

The Influence of Training Methods and Eye-Hand Coordination Against the Results of Volleyball's Top Serve Skills

Rohandi Nur Satardi¹, Putri Cicilia Kristina², Widya Handayani²

¹Lembaga Kursus Bola Voli Citra Dara, South Sumatra, Indonesia, ²Universitas PGRI Palembang, South Sumatra, Indonesia

Corresponding author e-mail: rohandi.2022152050.students@univpgri-palembang.ac.id

Abstract: This study aimed to determine: (1) differences in the effect of mass training methods and service distance manipulation methods on the results of volleyball topspin skills and (2) differences in volleyball topspin results with good and low hand-eye coordination. Eye-hand coordination on top spin volleyball skills and (3) training methods and hand-eye coordination on top spin volleyball skills. This research method used an experiment with a 2 x 2 factorial design, with a total of 42 people including coaches from the Citra Dara Volleyball Course Institute. The samples taken from this study were 22 people using a purposive sampling technique. The hand-eye coordination test and the volleyball serve test were used in the research instrument, along with the Russell-Lange volleyball serve test. Data analysis techniques using Anava. The results of this study indicate that: (1) there is a significant difference between the mass training method and the distance manipulation training method in the volleyball top spin results, and (2) there is a significant difference. the result of volleyball peak spin between coaches with high hand-eye coordination and low hand-eye coordination, and (3) training methods and upper server hand-eye coordination affect the results of the game volleyball service.

Keywords: Distance Manipulation, Hand-Eye Coordination, Massed Practice

A. Introduction

The Law Number 3 of 2005 of the Republic of Indonesia concerning the National Sports System expressly affirms that the national sports system is all aspects of sports that are planned, systematic, integrated, and sustainable as a whole, which includes regulation, education, training, management, training and supervision by the objectives of national sports to achieve. One of the goals of folk sports is the achievement of sporting achievements. Achievement sports are sports that advance and develop athletes in a planned, gradual, and continuous manner, competing to achieve achievements with the support of sports science and technology. In general, the definition of exercise is one of a person's physical and psychological activities, which is useful for maintaining and improving the quality of one's health after exercising or daily activities. When it comes to sports, you'll find a lot about victories,

championships, awards, pride, even disappointments, failures, struggles, turmoil, and much more. All these things are intertwined and mixed in the form of a great love for sports.

Sports today are a global phenomenon and an integral part of people's lives, although, with the help of sports, the character of a nation can be shaped in such a way that sports become a strategic means of instilling confidence, national identity and national pride. Systematic and quality sports coaching Human resources can be directed to improve self-control, responsibility, discipline, and sportsmanship, which in the end can be used to achieve sports achievements that cause national pride. Nowadays the competition in achievement sports is getting fiercer, achievements no longer belong to individuals but have been associated with the value of the nation. Because sports achievements illustrate a very smooth relationship between the government and the sports community. Therefore, the ways and efforts of a region or country are directed toward athletes who become champions in several important games. In the Law on the National Sports System of the Republic of Indonesia No. 03 of 2005, it is explained that sports are part of the process and achievement of national development goals so that the existence and role of sports in the life of society, nation, and society. The state must be placed in a clear place in the national legal system.

To improve the effectiveness of sports coaching work, it takes courage to make decisions about setting priorities for sports that are cultured and included in the multi-competition. Indonesia's participation in international events is not just participation but must be achieved. This can increase competitiveness in sports development. The determination of priority branches has an impact on the general training system up to the PPLP/PPLM and SKO levels (Aguss et al., 2021). The government will continue to nurture athletes to be more effective and efficient in improving achievement by finding and monitoring talent, kindergarten education, and science and technology achievement training that are more effective and efficient, and improving the quality of sports organization both at the central and regional levels. Within the limitations mentioned above, it is clear that the sports coach system does not stand alone, but is interrelated between one component and another. One component of organizing sports achievements is the support of athletes through the activities of sports coaching institutions or sports club coaches. Children's age is a very good time to improve the development of their physical side, meaning that with proper care they can become good athletes.

Educational institutions or sports clubs have a very important role in supporting national achievements in various sports. The coaching institute is a stepping stone for every athlete to improve his skills and achievements. Of course, most athletes are raised and developed in sports training institutions from an early age to adulthood. Coaches and coaches must be observant in managing and developing clubs that aim

to increase success. To have a high-quality club, you need to create different training centers. Therefore, the training and coaching of the club must be managed with an effective management system that is appropriate to the general management function. For the training process to run smoothly, a good management structure is needed by the trainer so that every job/activity carried out can run well. Indonesia has several different sports facilities, one of which is a volleyball court. According to Suhad (2004), volleyball is one of the most interesting and popular sports and can be played by all circles. The game of volleyball consists of flying the ball using the entire limbs and crossing it over the net to the opponent's court. Volleyball is played between two teams with a big ball. Each team is only allowed to throw the ball three times, and no player touches twice in a row, except for one block. The volleyball court is rectangular in shape with a length of 18 meters and a width of 9 meters. The volleyball game consists of two teams, each squad consists of 6 main players, separated by a net 1 meter wide and 9.50 meters long, placed vertically above the center line of the court. The height of the men's net is 2.43 meters and the women's net are 2.24 meters (PBVSI, 2004).

Volleyball is a sport that can be played by children and adults, both women and men. Elements of thinking, skills, and emotions are well developed when playing volleyball. In addition, personality can be well developed, especially self-control, discipline, cooperation, and a sense of responsibility for one's actions.

The basic principle of playing volleyball is to bounce the ball so that it does not touch the floor, the ball is played three times on one's court, and it is equally difficult to catch the ball from contact through the net that enters the opponent's court. as much as possible. In the implementation of a volleyball game, each team has the right to play the ball a maximum of three times, in this case, each player can bounce the ball once, except the opponent's block ball can bounce the ball twice in a row. A number or point is awarded to the team that serves and to the team that wins if the service is completed.

If at a later time the team loses the game after serving, manages to get a point and so on, the team that gets 25 points at the end of the game or a difference of 2 points has the right to win the set. Each match prepared 5 sets of game and the team that won 3 sets won the match (Muhajir, 2007). To play volleyball well it is important to master basic techniques well, the acquisition of basic technical skills is a reflection of the success of each activity. The use of volleyball in the formation of individuals with harmonious physical and mental development is very wide. Movements in volleyball games are quite complex, requiring good coordination, flexibility, and physical fitness to achieve maximum efficiency. Trainees who regularly practice improve the quality of coordination, flexibility, and physical fitness so that trainees benefit more from participating in volleyball training. Coaches easily switch to other sports games. When body and mind are intertwined in the movement of the game, the soul is the main

driver of his physical abilities. Physical development aims to develop good posture, covering anatomy, physiology, and health which includes dexterity, endurance, strength, coordination, and flexibility.

There are several basic techniques in the game of volleyball, namely passing, passing, breaking, and blocking. Among these techniques, volleyball teams usually have a serving technique because serves have great potential and generate points to win. Faruq (2009) asserts that a team must always be ready to attack to get the desired value. Good execution of basic serve techniques is essential for scoring points, as ineffective serves will result in the volleyball team losing. The basic service technique is one technique that is very supportive in the game of volleyball. Edge is the only technique used to start the game. Service is the basic stage of the game of volleyball that must be mastered. When playing volleyball, players only get points if the player manages to serve well and the opponent does not return the ball well. Therefore, it is very important in the match that the players serve in a balanced manner. At least 90% of players who serve can push toward the opponent's area. Today, the pass is not just a sign of the start of the game or simply passing the ball, but more than that: the pass marks the first attack of the service team, as done by Farhan Halim of Indonesia at the Cambodia 2023 Sea Games. He is known as the king of ministry because of this deadly ministry.

There are several types of passes in volleyball, including underpasses and overpasses. A head pass is a type of passing that must be mastered to make a good opening attack. An overpass is a pass where the ball is thrown first and then hit from above by waving your hand. Overhand serves are very good to use as a first attack, because the ball produced from above is not easily received by the opponent. So, it becomes a huge advantage if you manage peak services well. Boughten trainees have difficulty acquiring good and correct volleyball skills, this is due to several factors, one of which is the lack of different practice methods applied in such a way that the exercises become boring and less effective in improving the player's skills, and the program used is not completely correct, so to practice upper cycling skills the right training method is needed. In terms of difficulty, the service above has a high level of difficulty when used as an opening attack in a volleyball game. As difficult as it is to accept, it is also difficult to serve. Therefore, high-level trainers and trainees must have proper training methods and methods and a harmonious relationship between the two. It is designed so that the training objectives are perfectly met. Just like in Citra Dara's training activities on the volleyball court which are felt to be less harmonious between coaches and students, the training method also greatly affects the achievement of the goals of the volleyball training.

In the training program it is assumed to improve the ability of athletes trained by determining the difficulty of training and the training method used, so that training

goals can be achieved, of course, many factors influence it, either internal and external factors. According to Harsono (2015), training is a very complex process involving internal and external variables, including motivation, ambition, quantity and quality of training, quantity, and intensity of training, and competitive experience. training of athletes, coaches, facilities and infrastructure, and organizations that oversee sports. However, the greatest influence is on the athletes themselves and the coaches.

Success in coaching or training athletes is influenced by several factors, such as psychology, physical quality, support from family members, ability to receive external feedback such as technical and tactical input, and experience of competing. The role of athletes is no less important. A coach who trains athletes. Harsono (2015) further explained that the main task of the coach is to prepare his athletes as well as possible, to perform optimally in the match. The athlete coaching program requires preparation such as technical aspects, tactics, physical condition and Phys, and biological state of the body, including psychological aspects. The goal of training in any sport is to achieve the highest possible performance. According to Sukadiyanto (2011), every exercise causes changes including anatomy, physiology, biochemistry and psychology of the culprit. Therefore, the athlete's achievements cannot be separated from his participation in training. How the coach views the athlete, prepares a good exercise program, and chooses the right exercise method to use.

Training methods are ways used in training to improve the quality of athletes to improve athletes' performance. Sanjaya (2008) added that the method is a way of implementing plans made in concrete actions to achieve goals optimally. All sports, including volleyball, use many training methods. But sometimes the use of improper methods has a very bad impact and the athlete's motivation to train weakens. Finding the right and effective training method is not easy. The training methods used in this study were mass training methods and manipulation of service distances. The two training methods have different characteristics. The mass training method emphasizes the gradual and continuous repetition of serves over the actual service distance with very short rest periods or even no rest periods at all. At the same time, the method of manipulation of service distance, which emphasizes the provision of service distance measures, starts with a short distance and gradually the actual distance.

However, it is still unknown which of the two training methods has a greater influence on the results of volleyball serve skills. In addition to the training methods that affect the results of peak serve skills, the individual factors of players also affect the results. The difference in abilities is largely due to different physical characteristics. According to Heri Rahayu (2012), the fact that affect the business skills training process are internal factors and external factors. An internal factor is something inherent in an individual or other characteristic that distinguishes one player from another. One of the internal factors is physical fitness, physical fitness is related to hand-eye

coordination that affects the results of volleyball serves. The difference in hand-eye coordination can be considered a determining factor in the outcome of volleyball serve skills. Based on the background presented, the researcher wanted to conduct a study on "The effect of training methods and then hand-eye-hand-eye on the results of top serve skills (Top Spin Volleyball)" in children's training at the Citra Dara Volleyball Course Institute, Sentosa Young Village, Buay Madang District, East Ogan Komering Ulu Regency, South Sumatra Province.

B. Methods

This study used a qualitative descriptive approach (Thomas et al., 2001). Namely, research aimed at the development of data theory, where the design of qualitative methods is universal, flexible, and can be further developed in the research process. The types and sources of information used in this study are magazines, articles, additional information from previous research, and information from websites according to the research question. The method used is the analytical descriptive method, research conducted to describe certain symptoms, phenomena, or events (Maksum, 2018).

Data collection is carried out to obtain information related to certain phenomena, conditions, or variables and is not intended to test hypotheses (Arikunto, 2006). namely the collection, preparation, and analysis of research data results. Research focuses on the discovery of theories, propositions, laws, principles, rules, or ideas used to analyze and solve the proposed research problem. Descriptive analysis is at the core of this study. The information obtained is described sequentially, then understood and explained so that the reader can understand it correctly. The data collection technique used is the recording method (documentation). This method is a method of searching or extracting data that involves questions about literary meaning (Arikunto, 2013).

Although the data used are secondary information obtained through indirect observation. However, the information was obtained from the results of research conducted by previous researchers. Secondary sources of information are original scientific reports contained in books or articles or periodicals (and/or/ or non-print) about sports in traditional games about their influence and usefulness in improving physical fitness.

C. Results and Discussion

Table 1. The Results of Literature Review

No	Title	Author/Year	Method	Research Result
1	The Influence of Teaching Style and Hand Eye Coordination on Volleyball Smash Skills	Rizal, B. T., & Kasriman, K. (2020)	The research method used in this study is experimental.	The results of data analysis showed that: (1) Overall volleyball smash skills of the group of students who participated in reciprocal learning were better than students who participated in practice learning, (2) There was an interaction between teaching style and hand-eye coordination on volleyball smash skills, (3) In high hand-eye coordination, the results of volleyball smash skills of the reciprocal teaching style group better than the exercise teaching style group, (4) In low hand-eye coordination, the reciprocal mega jar style group's volleyball smash skill results were lower than that of the exercise teaching style group.
2	The influence of training methods and hand-eye coordination on the results of volleyball service skills.	Yohana Bela Christian Sari, G. Guntur (2017)	This research method uses experiments with a 2 x 2 factorial design. The population of this study was 42 extracurricular junior high school students in Kalasan Sleman Yogyakarta. The sample of this study 22 was taken by <i>purposive sampling</i> technique. The research instrument used eye-hand coordination tests and volleyball serve using the <i>Russell-lange volleyball serve test</i> . Data analysis techniques using Anava.	The results of this study showed that: (1) there was a significant difference in influence between top serve training using <i>massed practice</i> training methods and distance manipulation training methods on volleyball top spin, (2) there was a significant difference in volleyball <i>top spin</i> between trainees who had high eye-hand coordination and low eye-hand coordination, and (3) there is an interaction between the upper serve training method and the eye-hand coordination of the volleyball upper serve.

No	Title	Author/Year	Method	Research Result
3	The Influence of Training Methods and Coordination on Volleyball Top Serve Skills	Sudibyo, (2015)	The method in this study used experiments with <i>treatment design by level 2x2</i> . The analysis technique uses two-path variance analysis (ANOVA), followed by the Tukey Test at a significance level of $\alpha = 0.05$.	Obtained : (1) Overall service skills over volleyball group of students who were treated with the Section Practice Method better than students who were treated with the Overall Practice Method (F calculate = 5.865 > F table = 4.11); (2) there is an interaction between the Training Method and coordination of volleyball serve skills (F calculate = 7.843 > F Table = 4.11); (3) the group treated with the Section Exercise Method was better than the group given the Overall treatment of volleyball upper serve skills for students who had high coordination (Q count = 6.543 > Q table = 3.89); (4) the group treated with the Overall Training Method was better than the group treated with the Section on volleyball upper serve skills for students who had low coordination (Q count = 4.341 > Q table = 3.89); It is expected for teachers to choose and apply Exercise Methods that are adjusted to the level of student coordination, for that reason to consider Exercise Methods that are tailored to the learning material.
4	Contribution Between Motivation and Eye-Hand Coordination With Volleyball Bottom Serving Skills	Darmawan, Zam, et al (2020)	The study was classified as a correlational research type: The population of all male students in grades I-III in this study was all students of SMA Negeri 3 Painan as many as 216 students. The sampling technique in this study used the <i>Purposive Sampling technique</i> . So, the sample in this study was male students from classes I-III with a total of 60 people. The instruments in this study are motivation using questionnaires, the second variable is eye coordination, throwing a tennis ball against the wall with a target, and this dependent variable is service skills under playing volleyball using the <i>AAHPER Serving Accuracy Test</i> . For data analysis techniques on what researchers do using multiple correlation analysis techniques.	The results of the data analysis were obtained: (1) From the results obtained motivation contributed significantly to the service skills under volleyball of SMA Negeri 3 Painan students, marked by the results obtained t-count = 3.59 > t-table = 1.67 and contributed 18%. (2) From the results obtained eye-hand coordination contributed significantly to volleyball bottom service skills, count = 3.92 > t-table = 1.67 and contributed 21%. (3) There is a significant contribution together between motivation and hand-eye coordination together with skills volleyball bottom serves, with F-calculate = 13.88 > F table = 3.16 and contributed 32%.

Results of the first study Volleyball hitting skills through reciprocal teaching style (A1) are better than practice skills (A2) Volleyball hitting skills are one of the basic skills that are very important and must be mastered and learned in the game of volleyball. Therefore, learning the basic techniques of volleyball requires some proper teaching

style to achieve maximum results. Two teaching styles, reciprocal teaching style, and practice style, were applied in this study. The aim was to see which teaching style was better at improving the volleyball hitting skills of students of the Faculty of Sports, Jambi University.

Alternative hypothesis (H1) states that in general, the difference between interactive teaching style and practical teaching style is acceptable because the calculation results show to sign the finance of 0.016 and It; $\alpha = 0.05$, Reciprocal teaching style (= 61.18; SD = 17.30) better than practical teaching style (= 56.46; SD = 8.71). X X That is, the hypothesis of this study is that the overall volleyball hitting skills with a reciprocal teaching style are better than the drill teaching style. Thus, based on the discussion of research findings that have been outlined, it can be argued that the reciprocity teaching style is more appropriate and suitable for improving rebound volleyball skills compared to the direct teaching style.

There is an interaction between teaching style and hand-eye coordination in volleyball smash skills (AxB), then H0 is rejected and H1 is accepted. Thus, it can be concluded that teaching style and hand-eye coordination affect volleyball hitting skills. Conversely, the hands-on teaching style can be applied to students with poor hand-eye coordination. This is confirmed by the results of follow-up tests, which distinguish between a high hand-eye coordination interactive teaching style and a high hand-eye coordination exercise teaching style. In other words, the reciprocal teaching style is significantly better than the drill teaching style in the high-eye coordination group, so the reciprocal teaching style and drill teaching style improve the volleyball hitting ability.

The alternative hypothesis (H1) that there is an interaction between teaching style and eye-hand coordination on volleyball hitting skills suggests a significance value of 0.000, so H0 is rejected and H1 is accepted. It can be concluded that students with high hand-eye coordination in learning, if they want to improve volleyball-hitting skills should be able to learn by using reciprocal teaching styles, on the contrary students with low hand-eye coordination in learning want to improve volleyball-hitting skills, they can use style teaching practices. Volleyball skills through reciprocal teaching style learning (A1) are better in students with better hand-eye coordination (B1) than in exercise style (A2). Both teaching styles have the same goal of improving volleyball hitting skills, but both have different results. Students with high hand-eye coordination can develop their skills and creativity to the maximum improvement of skills and achievements because they are more interested in more distant and complex things.

The reciprocal teaching style is implemented by making different games according to the level of hand-eye coordination of students, according to the learning objectives, as

well as creative games, the spirit of learning, whose main objective is to develop or master the basic techniques of learning in volleyball. While the teaching style trains its implementation as a repetition of repeated exercises to improve or master the basic techniques of strokes practiced. The high hand-eye coordination interaction style group (A1B1) was compared to the high hand-eye coordination exercise teaching style group (A2B1). The resulting significance is 0.000.

Because the significance is less than, H_0 is rejected and H_1 is accepted. Based on the calculation results, the average student with good hand-eye coordination ($X = 76.06$; $SD=8.44$) did better than students who used hands-on learning ($X=52, 78$) with a reciprocal teaching style $SD=9.01$).

Thus the mean is less than, hence H_0 is rejected. Based on testing the results of the study, it can be concluded that it is more appropriate and appropriate to apply a highly motivated interactive teaching style in the development of volleyball hitting skills. For students with poor hand-eye coordination (B2), volleyball-building skills with the drill teaching style (A2) are better than the reciprocal teaching style (A1). This teaching style also has the same goal of improving explosive volleyball skills, but each also has differences in its implementation.

The interactive teaching style is implemented through variation and the creation of game patterns that lead to the goal of explosive volleyball skills. If the teaching style is practiced in practice, the goal is to improve or master the basic techniques taught by repeating the exercises. For students with poor hand-eye coordination, this type of learning is a very valuable activity that must be done if you want to have good basics because, he says, the exercises are repeated, starting from the easy ones first. , And the action is not too difficult. In other words, learning by applying a practical teaching style for students with poor hand-eye coordination will be more encouraging to achieve a good level of skill in volleyball learning.

Teaching in a bilateral teaching style where hand-eye coordination is poor does not seem to stimulate students' skills and less noticeable improvement in learning explosive volleyball skills. The reciprocal teaching style of the low hand-eye coordination group (A1B2) compared to the low-hand-eye-eye coordination group of the drill teaching style (A2B2) obtained results with a significance of 0.000, i.e. less than. This means that the data cannot be accepted H_0 or H_0 rejected Based on the calculation results, in the group of students with poor hand-eye coordination, the average was the average student who used practical teaching ($X = 60.14$; $SD = 7.95$). better than students who used an interactive teaching style ($X = 46.30$; $SD = 8.77$).

The significance is smaller and then H_0 is rejected that the data cannot accept H_0 , so it can be concluded that there is a difference in volleyball hitting ability between the

mutual teaching style group and the teaching style of low hand-eye coordination exercises. Based on the discussion of research findings, the hands-on teaching style is more suitable for students with poor hand-eye coordination in volleyball hitting skills. This study uses an experimental method that uses independent variables, namely reciprocal teaching styles, and practical teaching methods with moderating variables, namely. Hand-eye coordination and the dependent variable is the explosive volleyball ability of sports faculty members who attend volleyball courses.

Based on the results of the study, the results of hypothesis testing, and the results of the resulting research discussion, the following conclusions can be drawn. 1. In general, students who participate in learning with peers have better volleyball-hitting skills than students who participate in direct learning. 2. Teaching style and hand-eye coordination affect volleyball hitting skills. 3. In the group of students with high hand-eye coordination ability, the results of volleyball hitting skills in the group that participated in peer learning were better than the group that participated in practical learning. 4. In the group of students with poor hand-eye coordination, the results of volleyball hitting skills that followed learning through practice were better than the group that followed peer learning.

The results of the second study were obtained from research in the form of data which is an overview of each variable included in the study. Through this picture, the initial condition and final condition of each variable studied are seen in data processing after the data has been successfully collected during the given training period. Based on Table 2 it can be seen that when the mass exercise method is combined with high hand-eye coordination obtained an average initial test result of 40.5 and a final test result of 83.33 with a difference of 42.83.

Similarly, the average initial test result of the combination of mass training methods, and low hand-eye coordination was 16.1667 and the final test result was 30.5 with a difference of 14.333. The combination of remote manipulation training methods can have an average basic test score of 42 and an average final test score of 46.8 for high hand-eye coordination, with a difference of 4.8. For the combination of remote manipulation training methods with poor hand-eye coordination, an average pretest score of 16.8 and an average score of 39 posts were obtained with a difference of 22.2. Any combination of training methods with eye-hand coordination can be completed to improve the average overservice test. The results of the third study showed that there was a difference between the partial training method and the total training method in the volleyball service skills of students who participated in non-volleyball activities at SMK Negeri 21 Jakarta.

Calculates variance analysis for differences in the effectiveness of the two training methods as a whole. From the results of Anava's calculations, it can be seen that the F

observation between columns (F_t) = 5865 is greater than the F table which is 4.11 ($F_o = 5865 > F_t = 4.11$), so H_o is rejected and H_1 is accepted. Thus, it can be concluded that overall, there is a significant difference between the partial training method of non-volleyball players and the total training method of volleyball service skills of SMK Negeri 21 Jakarta. In other words, volleyball serve skills with partial practice methods are better than volleyball serve skills with total practice methods. This means that the first research hypothesis, namely the effect of partial training methods and total training methods on volleyball serviceability in non-volleyball players of SMK Negeri 21 Jakarta, has been tested.

In volleyball serve skills there is an interaction between the method of practice and the coordination of results. Based on the summary of variance analysis, the interaction value of F-calculate (F_{AB}) = 7846 and F-table = 4.11, it is known that F calculate > F table, so the null hypothesis (H_0) is rejected and H_1 is accepted. In other words, it can be concluded that the practice method and coordination of volleyball serve skills are related. The second research hypothesis is that there is an interaction between training methods and the coordination of results on volleyball serve skills tested.

To impart volleyball skills to students with high coordination ability, partial practice methods, and general practice methods are different. shows that Q calculate (Q_h) = 6.543 is greater than Q table = 3.89 or Q calculate > Q table at a significant level of α 0.05, so the null hypothesis (H_o) is rejected and the alternative hypothesis (H_1) is accepted which means volleyball is taught by the partial training method high coordination group service skills are higher than the overall training method. This means the third research hypothesis, namely: There are differences in partial and full training methods in the volleyball service skills of students with high coordination abilities.

Volleyball students of SMK Negeri 21 Jakarta who participated in volleyball extracurricular activities had differences in the total volleyball training method with the partial practice method of volleyball service skills. that the value of Q calculates (Q_h) = 4.341 is greater than Q calculate = 3.89 or Q calculate > Q table at a significant level of α 0.05 so that the null hypothesis (H_o) is rejected and the alternative hypothesis (H_1) is accepted, which means that the volleyball serves skills of weak students with coordination abilities taught with the overall practice method are better than those taught with the partial practice method. Based on the results of testing the formulation of the four hypotheses, the partial training method has a better influence than the overall total training method. However, students with high coordination skills should choose a partial training method if they want to improve their volleyball serve. However, people with poor coordination may be given general practice methods to improve volleyball serve skills.

Based on the information obtained during the analysis and confirmation of the research hypothesis, it can be concluded:

- 1) There were differences in volleyball serve skill outcomes between groups of students taught with the practice method partial and the overall model.
- 2) There is an influence of interaction between training methods and coordination on volleyball service-learning outcomes.
- 3) In the highly coordinated group of students there were significant differences in volleyball serve skills between the groups of students taught by the section and whole methods.
- 4) Significant differences in volleyball serve skills were revealed in groups of students with poor coordination who were trained with full and partial practice methods. Results of the Fourth Study

Contribution of Variable X1 with Y

Based on the results of the analysis of test data criteria, if the calculation $>$ table, then there is a significant relationship and vice versa. SMA Negeri 3 I consider from the results of the calculation the correlation of motivation and skills served by students in volleyball recalculate $= 0.427 >$ table $= 0.254$. It turns out that motivation plays an important role in volleyball retention skills, and the truth must be accepted. In addition, motivation accounts for 18% of SMA Negeri 3 Painan's lack of volleyball skills, which means high willpower both internally and externally, called motivation, followed by practicing deficient volleyball skills. From the description above, it is clear that motivation has a significant effect on the sub-volleyball skills of SMA Negeri 3 Painan students. Motivation is a person's seriousness to realize or lead what he does, besides that motivation also comes from within himself and motivation. With motivation, a person can do things more diligently and seriously.

Contribution of Variable X2 with Variable Y

Based on the results of data analysis, the criteria for testing data are if recalculate $>$ table, then there is a significant relationship and vice versa. SMA Negeri 3 weighed the correlation between hand-eye coordination and student volleyball hand skills from the calculation results recalculate $= 0.458 >$ table $= 0.254$. It turns out that the coordination variable has a significant effect between volleyball craft skills and acceptable truth. In addition, volleyball students of SMA Negeri 3 Painan have a hand-eye coordination of 21% on subserve, which means mastery of passing skills also requires excellent coordination. From the description above, it is clear that hand-eye coordination has a considerable effect on the sub-volleyball skills of SMA Negeri 3 Painan students.

Contribution Between Variable X1 and Variable X2 with Y

It can be known from two or more variables using the double correlation formula. Test criteria are important for the F-test. If $F_{\text{calculate}} > F_{\text{table}}$, then there is a relationship, and vice versa there is no relationship if $F_{\text{calculate}} < F_{\text{table}}$. So, between X1 and X2, there is a significant contribution (significant) with Y, namely motivation, self-recognition, and good coordination ability tend to achieve the fullness of the lower edge of volleyball. In addition, the calculation result of R (multiple correlations) with X1 and X2 at the time of Y is 0.57, and the calculation result of r^2 (squared) or multiple determinant coefficients gives the equation of the equilibrium variable (Y) of both variables (X1). and X2) with the formula $r^2 \times 100\%$ is 32%. This means that X1 and X2 constitute 32% of Y. That is, 68% of the volleyball passing skills of SMA Negeri 3 Painan are influenced by other variables. These include physical condition, technique, training program, and quality of trainers.

Hand-passing skills in volleyball are basic technical skills that are indispensable in the game of volleyball. The purpose of mastering passing skills is to be able to turn skills that have not been maximized into maximum skills by controlling and dropping the ball into the opponent's area that looks empty or weak by giving them a difficult pass. The opponent accepts so that the opposing team cannot accept it. Or drive the ball into the opponent's area with hard-to-reach service power and at such high speed that the opponent cannot hold or master it and the ball is expected to leave the field after the opponent. The physical condition and psychological factors of the athlete affect the abilities of the subway. Based on research findings on physical conditions that affect manual dexterity skills. In addition, a psychological factor affecting the skills of underground services is motivation.

D. Conclusion

Based on the literature review above, previous studies have shown that training methods and hand-eye coordination have low, moderate, and high importance in volleyball. Therefore, researchers assume that further studies will also yield slightly different results, specifically the influence of training methods and hand-eye coordination on overhand passing in volleyball. Based on the literature review, further research is needed on the influence of training methods and hand-eye coordination on the outcomes of overhand serving skills in Volleyball.

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References

- Aguss, R. M., Fahrizqi, E. B., & Wicaksono, P. A. (2021). The effectiveness of the vertical jump on men's volleyball smash ability. *Jurnal Pendidikan Jasmani Indonesia*, 17(1), 1-9
- Darmawan, Z. R., Padli, A., & Masrun. (2020). Contribution Between Motivation and Eye-Hand Coordination with Volleyball Bottom Serving Skills. *Jurnal Patriot*, 2(3), 860-873. <http://patriot.ppj.unp.ac.id/index.php/patriot/article/view/676>
- Faruq, M. M. (2009). *Improving Physical Fitness Through Volleyball Games and Sports*. Jakarta: Gramedia Widiasarana Indonesia
- Harsono. (2015). *Sports Coaching, (Theory and Methodology)*. Bandung: Remaja Rosdakarya.
- Muhajir. (2007). *Physical Education, Sports and Health for Class XI High School*. Bandung: Erlangga.
- PBVSJ. (2004). *Volleyball Game Rules*. Jakarta: PBVSJ
- Rizal, B. T., & Kasriman, K. (2020). The Influence of Teaching Style and Hand Eye Coordination on Volleyball Smash Skills. *Jurnal MAENPO: Jurnal Pendidikan Jasmani Kesehatan Dan Rekreasi*, 10(2), 72. <https://doi.org/10.35194/jm.v10i2.1065>
- Sanjaya, W. (2008). *Learning System Planning and Design*. Jakarta: Kencana Prenada Media Group
- Sari, Y. B. C., & Guntur, G. (2017). The influence of training methods and hand-eye coordination on the results of volleyball service skills. *Jurnal Keolahragaan*, 5(1), 100-110. <http://dx.doi.org/10.21831/jk.v5i1.12773>
- Sudibyo. (2015). *The Influence of Training Methods and Coordination on Volleyball Top Serve Skills*. 31-42.
- Sukadiyanto. (2011). *Introduction to the theory and methodology of physical training*. Bandung: Lubuk Agung