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VOLLEYBALL SERVICE SKILL LEVEL (EMPIRICAL STUDY ON PULOKULON 2 STATE MIDDLE SCHOOL STUDENTS)

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Abstract

This research aims to determine the level of top serve skills in volleyball games of students at SMP Negeri 2 Pulokulon. The sample in this study was taken from one class at level VIII, which consisted of 32 students (17 boys and 15 girls). This type of research is a type of quantitative research with a descriptive approach. The instrument used is a top serve skill test in volleyball, with an assessment using the top serve accuracy test (AAHPER serving accuracy test). The results showed that 3 (9.38) students had the upper level of service skills in the very good category, 2 (6.25%) students had the good category, 20 (62.5) students had the medium category, 4 (12.5%) have a poor category, and 3 (9.37%) have a bad category. So it can be concluded that the average level of volleyball service skills in class VIII students at SMP Negeri 2 Pulokulon is in the medium category, namely with a percentage of 62.5% for a total of 20 students.

Keywords: Skill Level; Top Serve; Volleyball

INTRODUCTION

In the world of education, volleyball is one of the most popular Physical Education, Sports and Health (PJOK) subjects at junior high school (SMP) level. This is because volleyball requires simple equipment and brings pleasure to those who play (Purnama Sari, 2018). Volleyball is a sport played by two teams, where each team consists of six players and is separated by a net. The aim of playing volleyball is to pass the ball over the net so that it can fall to the floor of the opponent's court and to prevent the same attempt from the opponent (Jariono, 2021). In the game of volleyball, basic techniques are something that every player must master, because whether a volleyball game is running or not will be influenced by basic techniques such as passing, serving, smashing and blocking. According to (S. Sistiasih, 2022) regular and well-planned training is very necessary. Of the various techniques in volleyball, serving is one of the basic techniques that every player must master. This is because serving functions as a technique to start a volleyball game. Technique in playing volleyball can be interpreted as a way of playing the ball efficiently and effectively according to the applicable game rules to achieve optimal results (Sistiasih, 2022).

Serving is the most basic technique in volleyball. A serve is the first shot made from the back end of the playing field beyond the opponent's net. In the beginning, serve was only seen as the opening shot to start a volleyball game.

However, along with the development of the game from a tactical perspective, serving has become an attack to gain value (Suhairi, 2013). There are two types of serves in volleyball, namely bottom serves and top serves. However, the type of service technique that is often used in volleyball matches is the top serve. This is because this serve has a strong and sharp stroke, and the ball placement is quite accurate, making it difficult for the opponent to return it.

Top service (upper hand service) is a service technique that begins by throwing the ball up, then hitting it by swinging the hand from the top position. This technique is very good to use as an initial attack because the ball from the top serve is difficult for the opposing player to receive. Upper serve ability depends on **arm muscle strength and good hand eye coordination to** increase shot accuracy. A good serve must be hard, directed and make it difficult for the opponent (Duwi Stiawan, 2022). Good serving skills can provide a big advantage for a team, as a strong and precise serve can put pressure on the opponent and create scoring opportunities.

Based on observations made by researchers at SMP Negeri 2 Pulokulon, the implementation of volleyball learning activities is supported by adequate facilities and infrastructure. However, when carrying out volleyball practice, there are still students who experience difficulties in carrying out basic techniques, especially the top serve, namely the initial movement, hitting movement and follow-up movements. Many students only focus on making sure the ball goes into the opponent's area without paying attention to correct technique. As a result, serves are often done carelessly, and many failures occur, such as the ball getting caught in the net or going out of the court, resulting in no points being scored. According to (Hidayat et al., 2022), several factors that cause a lack of top skills include sub-optimal hand swings, errors in starting position, lack of concentration, hasty execution of movements, and minimal **training portions**. There are physical condition factors that influence serves in volleyball, namely **leg muscle strength, abdominal muscle strength, arm and shoulder muscle power, hand eye coordination, and flexibility of the buttocks** (Jariono et al., 2021). By analyzing the difficulties experienced by students, errors in the techniques they use can be

identified, but the level of students' ability to provide service to ² the results of the learning process with the teacher is not yet known with certainty.

Based on the explanation above, it is clear that top serve skills ² play an important role in volleyball, but ³ many junior high school students still have difficulty mastering them. Therefore, ³ this research aims to determine the level of service skills of students at SMP Negeri 2 Pulokulon.

METHOD

This type of research is a type of quantitative research with a descriptive approach. In this research, the quantitative type allows researchers to collect numerical data about top serving skills and analyze them statistically. According to (Waruwu, 2023) quantitative research is research that uses data in the form of numbers and exact knowledge to answer research hypotheses. A descriptive approach ensures that the focus of the research is on describing and describing those skill levels in detail, without changing or manipulating variables in the process. Meanwhile, the method used in this research is observation with tests, then the scores obtained will be analyzed using statistical techniques ¹ in the form of percentages.

Population and Sample

The ² population used in this research was class VIII students of SMP Negeri 2 Pulokulon for the 2024/2025 academic year. The sample in this study was taken from one class at level VIII, which consisted of 32 students (17 boys and 15 girls). ² The sampling technique in this research was carried out using purposive sampling. The Purposive Sampling technique is a sampling technique that is carried out based solely on the researcher's consideration, assuming that the desired elements already exist in the sample members taken (Hariyati, 2020). This technique is carried out by determining the samples studied based on certain criteria so that the samples taken are in accordance with the research objectives.

Instrument

The instruments used in this research are: AAHPER (American Assosiation of Health, Physical Education and Recreation) Serving Accuracy Test. Service target area from divided into 5 target plots, where each target plot has score which

differ according to the level of difficulty in placing the service ball in that area. The data collection technique in this research used the upper serve test technique, where each student was given the opportunity to perform the upper serve 10 times. The result of the service is assessed based on the ball falling on the target square listed on the field or the numbers 1, 2, 3, 4 and 5. If the ball falls on the line then score which is given is score near the highest. The collected data is then adjusted to the top service classification norms, namely into the categories Very Good, Good, Currently, Less Good, Not Good. Data collection in this research was carried out during the physical education, sports and health learning process.

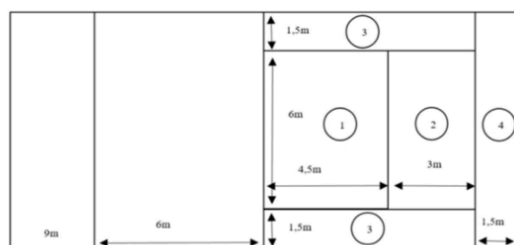


Figure 1. Upper Service Test Instrument (Baquer & Bawono, 2019)

Data collection in this research used the top service test technique. After all the required data is collected, the next step is to analyze the data with help Microsoft Excel, to determine the middle value (median), average value (mean), highest value (maximum), lowest value (minimum), and standard deviation (SD). After the data is obtained in the form of one score, according to (Sudijono, 2009) the data is categorized using Norm Reference Assessment (PAN) according to the level of skills possessed by students, namely Very Good, Good, Currently, Less Good, Not Good.

Table 1. Norm Reference Assessment (PAN)

No	Interval	Category
1.	$<M + 1,5 SD$	Very Good
2.	$< M + 0,5 SD - M + 1,5 SD$	Good
3.	$< M + 0,5 SD - M + 1,5 SD$	Currently
4.	$< M - 0,5 SD - M - 1,5 SD$	Less Good
5.	$<M - 1,5 SD$	Not Good

RESULT AND DISCUSSION

Based on the results of data calculations from tests on upper service carried out by class VIII students in the PJOK subject at SMP Negeri 2 Pulokulon, it was found that the students who got a score of 90 were 0 students (0%), the students who got a score of 80 were 3 students (9.38%), students who got a score of 70 were 2 students (6.25%), students who got a score of 60 were 12 students (37.5%), students who got a score of 50 were 8 students (25%), students who got a score of 40 (12.5%), 2 students got a score of 30 (6.25%), 1 student got a score of 20 (3.12%), 0 students got a score of 10 students (0%). For further explanation, please see the table below:

Table 2. Top Service Assessment Results

No	Score	Number of Student	(%)
1	90	0	0%
2	80	3	9,38%
3	70	2	6,25%
4	60	12	37,5%
5	50	8	25%
6	40	4	12,5%
7	30	2	6,25%
8	20	1	3,12%
9	10	0	0%
Amount		32	100%

To better understand table 3 above regarding data on volleyball service assessment results for class VIII students at SMP Negeri 2 Pulokulon, it can be presented in the form of a bar chart as in the image below:

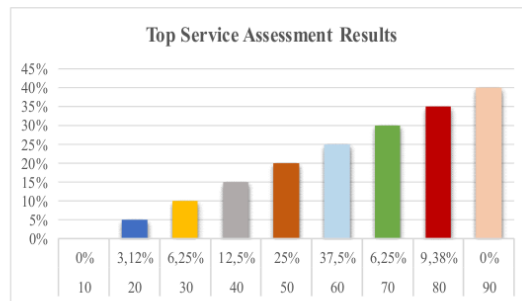


Figure 2. Bar Diagram of Volleyball Top Serve Test Results

2 The results of the service assessment carried out by class VIII students of SMP Negeri 2 Pulokulon will be processed again to determine appropriate assessment norms. This data will be used as a reference in determining the level of top service skills possessed by the school's students.

Table 3. Upper Service Measurement Results

No	Data	Results
1	Highest Value (Maximum)	80
2	Lowest Value (Minimum)	20
3	Average Value (Mean)	60
4	Middle Value (Median)	55
5	Standard Deviation	14,37

The table above is the result of calculating data obtained after measuring the service test on volleyball for class VIII students at SMP Negeri 2 Pulokulon. The data from this calculation will be used to determine the upper service skill level category for students. The following is a table showing the skill levels of volleyball serves:

Table 4. Upper Service Assessment Category

No	Interval	Category	Frequency	%
1	$X > 76,55$	Very good	3	9,38%
2	$62,18 \leq X < 76,55$	Good	2	6,25%
3	$47,81 \leq X < 62,18$	Currently	20	62,5%
4	$33,44 \leq X < 47,81$	Less Good	4	12,5%
5	$X < 33,44$	Not Good	3	9,37%
	Amount		32	100%

2 Based on the data above, it can be seen that there are 5 categories in the level of volleyball service skills for class VIII students at SMP Negeri 2 Pulokulon, namely 3 (9.38) students have a top service skill level in the very good category, 2 (6.25%) students have good category, 20 (62.5%) students had the medium category, 4 (12.5%) had the poor category, and 3 (9.37%) had the poor category.

Discussion

One of the techniques used to start a volleyball game is to use the serve technique. The basic technique of serving in volleyball is divided into two, namely the top serve and the bottom serve. However, the type of service technique most often used in volleyball matches is the top serve. This research aims to determine the level of top serve skills in volleyball games of students at SMP Negeri 2

Pulokulon. Based on the research conducted, it shows that the level of volleyball service skills of class VIII students at SMP Negeri 2 Pulokulon is mostly in the medium category, this is due to influencing factors, including the strength of the students' arm muscles and body flexibility. Upper serve performance in volleyball is divided into three main aspects of movement, namely initial movement, movement when hitting, and follow-up movement.

Arm muscle strength is the key to success in performing a top serve in volleyball. A strong and hard blow results from the impulse that comes from the continued movement of the arm. According to (Kuncoro, 2021) students who have good arm muscle strength tend to be able to serve volleyball well. On the other hand, if the arm muscle strength is lacking, then the results of the upper serve performed will also be less than optimal. In volleyball, especially the top serve technique, the arm movement to hit the ball requires flexibility. Flexibility is the ability of joints to move in all directions optimally. So body flexibility plays an important role in volleyball top serve skills because with good flexibility volleyball players can reach the right position when hitting the ball, maintain body balance, and maximize the strength and direction of the shot in the top serve. Strength is the driving force of every physical activity, and plays a role in preventing injury (Sistiasih, 2021). The student can perform the top serve well if the student has good arm movement.

The medium level of volleyball service skills indicates that students have a fairly basic understanding of volleyball service techniques and are supported by good muscle strength and flexibility. This happens because some students actively participate in volleyball extracurriculars, where they get training and experience regarding basic volleyball techniques. The results of this research are in line with the results of research (Husaeni et al., 2022) which shows that students' service skills are in the medium category due to sufficient training because volleyball extracurricular training is only done once a week. This is also supported by previous studies which state that currently the top service skills possessed by students are at a not very good level or are classified as moderate (Mulya & Padli, 2019).

CONCLUSION

The research conducted showed that the level of volleyball serving skills of class VIII students at SMP Negeri 2 Pulokulon was mostly in the medium category, this was due to influencing factors, including the strength of the students' arm muscles and body flexibility. This research can add to existing literature studies related to the level of top service skills possessed by students, so that teachers can use it to design an effective program in improving top service skills.

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