

THE EFFECT OF SERVICE EXERCISE WITH STAGE DISTANCE ON SERVICE RESULTS IN BALL GAME VOLLEY

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Abstract

This research aims to determine the effect of overhand serves training with a gradual distance on the results of overhand serves in volleyball games on extracurricular students at SMP Negeri 40 Palembang. The sample of this research was 25 students who took volleyball extracurricular activities. Data collection techniques in this research were through structured observation guided by volleyball playing skills tests from the American Association for Health, Physical Education Recreation and Dance (AAHPERD) as the top serves test instrument. Hypothesis testing in this research uses Paired-Samples T Test or t-test with the help of SPSS application (Statistical Product and Service Solutions). The results obtained by $t_{count} (-20,527) < t_{table} (df /dk 24 = 1,711)$, which means that there is an influence of overhand serves with a gradual distance to the results of overhand serves in volleyball games on extracurricular students in Palembang 40 Public Middle School.

Keywords: *overhand serves with a gradual distance, overhand serves*

INTRODUCTION

The sport of volleyball is a FIVB's (Federation Internationale de Volleyball) official indoor game, played between two teams of six players each, on small court (18 meters of length and 9 meters of width) separated by a net whose height vary according to players' sex (2.43 m for men and 2.24 m for women), and with a small ball (circumference of 65–67 cm, a weight of 260–280 g). The main aim of this game is to score a point by making the ball touch on the ground of the opposing court (Renata Alvares Denardi¹, Fabian Alberto Romero Clavijo¹, Thiago Augusto Costa De Oliveira¹, Sílvia Letícia Da Silva¹, Bruno Travassos² 2017). Menurut (Adin-Marian Cojocar¹ 2018) The volleyball game contains a series of individual technical-tactical actions that interact during the course of the game.

Volleyball is a sport that is popular in Indonesia and even in the world. In addition volleyball as an educational tool included in physical education and sports in school. Volleyball is a loving and exciting sport, but its poor promotion leads to a low number of consumers, especially in areas where this sport has no tradition (Eleni Zetou¹, Nikolas Vernadakis, Evagelos Bebetos 2012). Volleyball is a complex sport, whose result depends on the co-players which occupy positions and locations on the

court according to the game's regulations. Performance volleyball intensively requires the psychomotor resources of the sportsmen practising it. Adaptability to effort comes from the physical and psychic work involved which may contribute to attaining sports performances (Grapa Florin1; Rata Bogdan C-Tin2 2013)

Volleyball games which include sports games with a variety of different and unique motion patterns certainly require special techniques, where one of the techniques in volleyball is a service technique that consists of lower, top, floating, spin service and so on. The technique must be learned and trained, because the service in this modern volleyball game, is used to get points, not just to present the ball to the opponent (Sukirno and Waluyo, 2012). Servicing is a method of hitting the ball using your hand, to start the match in volleyball, to be able to serve well, things must be considered as follows, concentrate when serving, try to hit the ball into the opponent's area, try the ball servicing is done quickly, hardly, and precisely, watching and learning weak opponent players when receiving service punches, aiming the ball in an empty position or weak position of the opposing team (Nenggala and Irwansyah, 2014). The top service is the service that starts throwing the ball up then is hit by swinging your hand from above. The top service is very good to be used as the first attack, because the ball produced from the top service is not easily accepted by the opposing players, so it becomes a huge advantage if you master the top service well (Widiastuti et al. 2019). Trained children often have difficulty being able to master the service skills of volleyball that is good and right. Volleyball games can be well trained using a variety of exercises and forms of learning. This is caused by several factors, one of which is the lack of variety of training methods applied so that the training becomes tedious and less effective in improving the ability of children to train, and the programs used are not well targeted, so we need the right training methods to train top services to trained children (Sari and Guntur, 2017). According to the results of the study (Eleni Zetou, Nikolas Vernadakis, Evagelos Bebetso, 2012) In conclusion the Self-talk helps female volleyball athletes to improve performance and learning of overhand service skills and to improve their self-efficacy. This study adds some useful elements to practitioners and how they are used self-talk in practice. Furthermore, according to Subroto in Deritani (2017), the most common service performed by volleyball players at the moment is top service. The ball resulting from this service stroke can take the form of topspin or the way the ball spins forwards and floating or the way the ball floats or floats. How to do this service is as follows. The initial

attitude of standing in the service area is facing the opponent's playing field, for those who are right-handed left foot slightly ahead of right foot and vice versa for left-handed people. The ball is held in front of the chest by the left hand and the right hand holding it. The ball is to be raised approximately 40 cm in front of the head. At the same time, the left foot is slightly moved forward, and the right hand is raised above the back of the head and immediately hits the ball above the head with the base of the arm or the palm of the hand being stretched. The ball is hit in the center of the back of the ball. The movement of the arms should be in line with the force pushed forward, immediately enter the playing field to be ready to play the next ball.

The results of a preliminary study conducted at Palembang 40 Public Middle School, obtained information from Eka Octa Nugraha, a teacher in Physical Education, Sports and Health, that learning of Physical Education, Sports and Health subjects provided is based on the 2013 curriculum, where learning in class XIII there is material about large ball games one of which is volleyball game. To channel students' talents and interests in playing football, volleyball is used as an extracurricular activity at the school. However, based on the results of observations on volleyball extracurricular students at Palembang 40 Public Middle School in performing basic service techniques above. There are still many students who fail in doing service, some are not directed and often the ball that is serviced cannot cross the net or get stuck in the net. If things like this continue can cause boredom in students because the game cannot continue well, to overcome this it is better for students to be trained to perform services with a gradual distance starting from the closest distance then gradually reaching the actual distance. This treatment is very suitable for beginners.

Sari and Guntur results in 2017, showed an average increase in the results of service on volleyball at the time of the pretest and posttest, the method of gradual distance service training was 13.5. Step-by-step service training is a form of skill training done in an easier way then proceed to the next stage that is getting more and more difficult, namely by adjusting the service distance.

Based on the description above, the writer is interested in conducting research with the title "The Effect of Upper Service Training with Gradual Distance Against Top Service Results in Volleyball Games on Extracurricular Students in 40 State Junior High School Palembang." The Nature of Upper Service Training with Gradual Distance. According to Sari and Guntur (2017), top service training with distance stage is a form of skill training which is carried out in an easier way then proceed to the next

stage which is increasingly difficult, namely by adjusting the service distance. The easier way here is to make the distance shorter and gradually increase it to the actual distance. Regarding how the development of accuracy can be done with the target distance starting from close then getting further away. The staged distance training service that will be used is divided into 3 distances, the closest is 3 meters, then 6 meters, 9 meters and the farthest is at the actual service distance. Increasing the distance will be carried out after 4 (four) meetings.

The advantage of this method is the gradual distance service exercise will give a better impact especially to novice players. Furthermore, the advantages of this method are: a. Introducing an easy form of treatment first then gradually to the real treatment. Because the training starts from the shortest distance of stage I which is 3 meters for 4 times of training then the distance is increased in stage II to 6 meters intermediate distance for 4 times of training after that only the actual distance is given 9 meters in the last stage which is stage III. b. Provides adaptation to muscle strength so as to minimize injury. Where the muscles are trained to provide service from the closest distance then gradually proceed to the last intermediate stage at the actual distance. So that the muscle does not get injured, because the strength of the muscle adapts gradually and is not immediately forced to provide service from the actual distance. c. Psychologically, children will feel more comfortable, because it starts with an easy treatment. Because children do service from the closest distance and then after getting used to, only gradually added to the service distance becomes intermediate and after being able to be given a real distance so that children do not feel burdened to immediately serve with real distance. d. Suitable for beginners. Because the practice starts gradually from the closest distance then gradually the stages become distant until reaching the actual distance, so for beginners this exercise is felt easier and is not burdened.

METHOD

This research is using experimental method. According to Arikunto (2012: 3), experiment is a way to find a causal relationship between two factors that are intentionally caused by researchers by eliminating or reducing or eliminating disturbing factors, experiments are always conducted with the intention of seeing the effects of a treatment. In this study, researchers intend to see the effect of the treatment

of upper service training with a gradual distance that is given within 4 weeks (1 month) with details every week doing 3 exercises (volleyball extracurricular schedule at SMP Negeri 40 Palembang) on top service results in volleyball games on extracurricular students at Palembang State 40 Junior High School.

Research time When the study was conducted on January 8 to February 11, 2019, with a training schedule of 1 (one) week 3 (three) times of training, namely on Tuesdays, Thursdays and Saturdays, exercise time 2 x 30 minutes, at 3:30 a.m. to 4:30 p.m. . In accordance with the statement Kosasih (in Fidriansyah et al, 2015), you should practice at least 3 times a week. It would be better if you practice 4-5 times a week. Why at least 3 times a week, because a person's endurance will begin to decline after 48 hours, if not running the exercise.

Population

The population of this study was all of the Palembang 40 Public Middle School students registered to take part in volleyball extracurricular games, totaling 25 people.

Sample

The sample of this study is the total population, which is the total number of students of Palembang State Junior High School 40 participating in the volleyball extracurricular game by 25 people.

Research Instruments

The top service instruments in this study used a volleyball skill test from the American Association for Health, Physical Education Recreation and Dance (AAHPERD) which included 4 test items: volleying, service, passing, and set-up. AAHPERD's volleyball skills test consists of 4 test items, which aim to measure the ability to volley the ball, serve, passing and appearance at a level. Valid for boys and girls usis 10-18 years (Winarno, 2006: 27-28).

Data CollectionTechniqu

Data collection techniques in this study are through structured observation guided by volleyball skills testing from the American Association for Health, Physical Education Recreation and Dance (AAHPERD) as a top service test instrument. Structured observations are observations that have been systematically designed, about what will be observed, when and where it is located, so structured observation is carried out if the researcher knows for certain what variables will be observed and in making observations the researcher uses research instruments that have been tested for validity and its reliability (Sugiyono, 2014).

RESEARCH RESULT

Table. 1. Normality test Pre-test Upper Serve

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test Upper Serve	.131	25	.200*	.942	25	.162

Based on the table 1, the normality of the pre-test scores for the extracurricular student volleyball games at Palembang 40 Public Middle School in 2019 shows the Sig. in the Kolmogorov-Smirnov test is $0.200 > 0.05$, then the data can be categorized as normal distribution.

Table 2. Normality test Post-test Upper Serve

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Post-test Upper Serve	.155	25	.125	.906	25	.025

Based on table 4.4 shows the normality of the post-test scores for the extracurricular student volleyball game at Palembang State Junior High School 40 Palembang in 2019, the Sig. in the Kolmogorov-Smirnov test is $0.125 > 0.05$, then the data can be categorized as normal distribution

Table 3. Test of Homogeneity of Variance

	Levene		df1	df2	Sig.
	Statistic				
Service_ Score_At Top	Based on Mean	.203	1	48	.654
	Based on Median	.196	1	48	.660
	Based on Median and with adjusted df	.196	1	47.775	.660
	Based on trimmed mean	.277	1	48	.601

Based on table 3 shows the homogeneity test results of pre-test scores and service post-test for volleyball extracurricular students playing at Palembang 40 Public Middle School in 2019, it can be seen Sig. based on mean is $0.654 > 0.05$, then the data can be categorized as homogeneous.

Table.4. Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Pre-test Upper Serve - Pos-test Upper Serve	-10.600	2.582	.516	-11.666	-9.534	-20.527	24	.000

Based on table 4.6 we can see the Paired-Samples T-test (-20,527) <ttable (df / dk 24 = 1,711) and Sig (0,000) $\alpha = 0.05$, which means that there is an influence on top service training with the gradual distance to the results of top service in volleyball games for extracurricular students in Palembang 40 Public Middle School.

DISCUSSION

Based on the hypothesis test using the Paired Samples T Test or t-test, to find out and draw conclusions that there is an effect of the service training with gradual distance on the results of service in the volleyball game on extracurricular students at Palembang 40 Public Middle School. The t-test is used to find out whether there are significant differences in the results of the service obtained before being given upper service training with a gradual distance and after being given a service training with a gradual distance on the Palembang 40 Public Middle School students who are enrolled in volleyball extracurricular games, then proceed to find out the mean (average) total score of improvement in training results based on pre-test and post-test results. The results of the data analysis showed that the mean total pre-test service score above = 15.80, while for the mean total service post-test score above = 26.40, from these results it was found that the mean total service score above after being given upper service training with a gradually increasing distance of 10.6. From the calculation of the percentage of service score results on the post-test with the pre-test obtained an increase of 26.5%, and from the t-test the value of the t-test Paired-Samples test T Test

Journal of Indonesian Physical Education and Sport Vol. 5 (2), December 2019
t-count (-20,527) < ttable (df / dk 24 = 1,711) and Sig (0,000) < $\alpha = 0.05$, which means that there is an influence of upper service training with gradual distance on the results of top service in volleyball playing for extracurricular students at Palembang 40 Public Middle School. Thus the hypothesis that there is an effect of the service training over gradual distance on the results of the service in volleyball on extracurricular students in Palembang 40 Junior High School can be accepted and statistically proven. And it can also be interpreted that there is a significant difference between the top service abilities possessed by extracurricular students in Palembang 40 Public

Middle School before and after being given upper service training with a gradual distance. So this research can provide input for sports studies teachers and volleyball extracurricular students or who are interested in volleyball games in improving the ability to service the ball using one of the alternative exercises, namely service training over a gradual distance. According to Sukirno and Waluyo (2012: 23), top service is a service with the start throwing the ball up as needed. Then the server jumps to hit the ball with a swing of the hand from above. Meanwhile, according to Sari and Guntur (2017: 104), service training for the distance stage is a form of skill training conducted in an easier way then proceed to the next stage which is increasingly difficult, namely by adjusting the service distance. The easier way here is to make the distance shorter and gradually increase it to the actual distance. Regarding how the development of accuracy can be done with the target distance starting from close then getting further away.

Previous research conducted by Deritani at Palembang 8 Public Senior High School showed that there was an influence of overhead throw training on the results of service in volleyball in extracurricular students at Palembang 8 Public Senior High School, the truth was the results of the study showed that there were differences in the results of service tests above in ball games. volleyball on the post-test with overhead throw exercises. From the results of this study, the research assumes that upper service training with distance can be used as an alternative training to improve the ability to service the volleyball game for beginners such as junior high school students, especially in Palembang 40 Public Middle School which has volleyball extracurricular activities. as one vehicle to channel the hidden talents and interests of students. So that talent can be channeled through extracurricular activities, as well as adding experience

Journal of Indonesian Physical Education and Sport Vol. 5 (2), December 2019
and achievement in competing both at school and outside of school to make the school proud, that it is possible to become a national athlete.

CONCLUSION

Based on research on the effect of service training over gradual distance on the results of top service in volleyball games on extracurricular students at Palembang 40 Public Middle School, it can be concluded as follows: the results of calculating the percentage of service results scores on post-test with pre-test obtained an increase of 26,5%, and there is the effect of upper service training with gradual distance on the results of top service in volleyball games on extracurricular students at 40 Public Middle School Palembang.

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