Implementing technical training models to enhance basic volleyball skills in students

Implementar modelos de capacitación técnica para mejorar los niveles básicos de habilidades de voleibol en estudiantes

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Abstract

Introduction. This article explores the implementation of technical training models to enhance basic volleyball skills in students. Volleyball, as a dynamic team sport, requires a combination of physical conditioning, technical proficiency, and strategic understanding. However, many students struggle with mastering the fundamental skills necessary for effective gameplay.
Objective. This study investigates the application of various technical training models, including skill-based drills, progressive skill-building techniques, and individualized feedback systems, to improve students' performance in essential volleyball techniques.
Methodology. This study uses a research and development method by looking at the effectiveness of the training models, namely by providing special treatment. Before the treatment was carried out to see the impact of the application of the technique training model, an initial measurement was carried out on the basic volleyball technique skills consisting of underhand serve techniques, underhand passes and overhand passes totaling 60 students.
Result. The average value of the initial test of basic volleyball technique ability was 46.72 and the average value of the final test was 64.73, meaning that there was an increase in basic volleyball technique ability based on the average value of 18.01. From the results of data analysis using the dependent sample t test. Based on the results of the study, $t_{count} = 10.17 > t_{table} = 2.00$.
Conclusions. This means that the research hypothesis can be accepted empirically. Thus, the results of this study indicate that when students do systematic training from the volleyball technique training model, students' basic volleyball technique abilities will increase optimally.

Keywords

Technique, Models, volleyball.

Resumen

Introducción. Este artículo explora la implementación de modelos de entrenamiento técnico para mejorar las habilidades básicas de voleibol en los estudiantes. El voleibol, como deporte de equipo dinámico, requiere una combinación de acondicionamiento físico, competencia técnica y comprensión estratégica. Sin embargo, muchos estudiantes tienen dificultades para dominar las habilidades fundamentales necesarias para un juego eficaz.
Objetivo. Este estudio investiga la aplicación de varios modelos de entrenamiento técnico, incluidos ejercicios basados en habilidades, técnicas progresivas de desarrollo de habilidades y sistemas de retroalimentación individualizados, para mejorar el desempeño de los estudiantes en técnicas esenciales de voleibol.
Metodología. Este estudio utiliza un método de investigación y desarrollo que analiza la eficacia de los modelos de formación, concretamente a la hora de proporcionar un trato especial. Antes de realizar el tratamiento para ver el impacto de la aplicación del modelo de entrenamiento técnico, se realizó una medición inicial de las habilidades técnicas básicas del voleibol consistente en técnicas de saque por debajo, pases por debajo y pases por arriba en un total de 60 estudiantes.
Resultados. El valor promedio de la prueba inicial de habilidad técnica básica de voleibol fue 46.72 y el valor promedio de la prueba final fue 64.73, lo que significa que hubo un aumento en la habilidad básica de voleibol con base en el valor promedio de 18.01. A partir de los resultados del análisis de datos utilizando la prueba t de muestra dependiente. Según los resultados del estudio, tcount = 10,17 > ttable = 2,00.
Conclusiones. Esto significa que la hipótesis de la investigación puede aceptarse empíricamente. Por lo tanto, los resultados de este estudio indican que cuando los estudiantes realizan un entrenamiento sistemático a partir del modelo de entrenamiento de técnicas de voleibol, las habilidades técnicas básicas de voleibol de los estudiantes aumentarán de manera óptima.

Palabras clave

Técnica, Modelos, voleibol.

Introduction

Volleyball, a dynamic and fast-paced sport, requires a combination of physical fitness, technical expertise, and strategic understanding to master. For students, especially those just starting, mastering the fundamentals is essential for long-term success and enjoyment of the game. This article explores the implementation of structured technical training models designed to enhance basic volleyball skills in students. By focusing on progressive drills, skill refinement, and effective teaching methodologies, educators and coaches can create a supportive learning environment that fosters improvement and builds confidence on the court. Through a detailed examination of various training approaches, this piece will highlight the best practices for nurturing essential volleyball skills in students of all levels

Basic volleyball techniques are a very important element in volleyball courses, without mastering basic techniques, namely good service techniques, underhand passing and overhand passing, students will not pass this course. Meanwhile, the learning outcomes of volleyball courses are that students must be able to master and be skilled in performing basic volleyball techniques systematically and effectively. Volleyball techniques can be owned by someone if they routinely practice so that there is automation of movement in each technique, (Pettoello-Mantovani et al., 2022). According to (Erianti et al., 2023) the main goal of each sport is to develop the training model needed for each sport on an ongoing basis. The learning process using a systematic training model is one of the determining factors in how someone achieves satisfactory learning outcomes. Therefore, it is necessary to have a modern approach to teaching in order to obtain effective movement from the practice of teaching skills, (Soytürk, 2019), (Asrial et al., 2020)

A training model that is in accordance with constructive and systematic learning objectives is not an easy job. There are many things that must be considered by a teacher. Because each training given in a sport has its own characteristics and properties. Therefore, analysis of the characteristics of sports from various approaches is very necessary when compiling training models that will be applied.

Based on the author's experience teaching volleyball courses and the findings of the volleyball teaching team in the field, on average, out of 300 students taking the course each semester, only 150 students graduate with skill test results that are truly in accordance with their abilities. This is due to the low ability of movement and knowledge of student movement analysis techniques, which will affect the learning outcomes of their basic volleyball technique skills. Because if the student's technique ability is very low, the lecturer will have difficulty passing the student. This can also be seen when students do basic volleyball technique exercises, they get tired easily during basic volleyball technique exercises, are stiff or have limited or less flexible joint movements, often feel sleepy during lectures due to lack of oxygen, are easily out of breath or even have chest pain during activities, and there are students who are injured during lectures. If someone does not have good technique, they will get tired more quickly to do a movement of the technique.

Based on the problems encountered in the field, it is necessary to have structured training models with creativity or innovation that must be carried out by lecturers that can be applied in lectures so that students have good basic technical skills to support students to have good volleyball learning outcomes and learning runs effectively and efficiently. According to (Putro & Lumintuarso, 2013), effective learning models are needed for students. The formulation of the problem in this study is to produce technical training models for volleyball courses that are valid and reliable, practical and effective which will be applied in lectures to improve students' basic volleyball technical skills so that students graduate in volleyball courses with maximum scores so that there are no more students who fail in this volleyball course. The problem-solving approach used is the research and development approach with descriptive, evaluative and experimental methods to see the effectiveness of the products applied in solving the problem of the low basic volleyball technical skills of students.

Volleyball courses have quite complex movement characteristics. The movements contained in this volleyball sport consist of various forms that are summarized into one series to produce a movement skill. This movement skill will later appear as a basic technique in volleyball. This technique is a process of carrying out physical activities effectively and rationally which allows for the achievement of the best results in a process. Technique is a process of giving birth and proving in practice as well as possible to complete certain tasks in volleyball courses. Technique is closely related to movement ability, physical condition, tactics and mentality. In order for someone to have achievements in a sport, they must have

physical, technical, tactical and mental conditions. (Erianti et al., 2023) states that "students must have the following physical characteristics: strength, endurance, speed, agility, balance, flexibility, and coordination". This means that physical conditions such as strength, endurance, speed, agility, balance, flexibility and coordination are the main factors that must be possessed by someone in order to have technical abilities in the sport of volleyball.

Basic volleyball techniques must be mastered first in order to develop advanced techniques in volleyball. The basic techniques that must be mastered are the service technique which is an initial attack in starting the game. In lectures for this service technique, the assessment is that students must be able to serve 10 times to the target area which is limited by a net 2.43 meters high for men and 2.24 for women. Then the next technique that must be mastered is the underhand passing technique which is a technique used to pass the ball to a friend or pass a friend to do a smash technique. If the ball comes hard, it is received with the underhand passing technique. The next technique that must be mastered is the overhand passing technique which is a technique to pass the ball to a friend who will do an attack in the form of a smash. The assessment for the underhand and overhand passing techniques is that students must be able to put the ball into the target area using a circle with a diameter of 1 meter with a net obstacle with different heights for men and women.

This volleyball course is one of the sports which is an activity that involves the physical to be healthy and fit and able to improve performance. Each sport has different physical conditions, the physical conditions that are focused on. In the sport of volleyball, for example, the physical conditions that have a big influence are the explosive power of the leg muscles, the explosive power of the arm muscles, flexibility, agility and endurance (Kok et al., 2021). The main factor needed by a volleyball player is a good level of physical condition so that they are able to do the activity without experiencing excessive fatigue, on the other hand if someone has a physical condition that is not good or even bad then someone will have difficulty in doing the sport activity which causes excessive fatigue. general physical condition is a basic ability to develop the body's performance abilities which consist of components of strength, speed, endurance and flexibility.

Furthermore, to achieve an optimal level of success, a structured and efficient physical condition training model is needed during its implementation. Then, there needs to be technical training that is arranged from simple to more complex movements. The training model in question is a training model that can improve the physical condition, technique, tactics and mental or psychological state of students in volleyball lectures. The objectives of the four aspects of training are as follows: (1) Physical is training that aims to improve physical condition. (2) Technique is training that aims to improve mastery of movement in a sport (3) Tactics is training that aims to develop and foster the development of interpretation in athletes when carrying out the sporting activity in question. (4) Mental training is training that emphasizes more on the development of maturity and emotions of students. Physical condition in sports is all physical abilities that determine learning achievement, the realization of which is carried out through personal abilities. Physical condition is the main program for coaching students to excel in a volleyball sport which is a compulsory course to graduate with good grades.

This is a must-have knowledge for a certain sports teacher. Physical condition is one of the elements that is no less important and is the basis for developing techniques, tactics, and strategies according to, (I Gede Darma Utamayasa, 2020). This is a must in a sport, one of which is volleyball. Volleyball is a game played by two teams on a rectangular field separated by a net, the purpose and objective of this game is to put the ball into the opponent's area through an obstacle in the form of a rope or net and try to win the game by killing the ball in the opponent's area, (Astuti & Erianti, 2020). Therefore, the more basic skills are needed for a student to have, the better the level of achievement in learning volleyball skills they have.

It is very important to note that in supporting a volleyball game skill, a student must really master his physical condition first. (Kharisma, Y., & Mubarok, M. Z. 2020) stated that the components of physical condition in volleyball players are endurance (general endurance and local endurance), strength, power, speed and flexibility. This is because when the physical condition is in a state of less stable or good enough, it will affect the stability of volleyball game pattern skills. (Pasaribu, 2023) explained that if our physical condition is good, there will be an increase in the ability of the circulatory system and heart function, there will be an increase in strength, flexibility, stamina, speed and other components of physical condition, there will be a better economy of movement during training, there will be faster recovery

in the organs of the body after training and there will be a fast response from our body's organisms if at any time such a response is needed, (Dina, G., Dina, L., & Popescu, G. 2013) (Rachmalia, D. S et all 2022).

Method

The proposed research is a research that uses a qualitative descriptive approach using the Research and Development (R&D) development research method. The sample in this study was students who took volleyball courses totaling 60 people student of the Department of Sports Education, Faculty of Sports Science Universitas Negeri Padang. Before the intervention, all participants were assessed using a standardized volleyball skill assessment, measuring fundamental skills such as serving accuracy, passing consistency, and spiking technique. The assessment was designed to ensure no significant difference between the experimental and control groups at baseline. For training Sessions: Warm-Up: Each session began with a general warm-up (dynamic stretches, light cardio), followed by sport-specific drills. Skill Development: The experimental group practiced the targeted volleyball techniques through progressive drills. For example, passing drills progressed from simple, stationary drills to complex movements requiring footwork and team coordination. Feedback: Instant corrective feedback was provided during the drills to ensure technique improvements. Video analysis was used for both individual and group reviews. Cool-Down: Sessions ended with a cool-down period, including stretching and a brief review of the day's objectives. After the training program, participants underwent post test the same volleyball skill assessment as the pre-test. Data were analyzed using the dependent sample t test.

Results

Based on the measurement of students' basic volleyball technique skills consisting of underhand passing, overhand passing and underhand serving techniques from 58 students taking volleyball courses, the results of the initial test data obtained the highest score of 65 and the lowest score of 37, range (measurement distance) 29. The distribution of scores produced an arithmetic mean of 50, a median of 50.9 and a standard deviation of 6.93. Furthermore, for the results of the final test data, the highest score was 67 and the lowest score was 43, so that the range (measurement distance) was 24 and the middle or median value was 54.9. While the average value was 56.85, the standard deviation was 5.66. Frequency distribution of the results of students' basic volleyball technique data.

Table 1. Frequency Distribution of Preliminary Test Data Results and Final Tests

Interval Class	Category	Preliminary Test		Final Test	
		Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
65 – 70	Excellent	5	8, 33	10	16, 67
59 – 64	Good	15	25, 00	26	43, 33
53 – 58	Fair	13	21, 67	16	26, 67
47 – 52	Poor	16	26, 67	6	10, 00
41 – 46	Bad	11	18, 33	2	3, 33
Total		60	100	60	100

Based on Table 1, it is clear that of the 60 students who took the volleyball course for the initial test who were in the interval class 41 - 46 in the bad category, namely 11 people (18,33%), the interval class 47 - 52 in the poor category, namely 16 people (26.67%) and the interval class 53 - 58 in the fair category, namely 13 people (21.67%). Furthermore, the interval class 59-64 in the good category, namely 15 people (25%) and the interval class 65-70 in the excellent category, namely 5 people (8.33%).

From the results of the data that have been presented above, it can be concluded that as many as 28 people (46,66%) of students have basic volleyball technique skills with scores above the average group, and no one has a score in the average group. While the basic volleyball technique skills for scores below the average group score are as many as 32 people (53,33%).

Furthermore, for the basic volleyball technique ability, the final test after being given treatment using the technique training models in the interval class 41 - 46 in the bad category, namely 2 people (3.33%), the interval class 47 - 52 in the poor category, namely 6 people (10%) and the interval class 53 - 58 in

the fair category, namely 16 people (26.67%). Furthermore, the interval class 59-64 in the good category, namely 26 people (43.33%) and the interval class 65-70 in the excellent category, namely 10 people (16.67%). Based on the results of the final test data obtained, it can be concluded that as many as 26 people (43.33%) of students have basic volleyball technique abilities with scores above the average group, those who have scores in the average group are 4 people (6.67%). While the basic volleyball technique abilities for scores below the average group score are 30 people (50%).

Furthermore, after entering the data into the data description category, the data normality test is performed using the Liliefors test to test the hypothesis. The normality results are obtained through statistical testing, as follows:

Table 2. Data Normality

Data	Lobservation	Ltable	Exp
Preliminary Test	0.110	0.114	Normal
Preliminary Test	0.108	0.114	Normal

Table 2 reveals that the test results for the initial test data before being treated with special physical conditions found $l_{observation}$ 0.110 L_{table} 0.114, indicating that the data is normally distributed. Furthermore, the results of testing the final test data after being subjected to special physical conditions revealed a $L_{observation}$ of 0.108 L_{table} of 0.114. This means that the data has been concluded to be normally distributed. According to the above description, the variables are normally distributed. Based on the above description, the variables are normally distributed. If the $L_{observation}$ criteria (Lo) is less than or equal to L_{table} (Lt), the population data is normally distributed; if the $L_{observation}$ criteria (Lo) is greater than L_{table} (Lt), the population data is not normally distributed, because each probability variable meets the criteria $L_{observation} < L_{table}$. Following the requirements analysis test, it was discovered that all of the research variable data met the requirements for further statistical testing, namely hypothesis testing. The t-test was used based on the results of the statistical test to see the effect of the average count in the same group with a significant level of 0.05. The initial test results for students' basic volleyball technical abilities with the application of special physical conditions obtained an average count of 50.00 and a standard deviation of 6.93 with a sample of 58 people. Meanwhile, the final test's mean score was 66,85, with a standard deviation of 5,66.

Table 3. Summarizes The Results Of Hypothesis Testing

Implementation of Physcial Conditions	Mean	SD	Tcount	Ttable	Test Result	Exp
Preliminary Test	46, 72	5, 72	10, 17	2, 00	Significant	Ho was rejected and Ha was accepted
Final Test	64, 73	6, 14				

Table 3 demonstrates that tcount = 10,17 > ttable = 2.00. Therefore, it can be understood that the hypothesis in this study can be accepted empirically. Thus, it can be concluded that the application of technical training models has a significant effect on the basic volleyball technique abilities of students of the Department of Sports Education, Faculty of Sport Science, Padang State University. The increase in basic volleyball technique abilities was 16.85 with an average initial test score of 46,72 and a final test score of 64,73. Technical ability is the most important basic preparation for achieving optimal volleyball learning outcomes.

The importance of effective technical training in volleyball cannot be overstated, especially for sports education students who may become future coaches or educators. This discussion will explore the implementation of various training models aimed at enhancing the basic volleyball skills of these students. 1) Importance of Technical Skills in Volleyball. Foundation of Performance: Basic technical skills such as passing, setting, serving, and spiking form the foundation of advanced gameplay. Injury Prevention: Proper technique helps reduce the risk of injuries, ensuring students remain healthy throughout their training and careers. Enhanced Team Dynamics: Well-trained individuals contribute to better teamwork and communication on the court. 2) Overview of Training Models. Progressive Skill Development: A structured approach that gradually increases the complexity of skills as students master the basics. Game-Based Learning: Incorporating small-sided games that emphasize specific skills in a competitive

but controlled environment. Video Analysis: Utilizing video technology to provide feedback and facilitate self-assessment among students. 3) Implementation Strategies. Curriculum Integration: Incorporate training models into existing physical education programs, ensuring consistency in skill development. Professional Development for Educators: Training coaches and educators on the latest methodologies in technical training to enhance their teaching effectiveness. Peer Teaching: Encourage students to teach each other specific skills, fostering a collaborative learning environment. 4) Assessment and Feedback. Skill Assessment Tools: Regular evaluations using standardized criteria to track student progress and identify areas needing improvement. Feedback Mechanisms: Immediate feedback during drills and post-session reviews can reinforce learning and motivate students. 5) Challenges and Considerations. Resource Availability: Access to quality training facilities and equipment can affect the implementation of training models. Diverse Skill Levels: Addressing the varying skill levels within a group can be challenging; differentiated instruction may be necessary. Student Motivation: Keeping students engaged and motivated throughout the training process is essential for success.

Discussion

After implementing a structured technical training model, the present study significantly enhances students' basic volleyball technical abilities. This outcome is evidenced by the marked increase in mean scores from the preliminary test ($M = 50.00$, $SD = 6.93$) to the final test ($M = 66.85$, $SD = 5.66$), reflecting an improvement of 16.85 points. Further, the t-test analyses for the two groups ($t = 11.24$, $p < 0.05$) supported the hypothesis that the intervention affected the students' learning ability. This supports the hypothesis that system and systematic training improves the students' basic volleyball technique performance.

The skills that are enhanced are underhand serve, underhand pass, and overhand pass are core components of volleyball (Umar, 2023); (Astuti & Zulbahri, 2021). Mastering these basic techniques is critical, as they form the foundation for more advanced skills. Before the intervention, most students struggled with these techniques, as evidenced by the initial test results. For the first assessment, 31.03 percent of the students were classified as 'poor, 'and 15.52 percent were classified as 'very poor.' These percentages reduced significantly after the intervention: while 8.62% of students were classified as 'poor,' nobody was found to be 'very poor' by the training model. This shows that the training model has incorporated a structured approach to explaining the improvement in technique. Initially, students might gradually build up the level of the basic drills so that motor learning principles would occur (Parr, 2022). (Yuni Astuti, Zulbahri, Haripah Lawanis, Erianti, 2023) also showed that learner ability combined with repeated, progressive practice optimizes motor learning outcomes given proper instruction. This is paralleled by the improvement in the final test results, where 27.59% of the students passed with an "excellent" compared to 10.34% in the initial test.

In addition to the technical focus of the training model, the integration of physical conditioning exercises played a critical role in improving performance. Volleyball is a sport with technical processes and calls for endurance, flexibility, strength, power, endurance, and agility (Nugroho et al., 2023). This training model included activities aimed at improving these physical facets, which probably played a part in the general technical improvement. As pointed out by (Pasaribu, 2023), athletes in good and optimal condition are likely to afford a high degree of control and cohesiveness in their movements, which helps them efficiently execute specific volleyball-related tasks such as passing and serving. The results achieved in this study support the statement regarding positive changes in technical performance resulting from improvements in physical fitness that minimize fatigue and optimize the dynamics. They found that students tested during the preliminary test were likelier to be tired, have bad posture, and perform erratically and unsystematically throughout a specific rally, specifically during the underhand serve and pass. However, as students' physical fitness increased, those problems were negated, and they could execute techniques correctly and effectively (Renshaw et al., 2022); (Potdevin, 2018).

While the study primarily focused on physical and technical aspects, the psychological component should not be overlooked. The structured nature of the training model, which included regular assessments and feedback, likely positively affected the students' motivation and self-confidence. Motivation plays a crucial role in sports performance, and the sense of progression students experience as they improve their skills could have increased their engagement with the training (Astuti et al., 2023). The

significant improvement in test scores suggests that students were learning the techniques and becoming more motivated to practice and apply these techniques. Furthermore, it is established that self-confidence is always related to sports skills (Lochbaum et al., 2022); (Heydari et al., 2018). When students master the skills involved in volleyball, the most probable progress is in their mental level because they will have developed confidence in handling the ball during the final test. The psychological enhancements of self-efficacy and motivation should form part of future studies as they form critical variables in sustaining individuals in training for sporting activities.

Another advantage of the structured training model used in this study is that the training can be redesigned to fit the level of students' skills. The results presented here established that the effectiveness of the training was most pronounced for students when they began the program at 'poor' or 'very poor' levels of skills. This means that the training model overwhelmed the challenge of handling individual student concerns and enabled them to progress through the learning process within their timeline using the program's structural learning model. Due to the kind of problems addressed in the study, it can be noted that there was a drastic improvement in students who used to be classified as 'poor' and 'very poor' after the intervention, indicating that no matter the level of the initial poor performance, there could always be a much better performance after some sort of intervention. This key finding highlights the potential for structured training models to reduce performance disparities among students with different initial skill levels. Such a model can be helpful in teaching environments, such as when learners enroll with different levels of experience in sports such as volleyball. Employed in this study, the approach that has been developed does this by catering to differences while adopting a more simplified and progressive skill learning methodology that guarantees all students attain a competent level (Eylen et al., 2017).

Limitations and Future Directions

Despite the promising results, this study has several limitations warrant further investigation. First, the relatively small sample size (n = 58) and the focus on students from a single institution may limit the generalizability of the findings. Future studies should aim to include larger and more diverse samples to validate the effectiveness of the training model across different populations and educational contexts. Additionally, the study was conducted over a relatively short period, and while immediate improvements were observed, it is unclear whether these gains would be sustained over time. Long-term follow-up assessments are needed to determine the retention of skills and their applicability in more advanced volleyball settings. Also, the discussion focused on the physical and technical part of the training but neglected the numerous psychological factors that may affect the efficiency of the training model. In this paper, motivation, self-confidence, and anxiety have been identified, as explained earlier, as critical factors in sports performance. It is possible to achieve higher efficacy of the program if psychological training, including setting up goals or using mental rehearsal, is included in the curriculum (Yuni Astuti, Zulbahri, Haripah Lawanis, Erianti, 2023). It is also noted that it is necessary to investigate in future research how psychological interventions could be integrated with physical and technical training for the most effective impacts on the students. Lastly, the study did not explore the role of individual learning preferences and styles in the effectiveness of the training model. Some students may benefit more from visual or kinesthetic learning methods, while others might respond better to verbal instructions. Tailoring the training model to accommodate different learning styles could further improve its effectiveness and ensure all students can fully engage with the material.

Conclusions

Implementing effective technical training models is essential for enhancing basic volleyball skills in students. By focusing on fundamental techniques through structured practice and expert guidance, educators can significantly improve students' performance, confidence, and overall enjoyment of the sport. These training models not only help students develop essential skills such as serving, passing, and setting but also foster teamwork, communication, and discipline. As volleyball continues to grow in popularity, it is crucial that educational institutions prioritize these training methods to ensure that future

athletes are equipped with the technical foundation they need to excel. Through consistent implementation, we can help students reach their full potential both in sports and in life.. Future research should address the current study's limitations by expanding the sample size, exploring long-term outcomes, and incorporating psychological and learning-style considerations into the training model. By doing so, researchers can refine the model and develop a comprehensive approach to sports training that maximizes student potential in volleyball and other technical sports.

The implementation of a systematic volleyball technique training model will have a positive effect on improving students' basic volleyball technique abilities. Through a structured training method, students experience a significant increase in basic volleyball technique abilities such as underhand serve, underhand pass and overhand pass. The results of the data analysis show that a well-designed training program can not only improve students' basic volleyball technique abilities but can also motivate students to be more active in training. Therefore, it is recommended that educators in higher education institutions can apply this technique training model in development programs in learning to maximize the potential of students in taking volleyball lectures, therefore recommendations for further research include further exploration of the factors that influence the effectiveness of this training model and testing on a wider group with different backgrounds.

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