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Basic Technical Skills in Volleyball Among Students of SMAN 4 Palu City

Moh.Raditya[1*], Hendriana Sri Rejeki[1], Cristian Kungku[1], Nyoman Sukrawan[1]
[1]*Universitas Tadulako Palu, Indonesia*

Corresponding Author: mohraditya1@gmail.com[1*]

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ABSTRACT

This study aims to determine the level of basic technical skills in volleyball among students of SMA Negeri 4 Palu City. The basic techniques studied include four techniques, namely the Underhand Pass, Overhead Pass, Smash, and Serve. This type of research is quantitative descriptive research with a test survey method. The population in this study is the students of SMA Negeri 4 Palu City who participate in volleyball extracurricular activities. The research sample consists of 20 students, comprising 10 male students and 10 female students, selected using a purposive sampling technique. The research instrument uses a volleyball basic technical skills test, which includes underhand pass, overhead pass, smash, and serve tests. The data analysis technique uses percentage descriptive analysis with the formula P = f/N × 100% to determine the frequency and percentage of categories, as well as to find the average for each technique. The results of the study show that: (1) The overall level of basic volleyball technical skills of SMA Negeri 4 Palu City students is in the Good category with an average of 77.84. (2) Breakdown per group: the male students averaged 78.06 (10 students, 100% in the Good category), and the female students averaged 77.65 (10 students, 100% in the Good category). (3) Per technique: Underhand Pass for males is 76.66, for females 77.0; Overhead Pass for males is 77.77, for females 77.5; Smash for males is 77.77, for females 79.5; Serve for males is 80.0, for females 75.9. (4) The highest score in the study was achieved by Moh. Farel in the serve technique with a score of 95 (Very Good). Overall, all students (20 people) were declared to have passed above the Minimum Completeness Criteria (KKM) of 75 with a passing percentage of 100%. The conclusion from this study is that the basic volleyball technical skills of students at SMA Negeri 4 Palu City are classified as good, but none have consistently reached the very good category, meaning that improvement in training is still needed, especially in the underhand pass and serve techniques.

Keywords: *Basic Technical Skills, Volleyball, Underhand Pass, Overhead Pass*

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INTRODUCTION

Volleyball is one of the sports highly favored by all levels of society in Indonesia. This sport can be played from the level of children to adults, both men and women. In the beginning, playing volleyball was for recreational purposes, to fill spare time, or as a diversion after being tired of working or studying. Achievements to improve personal accomplishments, bring honor to the region, nation, and country. Besides these purposes, many people exercise, especially playing volleyball, to maintain and improve physical fitness or health. Then it developed towards

other purposes, such as the goal.

One of the goals of sports development and advancement in Indonesia is to improve sports coaching and skills, among which is the sport of volleyball. The game of volleyball is a highly favored branch of sports, and according to experts today, volleyball is recorded as a sport occupying the second most famous position in the world with players reaching more than 140 million people. The parent organization of this sport is the International Volley Ball Federation (IVBF), consisting of 180 countries.

Similarly, in Indonesia, the sport of volleyball is one of the many popular sports branches in the community. This volleyball game is favored by people of various age levels, teenagers and adults, both men and women. This is evident as volleyball is widely played in villages, offices, and schools. Playing volleyball can be done according to Ahmadi (2007:20); the game of volleyball is something used as a means to educate because the sport of volleyball can form a positive personality, honesty, cooperation, and responsibility.

It is a complex game not easily played by people; knowledge of basic and advanced techniques is required to be able to play volleyball. These basic techniques include the underhand pass, overhead pass, overhead serve, underhand serve, smashing, and blocking. Among several volleyball techniques, the smash is one of the factors for securing victory in a volleyball match, which can be seen from matches. In a volleyball game consisting of 3 sets (Three Winning Sets) with a rally point system. If a team wins 3 sets in a game, then that team is declared the winner. In matches, many factors cause a player's smash skills to be ineffective, among which are errors occurring.

The development of the world of sports, especially volleyball, at present is experiencing very rapid progress. This is evident by the existence of many events held, whether regional, national, or international. In Indonesia, the sport of volleyball is developing very rapidly, evidenced by the holding of regular volleyball competitions that will later produce national players. The technical ability and skills possessed are the most influential factors in the game of volleyball. Technique is a process of carrying out physical activity and proving a practice as best as possible to complete certain tasks in the branch of the volleyball game (Suharso H.P, 1981:35). This main factor can only be achieved with training and matches that are planned and carried out continuously and sustainably. Even so, from this main completeness, only the fundamental as a basis is the basic techniques and playing skills that are cultivated first.

In countries that are already advanced in sports, training leading to high achievements has been carried out as early as possible. From a young age, children have participated in regular programs that gradually increase over a long period. To become a good volleyball player requires regular and programmed training, as well as being under the guidance of a coach who masters the basic techniques of volleyball and knowledge of volleyball training methods. Through regular and programmed training, it is expected that players will be born who master all parts and various basic techniques and skills of playing volleyball.

It can be seen from the description above that to master good basic volleyball playing techniques, a player must have a very strong will to master these basic techniques. This is because basic volleyball playing techniques are important and fundamental factors that every player must master. A technique is a way of doing something to achieve a certain goal effectively and efficiently.

Before the test on the level of basic skills in playing volleyball for students of SMAN 4 Palu City was held, observations and interviews had been conducted. The observations made included environmental observation as well as field observation. Research regarding basic volleyball technical skills has been carried out on various groups of students. Masroni and Hariyanto (2021), for instance, examined the basic technical skills of serving, passing, smashing, and blocking among extracurricular participants at SMAN 1 Batu and SMKN 1 Batu using a survey method. Research on basic volleyball technical skills was also carried out by Irpan et al. (2022) on extracurricular participants at SMAN 1 Batang Lupar, with an analysis of underhand passing, overhead passing, serving, and smashing skills (Masroni & Hariyanto, 2021; Irpan et al., 2022). More specific research was conducted by Setyawan (2017) on volleyball extracurricular participants at SMA Negeri 3 Klaten, aiming to determine the level of volleyball playing skills using descriptive methods and skill tests. Another study by Novadona and Winarno (2025) focused on developing an underhand passing skill test instrument for high school students

(Setyawan, 2017; Novadona & Winarno, 2025).

The novelty of this research lies in presenting a comprehensive profile of basic volleyball technical skills among extracurricular participant students of SMA Negeri 4 Palu City, involving both male and female students. Unlike the research by Irpan et al. (2022), which examined the basic technical skills of extracurricular participants with male students as subjects, this study involves 10 male students and 10 female students, thus allowing a description of results based on gender. Meanwhile, Masroni and Hariyanto (2021) examined serving, passing, smashing, and blocking skills across two schools, whereas this study focuses on four techniques, namely underhand passing, overhead passing, smashing, and serving, in one school serving as the research location.

The next novelty is the presentation of test results based on the average of each technique and gender, skill categories, as well as completeness based on the Minimum Completeness Criteria (KKM) of 75. The research results show that the overall average skill of students is 77.84, with all participants achieving the KKM. These data provide an empirical picture that can be used as evaluation material for physical education teachers and extracurricular supervisors in planning training that suits student needs. Thus, the novelty of this study is more appropriately categorized as contextual and empirical novelty, i.e., providing data on basic volleyball technical skills at a specific location and subject group, accompanied by a comparison description of males and females along with the results of each technique. This novelty does not imply that the survey method or the measurement of these four techniques is a new method, as similar approaches have been utilized in previous research (Setyawan, 2017; Masroni & Hariyanto, 2021). Based on these previous studies, the study of basic volleyball technical skills is not entirely a new matter. Therefore, the research gap in this study is more accurately placed on the need to acquire specific empirical data regarding extracurricular participant students at SMA Negeri 4 Palu City, specifically the description of the four basic technical skills, comparing results between male and female students, as well as identifying the techniques that require improvement. This research supplements information from other school contexts by providing an overview of student skill conditions at a different research location

METHOD

This study employs a quantitative approach with a descriptive research type. Quantitative descriptive research aims to describe a phenomenon based on numerical data systematically collected and then analyzed using descriptive statistics. This approach is used when a researcher wants to ascertain the state of a variable without giving any treatment or manipulation to the research subjects (Sugiyono, 2022).

The method used is a survey with test and measurement techniques. The survey method allows researchers to obtain data directly from research subjects, while skill tests are used to measure the ability of students to perform the basic techniques of the volleyball game. Similar research on basic volleyball skills in schools also uses a descriptive approach with survey and measurement test methods (Setyawan, 2017). The design of this study is cross-sectional, meaning data collection is carried out during one measurement period to depict the condition of student skills at the time the research is conducted. The research does not aim to test cause-and-effect relationships, but rather to describe the level of basic volleyball technical skills of students at SMA Negeri 4 Palu City.

A research instrument is a tool used to obtain data in accordance with the variable being studied. In this study, the instrument is a basic volleyball technical skill test that covers underhand passing, overhead passing, smashing, and serving. Test instruments in sports research need to have clear implementation procedures, scoring systems, and assessment criteria so that the measurement results can be accurately interpreted (Winarno, 2018)

RESULT AND DISCUSSION

Result

The research was conducted at SMA NEGERI 4 PALU CITY, specifically in the 11th grade. Sports activities are held on Fridays from 07:00 to 09:30 WITA in the schoolyard. The facilities and infrastructure used are: nets, volleyballs, and a volleyball court. The number of male and female students who became the sample was 20 people (total sampling).

Table 1. Data on the Results of the Basic Volleyball Movement Skills Test for Female Students at SMA Negeri 4 Palu City.

Name	Underhand Pass	Overhead Pass	Smash	Serve	Average
Aa	75	75	80	75	76.25
Ar	75	80	85	78	79.50
Sf	75	80	85	78	79.50
Ia	75	75	85	78	78.25
Fa	80	75	75	75	76.25
Pr	75	75	80	75	76.25
uKa	80	75	75	80	77.50
Df	75	85	80	75	78.75
Ska	80	75	75	75	76.25
Nd	85	80	70	75	77.50

1.) Descriptive percentage analysis of basic volleyball technical skills.

An overview of the results of the underhand pass, overhead pass, smash, and serve. Male and female students at SMA Negeri 4 Palu City. Based on the survey tests that have been conducted, the following table can be seen:

Table 2. Table of Results for Basic Volleyball Technical Skills

No	Score Range	Category	Frequency	Percentage
1	86-100	Very Good	0	0%
2	71-85	Good	10	100%
3	56-70	Fair	0	0%
4	31-55	Poor	0	0%
5	< 31	Very Poor	0	0%
Total			10	100%

It is evident in Table 2 that the ability of female students at SMA Negeri 4 Palu on the underhand pass, overhead pass, smash, and serve tests is as follows: for the very good category there is 0%, the good category is 100%, the fair category is 0%, the poor category is 0%, and the very poor category is 0%.

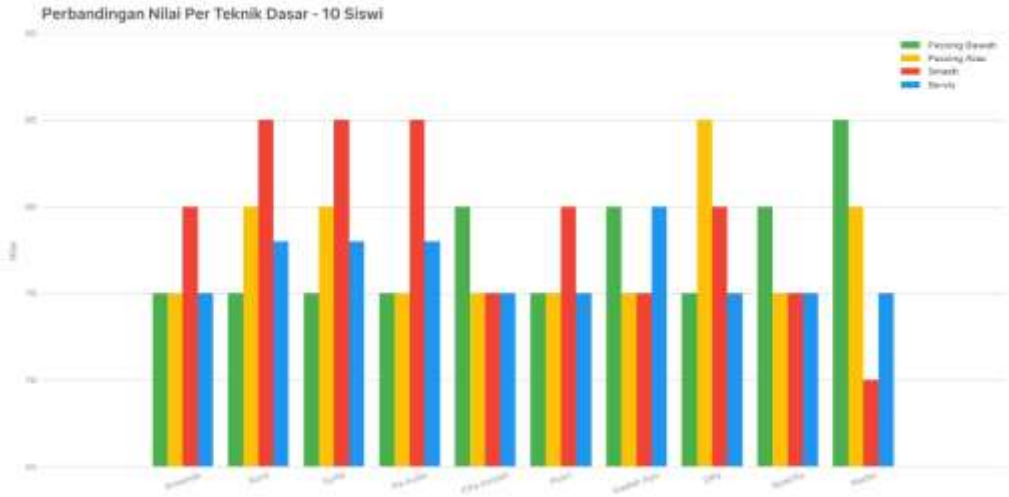


Table 3. Data on the Results of the Basic Volleyball Movement Skills Test for Male Students at SMA Negeri 4 Palu City.

Name	Underhand Pass	Overhead Pass	Smash	Serve	Average
Al	**75**	**75**	**80**	**85**	**78.75**
Rl	**75**	**80**	**75**	**85**	**78.75**
Ib	**75**	**80**	**80**	**80**	**78.75**
Fl	**85**	**80**	**75**	**95**	**83.75**
Az	**75**	**75**	**80**	**75**	**76.25**
dz	**80**	**75**	**80**	**75**	**77.50**
Rz	**80**	**75**	**80**	**70**	**76.25**
Syr	**75**	**75**	**75**	**80**	**76.25**
An	**70**	**85**	**75**	**75**	**76.25**
Pt	**75**	**70**	**80**	**80**	**76.25**

2.) Descriptive percentage analysis of basic volleyball technical skills. An overview of the results of the underhand pass, overhead pass, smash, and serve for male and female students at SMA Negeri 4 Palu City. Based on the survey tests that have been conducted, the same distribution was observed, where 100% of students fell into the Good category.

Discussion

This study aims to determine the level of basic volleyball technical skills of students at SMA Negeri 4 Palu City which includes 4 basic techniques, namely Underhand Pass, Overhead Pass, Smash, and Serve. The research subjects were 20 students, consisting of 10 male students and 10 female students. Based on the results of the skill tests that have been carried out, the data obtained are as follows:

1. Overall Data

The average basic volleyball skill of male students is 76.05 and female students is 76.25. Overall, both groups are in the Good category (71-85) with a percentage of 100%. This means that no students are in the Very Good (86-100), Fair, or Poor categories.

2. Category Frequency

Using the formula P = f/N × 100%:

Males (N=10): Good 10 people (100%)

Females (N=10): Good 10 people (100%)

A total of 20 students passed above the KKM of 75.

1. Underhand Pass Technique

The underhand pass is the most fundamental basic technique for receiving serves and opponent attacks. The study results indicate that the average underhand pass for males is 75 and for females is 75. Male data: the highest score is 85 (Farel) and the lowest is 70 (Anugerah). Female data: the highest is 85 (Nadia) and the lowest is 75 (6 female students). The majority of students are still at a score of 75 (Fair leading to Good). This is in line with the opinion of Nuril Ahmadi (2007) that the underhand pass requires a proper stance, contact on the forearms, and good coordination. The weakness seen at SMA Negeri 4 Palu is that the arm position is not perfectly straight and the ball contact is still above the elbow, making the direction of the ball less accurate. This technique became the second weakest technique after serving in the male group.

2. Overhead Pass Technique

The overhead pass functions as a set-up for conducting attacks. The average overhead pass for males is 78.75 and for females is 76.25. The highest male score is 85 (Anugerah) and the female is 85 (Difa). This shows that the students' setting abilities are quite good. However, from observation, there are still students who push the ball with their palms instead of their fingers, causing the ball not to spin and lack direction. According to M. Yunus (1992), a correct overhead pass involves contact on the fingertips above the forehead with a push from the wrists. Students who scored 80-85 were already able to do this well, such as Rafael, Ibrahim, and Aura.

3. Smash / Spike Technique

The smash is a technique used to score points. It is the technique with the highest scores. The average smash for males is 80 and for females is 85 (the highest across all techniques). Among the females, 3 students scored 85 (Aura, Syifa, Ifa Aulia) and among males, 4 students scored 80. The high smash scores are due to the motivational factor; students are more enthusiastic about executing smashes compared to passing because it is considered more exciting. Furthermore, a smash does not require as high an accuracy as passing, but relies more on power and jump timing. The weaknesses that still exist in some students, like Nadia (70) and Syakifa (75), are insufficient approach steps, non-maximal take-offs, and ball contact that is still on the palm rather than open fingers.

4. Serve Technique

The serve is the first attack. The average serve for males is 80 (highest among males) and for females is 75.9. The male serve shows the highest variation, ranging from 70 (Rezki) to 95 (Farel - the highest score in this study). Farel was able to execute a hard overhead serve that hit the target, thus scoring 95 (Very Good). In the female group, the serve became the weakest technique (average 75.9). Most female students still perform underhand serves with a weak swing, causing the ball to often catch the net. According to Beutelstahl (2008), serving requires coordination of the toss, arm swing, and timing. Females who are already good, like Kadek Ayu (80), are able to perform an underhand serve with a stable toss.

CONCLUSIONS

Based on the research results and discussions regarding the basic technical skills in the game of volleyball among students at SMA Negeri 4 Palu City, which include 4 basic techniques, namely Underhand Pass, Overhead Pass, Smash, and Serve with a subject total of 20 students (10 males and 10 females), the following conclusions can be drawn:

1. The Overall Skill Level Is Classified as Good. The results of the descriptive percentage analysis indicate that the basic volleyball technical skills of SMA Negeri 4 Palu students fall into the Good category. Specifically: Male Students (N=10): An average of 78.75 with a frequency of the Good category being 10 students (100%). Female Students (N=10): An average of 76.25 with a frequency of the Good category being 10 students (100%). Overall Total (N=20): An average of 77.5. No student falls into the Very Good (86-100), Fair (56-70), or Poor (<56) categories. All students are declared to have PASSED above the KKM of 75.

2. Skills Per Basic Technique: Underhand Pass: This is the second-lowest mastered technique. The male average is 76.25 and the female is 76.25. As many as 55.5% of males and 60% of females still scored a 75, indicating that the stance position and ball contact on the

forearms still need improvement. Overhead Pass: The male average is 76.25 and the female is 76.25. This technique is quite good; students who scored 80-85, such as Rafael, Ibrahim, Anugerah, Aura, and Difa, are already able to perform setups with the correct fingertip contact. Smash: This is the most mastered technique, especially among female students with an average of 79.50, and males with 77.77. The highest score of 85 was achieved by 3 female students (Aura, Syifa, Ifa Aulia). The high smash scores are due to high student motivation and supportive power factors. Serve: This is the most mastered technique among male students with an average of 80.0. The highest score in this study was achieved by Moh. Farel, which was 95 (Very Good) in the overhead serve technique. Meanwhile, for female students, the serve became the weakest technique with an average of 75.9 because many still perform underhand serves with weak swings.

3. Comparison of Males and Females: Male students are superior in serve techniques that rely on strength (power), while female students are superior in smash techniques that rely on timing and flexibility. For passing techniques, the abilities of males and females are almost identical, which indicates that these two techniques are more influenced by the intensity of technical training rather than mere physical factors

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