

The Effect of Hopping Training on the Lay-Up Shooting Ability of Basketball Games in Extracurricular SMA Negeri 1 Tebing Tinggi, Empat Lawang

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Abstract: According to the researchers' observations of the students of SMA Negeri 1 Tebing Tinggi Empat Lawang Regency, there have not been seen students who really have good *lay-up shoot* techniques, one of the weak points is the low initial technique carried out, then the lack of jumping ability and weak legs or knee joints when landing after *shooting*, so that this greatly affects his playing ability. Therefore, the purpose of this study is to determine the effect of *hopping training on the lay-up shooting ability of basketball games* in extracurricular SMA Negeri 1 Tebing Tinggi Empat Lawang Regency as well as provide solutions to solve the problem. The method used in this study was an experimental method with the subject of the study being students of SMA Negeri 1 Tebing Tinggi Kabupaten Empat Lawang who participated in extracurricular activities of basketball games with a total of 30 students. The data collection technique is based on the results of the initial test and the final test, with the test instrument being a *shooting lay-up* of a basketball game for 30 seconds. Based on the results of research conducted by researchers on students of SMA Negeri 1 Tebing Tinggi Empat Lawang Regency, the results of the calculation were 20.66. This value when consulted with the distribution table t with a sample number of 30 students, namely the value of t-table is 2.75. It has become a stipulation that if the calculation > t-table, the research has an influence, so that thus it can be concluded that there is an effect of *hopping training on the lay-up shooting ability of basketball games* in extracurricular SMA Negeri 1 Tebing Tinggi Empat Lawang Regency.

Keywords: Basketball Game, Hopping Practice, Lay-Up Shoot

A. Introduction

Physical education is loved by everyone and there are many ways to go through games in sports, one of which is the game of basketball. This game is very popular with various circles of society. Nowadays, the game of basketball is experiencing a very rapid development. This game has become popular, meaning that it has been widely known and enjoyed by all walks of life from children to the elderly, both men and women. 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, 2002).

The level of difficulty in *shooting* in basketball games can be seen from the number of students *shooting in*, in other words, the more balls that enter the basketball hoop, the more mastery the student has over shooting techniques in basketball games. Various shooting techniques in basketball games and one type of shooting in basketball games are, *lay-up shoot* or shot with a two-step start then jump and shooting. *Lay-up shoot* has a high level of difficulty, because in addition to having a good starting technique, it must also be balanced with excellent leg strength both to jump towards the ring, and to focus after *shooting* to jump and land.

Monty, (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.

Based on the description above, the author intends to conduct research on students of SMA Negeri 1 Tebing Tinggi Kabupaten Empat Lawang to explore *hopping* exercises in order to improve *lay-up shoot skills in basketball games and describe this research with the title, "The Effect of Hopping Training on Lay-up Shoot Ability Basketball Games at Extracurricular SMA Negeri 1 Tebing Tinggi Kabupaten Empat Lawang "*.

Based on the background that has been stated earlier, the problem in this study is whether there is an effect of *hopping* training on the *lay-up shooting* ability of basketball games in extracurricular SMA Negeri 1 Tebing Tinggi Empat Lawang Regency.

The formulation of this research problem is whether there is an effect of *hopping* training on the *lay-up shooting* ability of basketball games in extracurricular SMA Negeri 1 Tebing Tinggi Empat Lawang Regency?

The purpose of the study was to determine the effect of *hopping* training on the *lay-up shooting ability* of basketball games in extracurricular activities of SMA Negeri 1 Tebing Tinggi Empat Lawang Regency.

The game of basketball according to (Finish, 2004) is a ball game played by hand with the number of team members in a team of five people. Meanwhile, according to (Kosasih, 1984) the basketball game is a game played by two teams with each team totaling 5 players whose way to play is by bouncing the ball to the floor whose purpose is to score or put the ball into the hoop.

In 1951 during the PON II event, basketball was already played for men and women. The team sent no longer represents the Residency but already represents the Province. Teams from East Java, DKI Jakarta, West Java, and North Sumatra are the leading forces on the PON stage.

In 1951, Maladi-one of the national sports figures-asked Tonny Wen and Wim Latumeten to form a basketball organization in Indonesia. Maladi's position at that time was secretary of the Indonesian Olympic Committee (KOI). On the initiative of the two figures, on October 23, 1951 an organization was formed under the name "Indonesian Basketball Association". In 1955, a refinement of the name was carried out according to the rules of Indonesian. The name is "Indonesian Basketball Association" abbreviated as Perbasi.

Perbasi was accepted into FIBA in 1953. A year later, 1954, Indonesia for the first time sent a basketball team at the Manila Asian Games.

Field

It is rectangular in shape with a length of 28 m and a width of 14 m measured from the edge of the boundary line. Size variations are obtained by increasing or decreasing the length of 2 m and increasing or decreasing the width of 1 m. In this field there are several sizes such as: the center circle, and so on which will be clearly and in detail described in the picture below later.

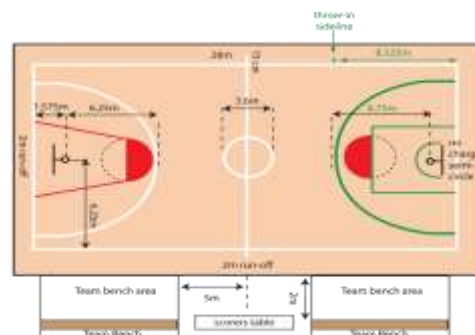


Figure 1. Basketball Court

Source : http://ambonb.blogspot.com/2012/03/lapangan_basket.html&docid

According to (Tamat, 2004) there are several basic techniques of basketball games, namely 1) catch the ball; 2) throw the ball; 3) dribble; 4) shooting the ball towards the hoop (*shooting*). Catching the ball, generally done with two hands, but can also be done with one hand, the position of the hand depends on the direction the ball comes. Throwing the ball, as well as catching the ball can be done with two hands or with one hand. Throwing the ball with two hands is usually for short-range throws while one-handed throws are used for long-range throws. Dribble is a follow-up movement after

catching a pass ball from a friend to get closer to the target, both the friend's target for passing and the ring target for *shooting*. *Shooting*, in the game of basketball consists of *lay-up shoots*, *jump shots*, hook shots and overhead shots with one hand. Each type of *shooting* has its own characteristics.

Shooting according to Shadily, (1986) is shooting. So, *shooting* in a basketball game is shooting the ball or putting the ball into the basketball hoop. According to (Tamat, 2004) shooting the ball towards the basketball hoop consists of four types, namely:

Lay-up Shoot

A *lay-up* shot is a shot made at close range to the basketball hoop, so that it seems as if the ball is placed into the basketball hoop, but before shooting it is preceded by a two-step movement. For more details, consider the following picture.



Figure 4. Lay-up Shoot, (Finish, 2004)

One-handed shot above the head. Take a look at the following image.



Figure 5. One-Handed Shot (Finish, 2004)

Jump Shoot

The execution is almost the same as a one-handed shot overhead, only the difference is before the shot jumps first and the ball is released when the shooter reaches the peak of the jump. Take a look at the following image.



Figure 6. Jump Shot (End, 2004)

Hook shot

Hook shots are an excellent way to attack at close range if the opponent's area is heavily guarded. The hook shot does not need to take the initial stance facing the basketball hoop, but a tilted stance. It is difficult for the opponent to contain. Take a look at the following image.



Figure 7. Hook Shot (Finish, 2004)

Shooting according to (Shadily, 1986) is shooting. So, *shooting* in a basketball game is shooting the ball or putting the ball into the basketball hoop. According to (Tamat, 2004) shooting the ball towards the basketball hoop consists of four types, namely: *lay-up shoot*, *jump shoot*, hook shot and overhead shot with one hand. In this study, researchers only displayed one type of *shooting*, namely, *lay-up shoot*.

Lay-up shoot is a shot that is made at close range to the basketball hoop, so that it seems as if the ball is placed into the basketball hoop, but before shooting is preceded by a two-step initial movement. For more details, consider the following picture.



Figure 8. *Lay-up Shoot* (Finish, 2004)

The term *hopping* occurs in the jump infection, which according to the (NT. PASI, 1988) is a landing with the same repellent leg (the repulsive leg must be bent at the time of the hover phase). Meanwhile, according to Soegito, (1993) the calculation of jumping

distance consists of *hops, steps and jumps*, then *hop* means tiptoe, *step* means *step* and *jump* means *jump*. A *hop* or tiptoe movement is a jumping motion of one foot whose repulsion foot is the same as the landing foot, for example repulsion



Figure 3. Hopping (Chu, 1992)

Based on the above understanding, it can be concluded that *hopping* exercises are jumping activities whose repulsion feet are the same as landing feet which are carried out repeatedly systematically.

Junaidi, (2019) this research is an experimental method, where students are given treatment in the form of 1, 2, 3 Drill exercises after the initial test (freetest) then at the end of the treatment a final test (posttest) is held to determine the effect of the treatment. The method used in this study is an experimental research method. The population of this study was grade XI students of SMA Negeri 1 Indralaya who participated in basketball extracurricular activities as many as 30 students. The sample in this study was the entire population, namely 30 male students of grade XI SMA Negeri 1 Indralaya who participated in extracurricular activities in basketball games. This study was carried out for 12 meetings, at the first meeting researchers held an initial test (pretest) of basketball lay-up ability of extracurricular participants of SMA Negeri 1 Indralaya before being treated with the 1,2,3 Drill exercise method. In conducting the initial test and final test, each participant was given the opportunity twice thirty seconds (2x30 seconds) to lay up 55 and put the ball into the basketball hoop as much as possible. The highest number of balls entered the hoop on two occasions were taken for the test data in this study. In this study, researchers used statistical data techniques with pre-test and post-test methods (initial test and final test). From the results of the study above, it can be seen that there is an increase in students' lay up ability before and after being given exercise treatment 1, 2, 3, Drill regularly with decreased intensity and exercise volume in 12 meetings, thus it can be concluded that exercise 1, 2, 3, Drill has an influence on the basketball lay-up ability of extracurricular participants of SMA Negeri 1 Indralaya.

According to Tangkudung, (2006) an exercise program is a set of activities in training that are arranged in such a way that can be carried out by students / students / athletes, both regarding the number, training load and intensity of exercise. An exercise program is a guide or guideline that binds in writing containing ways to be taken to achieve predetermined future goals (Suhendro 2007). The preparation of an exercise program is one of the business strategies to achieve optimal performance.

According to Sukadiyanto, (2011) the purpose of training in general is to help coaches, coaches and sports teachers to be able to apply and have conceptual abilities and skills in helping to reveal the potential of sportsmen to reach the peak of achievement. While the main goal or target of training according to (Harsono, 1988) is to help athletes improve their skills and achievements as much as possible to achieve goals

According to Sukadiyanto, (2011) the term exercise comes from an English word that can contain several meanings, such as: *practice, exercises, training*. But the term we mean here is the term *training*. Every sport has a way or method in training, which the exercise method defined by Suhendro, (2007) is a systematic and planned way that serves as a tool to improve physiological, psychological function and movement skills in order to have better skills in a special appearance. Based on some of the opinions of the experts above, it can be concluded that exercise is a systematic process to improve human skills, psychological and physiological functions to achieve the specified goals.

According to Arikunto, (2006) basic assumption is a starting point for ideas whose truth is accepted by investigators. Based on this opinion, there is an assumption in this study is that to make lay-ups needed technique and physical. For physical leg muscle strength is needed to make jumps. Therefore, to get this, it is necessary to have programmed exercises and one form of exercise is *Hopping Exercise*.

According to Sugiyono, (2010) the hypothesis is a temporary answer to the formulation of the research problem, where the formulation of the research problem has been stated in the form of a statement sentence. Based on the above opinion, the author hypothesizes that there is an effect of *hopping* training on the *lay-up shooting* ability of basketball games in extracurricular public high school 1 tebing tinggi regency empat lawang.

B. Methods

The method used in this study is a *pre-experimental* method using *pretest* and *posttest techniques* which are useful for knowing the results of *the treatment* given. This research is one group research with the following research design:

$$0_1 \times 0_2$$

Information:

01 = *Pre-test*

02 = *Post-test*

According to Sugiyono, (2010) population is a generalized area consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be

studied, and conclusions drawn. Based on the above opinion, the population of this study was students of SMA Negeri 1 Tebing Tinggi Empat Lawang Regency who participated in extracurricular basketball activities as many as 30 students. According to Sugiyono, (2010), that the feasible sample size in the study is between 30 to 500. Based on this opinion, the researcher determined the number of sample samples in this study was 30 students who participated in extracurricular activities, which means this study is a population study because the number of samples is the number of populations.

According to Sugiyono, (2010) data collection techniques are the most important step in research, so the data collection techniques that researchers use are experimental techniques or methods using *pretest* and *posttest* techniques with test instruments are students' ability to *lay-up shoot* which according to Nurhasan, (2010) after there is a signal tested tries to put as much ball as possible into the basket or hoop for 30 seconds.

After the data is obtained and processed then tabulated using a predetermined formula, namely the normality test is carried out as a consideration material used to test the normality of the data, a frequency distribution list is needed to determine the average, to test whether the data is normally distributed, then a curve slope test is used with the *person coefficient* formula, namely:

$$K_m = \frac{\bar{x} - M_o}{S}$$

The steps to test data normality are as 1) Find the average of each group of data with the formula:

$$\bar{x} = \frac{\sum f_1 x_1}{f_1}$$

Information:

X = average

F₁ = class interval

X₁ = frequency

2) To find the average (*mean*) difference between *pre-test* and *post-test*, the following statistical formula is found.

$$Md = \frac{\sum d}{n}$$

To answer the hypothesis, the statistical formula of the t test (*t - test*) is used as follows (Arikunto, 2006).

$$t = \frac{Md}{\sqrt{\frac{\sum X^2 d}{N(N-1)}}}$$

According to Sugiyono, (2010) data collection techniques are the most important step in research, because the main purpose of research is to obtain data, without knowing data collection techniques, the research will not get data that meets the set data standards.

C. Results and Discussion

This research was conducted at SMA Negeri 1 Tebing Tinggi Empat Lawang with a total of 632 students consisting of 16 classes or study groups that have type A Accreditation. After the 30 students did the initial test (pre-test) *with the test instrument was a lay-up shoot of the basketball game, then ranked from the most lay-up results to the lay-up results at least.* Furthermore, the sample was treated in the form of *hopping exercises for approximately one month after which a post-test was held with a lay-up shoot test instrument 10 time.*

Table 1. Data On Pre-Test and Post-Test Lay-Up Shoot Results of SMA Negeri 1 Tebing Students Tinggi Kabupaten Empat Lawang

No	Name	Pre-test	Post-test	Gain (d) Posttest-Pretest
1	Aji Imron	3	4	1
2	Bambang Utoyo	3	5	2
3	Bayu Mailanda Putra	2	4	2
4	Ello Mardio	3	6	3
5	Febri Silda Sari	2	4	2
6	Fepi Chika Amanda	2	4	2
7	Ferdi	3	4	1
8	Gatot Subroto	3	5	2
9	Haikal Novriansyah	2	3	1
10	Herli Sandistya Gui	3	5	2
11	Imel Lestari	2	5	3
12	Mahesa Taruna	3	5	2
13	Melinda Sari	0	2	2
14	Putri Anggraini	3	5	2
15	Ramza Dwi Pranata	1	3	2
16	Refka Erlangga	3	4	1
17	Riski Kristia	2	4	2
18	Sures Resita	4	7	3
19	Yoga Anggara Saputra	3	4	1
20	Marselina	3	4	1
21	Sakina Vira	1	3	2
22	Dela Oktarina	2	4	2
23	Tri Hasteti	2	4	2
24	Sarma Andini	4	6	2
25	Wita Sari	2	4	2
26	Helen	3	5	2
27	Piska	3	4	1
28	Adista	3	6	3
29	Farel	3	5	2
30	Aldi Saputra	2	3	1
N = 36		75 x ₁ = 2,5	131 x ₂ = 4,36	∑d = 56

Based on the results of the calculation of the table above, it can be seen that there is an increase from Pre-test and Post-test, thus it can be concluded that if the calculation is $> t$ -table, hopping training affects the lay-up shooting ability of basketball games in extracurricular SMA Negeri 1 Tebing Tinggi, Four Lawang Regency. Based on the average results of the pre-test lay-up shoot of basketball games conducted by the research subjects was 2.5 if carefully considered among the 30 research subjects, sample number 13 had not obtained a score on the pre-test and the highest score obtained sample numbers 18 and 24 obtained a score of 4 out of 30 seconds shooting.

Then based on the average post-test lay-up shoot results of basketball games conducted by research subjects was 4.36 if carefully considered among the 30 research subjects, sample number 13 had the lowest score, which was 2 out of 10 shooting, while the highest score in the post-test was obtained sample number 18 by obtaining a score of 7 out of 10 shooting.

When compared between the two tests, namely between the pre-test and post-test, there is a difference in post-test results better than the pre-test results. Then from the results of the analysis of the hypothetical test data, the calculated value is 20.66, the value when consulted with the value in the table (2.75) for the sample number of 30 students ($DK = n-1$) in other words t -calculate $> t$ -table. It has become a provision according to Sugiyono, (2010) that if t . count is smaller or equal to t . table (t . count $\leq t$. table), then H_0 is accepted and H_a is rejected and vice versa t . count is greater than or equal to t . table (t . count $\geq t$. table), then H_0 is rejected and H_a is accepted. Thus, it can be said that the treatment given in the form of hopping training affects the lay-up shooting ability of basketball games in extracurricular SMA Negeri 1 Tebing Tinggi, Four Lawang Regency. Many five senses are used to receive and process information, the greater the information is easier to understand and remember.

D. Conclusion

Based on the results of research that has been conducted by researchers on students of SMA Negeri 1 Tebing Tinggi Empat Lawang Regency, about the effect of hopping training on the lay-up shooting ability of basketball games, the results were obtained t count 20.66. This value when consulted with the distribution table t with a sample number of 30 students, namely the value of t . The table is 2.75. It has become a stipulation that if the t -calculation $> t$ -table, the research has an influence, so that it can be concluded that there is an effect of hopping training on the lay-up shooting ability of basketball games in extracurricular SMA Negeri 1 Tebing Tinggi Empat Lawang Regency.

Based on the description above, it can be suggested to all school components of physical education teachers, to always develop innovative and varied learning in teaching, especially by developing forms of exercise in extracurricular activities in the

form of *hopping exercises*. Then students, to follow the learning process of PE by following the instructions of the PE teacher, and follow extracurricular activities organized by the school in order to improve sports achievement, especially basketball. As well as the principal, so that in the procurement of sports facilities, especially basketball, it will be in accordance with standards, especially quality standards

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