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Does drill training improve volleyball overhead passing results in volleyball players 14-15 years old?

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Abstract

Mastery of overhead passing techniques is still low because the lack of drill training models has resulted in the mastery of passing techniques not increasing. This research aims to determine the results of a drill training model to improve the passing results of amateur teenage volleyball players aged 14-15 years. The method used in this research is quasi-experimental, with a one-group pre-post test design approach. The population in this study consisted of 15 people, consisting of 10 boys and 5 girls aged 14-15 years, as well as amateur youth volleyball players aged 14-15 years, using saturated sampling techniques. The instruments or tools used in this research are tests and measurements, namely overhead passing ability tests. The method of collecting student data can be seen when students pass over the wall for 1 minute. Data analysis was carried out using the SPSS version 22 software method through the stages of data normality test, homogeneity test, and t-test. Based on the findings of this research, tcount -5.172 > ttable 1.761, with a significance value of 0.000 <0.05. Therefore, the results of the t-test in this study are significant. Using the drill training model effectively improves the passing results of amateur teenage volleyball players aged 14-15 years.

Keywords: Model, practice, drill, overhead passing, volleyball.

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Authors contribution: a – Preparing concepts; b – Formulating methods; c – Conducting research; d – Processing results; e – Interpretation and conclusions; f - Editing the final version.

INTRODUCTION

This volleyball game has several techniques, namely serving, passing, blocking, and smashing. Players can improve their performance if these techniques are mastered well (Giartama et al., 2020). One of the important techniques that players need to master in volleyball is the overhead passing technique (Syahruddin et al., 2022). Overhead passing

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is a ball pass that is made using the tips of the fingers when the ball comes at shoulder level or more (Hakim & Sukamto, 2020; Saputra & Nasrulloh, 2023). In volleyball, overhead passing is a crucial skill used to pass the ball and set up sets for the attacker (Ozawa et al., 2021). A high pass is usually done after receiving the ball from overhead or throwing a pass to a teammate who will start an attack/smash (Azhar et al., 2020). Therefore, teammates can play or attack well against their opponents, done correctly and adequately. Good and precise overhead passing will make it easier for the team to play the ball or carry out attacks to get a higher score (Akhmad et al., 2022). In the overhead passing technique, the wrist plays an important role in determining the ball's direction by pushing it so that it bounces in an arc that requires high precision (Aini et al., 2021). As for performing the correct overhead passing technique, bend both legs slightly to help produce a good throw. Both hands are at the sides with open palms. When the ball arrives, face your palm toward the ball and touch the ball with your fingertips (Ishak et al., 2023).

Based on observations made by the author, at senior high school 1 Pendopo Barat, especially amateur teenage volleyball players aged 14-15 years, there still needs to be a higher level of mastery of upper passing techniques. Due to the lack of drill training models, the development of overhead passing techniques needs to be improved. The abilities of each volleyball player are different, and the training model provided needs to be more supportive in improving overhead passing. Therefore, the reality on the field at Senior High School 1 Pendopo Barat can result in a low ability to master basic volleyball techniques, especially in overhead passing. With this, the researcher wants to introduce amateur teenage volleyball players aged 14-15 years to using the appropriate training model to improve the passing ability of volleyball players, especially utilizing the drill training model. One important factor in the training system is access to quality performance or achievements in a volleyball sport, especially drill training (Muslimin & Muhajir, 2022). One important factor in the training system is access to quality achievements in volleyball, especially drill training (Astuti,

2018). To make the training more interesting, variations are needed in the drill training model used (Suri et al., 2022). One training model that is no less interesting and fun is the drill training model (A & Octadinata, 2019). Based on research results (Junpalee et al., 2023) show that using the drill method can improve volleyball players' agility. Meanwhile, according to (Kusuma et al., 2022), the drill method can improve the ability of volleyball athletes to pass overhead. Next is research (Sugito, 2022) that using the drill method can improve the basic passing techniques of volleyball players.

In carrying out the drill training model, the trainer must prepare a training program (Saravanan & Veeramani, 2016). Therefore, a good training program with the correct procedures is needed, considering the elements that influence volleyball playing skills using drill exercises (Evasari et al., 2023). Exercise is a physical activity that is carried out regularly, planned, and with a purpose. The sports coaching process can take time to be done. Therefore, the training method can increase each exercise's training load (Francesca et al., 2019; Gunawan & Muharram, 2022). The structure and intensity of training for volleyball players with different technical readiness levels have also been established (Kovalchuk et al., 2019). Increasing the intensity and frequency of training provided will help athletes improve their overhead passing to the maximum (Ruslan et al., 2021). Training practices aim to solve game problems that, through repeated exposure to them, give the player better skills to solve them (Machado et al., 2021). Drilling is a process of consciously perfecting athletes to achieve maximum performance by being given physical, technical, tactical, and mental loads in a regular, directed, increasing, gradual, and repeated manner over time (Satria, 2019).

The relationship between training and the drill method approach in the volleyball training process is very related. Drill exercises carry out certain movements repeatedly without any other direction with the aim of perfecting the movement to make it permanent (Khoirudin et al., 2023). Coaches carry out drill exercises for athletes to improve technique and

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perfect abilities. The exercises require consistency, strength, and ball speed (Putri et al., 2022). According to Satria Nugraha Fikriansyah (2020), Exercise must follow the concept of precise, planned, and well-structured steps to achieve the expected goals. The aim is to support the success of athletes or students in achieving optimal sporting achievements (Langga & Supriyadi, 2016). Every time they carry out training, athletes and coaches must pay attention to the training rules (Muslimin & Putri, 2022).

According to Fani (2020), in implementing the drill training model, coaches must pay attention to the rules in carrying out skills in connecting various things: 1) Volleyball players are trained first using the drill method, which means learning the top pass in volleyball. 2) The trainer provides practice examples Before giving instructions on drill techniques. 3) Volleyball players are asked to practice the drill method training model provided. 4) While the volleyball player is doing the exercise, pay attention to the difficult parts for the player or student. 5) The trainer corrects mistakes in the exercises carried out. 6) The player is required to do it again to improve the player's skills and accuracy. This research aims to improve the passing results of amateur teenage volleyball players aged 14-15 years using the drill method. It is hoped that this research can contribute to providing new insights that coaches can use to design training programs that are more effective and innovative according to the needs of volleyball players. It can help players improve their overall passing ability evenly.

METHOD

This research uses a quasi-experimental method with an approach*one-group pre-post test design*. This research is experimental because it will test the causal relationship of its influence on the drill training model to improve the passing results of amateur teenage volleyball players aged 14-15 years. The research design is as follows:

$$O_1 \; X \; O_2$$

Figure 1. One group pretest-posttest design

Information :

O_1 **:** Pretest Group Eksperiment

X : Treatment

O_2 : Posttest Group eksperiment

The population in this study was 15 young Spartan amateur volleyball players aged 14-15 years. The saturated sampling method is used by taking every member of the population as a sample. Saturated sampling is also referred to as census, where every member of the population is considered as a sample. So, the sample used was all Spartan Pobar amateur teenage volleyball players aged 14-15, totaling 15 people consisting of 10 boys and 5 girls aged 14-15 years. The research was conducted in 16 meetings. In 1 week, that is 4 meetings. The 1st meeting carried out a Pretest (before being given treatment), the 2nd-15th meetings gave treatment (top drill passing exercise model), and the 16th meeting carried out a posttest (after being given treatment). The instruments or tools used in this research are tests and measurements, namely tests of basic passing techniques over the wall.

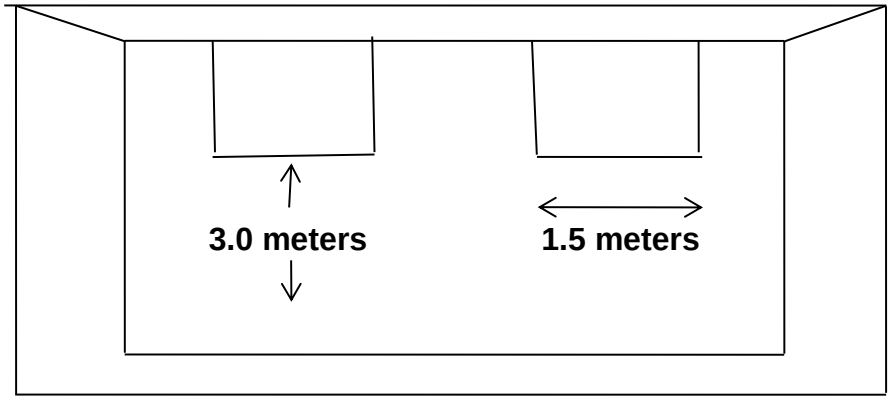

Figure 2. Overhead passing test target plot wall
Source : (Saputra & Tofikin, 2022)

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By using the assessment norms below:

Table 1. Overhead passing Skills Assessment Norms

No	Interval	Category
1	17 – 20	Very good
2	13 – 16	Good
3	9 – 12	Enough
4	5 - 8	Not enough
5	0 - 4	Very less

Source :(Muslimin & Putri, 2022)

The test that will be used in this research is the overhead passing test against a wall for 1 minute by applying several different drill training models at each meeting. Before the experiment is carried out, it must first start with the first test, namely the preetest. After the first test results were obtained, amateur teenage volleyball players aged 14-15 years were given experimental treatment using a drill training model, 14 meetings a week, 4 times a week. After completing the drill training model treatment, it was followed by a second test, namely the posttest. Then, the upper passing test result data is classified by adjusting the test assessment norms.

Equations and formulas

The data collection technique uses the SPSS 22 application by looking for the average value, standard deviation, and variance. The normality test determines the normal distribution of data, and the homogeneity test, ending with the T-test, aims to determine the difference between two averages before and after being given treatment. Data collection techniques this research uses the t-test to calculate the level of significance with the formula:

$$t = \frac{Md}{\sqrt{\frac{\sum^2 d}{N(N-1)}}}$$

Notes:
Md: Average difference between pretest and posttest
Xd: Deviation for each subject (d- Md)
$\sum X^2 d$: Total squared deviation
N: Number of Subjects in the Sample
db: Determined by N-

RESULTS

Based on the results of descriptive statistics, it was found that there was a significant increase in passing for Spartan Pobar volleyball players. The average score obtained on the pretest was 20.93, and the average posttest score was 26.27. With a pretest standard deviation value of 10.484 and a posttest of 12.584. The research results showed that there was a significant increase during the final test (posttest). This can be seen in the table below:

Table 2. Results of preetest and posttest implementation

Test	Mean	Standard Deviation	Minimum	Maximum
Preetest	20.93	10,484	6	40
Posttest	26.27	12,584	6	50

The normality test is used to determine whether the data collected comes from a population with a normal distribution. Calculations were performed using SPSS 22 with a significant 5% or 0.05 criterion. Data normality test with 15 subjects (df 15) using the Shapiro-Wilk test. The results of the normality test data for Spartan Pobar volleyball players can be seen in the following table:

Table 3. Data normality test results

	Shapiro-Wilk		
	Statistics	df	Sig.
Preetest	,933	15	,306
Posttest	,968	15	,829

Based on the table above, it shows that the preetest sig value is 0.306 > 0.05, while the posttest shows a significance value of 0.829 > 0.05, which means the pretest and posttest data come from a population with a normal distribution.

Table 4. Homogeneity test calculation

Variable	Levene Statistics	Sig.	Information
Preetest Posttest	0.316	0.578	Homogeneous

According to the table above, the results of the homogeneity test show that the significance value of 0.578 is greater than 0.05, which means that the data variance from this study is homogeneous.

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Table 5. T-test results

Variable	Mean	T count	T table (0.05)	Sig.	Notes
Preetest	20.9333	- 5	.172	0,000	Significant
Posttest	26.2667		1.761		

The results of the analysis from the table above show that it is significant, the hypothesis of this research is "Drill Training Model to Improve Passing Results for Amateur Teenage Volleyball Players aged 14-15 years". From the table above, the details based on research findings show that the tcount value is – 5,172 with a ttable value greater than 1.761, and the sig value shows 0.000 < 0.05. Therefore, the t test results in this study are significant. It can be concluded that using the drill training model effectively improves the passing results of Spartan Pobar amateur teenage volleyball players aged 14-15 years.

DISCUSSION

Based on data that has been carried out previously, results were obtained from several sources, and it can be concluded that the drill training model has a significant influence and can be used to improve the passing results of young Spartan amateur volleyball players aged 14-15 years. One thing that must be improved is the basic passing techniques in volleyball. Therefore, an appropriate drill training model must improve the athlete's passing ability (Kurdi et al., 2021). Overhead passing is one of the basic techniques for playing volleyball, and it has an important role in defensive and attacking formations in volleyball games. Passing is a basic skill in the volleyball game, and overhead passing must be the first thing that needs attention and training to maintain and improve the ability so that volleyball players can make top passes well (Muhammad et al., 2023).

Overhead passing is very useful in volleyball because it can be used to receive a serve, receive a pass from a teammate, pass the ball, provide a pass for a smash, or even return the ball (Khotimah, 2020). Overhead passing is highly valuable in volleyball, as it can be employed to receive a serve, catch a pass from a teammate, deliver a pass, set up a smash, or even return the ball (Junaidi et al., 2020). Apart from that, the improvement

in the passing ability of volleyball players is caused by implementing the dril training model. Regular practice with gradual increases in intensity will improve skills (Ilhamdi et al., 2023). This drill method training involves endless repetition of movements, increasing the intensity of the athlete's movements, enforcing strict discipline, and automating the athlete's movements (Kharisma et al., 2024). Therefore, withelectionModeling or training is one of the most important factors in developing passing skills in volleyball (Subagio et al., 2022). The drill method is important because it can improve the passing ability of volleyball athletes (Astuti & Zulbahri, 2021; Lima et al., 2022). The drill training model can improve dexterity and accuracy in receiving and returning the ball (Barlian & Anpolu, 2021; Cruz, 2024). The results of this research must be balanced with several limitations that influence the findings. Variations in participants' initial ability levels can be challenging, especially if significant differences between more and less skilled participants could influence the results. Players' physical and mental condition during training and testing can influence the results. The very short time spent conducting the research made the research team less sensitive to the possibility of other influences from the findings contained.

CONCLUSION

This research aims to determine the results of the drill training model to improve the passing results of young amateur volleyball players aged 14-15 years. Based on the results of data analysis, there is an influence when using the drill training model, so it can be concluded that the drill training model is very effective in improving the passing results of amateur teenage volleyball players aged 14-15 years. These findings can be used to develop volleyball training to improve players' passing results significantly. So, in the future, research must provide alternative drill training models that can improve athletes' ability to pass above in sports, especially volleyball.

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CONFESSION

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REFERENCE

A, P., & Octadinata, A. (2019). The Effect of Inquiry Learning and Peer Teaching Toward Students' Learning Outcome of Forearm Pass Volley Ball for Seventh Grade Male Students of Smpn 17 Jambi. Journal of Physical Education, Health and Recreation, 4(1), 37.https://doi.org/10.24114/pjkr.v4i1.14183

Aini, K., Asmawi, M., Pelana, R., Tangkudung, J., & Muslimin. (2021). The effect of target and netting games on overhead pass volleyball accuracy. International Journal of Human Movement and Sports Sciences, 9(2), 224–230.https://doi.org/10.13189/saj.2021.090209

Akhmad, I., Suharjo, Hariadi, Dewi, R., & Supriadi, A. (2022). The Effects of Learning Strategies on Senior High School Students' Motivation and Learning Outcomes of Overhead Passing in Volleyball. International Journal of Education in Mathematics, Science and Technology, 10(2), 458–476.https://doi.org/10.46328/ijemst.2291

Astuti, Y. (2018). The Influence of the Drill Method on Mini Volleyball Playing Skills in Elementary School Students. Curricula, 3(1), 53–71.https://doi.org/10.22216/jcc.2018.v3i1.1928

Astuti, Y., & Zulbahri. (2021). The Effect of Exercise Variations in Improving Students' Volleyball Forearm Pass Ability. Proceedings of the 2nd Progress in Social Science, Humanities and Education Research Symposium (PSSHERS 2020), 563.https://doi.org/10.2991/assehr.k.210618.047

Azhar, S., Tangkudung, J., & Yusmawati, Y. (2020). Direct Training Method: Overhead passing over Application in the Volleyball. International Journal of Multicultural and Multireligious Understanding, 7(7), 784.https://doi.org/10.18415/ijmmu.v7i7.1896

Barlian, E., & Anpolu, DJ (2021). The Method of Exercise Play Has an Impact on Under Passing Ability Volleyball Players, 35(Icssht, 2019), 72–77.https://doi.org/10.2991/ahsr.k.210130.014

Cruz, Roxanne R. Dela. (2024). Enhancing Mini Volleyball Forearm Passing Performance with Small-Sided Games and Drill Practice. British Journal of Multidisciplinary and Advanced Studies, 5(1), 148–160.https://doi.org/10.37745/bjmas.2022.0423

Evasari, Y., Firdaus, K., Syafruddin, S., & Efendi, H. (2023). The Influence Hand Eye Coordination and Student Learning Discipline on the Basic Volleyball Technique Skills of Students of SMP. CHAMPION: Sports Journal, 8(1), 357–364.https://doi.org/10.33222/juara.v8i1.2721

Fanani, Z. (2020). Improving Skills in Basic Passing Techniques in Volleyball Games Through the Drill Method. Education Journal: Journal of Educational Research and Development, 4(2), 111–126.https://doi.org/10.31537/ej.v4i2.345

Francesca, M., Matteo, A., & Gaetano, A. (2019). Libero role testing in volleyball as monitoring of physical level drills. Journal of Physical Education and Sport, 19, 1914–1919.https://doi.org/10.7752/jpes.2019.s5284

Giartama, G., Destriani, D., Waluyo, W., & Muslimin, M. (2020). Efektivitas alat tes servis bolavoli berbasis mikrokontroller. *Jurnal SPORTIF : Jurnal Penelitian Pembelajaran*, *6*(2), 499–513. https://doi.org/10.29407/js_unpgri.v6i2.14492

Gunawan, S., & Muharam, AA (2022). Effect of passing training variations on the overhand pass in volleyball games. Maenpo Journal: Journal of Physical Education, Health and Recreation, 12(1), 90.https://doi.org/10.35194/jm.v12i1.2320

Hakim, H., & Sukamto, A. (2020). Effects of Training Methods and Motor Ability on Overhead Passing Skills in Volleyball Games, 481(Icest, 2019), 328–333.https://doi.org/10.2991/assehr.k.201027.068

Ilhamdi, I., Rahmat, A., & Porja Daryanto, Z. (2023). Effect of Drill Passing Down With Walls and Pairs Against Accuracy of Underpass in Volleyball Game. INSPIREE: Indonesian Sport Innovation Review, 4(03), 117–128.https://doi.org/10.53905/inspiree.v4i03.119

Ishak, AHP, Hakim, H., Sahabuddin, S., Hudain, MA, & Bismar, AR (2023). The Effect of Push-Up Exercise and Dumbbell Exercise Overhead The Passing Ability of Volleyball Games of SMPN 20 Makassar Extracurricular Participants. COMPETITOR: Journal of Sports Coaching Education, 15(3), 470.https://doi.org/10.26858/cjpko.v15i3.53824

Junaidi, S., Mintarto, E., & Mintarto, E. (2020). Penerapan pendekatan situasi pertandingan untuk meningkatkan teknik passing atas dan passing bawah permainan bolavoli pada atlet elit putri. *Jurnal SPORTIF : Jurnal Penelitian Pembelajaran*, *6*(3), 807–820.

Junpalee, P., Singchainara, J., & Butcharoen, S. (2023). Effects of the intelligence innovative smart ladder drill training program on developing agility of female youth volleyball players at Sriracha School. Journal of Physical Education and Sport, 23(4), 1025–1035.https://doi.org/10.7752/jpes.2023.04128

Kharisma, Y., Mubarok, MZ, & Hermawan, B. (2024). The Effect of The Drill Training Method on Increasing the Accuracy of Volleyball

Services, 5(2). https://doi.org/10.20884/1.paju.2024.5.2.11693

Khoirudin, D., Pratama, HG, Santoso, DA, & Putro, BN (2023). The Impact of Drill Exercise and Games Approach on Improving Under-Passing Ability in Adolescent Female Volleyball Athletes. Physical Education and Sports: Studies and Research, 2(2), 142–151.https://doi.org/10.56003/pessr.v2i2.276

Khotimah, N. (2020). Application of the Drill Method to Improve Passing Skills for Volleyball Students at Smpn 4 Tapung Hilir. Journal of Education and Teaching, 1(1), 16.https://doi.org/10.24014/jete.v1i1.7895

Kovalchuk, A., Shvets, O., Bohuslavska, V., Hlukhov, I., Pityn, M., & Hnatchuk, Y. (2019). Efficiency of special training devices for forming technical skills in female student volleyball players. Journal of Physical Education and Sport, 19(1), 619–626.https://doi.org/10.7752/jpes.2019.01090

Kurdi, FN, Hartati, Risnawati, Y., & Destriana. (2021). A variation of push ups for overhead passes on volleyball games. International Journal of Human Movement and Sports Sciences, 9(1), 97–102.https://doi.org/10.13189/saj.2021.090113

Kusuma, B., Wijaya, P., Hariadi, I., & Hanief, YN (2022). Proceedings of the International Conference on Sports Science and Health (ICSSH 2022). Proceedings of the International Conference on Sports Science and Health (ICSSH 2022). Atlantis Press International BV.https://doi.org/10.2991/978-94-6463-072-5

Langga, ZA, & Supriyadi. (2016). The Influence of the Training Model Using the Distribution Practice Method on the Dribble Skills of Basketball Extracurricular Members of SMPN 18 Malang. Journal of Sports Coaching, 1(1), 90–104.http://dx.doi.org/10.17977/um077v1i12017p%25p

Lima, RF, González Férnandez, FT, Silva, AF, Laporta, L., de Oliveira Castro, H., Matos, S., … Clemente, FM (2022). Within-Week Variations and Relationships between Internal and External Intensities Occurring in Male Professional Volleyball Training Sessions. International Journal of Environmental Research and Public Health, 19(14).https://doi.org/10.3390/ijerph19148691

Machado, T., Rangel, W., & Lamas, L. (2021). The design of a volleyball training drill: definition of parameters and assessment of drills' contents. Revista Brasileira de Ciencias Do Esporte, 43(may).https://doi.org/10.1590/rbce.43.e006320

Muhammad, S., Adam, M., & Hasbi, A. (2023). Analysis of Overhead passing Skills in Volleyball Games at the Luwu Regency Rekarment Club. Global Journal Sport, 1(0413), 243–253.https://doi.org/DOI.10.35458

Muslimin, M., & Muhajir, R. (2022). Development of a Game-Based

Volleyball Upper Serve Training Model for Juniors. Altius: Journal of Sports Science and Health, 11(2), 209–219.https://doi.org/10.36706/altius.v11i2.18823

Muslimin, & Putri, H. (2022). The Influence of Variation Training Methods on Lower Passing Skills in Volleyball Games among Students at SMP Negeri 59 Palembang. Volleyball Learning Models, 4, 118–125.https://doi.org/https://doi.org/10.31004/jote.v4i1.6926

Ozawa, Y., Uchiyama, S., Ogawara, K., Kanosue, K., & Yamada, H. (2021). Biomechanical analysis of volleyball overhead passes. Sports Biomechanics, 20(7), 844–857.https://doi.org/10.1080/14763141.2019.1609072

Putri, Natalia, A., Rustiadi, T., & Pramono, H. (2022). Development of Ball Launcher Training Devices for Drill Smash, Block, Passing in Volleyball Sports. Journal of Physical Education and Sports, 11(1), 114–124.https://doi.org/https://doi.org/10.15294/jpes.v11i1.56916

Ruslan, Sandy, G., Nurjamal, & Ismawan, H. (2021). Effect of Service Training On Drill Methods And Target Methods On Improving Service Skills For Volleyball. COMPETITOR: Journal of Sports Coaching Education, 13(3), 314.https://doi.org/10.26858/cjpko.v13i3.21057

Saputra, M., & Tofikin. (2022). The Relationship between Arm Muscle Strength and Hand Eye Coordination on the Passing Ability of Volleyball Extracurricular Students at SMK Negeri 2 Rambah. Journal Sport Rokania, 1(2), 145–155.https://doi.org/https://doi.org/10.56313/jsr.v4i1

Saputra, R.B., & Nasrulloh, A. (2023). Development of Volleyball Learning Model to Improve Forearm Passing and Overhead Passing Skills of the Eighth Grade Students. International Journal of Multidisciplinary Research and Analysis, 06(07), 3109–3114.https://doi.org/10.47191/ijmra/v6-i7-34

Saravanan, N., & Veeramani, S. (2016). Effect of specific drill training program on playing ability among volleyball players. International Journal of Physical Education, Fitness and Sports, 5(4), 01–03.https://doi.org/10.26524/1641

Satria, MH (2019). The Effect of Finger Strength Training on Improving Upper Passing Ability in Volleyball Games. Sports Area Journal, 4(1), 230–239. Retrieved fromhttps://journal.uir.ac.id/index.php/JSP/article/view/2349

Satria Nugraha Fikriansyah, et al. (2020). Dumbbell Based Weight Training Model for Students. Journal of Physical and Adaptive Education, 3(2), 1–7.https://doi.org/10.21009/jpja.v3i02.16046

Subagio, M., Pujianto, D., & Nopiyanto, YE (2022). The effect of drill passing practice through circuit training on the bottom passing ability of men's volleyball extracurricular students at SMP Negeri 10 Bengkulu City. SPORT GYMNASTICS: Scientific Journal of Physical

Education, 3(1), 74–85.https://doi.org/10.33369/gymnastics.v3i1.20611

Sugito, S. (2022). Efforts to Improve Activities and Learning Outcomes of Volleyball Basic Techniques of Lower Passing Using the Drill Method. Journal of Business Social and Technology, 3(2), 51–54.https://doi.org/10.59261/jbt.v3i2.72

Sugiyono. (2019). Quantitative Research Methods. (Setiyawami, Ed.) (2nd ed.). Bandung: Alphabeta.

Suri, K., Tapo, YBO, & Bile, R.L. (2022). Development of an Interval Overhead Pass Training Model Using Wall Media as an Overhead Passing Training Activity for Volleyball Extracurricular Students. Journal of Sports Image Education, 2(3), 133–140.https://doi.org/10.38048/jor.v2i3.1103

Syahruddin, S., Saleh, MS, & Saleh, MS (2022). The Influence of Body Structure and Eye-Hand Coordination on Upper Passing Ability in Volleyball Games. COMPETITOR: Journal of Sports Coaching Education, 14(1), 92.https://doi.org/10.26858/cjpko.v14i1.32516