



The Effect of Skipping Exercise on the Ability to Jump Shoot in the Basketball Game of Male Students at SMP Negeri 4 Lahat

Andrias Pratama¹, Hikmah Lestari^{2*}, Ary Sandy³, Ardiansyah Putra⁴, Risky Darmawan⁵
¹²³⁴⁵Fakultas Keguruan dan Ilmu Pendidikan, Universitas PGRI Palembang, Indonesia

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ABSTRACT

Basketball is a type of sport that is popular in the community and its development is so fast, and attracts a lot of attention in human life, especially young people. This basketball game grows and develops quickly because this type of basketball game is very fun. Based on research from the results of the championship basketball competition at an early age that was attended by SMP Negeri 4 Lahat, there were many deficiencies, in terms of physical, technical, tactical and mental basis in competing. But not only that, Jump Shoot Basketball is also difficult, because it requires correct basic basketball techniques. One way to overcome this is to improve the basic Jump Shoot movements for these students, so that researchers are interested in providing Skipping exercises with the aim of getting a good Basketball game. This study uses a true experimental research design (True experiment) because this study uses 3 principles, namely randomization, replication, and the existence of control or comparison groups/treatments. First of all, the measurement (pre-test) is then given the treatment and finally the final test (post-test) is carried out. Skipping exercises can increase the ability to jump shoot results in basketball games for male students at SMP Negeri 4 Lahat, this can be seen from the increase in the average pretest of the experimental group, namely 5.3 and the average posttest of the experimental group after being given treatment, which is 8.6. . Thus "There is an effect of Skipping training on Jump Shoot ability in basketball games for male students at SMP Negeri 4 Lahat" can be accepted.

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Penulis Korespondensi:

Hikmah Lestari,

FKIP, Universitas PGRI Palembang

Email: hik2mah@gmail.com

INTRODUCTION

Initially the game of basketball was intended as a recreational activity to fill winter activities and to fill the boredom that hit members of sports fans who are members of Christian youth associations, namely the YMCA (Young Men's Christian Association). In Springfield, Massachusetts. In 1891, Naismith began to find targets in the form of a basket with a hole in the bottom. From the origin of the basket, the name basketball was created by Naismith, who is now famous throughout the world. In 1892 its development expanded to various states of the United States. Especially in schools, in Indonesia basketball is one of the learning materials in physical education subjects which are categorized in big ball games (Al-Kadri et al., 2020). In the current era, the game of basketball has become a trend setter among teenagers, including in Indonesia, even though the majority is played by men, currently basketball is also played by women (Sitepu, 2018). The development of basketball in Indonesia is very rapid, this is because this game does not require a field that is too wide and the equipment used is still within reach of simple people (Lestari, 2019).

According to (Susanto, 2016) basketball is a ball sport in groups consisting of two teams of five people each competing to score points by putting the ball into the opponent's basket. This sport has an important role in human life. In almost various international sports events, Indonesia always fails by not achieving targets. In fact,

for regional sports competency events, Indonesia has already been surpassed by neighboring countries that were previously on equal footing.

With the trend of less achievement in basketball, in order to participate and compete between athletes in achievement sports activities, the physical, technical, psychological and social qualities required by certain sports must be developed. Therefore, through development and coaching in the community, sports must be taught in schools from Elementary Schools, Junior High Schools, to Middle Schools.

Basketball is a game that uses speed (feet and hands) and agility (all body movements) at the right time. In training, you must continuously emphasize the principle of doing all the movements correctly, quickly, and at the right time. All of this must be done while developing and training the player's individual skills, physical, emotional, and team balance, both in defense and offense positions. There are (six) fundamental positions and basic basketball movements that we will teach are as follows: 1.) Stance (how to stand), 2.) Start (start moving), 3.) Step (foot movement steps), 4.) Turn, 5.) Stop, 6.) Jump.

In the game of basketball there are several basic techniques that must be mastered, namely dribble, passing, and jump shoot (Yuliandra & Fahrizqi, 2019). A jump shoot is a shot while jumping which really requires good jumping skills (Mukhtarsyaf et al., 2019). The ability to perform the jump shoot technique is influenced by the level of physical condition that can be achieved through programmed training, where the jump shoot technique requires high and fast jumps to generate points (Hasibuan et al., 2019). The height of the jump depends on the distance of the shot and more leg power to shoot the ball. For this reason, it is necessary to find the right and effective form of exercise to increase muscle power, especially in the ability to jump, namely the strength of the leg muscles. From what has been described above, it can be said that Jump Shoot has an important function in the game of basketball. The advantage of a jump shot is that players can avoid trying to block or block opponents when making a shot because when making a jump shot a player will release the ball at the highest point of the jump (Yenes et al., 2018).

therefore the researchers saw from one of the schools that had basketball extracurricular activities where to practice the basic techniques of Jump Shoot, children who took part in Basketball training activities had difficulty doing Jump Shoot properly, due to lack of jumps and leg strength to do Jump the Shoot. The researcher saw that in Lahat 4 Public Middle School, the game of basketball was still very minimal and underdeveloped, judging from the facilities and infrastructure for playing basketball.

Based on research observations from the results of an early age Championship Basketball match which was attended there were many deficiencies, in the physical, technical, tactical and mental bases in the competition. But not only that, Jump Shoot Basketball is also difficult, because it requires correct basic basketball techniques. One way to overcome this is to improve the basic Jump Shoot movements for these students, so that researchers are interested in providing Skipping exercises with the aim of getting a good Basketball game.

Skipping is a jumping movement that involves the muscles of the arms and legs which can also increase cardiovascular and metabolism, skipping is a simple exercise that only requires low costs (Pramudani & Kumaidah, 2018). As is well known, improving basketball game techniques requires physical conditions such as endurance, which means that while in the game, players are required to remain in a stable condition until the end of the game (Saputra & Mahendra, 2019). Skipping is a sport that uses a rope that is rotated with the wrist as a pivot (Magfirah, N, 2016). The purpose of skipping exercises is to maximize the size of the distance reached or the height of the jump and to align, coordinate the jump with the swing so that the rope can pass through the legs and head and be able to develop leg strength with the many jumps made (Ahmad Yanuar Syauki et al., 2021).

Because junior high school students are still very likely to receive a form of training that the researcher will provide. So the researchers tried to do research with the title "The Influence of Skipping Exercise on Jump Shoot Ability in Basketball Games for Class VII Boys Students at SMP Negeri 4 Lahat".

METHOD

This study uses a real experimental research design (Two group experiment) because this study uses 3 principles, namely randomization, replication, and the existence of control or comparison groups/treatments. First of all, the measurement (pre-test) is then given the treatment and finally the final test (post-test) is carried out. The research activities on the samples in this study are: 1) Conduct an initial test (Pretest) before giving treatment to the experimental group, 2) Treatment, namely by giving treatment in the form of Skipping exercises in the form of exercises for 60 seconds, 3) Carry out a final test (Postest) carry out a final test after receiving treatment (experimental group).

This research was conducted at junior high school 4 Lahat with purposive sampling a sample of 40 male students of class VII. Which was divided into 20 people as the experimental group and 20 people as the control

group. The sampling procedure was carried out by: 1) registering all class VII students, 2) randomly selecting male students of class VII who would be the sample and who would be used as the experimental group and the control group, 3) the results randomly obtained 40 male students who were distinguished into 20 students in the experimental group and 20 students in the control group, 4) get the names of the samples.

RESULT AND DISCUSSIONS

Research Result

Table 1. List of Experiment Group Pretest Frequency Distribution

No.	Results (Jump Shoot)	f_i	X_i	x_i^2	$f_i x_i$	$f_i x_i^2$	Class Interval
1.	1 – 2	4	1,5	2,25	6	9	0,5 - 2,5
2.	3 – 4	5	3,5	12,25	17,5	61,25	2,5 - 4,5
3.	5 – 6	2	5,5	30,25	11	60,5	4,5 - 6,5
4.	7 – 8	7	7,5	56,25	52,5	393,75	6,5 - 8,5
5.	9 – 10	2	9,5	90,25	19	180,5	8,5 - 10,5
Σ	Jumlah	20			106	705	

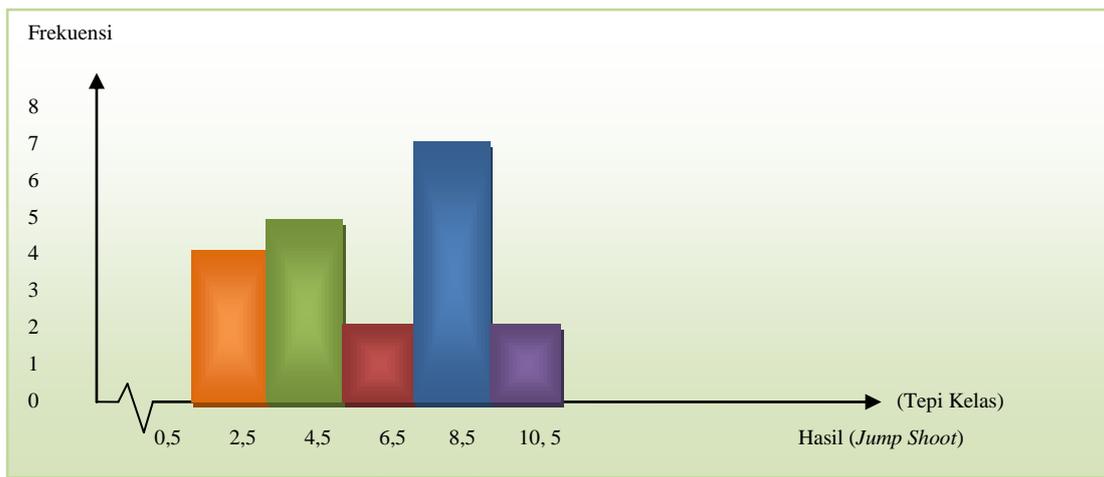


Figure 1: Experimental Group Pretest Histogram Diagram

Average value:

$$\begin{aligned} \bar{X} &= \frac{\sum f_i x_i}{\sum f_i} \\ &= \frac{106}{20} \\ &= 5,3 \end{aligned}$$

Table 2. List of Control Group Pretest Frequency Distribution

No.	Results (Jump Shoot)	f_i	X_i	x_i^2	$f_i x_i$	$f_i x_i^2$	Class Interval
1	1 – 2	5	1,5	2,25	7,5	11,25	0,5 - 2,5
2	3 – 4	4	3,5	12,25	14	49	2,5 - 4,5
3	5 – 6	7	5,5	30,25	38,5	211,75	4,5 - 6,5
4	7 – 8	2	7,5	56,25	15	112,5	6,5 - 8,5
5	9 – 10	2	9,5	90,25	19	180,5	8,5 - 10,5
Jumlah Σ		20			94	565	

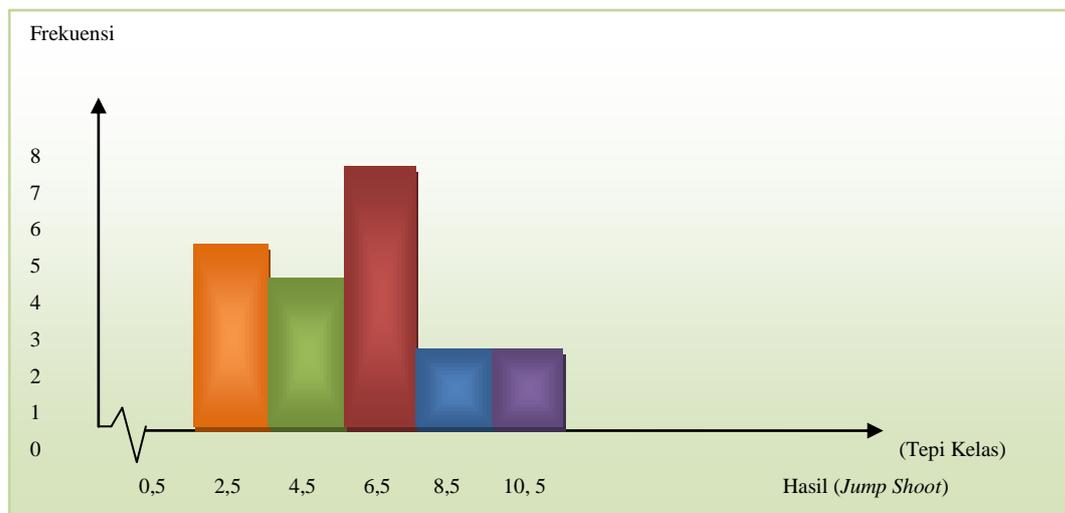


Figure 2 : Control Group Pretest Histogram Diagram

Average value:

$$\begin{aligned} \bar{X} &= \frac{\sum f_i x_i}{\sum f_i} \\ &= \frac{94}{20} \\ &= 4,7 \end{aligned}$$

Table 3. List of Posttest Frequency Distribution of Experimental Groups

No.	Results (Jump Shoot)	f_i	X_i	x_i^2	$f_i x_i$	$f_i x_i^2$	Class Interval
1	3 – 5	4	3,5	12,25	14	50	2,5 - 5,5
2	6 – 8	5	6,5	45,25	32,5	226,25	5,5 - 8,5
3	9 – 11	6	9,5	90,25	57	541,5	8,5 - 11,5
4	12 – 14	3	12,5	156,25	37,5	468,75	11,5 - 14,5
5	15 -17	2	15,5	240,25	31	480,5	14,5 - 17,5
Jumlah Σ		20			172	1767	



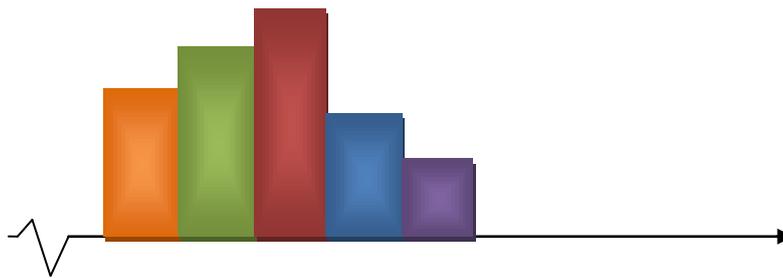


Figure 3 : Experimental Group Posttest Histogram Diagram

The average value of the experimental group:

$$\begin{aligned} \bar{X} &= \frac{\sum f_{ixi}}{\sum f_i} \\ &= \frac{172}{20} \\ &= 8,6 \end{aligned}$$

Table 4. List of Control Group Posttest Frequency Distribution

No.	Results (Jump Shoot)	f_i	X_i	x_i^2	$f_i x_i$	$f_i x_i^2$	Class Interval
1	1 – 2	4	1,5	2,25	6	9	0,5 - 2,5
2	3 – 4	6	3,5	12,25	21	73,5	2,5 - 4,5
3	5 – 6	5	5,5	30,25	27,5	151,25	4,5 - 6,5
4	7 – 8	3	7,5	56,25	22,5	168,75	6,5 - 8,5
5	9 – 10	2	9,5	90,25	19	180,5	8,5 - 10,5
Jumlah Σ		20			96	583	

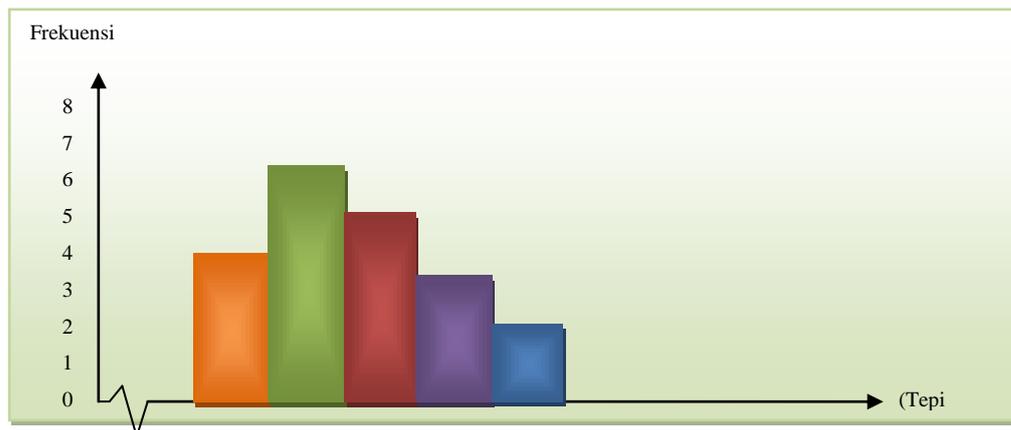


Figure 3. Control Group Posttest Histogram Diagram

The average value of the control group:

$$\begin{aligned} \bar{X} &= \frac{\sum f_{ixi}}{\sum f_i} \\ &= \frac{96}{20} \\ &= 4,8 \end{aligned}$$

Table 5. Pretest and Posttest Experiment Group and Control Group

No.	Eksperiment Group		Beda (X) (PT-T)	X ²	No.	Control Group		(X) (PT-T)	Y ²
	Pretest (T)	Pretest (T)				Pretest (T)	Posttest (PT)		
1.	1	3	2	4	1.	1	1	0	0
2.	1	4	3	9	2.	1	1	0	0
3.	1	5	4	16	3.	2	1	-1	1
4.	2	5	3	9	4.	2	2	0	0
5.	3	6	3	9	5.	2	3	1	1
6.	3	7	4	16	6.	3	3	0	0
7.	3	8	5	25	7.	4	3	-1	1
8.	3	8	5	25	8.	4	3	-1	1
9.	4	8	4	16	9.	4	4	0	0
10.	5	9	4	16	10.	5	4	-1	1
11.	6	9	3	9	11.	5	5	0	0
12.	7	10	3	9	12.	5	5	0	0
13.	7	10	3	9	13.	6	5	-1	1
14.	7	11	4	16	14.	6	6	0	0
15.	7	11	4	16	15.	6	6	0	0
16.	7	12	5	25	16.	6	7	1	1
17.	7	13	6	36	17.	7	7	0	0
18.	8	14	6	36	18.	8	8	0	0
19.	9	15	6	36	19.	9	9	0	0
20.	9	16	7	49	20.	9	9	0	0
Σ	100	184	84	386	Σ	95	92	-3	7

So that $t_{count} = 13.45 > t_{0.95} (38) = 2.84$. Thus rejecting the hypothesis H_0 which reads "There is no effect of skipping exercises on the ability to jump shoot in basketball games at SMP Negeri 4 Lahat, and H_a which states: There is an effect of skipping exercises on the ability to jump shoot at basketball games at SMP Negeri 4 Lahat"

Discussions

The exercise used to improve Jump Shoot skills is the Skipping exercise. This research was conducted on 40 male basketball players at SMP Negeri 4 Lahat. Before grouping all the samples, an initial test (pretest) was carried out by doing a Jump Shoot, then the results were ranked based on the highest score. The sample was divided into 2 groups using a random system based on the results of the pretest ranking, namely 20 people in the experimental group and 20 people in the control group. The control group was not given treatment, while the experimental group was given treatment in the form of skipping exercises for 4 weeks with a frequency of exercise 3 times a week. After 4 weeks, all research samples were subjected to a final test (posttest) by doing a Jump Shoot.

The pretest results of the experimental group revealed that the men's basketball players at SMP Negeri 4 Lahat had the highest jump shot ability of 9 and the smallest was 1, and the average pretest of the experimental group was 5.3, while in the control group the highest jump shoot ability was 9 and the smallest result is 1, and the average pretest for the control group is 4.7. After being given Skipping exercises for 4 weeks with exercise frequency 3 times a week and exercise intensity of 60-70% of maximum load, it turns out that there is an average increase for the experimental group of 3.3. So that the posttest jump shoot average of the experimental group was 8.6.

Training is a systematic process of practicing or working together repeatedly, with the number of training loads and the intensity of training increasing day by day (Harsono, 1988). So the exercise referred to in this study is the Skipping exercise for 30 seconds to get the Jump Shoot results. And according to the opinion of Sumasardjuno (1987) "If sports practice has been going on long enough, at least 4-8 weeks, you practice regularly with sufficient training, then there will be a training effect (training effect)". And in accordance with the opinion of Engkos Kosasih (1993) "Why at least 3 times a week, because a person's endurance will start to decrease after 48 hours if they don't do exercise".

After the pretest and posttest data were obtained, normality and homogeneity tests were carried out as a condition for data analysis. After testing, the data were normally distributed and homogeneous. After the data is declared to be normally distributed and homogeneous, then a hypothesis can be submitted using the "t test"

statistic. Test criteria accept H_0 if t count $< t$ table $(1 - \alpha)$ and reject H_0 if t count $> t$ table $(1 - \alpha)$, where $t(1 - \alpha)$ is t obtained from the t distribution table with $dk = n_1 + n_2 - 2$ and odds $(1 - \alpha)$. Obtained t count = 13.45, while $t_{0.95}(38) = 2.484$. So, t count = 13.45 $> t_{0.95}(38) = 2.484$. Thus "There is an effect of Skipping training on Jump Shoot ability in basketball games for male students at SMP Negeri 4 Lahat" can be accepted.

CONCLUSION

Based on the results of research and data analysis, the following conclusions can be drawn: First Skipping exercises can increase the ability to jump shoot results in basketball games for male students at SMP Negeri 4 Lahat, this can be seen from the increase in the average pretest of the experimental group, namely 5.3 and the average posttest of the experimental group after being given treatment, which is 8.6. The Second Skipping exercise has a significant effect on the results of Jump Shoot in the Basketball game at SMP Negeri 4 Lahat, it can be seen from the t count obtained which is greater than t table, namely t count = 13.45, while t table = 2.484 with a 95% confidence level and $dk = 38$, so that it can be formulated t count = 13.45 $> t$ table 0.95 (38) = 2.484. From the conclusions above, the hypothesis in this study is "There is an Effect of Skipping Exercise on Jump Shoot Ability in Basketball Games for Class VII Boys at SMP Negeri 4 Lahat" can be accepted.

DAFTAR PUSTAKA

- Ahmad Yanuar Syauki, Bambang Yunanto, & Siti Maesaroh. (2021). Analisis Penerapan Latihan Skipping Untuk Meningkatkan Kecepatan Tendangan Atas Pada Atlet Beladiri Karate. *SPORTIF: Jurnal Pendidikan Jasmani, Kesehatan, Dan Rekreasi*, 6(2), 61–75. <https://doi.org/10.54438/sportif.v6i2.270>
- Al-Kadri, K. F., Supriatna, E., & Haetami, M. (2020). H MODEL COOPERATIVE LEARNING TIPE JIGSAW TERHADAP KEMAMPUAN DRIBBLE BOLA BASKET PADA PESERTA DIDIK MTS NEGERI 1 PONTIANAK. *Jurnal Pendidikan Dan Pembelajaran Khatulistiwa*, 9(1).
- Hasibuan, H. A., Asmawi, M., & Puspitorini, W. (2019). PENGARUH MODEL LATIHAN DAN KOORDINASI MATA TANGAN TERHADAP KETERAMPILAN JUMP SHOOT BOLA BASKET. *Jurnal Penjaskesrek*, 6(1). <https://doi.org/10.15900/j.cnki.zylf1995.2018.02.001>
- Lestari, H. (2019). Hubungan Power Otot Tungkai dan Koordinasi Mata-Tangan dengan Hasil Shooting pada Cabang Olahraga Bola Basket pada Siswa Kelas X SMA Negeri 19 Palembang. *Jurnal Olahraga*, 5(2), 111–118. <http://jurnalolahraga.stkipasundand.ac.id/index.php/jurnalolahraga%0APengaruh>
- Magfirah, N. I. (2016). *Pengaruh Latihan Skipping Terhadap Kardiovaskular Endurance Pada Kelompok Cabang Olahraga Beladiri*. Universitas Hasanuddin Makassar.
- Mukhtarsyaf, F., Arifianto, I., & Haris, F. (2019). Pengaruh Daya Ledak Otot Tungkai Terhadap Kemampuan Jump Shoot Atlet Klub Bolabasket. *Jurnal MensSana*, 4(2), 179. <https://doi.org/10.24036/jm.v4i2.104>
- Pramudani, A. H., & Kumaidah, E. (2018). *Pengaruh Latihan Skipping Terhadap Vertical Jump*. 7(4), 1755–1762.
- Saputra, A. A., & Mahendra, A. (2019). Hubungan Daya Ledak Otot Lengan Dan Koordinasi Mata Tangan Dengan Hasil Chest Pass Siswa Ekstrakurikuler Bola Basket. *Jurnal Olympia*, 1(1), 10–18. <https://doi.org/10.33557/jurnalolympia.v1i1.292>
- Sitepu, I. D. (2018). Manfaat Permainan Bola Basket Untuk Anak Usia Dini. *Jurnal Prestasi*, 2(3), 27. <https://doi.org/10.24114/jp.v2i3.10129>
- Susanto, T. (2016). *Buku Pintar Olahraga*. Pustaka Baru Pres.
- Yenes, R., Syahara, S., & Kiram, Y. (2018). PENGARUH DAYA LEDAK OTOT TUNGKAI DAN KESEIMBANGAN TERHADAP KEMAMPUAN JUMP SHOT ATLET BOLABASKET FIK UNP. *Jurnal Performa Olahraga*, 3(02). <https://performa.ppj.unp.ac.id/index.php/kepel/article/view/44>
- Yuliandra, R., & Fahrizqi, E. B. (2019). Pengembangan Model Latihan Jump Shoot Bola Basket. *Journal of SPORT (Sport, Physical Education, Organization, Recreation, and Training)*, 3(1), 51–55. <https://doi.org/10.37058/sport.v3i1.750>