttest Control Group Design" in this design there are two groups chosen randomly, then given a pretest to find out the initial conditions are there differences between the experimental group and the control group.

The population used in this study were 34 students participating in the basketball extracurricular activities at SMAN 1 Woha. The sampling technique in this study used purposive sampling technique. With the number of samples taken as many as 20 extracurricular basketball participants from SMAN 1 Woha.

All samples were then subjected to a pretest to determine the treatment group. The test used is the lay up shoot test from Imam Sodikun where this test is also used at the posttest. After the pretest the sample is ranked the pretest value.

The instrument in this study is a lay up shoot test from Imam Sodikun with a test validity of 0.509 and a reliability test of 0.675. Implementation of the

test is testee is in the middle of the field, right hand side while holding the ball. Dribble yourself towards basketball and do lay up shoots. Testee got 8 chances to shoot up but previously was given 1 chance to try. The score is said to be valid entered if the lay up shoot step is correct and the ball enters the ring. The more testees can enter the ball, the better the score or categorization of the lay up shoot ability.

Data analysis techniques used in this study using SPSS 20, namely the t-test (paired t-test). at the significance level $\alpha = 0.05$. To meet the ANAVA assumption a normality test was carried out with Kolmogorov Smirnov and homogeneity with the F test.

III. RESULTS AND DISCUSSION

A. Results

Data analysis is used to answer the proposed hypothesis. Before the data analysis is performed, it is necessary to conduct a prerequisite test of analysis, namely the normality test and the homogeneity test. Prerequisite test results and hypothesis testing can be seen as follows:

1. Prerequisite Test

Normality Test

Normality test calculation is intended to determine whether the variables in the study have a normal distribution or not. This normality test calculation uses the Kolmogorov-Smirnov formula.

Table 1 Normality Test

Group	P	TS	Ket
Pretest Experiment	0,436	0,05	**Normal**
Postest Experiment	0,894	0,05	**Normal**
Pretest Control	0,634	0,05	**Normal**
Postest Control	0,539	0,05	**Normal**

From the results of the above table it can be seen that the data of all variables has a value of p (Sig.) > 0,05, then all variables are normally distributed.

Homogeneity Test

Homogeneity test is useful for testing the sameness of a sample that is uniform or not the sample variant taken from the population. Homogeneity rules if p> 0.05, then the test is declared homogeneous, if p <0.05 then the test is said to be homogeneous. Homogeneity test results of this study can be seen in the following table.

Table 2. Homogeneity Test

Group	LS	df1	df2	Sig	Ket
Pre-test	0,065	1	18	0,802	**Homogen**
Pos-test	1.815	1	18	0,195	**Homogen**

From these results it can be seen from the test of homogeneity of variance table of all variables that have a p value (Sig.)> 0.05, so the data is homogeneous. Because all data are homogeneous, data analysis can be continued with parametric statistics.

2. Hypothesis Test

Hypothesis testing in this study aims to prove the influence of imagery training on improving basketball basketball lay shoot up skills of students participating in SMAN 1 Woha. Data analysis performed for testing the hypothesis in this study was the t test. However, before proofing the hypothesis, the level of pre-test scores of the experimental class and the control class will be analyzed using the t-test. The results of the t-test on the pre-test of the experimental class and the control class can be seen in the following table.

Table 3. Experimental and Control Pre Test t-Test Results

Group	R	t-value	t-table	Sig
Pre-test exsperiment	2,2	0,096	2,101	0,925
Pre-test control	2,1			

Based on the results of the t-test it is known that the average experimental pre-test is 2.2. The average control class was 2.1 and the t-test value of 0.096 was obtained with a significance of 0.925. The t-table value at the significance level $\alpha = 0.05$ is 2.101. From the description it was found that t-count is smaller than t-table (t <t), this means that there is no significant difference between the experimental group and the control group, both of them have the same ability level before the experimental group is treated with imagery exercises . This means that if there is an increase in score after treatment, it is assumed that the increase is caused by the treatment that has been given.

The next step after analyzing the pretest in the experimental and control groups is to test the hypothesis using the t test. The t test was carried out using the SPSS 20. The results of the t-test on the research data are presented in the following table:

Table 4. Experimental and Control Posttest t Test Results

Group	Mean	t-hit	t-table	Sig
Post-test exsperiment	5,6	4,389	2,101	0,000
Post-test kontrol	2,5			

Based on the results of the t test it is known that

the average post-test of the experimental class was 5.6 while the average post-test of the control class was 2.5 and the t-value was 4.389 with a significance of 0,000. The t-table value with db = 18 at the significance level α = 0.05 is 2.101. From the explanation above it is known that the t-value is greater than the value t-table ($t_h > t_t$). Therefore t-count is greater than t-table (4,389>2,101), then the hypothesis stating "the influence of imagery training on improving the basketball lay up shoot skills of students participating in extracurricular basketball activities in SMA N 1 Woha" was accepted. The results showed there was a mean post-test of the experimental class of 5.6 greater than the mean post-test of the control class of 2.5.

IV. DISCUSSION

This study aims to determine the effect of imagery training on improving the lay up shoot skills of the extracurricular students of SMAN 1 Woha. Data analysis was performed using the t test to determine the effect of imagery exercises on improving students' lay up shoot skills. Provision of treatment for 6 meetings with a frequency of 2 times a week for 90 minutes by stage. Based on the analysis shows that the training method has a significant effect on the results of the lay up shoot of students participating in the extracurricular at SMA N 1 Woha. The results of the t-test showed that there was an increase in the results of the lay up shoot of the students participating in the extracurricular basketball competition at SMA N 1 Woha. This is indicated by the t value = 4.389 > t tabel = 2.101 and significance value of p equal to 0.000 < 0.05, means there is a significant influence. This means that imagery training has a significant effect on improving the results of the lay up shoot of students participating in extracurricular basketball in SMA N 1 Woha. An increase in athlete lay up shoot results due to imagery training given before the core training begins.

Imagery is one way to help improve the skills of a player or athlete in the process of mastering difficult techniques in the chosen branch. (Taylor, J., & Wilson, 2005) there is a similarity of viewpoints and it has been agreed that mental imagery training can improve performance through enhancing key mental factors that greatly affect sports performance. (Marcia I Milne, Shauna M Burke & Hall, 2006) a basketball player can improve their overall skills through mental imagery. For example, players that want to improve their shooting can take a few minutes and mentally “imagine” being a successful shooter. Each step in the shooting process can be visualized and “felt” through imagery”.

Before the students in the experimental group participated in the lay up shoot practice session, treatment was given in the form of an imagery exercise, wherein in this imagery lay up shoot exercise there were three stages, namely the initial skill training stage, the imagery training stage with keywords, and the lay up skill training stage, shoot accompanied by keywords. With this imagery training stage, extracurricular participants who are still beginners become easy to master the basketball shoot-up layout which is a technique that is difficult to master for athletes or novice players because it has a complex set of movements, such as statements (Marcia I Milne, Shauna M Burke & Hall, 2006) young players often miss this shot and subsequent shots because they do not locate the basket with their eyes. usually because they are trying too hard to control the ball.

(Holmes,V P. & Collins, 2001) today most sportVVs practitioners have used mental imagery exercises that describe structured mental training techniques to create an optimal sports performance. Based on research that has been conducted on students participating in basketball extracurricular activities at SMA N 1 Woha, it is known that imagery training can improve lay-up shooting skills, this is because imagery training provides deeper experiences not only in physical motion experiences but also in students' cognitive experiences so that the results students will find it easy to master difficult and complex movements. It's just that students have to be really serious when doing this exercise if you want to get maximum results because in imagery practice it requires good concentration in the process.

Research on the influence of imagery training on improving basketball lay up shoot technique for extracurricular participants in SMAN 1 Woha basketball competition gives students the opportunity to be able to master and improve their shoot up shoot skills easily, besides that students can also gain challenging knowledge about what imagery exercises and their uses are related to, efforts to improve the mastery of techniques in basketball. The results of this study also inform that the same imagery treatment carried out with (Morris, T., Spittle, M., & Watt, 2005), can be used as an effective way to improve mastery lay-up shooting skills of beginner students who take extracurricular activities and basketball clubs..

From the discussion above, it can be concluded that imagery training has an effect on improving the basketball lay up shoot skill of students participating in extracurricular basketball activities at SMAN 1 Woha, thus this imagery exercise can be a solution for beginners who take part in basketball extracurricular skills in mastering and enhancing shooting lay up abilities. This is indicated by the results of the study which showed that there were differences in the improvement of lay up shoot techniques between students who were given an imagery treatment (experimental group) and

students who were not given an imagery treatment (control group).

V. CONCLUSIONS

Based on the results of research that has been obtained by analyzing data and testing hypotheses, it can be concluded that "there is a positive and significant influence on imagery training on improving the basketball basketbal lay up skills of students participating in basketball extracurricular activities at SMAN 1 Woha. Extracurricular students who received additional imagery exercises for the lay up shoot skill training there was a significant improvement compared to the extracurricular students who did not get additional imagery exercises in lay up shoot exercises".

Based on the conclusions above, the results of this study have the following implications:

1) Theoretically, the existence of this research is expected to be useful as a scientific study that can be further developed, regarding one form of mental training to improve skills in a sport not limited to basketball only.
2) Practically this research has implications namely:

a. For basketball coaches or sports teachers who will teach skills in basketball games especially Lay Up Shoot to students or players who are beginners, this form of mental training (imagery) can be an effective choice so that students or players can master the Lay Up Shoot skills more easily and with good results.
b. For students or players this research can be useful to add insight about one form of mental training that can be useful to improve skills in a sport, even if the skill has a fairly high level of difficulty.

REFERENCES

[1] Dedy Sumiyarsono. (2002). *Keterampilan Bolabasket*. Yogyakarta: FIK UNY.

[2] Duncan, L. R., Hall, C. R., Wilson, P. M., & Rodgers, W. M. (2012). The use of a mental imagery intervention to enhance integrated regulation for exercise among women commencing an exercise program. *Journal of Sport & Exercise Psychology*, 452–464. https://doi.org/10.1007/s11031-011-9271-4

[3] Holmes, P. & Collins, D. (2001). The PETTLEP Approach to Motor Imagery. A Functional Equivalence Model for Sport Psychologists. *Journal of Applied Sport Psychology*, *13*(1), 70–83.

[4] Marcia I Milne, Shauna M Burke, & Hall, C. (2006). Comparing The Imagery Use of Older and Younger Adult Exerciser. *Journal of Sport & Exercise Psychology*, *25*(1), 59–67.

[5] Monty P. Satiadarma. (2000). *Dasar-Dasar Psikologi Olahraga*. Jakarta: Pustaka Sinar Harapan.

[6] Morris, T., Spittle, M., & Watt, A. P. (2005). *Imagery in sport*. Champaign, IL: Human Kinetics.

[7] Rattanakoses, R., Geok, S. K., & Abdullah, M. C. (2012). Effect of Imagery Practice Program on Imagery Ability in Thailand Adolescent Cyclists. *International Journal of Academic Research in Business and Social Sciences*, *2*(11).

[8] Sugiyono. (2017). *Metode Penelitian Kebijakan (Pendekatan Kuantitatif, Kualitatif, R&D, dan Penelitian Evaluasi).* Bandung: Alfabeta.

[9] Taylor, J., & Wilson, G. (2005). *Applying sport psychology: Four perspectives*. Champaign, IL: Human Kinetics.

[10] Vealey, R., & Greenleaf, C. (2006). Seeing is Believing: Understanding and Using Imagery in Sport. *Journal of Sport Behavior*, *5*(1), 285–305.

[11] Weinberg, Robert S and Gould, D. (2002). *Foundation of Sport and exercise Phsychology, 3nd edition*. Champaigh, IL: Human Kinetics.