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The Effect of Snand Bottle Load Exercise on the Ability of Badminton Backhand Service of Extracurricular Students of SMP Negeri 63 Bengkulu Utara

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Abstract

This study aims to determine the effect of sand bottle weight training on the badminton backhand serving ability of extracurricular students at SMP Negeri 63 Bengkulu Utara. The research method used was the experimental pre-experimental design (one-group pretest-posttest design) with the independent variable being the sand bottle load and the dependent variable being the ability to serve badminton backhand. The sample in this study consisted of 30 badminton extracurricular students at SMP Negeri 63 Bengkulu Utara. The statistical analysis used is the t test. The results of the t-test analysis for comparison calculations between the final results of the same group subjects, it turns out that there is a significant difference in the sand bottle weight training to the backhand serve.

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INTRODUCTION

Education is one of the most important human needs. Because education has the task of preparing human resources (HR) for the development of the nation and state. In the world of education various sciences are taught, both in formal and non-formal education. Formal education is carried out in a directed and planned manner by the teacherat school. Then non-formal education can be obtainedoutsideschools both in community life and in other institutions that aim toaddand complete formal education.

Based on the 1945 Constitution article 31 paragraph 1 that everyone has the right to education and teaching (1945 Constitution). Both formal and non-formal education, everyone has the right to get without exception, including physical education.

Physical education is an integral part of education as a whole which contains a series of subject matter in everyday life in an effort to increase the physical and spiritual growth and development of students. Physical education is a learning process through physical activity designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active living, sportsmanship and emotional intelligence.

Badminton is one of the famous sportsin this world. this sport appeals to many age groups, various skill levels. Many men and women play this sport indoors and outdoors for recreation and also as a place of competition. The game of badminton is a fast game that requires good reflexes, a high level of fitness and good wrist strength. Badminton is a sport that is played using a net, racket and shuttlecock with techniqueblowwhich varies from relatively slow to very fast with feint movements.

The game of badminton has now been included in extracurricular activities by schools because of the gamebadminton in Indonesiagrowing very rapidly and has advantages. In addition, badminton sports are also often contestedininter-school competition. Therefore, many schools make this extracurricular activity a place to hone students' hidden talents so that they can be honed to the fullest. One example is SMP Negeri 63 Bengkulu Utara, this school makes badminton sport an extracurricular activity with the hope that it can improve students' movement abilities in playing badminton and of course it can improve student achievement, especially in badminton.

North Bengkulu 63 Public Middle School is a new school, but this school already has several sports facilities, one of which is a badminton court. Even though this school is a school that has sports facilities and has included badminton in extracurricular activities, unfortunately student achievement is still lacking. Even after followinga number ofeventon the levelUntil now, there are no students who can achieve well. This is allegedly due to the lack of understanding and ability of students in mastering the basic techniques of playing badminton.

Badminton game knows many hitting techniques. If a player wants to play well, he must master the basic techniques of hittinggamebadminton. According to Alhusin Syahri (2007) the types of strokes that must be mastered by badminton players are as follows service, lob, dropshot, netting, smash, underhand and drive.

Service is the initial capital in the game of badminton. Every player must be able to serve accurately because serve is very influential in the game both to start a match and to get points or points. Service is a very important shot, without good service it will be difficult to get

points consistently. Short service is a type of service that directs the shuttlecock with the aim of the two targets, namely:to the cornerthe intersection of the service linesin front ofwith the center line and the service line with the edge line, while the course of the shuttlecock runs thinly over the net line, (Tohar, 1992). Service is said to fail or out if: (1) the shuttlecock does not cross the lip of the net or fallsin areawrong pitch, (2) when the shuttlecock is hit, the racket body facesdown, so that all parts of the racket are not clearly visible under the server's hand, (3) the position of the shuttlecock when serving is higher than the server's waist (4) both feet of the server are notin thethe proper field of the field, (5) if the shuttlecock is held by the racket and swung again or the shuttlecock is hit twice byplayerthe same one. To be able to do various types of strokes in badminton well, a player is not enough just to master material regarding the basic techniques of playing badminton, but also needs to be balanced with qualified physical abilities. One of them is by having good wrist strength because badminton is one of the dominant sports using the hands.

After making initial observations on February 27 2019 on studentsextracurricularbadminton at SMP Negeri 63 Bengkulu Utara, totaling 30 students, but it turns out that there are still many shortcomings in serving, such as: (1) students who do not understand the importance of serving in badminton games, (2) students still do not master the correct racket grip technique so that the results of the strokes are less than optimal , (3) the ability of students to serve is still low, (4) student learning outcomes regarding the backhand serve are still lacking, (5) there is no variation in training in training the backhand serve, (6) the accuracy of the serve is still not accurate, (7) the program applied by the coach is still less effective to improve the backhand service.

Based on the description of the problem above, the training method used is the sand bottle load. The aim is to train strength, flexibility and range of motion of the wrist so that students can more easily make strokes so that the results of the strokes can be maximized. Therefore, to test and prove with research, the authors are interested in conducting research with the title "The Effect of Sand Bottle Weight Training on Badminton Backhand Service Ability in Extracurricular Students at SMP Negeri 63 North Bengkulu".

METHODS

This research is included in the experimental research. This type of research is a pre-experimental design experiment (One-group pretest-posttest design) Sugiyono, (2010). The experimental method is a method used to find the effect of a particular treatment.This research was carried out on the badminton court at SMP Negeri 63 North Bengkulu and when the initial and final data collection was carried out at the PGRI badminton building in Giri Kencana Village. The frequency of training 3 times a week was calculated from 31 July to 31 August 2019. This research was conducted in 18 meetings.

The results of this study were then processed using hypothesis testing, but first looking for normality and homogeneity of the data. To get a decision to accept or reject the hypothesis at a significant level of 5%.

RESULTS

Table 1. Distribution of Extracurricular Students' Backhand Service Ability (Pretest) at SMP Negeri 63 Bengkulu Utara

No	Norma	Category	Frequency	Percentage %
1	Very good	>24	1	3
2	Well	22–23	4	13
3	Enough	20–21	4	13
4	Currently	18 – 19	10	34
5	Not enough	16 – 17	6	20
6	Very less	<15	5	17

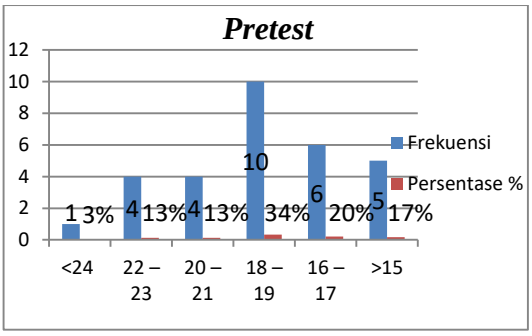

Image 1. DiagramBackhand Service Ability (Pretest) for extracurricular students at SMP Negeri 63 Bengkulu Utara

Based on the results of this study, it is known that the participant's backhand serviceextracurricularNorth Bengkulu 63 Public Middle School got 1 student in very good category 3%, 4 students in 13% good category, 4 students in 13% sufficient category, 10 students in 34% medium category, 6 students in 20% less category and very poor category 17% as many as 5 students.

Table 2. Distribution of Extracurricular Students' Backhand Service Ability at SMP Negeri 63 Bengkulu Utara

No	Norma	Category	Frequency	Percentage %
1	Very good	>24	8	26
2	Well	22–23	12	40
3	Enough	20–21	5	17
4	Currently	18 – 19	5	17
5	Not enough	16 – 17	0	0
6	Very less	>15	0	0

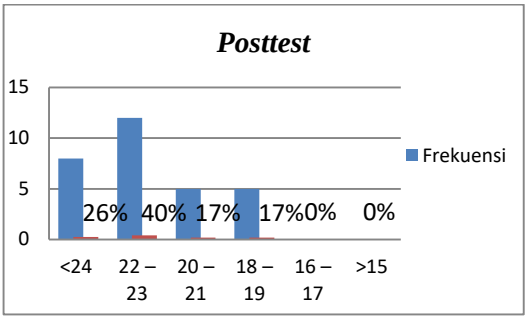

Figure 2. DiagramBackhand Service Ability (Posttest) for extracurricular students at SMP Negeri 63 Bengkulu Utara

Based on the results of this study, it is known that the extracurricular participant's backhand serveSMP Negeri 63 North Bengkulu obtained very good category results of 26% for 8 students, good category for 40% for 12 students, moderate category for 17% for 5 students, medium category for 17% for 5 students, poor and very poor category for 0% .

Normality test

Requirements analysis is carried out by means of a normality test to find out whether or not the data in the study is normal. The normality test uses the liliefors formula. Based on the analysis that has been donecoulddata results as follows:

Table 3. Normality Test

No	N	Test	Beginning	Test	End	Ket
		LO	LT	LO	LT	Distribution
1	30	0.109263715	0.161	0.122785	0.161	Normal

From table 4.4, it is known that the initial data LO is 0.109263715 < Ltable, 0.161. This means that the data taken from one experimental group under study has a normal distribution.

Homogeneity Test

Homogeneity test was carried out to find out whether some variants of the data population are the same or not. Homogeneity testing is by using the F test with degrees of freedom and a significance level of a = 0.05 in the F distribution table. The homogeneity test results obtained are:

Table 4. Homogeneity Test

No	F count	F table	Conclusion
1	1.87	4,20	Homogeneous

From the above calculation, the value of Fcount = 1.87 is obtained, while the value of f table is at a significant level a = 0.05 = 4.20. Fcount < Ftable which is 1.87 < 4.20 this means that there is no difference from each variable or the price of the variance is Homogeneous.

Table 5. Hypothesis Testing

No	N	Initial Test And Final Test		Ket
		t count	t table	Conclusion
1	30	3,461	1,701	Significant

Based on the data (Table 5) at the 0.05 level, t is obtained$_{table}$of 1.701 and tcount 3.461. Thus the value of tcount is greater than the value of ttable, meaning that the sand bottle weight training has an effect on the badminton backhand service of extracurricular students at SMP Negeri 63 Bengkulu Utara.

DISCUSSION

This research is an experimental research to improve the extracurricular backhand service of badminton students at SMP Negeri 63 Bengkulu Utara. Backhand service training was carried out in 1 meeting. The results of hypothesis testing showed that the hypothesis was accepted, namely the effect of backhand service training using sand bottle weights on students participating in extracurricular activities.

According to the results of research conducted on the initial test seen from the interval (Table 1), according to these data it can be concluded that many students have not mastered the backhand serve which are grouped according to the norm (category), this is due to the non-routine extracurricular activities in Public Middle Schools 63 North Bengkulu was held.Whereas in the final test, it can be seen from the interval (Table 2) that there is an increase in the backhand service which is grouped according to the norm (category). This increase in service ability is thought to be due to the routine training given in 16 meetings.

Sumardi (2015) states that the importance of the independent learning model used by teachers for students is able to streamline the teaching and learning process, this is supported by the results of his research on initial tests and final tests which have increased through independent learning models for backhand services. On the other hand, Munawar Al (2015: 4) as many as 20 students or 80% did not complete the backhand service, this was caused by a one-way teaching style, lack of approach between teacher and student and lack of adequate control and evaluation of students. The results of the study mean difference between pretest and posttest after being given backhand service training with sand bottle loads 16 meetings for students participating in the extracurricular activities at SMP Negeri 63 Bengkulu Utara has increased. The average results of hypothesis testing can be seen that the results of the pretest and posttest tcount of 3.461 > ttable 1.701 α = 0.05 then the hypothesis Ha is accepted or declared significant. From the data that has been obtained, the pretest result is 18.37 and the posttest average result is 22.9 with a difference of 4.53.

CONCLUSION

Based on the results of the study, it can be concluded that training using sand bottle weights has an effect on the badminton backhand service of extracurricular students at SMP Negeri 63 Bengkulu Utara. The improvement of backhand service through training using sand bottle weights for extracurricular students at SMP Negeri 63 Bengkulu Utara can be seen in the comparison of changes in the average pretest and posttest. From the data that has been obtained, the pretest is 18.37 and the posttest average result is 22.9 with a difference of 4.53. In addition, there are other factors that affect the improvement of backhand serving skills, including: adequate sports facilities and teaching staff, drills, student participation in extracurricular activities.

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