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## Analysis of the Level of Upper Service Skills in Volleyball Games of Junior High School Extracurricular Students

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### ABSTRACT

*This study aimed to determine the level of overhand serve ability in volleyball among students of SMP Negeri 24 Makassar. A quantitative approach with a descriptive method was employed. The sample consisted of 20 students selected through total sampling, meaning the entire population served as research subjects. The research instrument was an overhand serve skill test conducted with the involvement of an observer, supported by observation and interviews as supplementary data. The results revealed that the overhand serve ability of students at SMP Negeri 24 Makassar falls under the good classification with a percentage of 35.0%. This study concludes that the overhand serve skills of students at SMP Negeri 24 Makassar are generally considered good; however, further improvement remains necessary given that the serve is a fundamental technique that every player must master, as it directly influences the opportunity to score points in a match. Therefore, integrated training encompassing basic techniques such as passing, blocking, smashing, serving, and physical conditioning needs to be consistently maintained to support more optimal overhand serve performance.*

Keywords: Skills; Overhand Serve; Volleyball.

### ABSTRAK

Penelitian ini bertujuan untuk mengetahui tingkat kemampuan servis atas bola voli siswa SMP Negeri 24 Makassar. Penelitian menggunakan pendekatan kuantitatif dengan metode deskriptif. Sampel penelitian berjumlah 20 siswa yang dipilih menggunakan teknik total sampling, sehingga seluruh populasi dijadikan subjek penelitian. Instrumen penelitian berupa tes keterampilan servis atas bola voli yang dilaksanakan dengan melibatkan observer, didukung oleh observasi dan wawancara sebagai data pendukung. Hasil penelitian menunjukkan bahwa kemampuan servis atas bola voli siswa SMP Negeri 24 Makassar berada pada klasifikasi baik dengan persentase sebesar 35,0%. Penelitian ini menyimpulkan bahwa keterampilan servis atas siswa SMP Negeri 24 Makassar secara

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umum sudah tergolong baik, meskipun peningkatan masih diperlukan mengingat servis merupakan teknik dasar yang wajib dikuasai setiap pemain karena secara langsung memengaruhi peluang perolehan poin dalam pertandingan. Oleh karena itu, latihan terpadu yang mencakup teknik dasar passing, blocking, smashing, servis, serta kondisi fisik perlu terus ditingkatkan secara konsisten untuk mendukung penguasaan servis atas yang lebih optimal.

Kata Kunci: Keterampilan; Servis Atas; Bolavoli.

## **INTRODUCTION**

Physical education and sports are an educational process oriented toward developing students' character to be physically and mentally healthy, improving physical fitness, motor skills, knowledge of healthy lifestyle behaviors, sportsmanship, and emotional intelligence. This process is carried out systematically through a series of structured movements to develop an individual's potential (Bangun, 2019).

Volleyball is a team sport in which the quality of play is determined by how well the players demonstrate compact and integrated teamwork. To perform well and produce high-quality play, each player must master proper and correct techniques (Zainul Mahdianto et al., 2021). In volleyball, there are several basic technical elements, such as serving, passing, smashing (spiking), and blocking. Volleyball is a fast-paced game, so the time available to play the ball is very limited; without mastery of proper basic techniques, significant technical errors are likely to occur (Sukirno & Andriyanto, 2019). Therefore, the basic techniques of volleyball must be thoroughly learned in order to develop good gameplay. Mastery of these basic techniques is one of the determining factors in winning or losing a match, in addition to other factors such as physical condition, mental readiness, and others (Valentine, M et al., 2020).

This is closely related to the fundamental techniques in volleyball, which include serving, overhead passing, underhand passing, blocking, and smashing (Hidayat, 2022). The key to achieving victory in volleyball is the ability to execute attacks that make it difficult for opponents to return the ball. One of the most effective and commonly used techniques to gain points is a good serve, particularly the overhand serve (Sukendro et al., 2021).

When performing a serve, accuracy is essential. A good serve can become an initial offensive weapon against the opposing team (Utomo, 2019). In particular, the overhand serve can directly result in points. Based on this explanation, the overhand serve has a significant contribution in obtaining direct points (Irmansyah et al., 2018).

Teachers act as organizers, controllers, and facilitators in the teaching and learning process, as they guide students in how learning activities are conducted. Therefore, teachers must have various ideas and strategies in the teaching process to ensure it is effective and efficient. Most importantly, students should be able to understand and properly perform what has been explained by the teacher during the learning process SMP Negeri 24 Makassar has adequate volleyball facilities and infrastructure that support students in practicing effectively. The development of volleyball at the school is also supported by the principal, as volleyball is currently one of the more popular sports. As a result, many students, both boys and girls, participate in the volleyball extracurricular program at SMP Negeri 24 Makassar.

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Based on observations conducted at SMP Negeri 24 Makassar, the researcher found that students' mastery of the overhand serve technique in volleyball was still lacking. Therefore, the researcher focused on this issue. Common mistakes made by students when performing the overhand serve include not jumping forward properly, not positioning the feet shoulder-width apart, improper contact of the ball with the fingertips, and lack of control in hand movement when striking the ball. The researcher observed that students' ability to perform the overhand serve technique was still low, and they often performed the movement freely without paying attention to the preparation phase, execution phase, and follow-through.

Thus, the researcher is interested in conducting a study entitled: "An Analysis of Overhand Serve Skills in Volleyball among Extracurricular Students at SMP Negeri 24 Makassar."

## **METHOD**

This study is quantitative descriptive research. Descriptive research is a type of study that portrays existing conditions based on facts. The method used in this research was the observation method with test and measurement techniques. This study aims to reveal overhand passing skills in volleyball among extracurricular students at SMP Negeri 24 Makassar. The research design provides a brief overview of the entire process developed in the planning and implementation of the study.

The population of this study consisted of all students participating in the extracurricular program, totaling 20 students, considering that they were within the age range of 13–15 years. The sample used in this study included the entire population, amounting to 20 students. According to Sugiyono (2015), a data collection instrument is a tool selected and used by researchers to systematically facilitate the data collection process. The research instrument used was an overhand serve ability test that had been validated with a Cronbach's Alpha reliability coefficient of 0.75, indicating a very good level of internal consistency (Siregar et al., 2021). The research procedure began with administering the volleyball overhand serve test, providing 10 opportunities for each student. The lowest score for each attempt was 0 points, while the highest score for each attempt was 5 points.

The data analysis technique employed descriptive statistics to describe the characteristics of the data, including the mean, median, mode, standard deviation, as well as the minimum and maximum scores of the overhand serve (Sugiyono, 2015). The entire data analysis process was conducted using SPSS version 25 software to ensure accuracy and efficiency in processing quantitative data.

## **RESEARCH RESULTS**

The research results must be able to answer the hypothesis and research questions stated in the introduction. This study consists of one variable, namely determining the level of basic overhand serve skills in volleyball among students of SMP Negeri 24 Makassar, totaling 20 students. All research subjects were given a test measuring their basic overhand serve skills in volleyball.

The data obtained were processed using SPSS version 25 to determine the mean, median, and standard deviation. The results were then presented in frequency tables and diagrams based on the frequency distribution. The data collected in the field through

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tests and measurements of the students' basic overhand serve skills were analyzed using descriptive statistical techniques. Descriptive data analysis was intended to provide a general overview of the research data.

The description of the research results aims to present a general picture of the distribution of data regarding the basic overhand serve skills of students at SMP Negeri 24 Makassar. After processing the raw data using descriptive statistics, the data presented include the mean, standard deviation, mode, median, and frequency distribution. A summary of the descriptive statistical calculations is presented in the table.

**Table 1.** Descriptive Analysis

Statistic	Overhand Serve
Total Sampel	20
Low Skor	31,00
High Skor	49,00
Mean	40,70
Range	18
Standar Deviation	5.796
Median	33.589

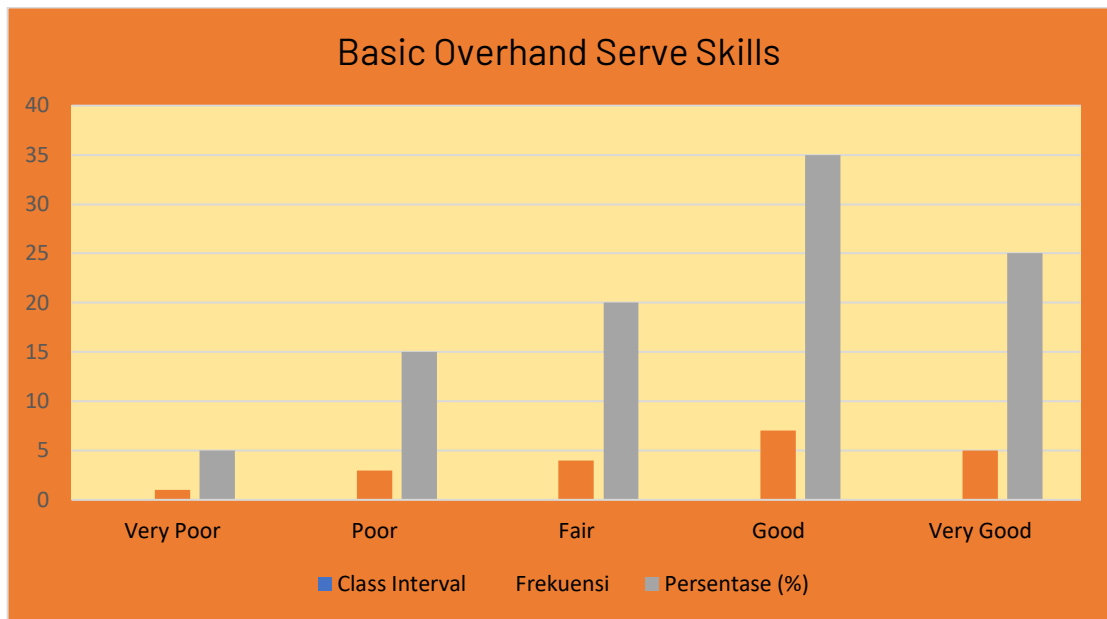
Based on the research data regarding the basic overhand serve skills in volleyball among students of SMP Negeri 24 Makassar, the minimum score obtained was 31 and the maximum score was 49, with a range of 18. The mean score was 40.70, with a range of 18, with a standard deviation of 5.796, and a median of 33.589.

**Table 2.** Frequency Distribution of Basic Overhand Serve Skills

Class Interval	Frekuensi	Persentase (%)	Category
31-34	1	5	Very Poor
35-38	3	15	Poor
39-42	4	20	Fair
43-46	7	35	Good
47-49	5	25	Very Good
Total	20	100	

Based on Table 2 above, it is known that out of the 20 research samples, 4 students (20.0%) demonstrated basic overhand serve skills below the average category, 4 students (20.0%) were in the average category, and 12 students (60.0%) were above the average category in performing the basic overhand serve technique in volleyball at SMP Negeri 24 Makassar.

The distribution of students' basic overhand serve skills in volleyball at SMP Negeri 24 Makassar is presented in the form of a pie chart in the figure below.



**Gambar 1.** Chart of Basic Overhand Serve Skills

From the data description and the categories presented, it was found that the percentage of basic overhand serve skills in volleyball among students of SMP Negeri 24 Makassar mostly falls into above-average categories. Thus, it can be concluded that the overall percentage of students' basic overhand serve skills in volleyball is categorized as Good at 35%.

The research results indicate that the basic overhand serve skills of students at SMP Negeri 24 Makassar are in the good category. This condition occurs because the frequency of students' basic overhand serve skills is relatively even. The distribution of skills is still quite uniform. This dominant frequency provides students with an opportunity to further improve their serving ability, as repeated practice directly influences the success rate of mastering the basic serve technique and students' learning outcomes. In addition, students must maintain their physical fitness and body condition, as good physical condition supports effective serve performance.

## DISCUSSION

Mastering a good overhand serve, especially for point scorers, is very important for a team's success in winning a volleyball match. A well-executed overhand serve can be used to produce sharp, powerful, and effective attacks (Palinata et al., 2023). The overhand serve can be performed like a spike directed at the opponent's defensive area. It can be said that the overhand serve has a relatively high level of difficulty; therefore, special skills are required to master this fundamental volleyball technique. The position of the hands and arms in performing an overhand serve in volleyball is very different from other types of serves (Nugraha & Yuliawan, 2021). Therefore, good skill and proper hand-eye coordination are needed to ensure that the ball contacts the hand accurately and lands precisely in the palm. Overall, supporting techniques and body position must always remain balanced so that body coordination can be maintained (La'l & Haluti, 2018).

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Skill in the basic serve technique, with good ability, is naturally possessed by humans and needs to be studied by developing existing skills. These skills can be learned not only as technical knowledge but also as a source of inspiration for those who wish to think creatively. Volleyball should be played with enjoyment. If we play wholeheartedly without pressure and truly enjoy the game, achievements will be attained more quickly than if we play under burden or stress. This is very important for coaches in boosting players' morale (Pranopik, 2017).

Based on the research results, consistent and intensive practice in developing serving skills and abilities is a key factor, so that the serving ability of students at SMP Negeri 24 Makassar falls into the good category. Training should include passing, blocking, spiking, serving, and physical conditioning. These basic volleyball techniques, when combined with proper serving techniques, can help regulate the tempo of the game, facilitate the execution of serves, and greatly influence the success of mastering basic techniques and students' learning outcomes (Wilastra, 2020). In addition, students must maintain their physical fitness to perform the overhand serve effectively. Essentially, the serve is a fundamental volleyball technique that is essential and must be mastered by every player, as an accurate and precise serve greatly determines the course of the game (Rahman et al., 2014).

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the research results and discussion, it can be concluded that the basic overhand serve skills in volleyball among students of SMP Negeri 24 Makassar are classified as good, with a percentage of 35.0%.

Based on this conclusion, the researcher provides several recommendations as follows. One, For Physical Education Teachers It is recommended to develop volleyball skills in students by paying attention to careful planning, structured implementation, and comprehensive evaluation, not only focusing on physical aspects. Two, For the School It is suggested to provide adequate infrastructure, allocate sufficient learning time, and organize training for teachers to implement effective and innovative of volleyball teaching strategies. Three, For Future Researchers It is recommended to conduct longitudinal studies over a longer period to identify the sustainability of overhand serve skills on other volleyball techniques with similar potential, involve moderator variables such as gender and cognitive intelligence levels, and use a mixed-methods approach combining quantitative and qualitative methods to gain a more holistic understanding of the mechanisms and dynamics of volleyball skill development. Four, For the Government through the Ministry of Education and Culture It is recommended to formulate policies that encourage the revitalization of volleyball among the younger generation in Indonesia.

## **REFERENCES**

- Bangun, S. Y. (2019). Peran Pelatih Olahraga Ekstrakurikuler Dalam Mengembangkan Bakat Dan Minat Olahraga Pada Peserta Didik. *Jurnal Prestasi*, 2(4), 29. <https://doi.org/10.24114/jp.v2i4.11913>
- Hidayat, A. L. (2022). Meningkatkan Keterampilan Passing Bawah Melalui Metode Modifikasi Permainan Bola Voli (Kelas X AK 1 SMKN 1 Kandungan Tahun Pelajaran

# Jurnal Pendidikan Kepeleatihan Olahraga: Pejuang

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- 2017/2018). *Jurnal Jendela Pendidikan*, 2(03).  
<https://doi.org/10.57008/jjp.v2i03.260>
- Irmansyah, J., Lubis, M. R., & Permadi, A. G. (2018). Model Latihan Imagery Terhadap Ketepatan Floating Service Atlet Voli Pantai NTB. *Jurnal Ilmiah Mandala Education*, 4(2). <https://doi.org/10.58258/jime.v4i2.418>
- La'l, R. A., & Haluti, A. (2018). Pelatihan Teknik Dasar Permainan Bola Voli. *Monsu'ani Tano : Jurnal Pengabdian Masyarakat*, 1(1). <https://doi.org/10.32529/tano.v1i1.245>
- Nawawi, H. (2015). Metodologi Penelitian Bidang Sosial. Yogyakarta. Gadjah Madah University Press.
- Nugraha, U., & Yuliawan, E. (2021). Meningkatkan hasil belajar passing atas bola voli melalui pendekatan gaya mengajar latihan dengan menggunakan audio visual. *Altius: Jurnal Ilmu Olahraga Dan Kesehatan*, 10(2). <https://doi.org/10.36706/altius.v10i2.15871>
- Palinata, Y. J., Baun, A., Leko, J. J., & Mae, R. M. (2023). Pendampingan Pembuatan Media Tes Dan Pengukuran Vertical Jump Untuk Keterampilan Smash Bagi Tim Voli Pjkr-Ukaw. *EJOIN : Jurnal Pengabdian Masyarakat*, 1(4). <https://doi.org/10.55681/ejoin.v1i4.709>
- Pranopik, M. R. (2017). Pengembangan Variasi Latihan Smash Bola Voli. *Jurnal Prestasi*, 1(1). <https://doi.org/10.24114/jp.v1i1.6495>
- Rahman, A., Sahputra, R., & Wakidi. (2014). Peningkatan Ketepatan dan Kecepatan Smash Bola Voli dengan Penerapan Media Audio Visual Pada Kelas VIII SMP Negeri 1 Pinoh Utara. *Jurnal Pendidikan Jasmani Kesehatan Dan Rekreasi (Penjaskesrek)*, 1(1).
- Siregar, F. S., Sembiring, M. M., & Siregar, A. (2021). Analisis Perbedaan Kontribusi Variasi Latihan Passing Bola Voli. *Jurnal Olahraga Dan Kesehatan Indonesia*, 1(2). <https://doi.org/10.55081/joki.v1i2.306>
- Sugiono. (2017). Instrumen penelitian metopen. *Metodologi Penelitian Kuantitatif*.
- Sukendro, S., Ekawarna, E., Dwi Rahayu, F., & Yuliawan, E. (2021). Upaya Meningkatkan Hasil Belajar Smash Bola Voli Siswa Kelas X Smk Negeri 5 Tanjab Barat Melalui Pendekatan Gaya Mengajar Latihan Power Tungkai Dengan Menggunakan Modifikasi Bola Gantung. *Jurnal Prestasi*, 5(2). <https://doi.org/10.24114/jp.v5i2.26501>
- Sukirno, S., & Andriyanto, A. (2019). Hubungan Koordinasi Mata - Tangan Dengan Hasil Passing Atas Pada Permainan Bola Voli Putra Sma Negeri 15. *Altius : Jurnal Ilmu Olahraga Dan Kesehatan*, 6(1). <https://doi.org/10.36706/altius.v6i1.8228>
- Utomo, R. B. (2019). Kontribusi Kekuatan Otot Lengan, Kecepatan Reaksi, dan Kelincahan Terhadap Passing Bawah Pada Permainan Bolavoli (Studi Pada Atlet Bolavoli Putera Universitas Negeri Surabaya). *Jurnal Pendidikan Kepeleatihan Olahraga FIK Unesa*, 10(2).
- Valentine, M, J., Manurizal, L., & Janiarl, M. (2020). Hubungan Kelentukan Pergelangan Tangan Dan Kekuatan Otot Lengan Dengan Hasil Passing Atas Bola Voli Siswa Ekstrakurikuler SMP Swasta Tri Bhakti. *Journal Of Sport Education and Training*, 1(2).
- Wilastra, P. A. D. (2020). Keterampilan Teknik Dasar Bolavoli Dalam Ekstra Kurikuler Di Sma Negeri 1 Tanah Merah Kabupaten Indragiri Hilir. *Jurnal Olahraga Indragiri*, 6(01).
- Zainul Mahdianto, Lalu Sapta Wijaya Kusuma, Adi Suriatno, & Rusdiana Yusuf. (2021). Peningkatan Hasil Belajar Servis Bawah Bola Voli Melalui Metode Block Practice. *Reflection Journal*, 1(1). <https://doi.org/10.36312/rj.v1i1.488>