



The Effect of Multiple Hop and Jump Exercises on Blocking Jump Height in Women's Volleyball Extracurriculars North Bengkulu State Vocational School 5

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Abstract

This study aims to determine how much influence the multiple hop and jump exercises have on the height of the blocking jump in the women's volleyball extracurricular at SMK Negeri 5 Bengkulu Utara. The type of research used in this research is experimental research using the one group pre test – post test design. The population in this study were all female volleyball extracurricular participants at SMK Negeri 5 North Bengkulu, totaling 25 athletes. The results of the study The effect of multiple hop and jump exercises on the height of the blocking jump in the women's volleyball extracurricular at SMK Negeri 5 Bengkulu Utara has an increase with a percentage of 11.7% and the results of the tcount test = 3.72 > t table = 1.711. it can be concluded that the multiple hop and jump exercises affect the height of the blocking jump.

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INTRODUCTION

One of the most effective physical or psychological activities to improve the quality of one's health is exercise. Sports are played fairly and openly by every member of society, from babies to the elderly. Sport also functions as an ambassador to promote health to every audience (Chania, 2021). According to Yukarda (2019), the objectives of human participation in sports are as follows: 1) Carry out sports initiatives to reorganize; 2) Implement sports initiatives for further educational purposes; 3) Implement sports initiatives to address disease healing and recovery; and 4) Implement sports initiatives to promote highly competitive work standards.

From the poorest to the wealthiest segments of Indonesian society, the expression "cabana volleyball" is well known. Volleyball is no longer just a recreational activity; it has developed into a competitive sport. The emergence of professional leagues in Indonesia such as Livoli and Proliga is proof that volleyball is being played as a professional sport in this country. It is clear that volleyball is a popular spectator sport, as it is played by two teams of six players each on a court measuring 18 by 19 meters and having a net height of 2.43 meters for men and 2.24 meters for women. In addition, the sport of volleyball can be played on any flat surface, whether it is grass, concrete, sand or water and also volleyball can be played indoors or outdoors;

Multiple Hop And Jump is one of the weight training which, when programmed, will increase a person's physical abilities. In this exercise a person's physical condition will stand out in the explosive power of the leg muscles (Arwin et al, 2022)

North Bengkulu State Vocational School 5 is located in the north Bengkulu market axis. The school which stands

near the beach is surrounded by Pekal natives. The school has a very large field so it can be used for various sports such as basketball, futsal, volleyball etc. With a field that supports many extracurricular activities carried out at this school, one of them is volleyball extracurricular.

Extracurricular activities at SMK Negeri 5 North Bengkulu, one of which is volleyball, there is no data yet regarding the effect of Multiple hop and jump training on the height of the blocking jump in volleyball games, these students have not been able to master timing well and the ability to jump over average. these students have not been able to master timing well and the ability to jump is above average. Of course, it is necessary to hold a test on the Multiple hop and jump exercise. . Multiple hop and jump or is an exercise that is performed by starting the rear leg repulsion, followed by moving the knee to the chest and trying to jump as high and as far as possible before landing by stretching the legs forward quickly. Repeat the circuit with your feet on landing (Amiq et al, 2016).

One simple indicator to see the effect of the Multiple hop and jump training of extracurricular participants in volleyball games is by looking at blocking abilities. Multiple hop and jump exercises are very much needed in volleyball, that is, if you have good leg power you are expected to be able to jump when defending (block), or (smesh) well (Sugihartono et al., 2019).

Problems that arise in jumping blocking Students have not mastered good timing blocking because they have less jump height, inadequate training equipment Multiple hop and jump exercises are still rarely done so students who take part in extracurricular volleyball have a jumping height that is not optimal, Students not good at blocking so that points are rarely obtained

from doing blocks. By knowing the problems above, he observed the students at SMK Negeri 5 North Bengkulu and asked directly the teacher who held the extracurricular. Based on the background above, the researcher will conduct a study entitled "The Effect of Multiple Hop and Jum Exercise on Blocking Jump Height in Women's Volleyball Extracurriculars at SMK Negeri 5 North Bengkulu".

METHODS

This type of research is quantitative because statistical methods and content analysis are used to compile the findings. The analytical method used is experimental. Experiential research methods can be considered as methods used to determine the importance of one thing in relation to another in a known environment (Sugiyono, 2010). This study consisted of three phases: initial assessment, intervention, and follow-up assessment or "posttest". This study uses a one-group, pre-and posttest design. The population in this study were female volleyball extracurricular students at SMK Negeri 5 Bengkulu Utara. While the sample in this study were 25 female volleyball extracurricular students at SMK Negeri 5 North Bengkulu. The data collection techniques in this study include pre-test data obtained from the ability and expertise of athletes to carry out tests at a high level before receiving test results, and post-test data obtained from athletes. Data collection techniques in this study used high tests. Jump blocking as much as 3 trials by taking the best data. The collection technique in this study used a test. According to (Nopiyanto & Pujiyanto,

RESULTS

Based on the pretest conducted by looking at the height of the athlete's blocking jump who was given the

opportunity to warm up and after that immediately jumped in 3 attempts and the highest value was taken, as follows:

Table 1. Frequency Distribution of Pretest Results with the height of the blocking jump

No	intervals	Frequency	Category	Percentage
1.	42-47	2	Very good	8%
2.	36-41	4	Well	16%
3.	30 - 35	12	Currently	48%
4.	24 - 29	6	Not enough	24%
5.	17-23	1	Very less	4%

Based on table 1 it was found that in the initial test, the height of the block jump of students who were in the "very good" category totaled 2 students, were in the "good" category totaled 4 students, were in the "moderate" category totaled 12 students, were in the "less" totaling 6 students, are in the category of "very less" totaling 1 student.

Table 2. High pretest results of blocking jumps

No	Statistics	Amount
1.	N	25
2.	Average value	32,28
3.	Standard deviation	5.02
4.	Min value	42
5.	Maximum value	24

Based on table 2 after carrying out the initial test with a sample of 25 students, the results obtained include: the average value is 32.28, the standard deviation is 5.27, the highest value is 42, the lowest value is 24. Based on the posttest conducted as many as 25 samples based on the height of the student's block jump, as follows:

Table 3. Frequency Rotation Posstest results high blocking jump

No	intervals	Frequency	Category	Percentage
1.	42-47	5	Very good	20%
2.	36-41	5	Well	20%
3.	30 - 35	12	Currently	48%

4.	25 – 29	3	Not enough	12%
5.	17 – 24	0	Very less	0%

Based on table 3 it is known that in the final test, the height of the block jumps of female students was in the "very good" category totaling 5 students, in the "good" category totaling 5 students, in the "medium" category totaling 12 students, in the "poor" category. " totaling 3 students, in the category of "very lacking" totaling 0 students.

Table 4. Posttest high jump blocking results

No	Statistics	Amount
1.	N	25
2.	Average value	36.08
3.	Standard deviation	5,36
4.	Min value	46
5.	Maximum value	27

Based on the data in Table 6 as a guide. After students were assigned roles and the final exams were taken, the test results for a sample of 25 students were as follows: The overall mean score was 36.08, standard deviation = 5.36, highest score = 46, and lowest score = 27.

The normality test was tested on each research data, namely pretest and posttest data. The data is said to be normally distributed if the significant value obtained is greater than 0.05. The following will present the normality test results obtained. The results are presented in the table as follows:

Table 5. Normality of test data (Chi-Square) Pretest and Posttest Mawashi Geri kicks

inter		Preliminary Test		Final Test		Information
No		L	L	L	LT	
		O	T	O		Distribution
1	25	0.122	0.173	0.170	0.173	Normal

Based on the table above, it is known that $LO < L_{table}$, where data collected from one experimental group will have a normal normal distribution.

Table 6. Homogeneity Test

Group	Variable	Standard Deviation	Variance (S2)
1.	Preliminary Test	5,38	25,20
2.	Final Test	9.57	30,14

Based on the calculations, it is obtained that the value of $F_{count} = 1.12$ while the value of F_{table} is at a significant level of 0.05 with $(db) = (k-1), (2-1) = 1, db, (n-1), (25-1) = 24$ where 1 is the numerator and 24 is called the denominator of 4.26. $F_{count} < F_{table}$ ie $1.22 < 4.26$ means there is no difference between the individual variables or the associated prices Homogeneous.

Test the hypothesis using the t-test at a significant level of 0.05. The results of the t-test hypothesis can be seen as follows:

Table 7. Calculation results t-test

Group	Dk (n-1)	tcount	ttable	Criteria
Experiment	24	3.72	1,711	There is influence

Based on Table 7. The above T-Test Calculation Results Obtained T Value $_{Count} = 3.72 > T_{Table} 1.711$ Then H_0 Accepted. So there is the effect of multiple hop and jump training on the height of the blocking jump in the women's volleyball extracurricular at SMK Negeri 5 Bengkulu Utara.

DISCUSSION

Multiple hops and jumps are very useful In the world of professional volleyball, jumping is very important if you have the strength to do it when you need it (during a smash, block or during a good serve, for example). With the

research that has been done, multiple hop and jump exercises can make a person experience an increase in jumping because of the formation of explosive power against leg muscle strength and generates power, which is very much needed in all sports, one of which is volleyball, it is very important for someone to have leg muscle strength. . Blocking jump height can be increased by using the multiple hop and jump training method. Exercise is an activity that someone does before doing something, practice also has neatly structured activities, use to get maximum results. To get maximum results, players must do good training, players must understand the techniques that exist in volleyball games, namely the technique of passing over, passing under, serving over, serving under, smash and block (Asota et al., 2022) . Many training methods can increase the height of the jump, multiple hop and jump exercises can be an alternative training model that can be used to increase the height of the special jump. In volleyball, high jumps are needed when doing smashes, blocking and other movements. This exercise serves to increase power in leg jumps and reach of the hands when making jumps, because Jump exercises occur from contact to the ground without jumping. Increasing the Height of the Blocking Jump in the Women's Volleyball Extracurricular at SMK Negeri 5 North Bengkulu

The results of the increase show that the multiple hop and jump exercises have an increasing effect on the height of the blocking jump in the women's volleyball extracurricular at SMK Negeri 5 Bengkulu Utara. the resulting power makes leg muscle strength have good explosive power so that the height of the extracurricular blocking jump for women's volleyball at SMK Negeri 5 Bengkulu Utara has increased

significantly. this is evidenced by the difference in test results where the initial test obtained an average pre-test score of 32.28, the highest score was 42, the lowest score was 24, and a standard deviation of 5.02 after being given treatment for 16 extracurricular student meetings conducted post- test with an average value of 36.08, the highest value is 47, the lowest value is 27 and the standard deviation value is 5.36.

Based on the research conducted, multiple hop and jump exercises are carried out with a modified tool using a paralon in the shape of a small goal with a height of 40 cm. t-test results obtained, namely $t_{count} = 3.72 > t_{table} = 1.711$ then H_a is accepted, which states that there is an effect of multiple hop and jump training on the height of the blocking jump in the women's volleyball extracurricular at SMK Negeri 5 North Bengkulu. Doing blocking as much as possible with the hands over the net attached to the volleyball field poles, blocking in volleyball as much as possible someone jumps as high as possible and hands can pass through the upper net area as much as possible, a good jump height can make it possible to do blocking very much. good defense and counterattack for the opponent. Training must be carried out according to a strict schedule in order to give the best results. Training, from which we get the word "practice," is the process of improving athletic skills that combines theoretical and practical knowledge, the use of tried and true methods, and the establishment of clear guidelines to ensure that the desired results are achieved in a timely manner. way (Sukadiyanto et al., 2011). Based on the information presented above, it is clear that training is a type of individual Olympic sport activity that is methodical, growth-oriented, and works with human physiology and psychology to improve performance. is a process for

improving athletic skills that combines theoretical and practical knowledge, the use of tried and true methods, and the establishment of clear guidelines to ensure that the desired results are achieved in a timely manner. way (Sukadiyanto et al., 2011). Based on the information presented above, it is clear that training is a type of individual Olympic sport activity that is methodical, growth-oriented, and works with human physiology and psychology to improve performance. is a process for improving athletic skills that combines theoretical and practical knowledge, the use of tried and true methods, and the establishment of clear guidelines to ensure that the desired results are achieved in a timely manner. way (Sukadiyanto et al., 2011). Based on the information presented above, it is clear that training is a type of individual Olympic sport activity that is methodical, growth-oriented, and works with human physiology and psychology to improve performance.

CONCLUSION

Based on the results of the study, there is an effect of Multiple Hop and Jump Exercise on Blocking Jump Height in Women's Volleyball Extracurricular at SMK Negeri 5 North Bengkulu.

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