COMPETITOR:
JURNAL PENDIDIKAN KEPELATIHAN OLAHRAGA
e-ISSN: 2657-0734 & p-ISSN: 2085-5389 ‖ Volume 17, Number 2, 2025 ‖ P.1628-1637

Basic Volleyball Technique Skills Against Netral Club Sidole Junior

Ririn Dwi Ariyanti[1A-E], Didik Purwanto[2B-D*], Andi Saparia[3B-D], Christian Kungku[4B-D]

[1,2,3,4] Universitas Tadulako, Central Sulawesi, Indonesia

rdwiariyanti51@gmail.com[1], didik@untad.ac.id[2], sapariaandi@gmail.com[3], tiankungku@gmail.com[4]

ABSTRACT

This study aims to determine the level of basic technical skills of passing over, passing under, smashing, and serving at the Netral Sidole Junior club. This research method uses a quantitative descriptive method. The sample in this study was all volleyball players of the Netral Sidole Junior Club, which is known to have a total of 18 players. While the data collection technique used a test instrument. The results of this study based on the results of descriptive analysis of research data from passing over, passing under, smashing, and serving showed that the category for female athletes of the Netral Sidole Junior Club, for the Very Good category as much as 0%, the Good category as much as 30%, the Enough category as much as 50%, the Less category as much as 10%, and the Very Less category 10%. For the category of male athletes of the Netral Sidole Junior Club, the Very Good category as much as 0%, the Good category as much as 25%, the Enough category as much as 63%, the Less category as much as 0%, and the Very Less category has 13%. This study concludes that the basic technical skills possessed by athletes of the Netral Sidole Junior club are in the Enough category. The researcher's suggestion is to increase the portion of training, improve the training program, because that is a provision for improving performance.

ARTICLE HISTORY
Received: 2025/06/21
Accepted: 2025/06/26
Published: 2025/06/29

KEYWORDS
Skills;
Basic Techniques;
Volleyball.

AUTHORS' CONTRIBUTION
A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Ariyanti, Ririn Dwi; Purwanto, Didik; Saparia, Andi; Kungku, Christian. (2025). Basic Volleyball Technique Skills Against Netral Club Sidole Junior. **Competitor: Jurnal Pendidikan Kepelatihan Olahraga**. 17 (2), p.1628-1637

INTRODUCTION

Volleyball is a dynamic, team-based sport that emphasizes coordination, agility, and technical precision. Since its inception, volleyball has grown to become one of the most popular sports globally, played both recreationally and competitively across age groups and regions (FIVB, 2022). Its structure relies heavily on specific technical skills such as serving, passing, setting, attacking, blocking, and defensive play. These techniques are crucial for ensuring efficient team performance and achieving successful outcomes in both training and competition (Zhao et al., 2021).

In the developmental stages of youth and junior clubs, mastering basic volleyball techniques is considered foundational. The early acquisition of correct and efficient motor patterns in volleyball enables young athletes to progress toward advanced tactical understanding and competitive excellence (Costa et al., 2017). At this stage, technical

proficiency is more important than physical dominance, as it provides athletes with the skills necessary to adapt to various competitive situations and opponents.

Netral Club Sidole Junior, as a grassroots-level volleyball team, provides a platform for young athletes to develop and showcase their abilities. However, as the team engages in more competitive play, technical disparities often emerge, particularly when facing teams with stronger foundational skills. Matches involving Sidole Junior reveal gaps in technical proficiency—especially in areas such as overhead passing, underhand passing, serving consistency, and blocking coordination.

Basic volleyball techniques serve as the bedrock for in-game execution. For example, the forearm pass, or "bump," is vital for controlling serves and initiating offensive plays (Palao et al., 2020). Similarly, the overhead pass or "set" is fundamental for delivering accurate balls to attackers. Spiking requires a combination of timing, jump power, and arm swing technique (Papageorgiou et al., 2016), while proper serving forms—both underhand and overhand—directly influence scoring opportunities (Gabbett & Georgieff, 2018). Defensive manoeuvres such as diving and blocking demand not only physical strength but precise coordination and anticipation.

Effective skill execution directly correlates with match success at the junior level (Silva et al., 2016). For teams like Sidole Junior, developing these skills is essential to compete effectively against other youth clubs and to provide a foundation for long-term athletic development.

Despite the recognized importance of technical training in volleyball, many youth clubs, particularly in developing regions, lack access to structured and scientifically informed coaching programs. Often, training sessions emphasize physical conditioning or general gameplay without targeted technical development (Rocha et al., 2021). This gap results in players developing improper habits, limited tactical flexibility, and decreased confidence during matches.

Moreover, the issue is exacerbated when teams face opponents with stronger technical systems. In the context of Sidole Junior, encounters against more technically skilled clubs reveal deficiencies not only in individual execution but in overall team cohesion and strategy. Coaches and sports educators face the challenge of designing training models that reinforce basic technical proficiency while aligning with the developmental stage of adolescent athletes.

Although the literature emphasizes the importance of technical skill development in volleyball, most empirical studies have focused on elite or professional athletes, with limited exploration of its impact at the grassroots or junior club level (López-Serrano et al., 2022). There is a notable lack of studies that investigate how technical skill proficiency influences competitive performance in junior club matches, especially within regional or school-based volleyball settings.

Furthermore, while various coaching manuals highlight drills and training recommendations, there is insufficient evidence on how basic skill acquisition translates into match-readiness and tactical execution in real-game situations for young athletes (Gonçalves et al., 2021). This leaves a gap in understanding the practical impact of technical training on performance outcomes among teams like Sidole Junior.

Ririn Dwi Ariyanti[1A-E], Didik Purwanto[2B-D*], Andi Saparia[3B-D], Christian Kungku[4B-D]
didik@untad.ac.id[2*]

This study offers several novel contributions to the field of volleyball education and youth sports development. First, it examines the relationship between fundamental volleyball skills and match performance in a real-world context, focusing on Sidole Junior, a grassroots team competing against other youth clubs. Unlike prior research that centres on high-level athletes, this study investigates how proficiency in basic techniques, such as serving, passing, setting, and spiking, directly affects game performance at the junior club level.

Second, this study contributes a contextual perspective on youth volleyball in underrepresented areas, particularly in Indonesia, where access to advanced training facilities or coaching education may be limited. It offers insight into how basic, low-cost skill development can enhance competitiveness and engagement among youth athletes. Third, the study utilizes match analysis and performance evaluation tools tailored to the developmental level of the players, allowing for more accurate and pedagogically relevant conclusions.

Given the critical role of basic skills in volleyball success and the unique challenges faced by grassroots-level teams such as Netral Club Sidole Junior, this study aims to investigate how technical proficiency in fundamental volleyball skills affects match outcomes. The primary research question guiding this study is: How do basic volleyball skills influence team performance during competitive matches involving Netral Club Sidole Junior?

By analyzing in-game performance data and correlating it with players' mastery of fundamental techniques, this research seeks to provide practical insights for coaches, sports educators, and policymakers. The ultimate goal is to inform the development of evidence-based training models that prioritize skill development in youth volleyball, thereby contributing to athlete progression and long-term sporting success.

METHODS

This research uses a quantitative descriptive research method, (Arikunto, 2017)said descriptive research is a research method that aims to describe or explain something, for example, the state, condition, situation, event, activity, and so on. In addition, the descriptive method in this research is used to describe or illustrate a survey of basic volleyball skills conditions with test and measurement techniques.(Sugiyono, 2019). As research is conducted to answer problems that exist in the field in the incident is studied.

The instruments used to measure the basic technical skills of the Netral Sidole Junior volleyball club include: a) Basic technical skills test for Upper Pass. b) Basic technical skills test for Under Pass. c) Basic technical skills test for volleyball service. d) Basic technical skills test for smash/spike.

Because, in principle, research is to make measurements, there must be a good measuring tool. The measuring tool in research is usually called a research instrument.

The instrument for the overhead passing test in this study was the AAHPER face pass wall-volley test, which is a way of carrying out the test by bouncing the ball to the target wall for 60 seconds. The overhead passing test instrument is as follows.

Ririn Dwi Ariyanti[1A-E], Didik Purwanto[2B-D*], Andi Saparia[3B-D], Christian Kungku[4B-D]
didik@untad.ac.id[2*]

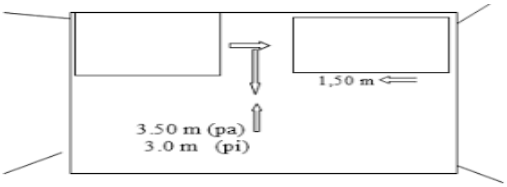

Figure 1.
Passing the test instrument

The tools needed in this test include: Volleyball, Target wall, Meter, Black tape, Stopwatch, Writing tools to record test scores. How to carry out the test: The test subject stands facing the target with a volleyball in hand. After the whistle is given to start. The test subject starts throwing the ball against the wall. The ball that bounces off the wall is hit (overhead pass) into the target area. The counters count the balls that hit the target. If the ball is released (Lucas), the ball can be held and then started again by throwing the ball against the wall to be hit again until time runs out. The implementation time is 60 seconds. Until the whistle sounds to signal the end of the test. Assessment: Every ball that bounces off the wall, which uses all parts of our body following the rules of the game, the volleyball enters the target area and hits the target boundary line, is given a score of 1. The test score is the total score of 60 seconds. This test is given 3 (three) chances.

The instrument for the underarm pass test in this study was the Brumbach forearm pass wall-volley test, which is a way of carrying out the test by bouncing the ball to the target wall for 60 seconds. The image of the underarm pass instrument is as follows:

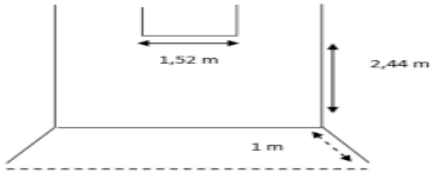

Figure 2.
Lower passing test instrument

The tools needed in this test include: a volleyball, target wall, meter, black tape, stopwatch and writing instruments to record the test score. How to carry out the test: The test subject stands facing the target with a volleyball in hand. After the whistle signal starts. The test subject starts throwing the ball against the wall. The ball that bounces off the wall is hit (underhand pass) into the target area. The counters count the balls that hit the target. If the ball is released (Lucas), the ball can be held and then started again by throwing the ball against the wall to be hit again until time runs out. The implementation time is 60 seconds. Until the whistle sounds to signal the end of the test. Assessment: Every ball that bounces off the wall, which uses all parts of our body following the rules of the game, the volleyball enters the target area and hits the target boundary line, is given a score of 1. The test score is the total score of 60 seconds. This test is given 3 (three) chances.

To obtain data in the form of scores from the variables studied, an instrument that meets the requirements is needed, such as a top service ability test.

Ririn Dwi Ariyanti[1A-E], Didik Purwanto[2B-D*], Andi Saparia[3B-D], Christian Kungku[4B-D]
didik@untad.ac.id[2*]

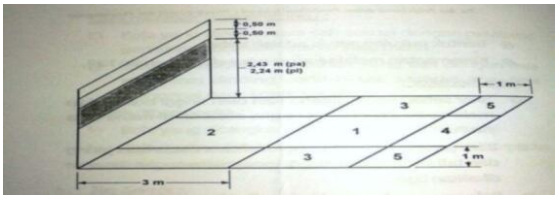

Figure 3.
Volleyball service test field

The tools needed in this test include: a Field, a volleyball, net. Whistle, black tape, meter. Stationery, a list of taste names. How to carry out the test: The testee stands behind the court to do an overhead serve in a volleyball game. Each testee is allowed to serve 5 times. If the overhead serve goes out of the scoring area or the ball gets caught in the net, the testee gets a score of zero, but the hit is already considered a count or one hit opportunity. Each time passing through an obstacle on the net is multiplied by the ball falling on the target point. Test assessment: Score 5, box size 1 m x 1 m. Score 4 box size 1 m x 4 m.. Score 3 box size 1 m x 8 m.. Score 2 box size 1.5 x 7 m. Score 1 box size 7.5 x 7 m. Bottom score 3, size 50 cm. Middle score 2 size 50 cm. Top score infinite size.

To measure the ability to direct a smash towards the target accurately and in a targeted manner, an instrument that meets the requirements is needed, such as a smash ability test.

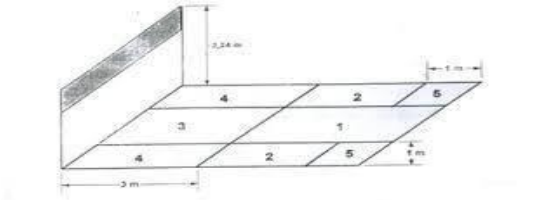

Figure 4.
Volleyball smash test field

The tools needed in this test include: a Field, a volleyball, net. Whistle, black tape, meter Stationery, list of taste names. How to carry out the test: The test is in the free attack area on the playing field. The ball is thrown or passed near the top of the net towards the target. With or without a run-up. The tester jumps and hits the ball over the net into the opposite field, where there are targets with numbers. How to score the test: The smash that gets a score is the smash where the ball falls inside the field. The value of the smash is according to that stated on the field. If the ball falls on the line, then the value given is the highest of the nearest values. If the ball is played illegally or touches the net and/or falls outside the field, the score is 0.

The data analysis technique used in this study is descriptive statistics with percentages. Descriptive statistics are part of statistics regarding data collection, presentation, determining statistical values and creating diagrams or images about something so that the data is easy to read and understand. After all the data is collected, the next step is to analyze the data so that a conclusion can be drawn from the data. To determine the level of basic volleyball technique skills of the Netral Sidole Junior club by

Ririn Dwi Ariyanti[1A-E], Didik Purwanto[2B-D*], Andi Saparia[3B-D], Christian Kungku[4B-D]
didik@untad.ac.id[2*]

processing the data into values by consulting the raw data from each test item that has been determined. Categorization is divided into five categories, namely, very high, high, low, and very low. Categorization based on Mean and Standard Deviation is as follows:

Table 1.
Categorization based on Mean and Standard Deviation

Very good	M + 1.5 SD and above
Good	M + 0.5 SD – M + 1.5 SD
Pretty good	M – 1.5 SD – M 0.5 SD
Not good	M – 1.5 SD – M 0.5 SD
Very less	Down – M – 1.5 SD
Very good	M + 1.5 SD and above

RESULTS AND DISCUSSION

Result

Based on the data of the Basic Volleyball Technique Skills test results against the Netral Sidole Junior club. The collected data is then analyzed using statistical calculations. The following are the results of the description for each test carried out.

Overview of the results of underhand passing, overhand passing, smash, and service. Sidole Netral Club Sidole Netral Junior Putri, Based on the test survey that has been conducted, the following table can be seen:

Table 2.
Table of Results of Basic Technical Skills of the Sidole Junior Girls' Netral Club Volleyball

No	Value Range	Category	Frequency	Percentage
1	142	Very good	0	0%
2	120-142	Good	3	30%
3	120-98	Enough	5	50%
4	98-76	Not enough	1	10%
5	76	Very less	1	10%
Amount			**10**	**100%**

It can be seen in table 2. that the ability of the Netral Sidole Junior Putri Club Athletes, in the Underhand Passing, Overhand Passing, Smash, Service tests. as follows: for the Very Good category as much as 0%, the Good category as much as 30%, the sufficient category as much as 50%, the less category as much as 10%, and the very less category as much as 10%. For more clarity, the graph can be seen as follows:

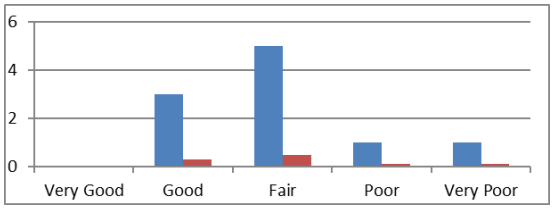

Figure 5.
Graph of Basic Technical Skills Results for the Netral Sidole Junior Girls Volleyball Club

Overview of the results of underhand passing, overhand passing, smash, and service. Sidole Netral Club Sidole Netral Junior Putra, Based on the test survey that has been conducted, the following table can be seen:

Table 3.
Table of Results of Basic Technical Skills of the Sidole Junior Boys' Netral Club Volleyball

No	Value Range	Category	Frequency	Percentage
1	209	Very good	0	0%
2	154-209	Good	2	20%
3	125-154	Enough	5	63%
4	125-96	Not enough	0	0%
5	96	Very less	1	13%
Amount			**8**	**100%**

It can be seen in table 3. that the ability of the Netral Sidole Junior Putra Club Athletes, in the Underhand Passing, Overhand Passing, Smash, Service tests. as follows: for the Very Good category as much as 0%, the good category as much as 25%, the sufficient category as much as 63%, the less category as much as 0%, and the very less category as much as 13%. For more details, the graph can be seen as follows.

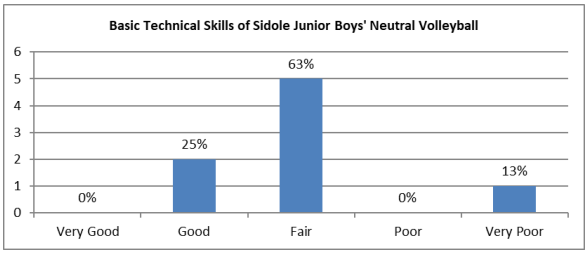

Figure 6.
Graph of Basic Technical Skills Results for the Netral Sidole Junior Boys Volleyball Club.

Volleyball is a team sport in which the game is played by bouncing the ball alternately from one team to the other with the aim of killing the opponent and winning. Mastering basic techniques is very important in order to play volleyball well (Andrade et al., 2016). Mastering these basic techniques requires continuous and serious basic technique training in order to master the volleyball technique easily. The basic volleyball techniques that must be mastered by volleyball players are the upper pass, lower pass, smash, and serve techniques.

The results of the ability test of female athletes of the Netral Sidole Junior club are as follows: for the Very Good category as much as 0%, the Good category as much as 30%, the Sufficient category as much as 50%, the Less category as much as 10%, and the Very Less category as much as 10%. Judging from the existing results, for this test it can be influenced by several factors, including: The results of the Netral Sidole Junior club's male athlete ability test are as follows: for the Very Good category as much as 0%, the Good category as much as 20%, the Sufficient category as much as 63%, the Less category as much as 0%, and the Very Less category as much as 13%. Judging from the existing results, this test can be influenced by several factors.

The four tests averaged the ability of male and female athletes of the Netral Sidole Junior club in performing basic volleyball techniques as follows: the ability of female athletes of the Netral Sidole Junior club, for the Very Good category 0%, the Good

category 30%, the sufficient category 50%, the Less category 10%, and the Very Less category 10%. The ability of male athletes of the Netral Sidole Junior club, in the Very Good category 0%, the Good category 20%, the sufficient category 63%, the Less category 0%, and the Very Less category 13%. This means that the ability of basic volleyball technique skills of the Netral Sidole Junior club are in the sufficient category. Each athlete has different abilities in mastering techniques. Some students who are trained together with the same type of technique do not necessarily master the technique. Sometimes, there are repeated technical errors even though the trainer has corrected them during each training session (Purwanto et al., 2023).

Mastery of technique is influenced by several factors, including: relevant physical qualities, appropriate training methods, the athlete's intelligence in choosing the right technique in certain situations and psychological qualities or mental maturity in the match.

CONCLUSION

Based on the research results obtained and analyzed in the previous chapter, the percentage of male and female athletes in the Netral Sidole Junior club in performing basic volleyball techniques is as follows: for female athletes, the very good category is 0%, the good category is 30%, the sufficient category is 50%, the less category is 10%, and the very less category is 10%. For male athletes, the very good category is 0%, the good category is 25%, the sufficient category is 63%, the less category is 0%, and the very less category is 13%.

REFERENCES

Aini, H. N., & Taufiq, H. (2018). Pengaruh Model Pembelajaran Kooperatif Tipe Stad Terhadap Hasil Belajar Servis Bawah Bolavoli. *Jurnal Pendidikan Olahraga Kesehatan*, *6*(2), 519–525.

Andrade, A., Bevilacqua, G. G., Coimbra, D. R., Pereira, F. S., & Brandt, R. (2016). Sleep quality, mood and performance: A study of elite Brazilian volleyball athletes. *Journal of Sports Science and Medicine*, *15*(4), 601–605.

Arikunto, S. (2017). *Pengembangan Instrumen Penelitian dan Penilaian Program*. Yogyakarta: Pustaka Pelajar.

Costa, G. C. T., Ferreira, N. N., Junqueira, G., et al. (2017). Performance indicators in youth volleyball matches. Journal of Physical Education and Sport, 17(2), 1214–1219. https://doi.org/10.7752/jpes.2017.02184

FIVB. (2022). Volleyball Rules 2022–2024. International Volleyball Federation.

Gabbett, T., & Georgieff, B. (2018). The development of a standardized skill assessment for volleyball. International Journal of Sports Science & Coaching, 13(1), 105–112. https://doi.org/10.1177/1747954118757434

Gonçalves, B., Coutinho, D., Travassos, B., et al. (2021). Tactical behaviour and training content in youth sports: The case of volleyball. International Journal of Sports Science & Coaching, 16(2), 359–367. https://doi.org/10.1177/1747954120970435

Horta, T. A. G., Coimbra, D. R., Miranda, R., Werneck, F. Z., & Bara Filho, M. G. (2017). A carga interna de treinamento é diferente entre atletas de voleibol titulares e reservas? Um estudo de caso. Revista Brasileira de Cineantropometria e Desempenho Humano, 19(4), 395–405. https://doi.org/10.5007/1980-0037.2017v19n4p395

López-Serrano, D., González-Jurado, J. A., et al. (2022). Development of technical and tactical skills in young volleyball players. European Journal of Sport Science, 22(1), 57–65. https://doi.org/10.1080/17461391.2021.1899796

Miller, D. J., Roberts, S., & O'Donoghue, P. (2020). Tactical and technical performance analysis in volleyball: A review. International Journal of Performance Analysis in Sport, 20(5), 804–823. https://doi.org/10.1080/24748668.2020.1836562

Papageorgiou, A., & Spitzley, T. (2016). Volleyball: A handbook for coaches and players. Meyer & Meyer Sport.

Palao, J. M., Manzanares, P., & Ortega, E. (2020). Technical and tactical effectiveness of serving in volleyball. International Journal of Volleyball Research, 19(2), 34–42.

PBVSI. (2021). Peraturan resmi bolavoli 2021-2024. Disetujui oleh : Kongres Dunia FIVB ke-37 2021 & Bidang Perwasitan PP. PBVSI.

Purwanto, D., Gemael, Q. A., Dewi, R. R. K., Tadulako, U., Karawang, U. S., Fisik, K., & Voli, B. (n.d.). Profil kondisi fisik tim bola voli putra. 124–129.

Purwanto, D., Kandupi, A. D., & Sukrawan, N. (2023). The Influence of Target Games Training and Target Service Training of The Wall With Targets on Ability The Service Accuracy. COMPETITOR: Jurnal Pendidikan Kepelatihan Olahraga, 15(2), 213. https://doi.org/10.26858/cjpko.v15i2.46406

Rocha, M. D. S., Silva, J. L. D., & Nogueira, A. (2021). Evaluation of technical efficiency in youth volleyball. Revista Brasileira de Cineantropometria & Desempenho Humano, 23, e73170. https://doi.org/10.1590/1980-0037.2021v23e73170

Santos, E. J. A. M., & Maia, J. A. R. (2019). The role of technical skill in volleyball game success. European Journal of Human Movement, 43, 24–34.

Silva, M., Lacerda, D., & João, P. (2016). Game-related volleyball skills that discriminate in youth competitions. Journal of Human Kinetics, 53, 189–199. https://doi.org/10.1515/hukin-2016-0021

Sugiyono. (2019). Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: PT Alfabeta.

Sutriawan, A. (2022). Analisis Hasil Belajar Passing Bawah Dalam Permainan Bolavoli Pada Siswa SMP Negeri 1 Pinrang Kelas VIII. SPORTIVE: Journal of Physical Education, Sport and Recreation, 6(September), 109–113.

Tsivikas, C., & Papadopoulou, S. (2020). Performance parameters in youth volleyball players. Journal of Physical Education Research, 7(1), 11–18.

Wang, S., & Chen, W. (2017). Motor skill development in volleyball for adolescents. Asian Journal of Sports Medicine, 8(3), e12375. https://doi.org/10.5812/asjsm.12375

Yatulkhusna, R., Safaruddin, S., Usra, M., Iyakrus, I., & Yusfi, H. (2021). Development Of Passing Learning Model On Volleyball for Class Viii Smp Students. Halaman Olahraga Nusantara (Jurnal Ilmu Keolahragaan), 5(1), 32. https://doi.org/10.31851/hon.v5i1.6029

Yuliana, R., & Hartati, S. (2020). Analisis teknik dasar permainan bola voli siswa SMP. Jurnal Pendidikan Olahraga dan Kesehatan, 8(1), 19–25.

Zhao, Y., Liu, Q., & Xie, Y. (2021). The importance of passing skills in volleyball: A technical analysis. Journal of Sports Research, 8(2), 45–52. https://doi.org/10.18488/journal.90.2021.82.45.52