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The Effect of Diamond Passing Training Model on Passing Accuracy in Soccer School Students

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Abstract

This study aims to determine the effect of diamond passing training model on passing accuracy in students at SSB Tunjung Sekar. Using a quantitative approach with a pre-experimental method, this study used a one group pretest-posttest design. The population and sample in the study were 20 SSB Tunjung Sekar students selected by simple random sampling through a lottery system. Data was collected using short passing test. Data analysis included normality test, homogeneity test, and paired sample T-test. The findings showed a significant increase in the mean score from 4.50 in the pre-test to 7.89 in the post-test. The significance value of 0.000 from the paired t-test shows a significant effect. It can be concluded that the diamond passing training model significantly improves the passing accuracy of SSB Tunjung Sekar students.

Keywords: Passing Diamond, Football, Training Model

INTRODUCTION

Games like soccer are sports activities with the largest number of fans both domestically and abroad (most popular globally) which involve matches between two groups (teams) with eleven members. player in every team. Every team own position special like goalkeeper, defender, midfielder, and attacker. The uniqueness of this sport lies in teamwork, playing strategy, and individual skills of the players in controlling the ball on the field. According to Soniawan et al., (2022), the world of football is experiencing transformation significant in a number of decade final. Sport which was once dominated by male players now has embraced participation women, opening up new opportunities and expanding opportunities for athletes from various gender backgrounds to compete and develop achievements in this dynamic sport.

The goal of the game of football is to score goals. opponent's goal by scoring goal as much as Which We Can And protect goal team We from attack against (Jaelani et al., 2023) By because That, For Can play football ball both individually and collectively, students must master several factors such as: physical condition, basic techniques, tactics

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and mentality which can influence performance a students (Soniawan & Irawan, 2018). In football ball, The basic techniques that need to be mastered are passing the ball, *dribbling* the ball, shooting the ball, *and controlling* the ball (Dahlan et al., 2020).

Technique base Which need mastered in sport football ball is passing, namely move or give bait to friend with direction certain, without being able to be taken by the opponent and creating opportunities and goals against the opponent . According to Sokoy et al., (2023) if a student cannot master the passing technique well, the student will have difficulty in following the rules. Effective team play patterns. Passing is the most important basic technique compared to other basic techniques, as can be seen from the statistical analysis of basic techniques in the 2022/2023 UEFA Champions League (UCL) season, which shows the dominance of passing techniques compared to other basic techniques such as shooting and dribbling. With an average of 500–650 passes per team per match and high accuracy, passing is the most frequently used basic technique in UCL matches. Meanwhile, shooting and dribbling have a much lower frequency than passing, indicating that passing is the most frequently used basic technique in UCL matches. is the main foundation in building attacks and maintaining ball possession. According to Amiq et al., (2019) The best pass is to use the inside of the foot in a horizontal direction or a long pass along the ground, because the pass will have good accuracy compared to the others.

Although *passing* is one of the most important fundamental skills in soccer and has been widely discussed in the literature, there is still a gap in research regarding effective training methods to improve *passing ability,* especially in young players. Several previous studies have discussed the importance of passing in general, but it is still difficult to find research on the effectiveness of innovative training models. In an effort to improve the quality of *passing* technique in soccer, it is necessary to develop innovative training methods. The *diamond* -shaped *passing training model* is one interesting approach (Luxbacher, 2014). This training is designed with a four-point pattern that forms a *diamond geometry,* allowing players to practice kicking the ball from the ground. various angles and positions. The advantage of this method lies in its ability to hone players' skills in terms of accuracy, speed, and coordination between team members in a more structured and dynamic manner. It's interesting to note that, to date, there have been no specific studies on the effect of the *diamond passing training model* on improving *passing accuracy* in soccer schools. Ball (SSB) Tunjung Sekar City Poor. Whereas, SSB This is an active youth athlete development institution with significant potential for developing the talents of young players. Therefore, evaluating the effectiveness of this training model is crucial for designing a more comprehensive and targeted training program.

METODE

The method in this research uses a quantitative research design with approach *pre-experimental.* Study This apply design *one group pretest-posttest* Where measurement done on group the same before and after the treatment is given. Data collection method used that is technique test. Population in research this is student school football ball Tunjung Sekar Kota Malang, which consists of 20 players. Of this number, the sample in this study was determined to be 20 players with sampling using the technique *Simple random sampling was used* by drawing lots. A sample size of 20 players was selected because it was considered representative of the population and still met the limitations of time, energy, and training management effectiveness. Therefore, the data obtained remained valid and could describe the general condition of the population.

The data collection method used a test method. The test tool used in this study was a tool created by Sukatamsi, (2010), namely the *short passing test.* This test has a high level of reliability, namely 0.89. This figure shows that the test is consistent and can be trusted to measure short passing skills in soccer games. Data collection was carried out in the period January-March. With the following stages, namely giving an initial test (*pre-test*) at the first meeting, then applying treatment *in* the form of a training model. *passing diamond* for 22 meetings with a frequency of 3 times per week for approximately 2.5 months, and carrying out final test (*post test*) at the last meeting.

The data analysis used is a data normality test which functions For inspect whether distribution data *(score)* nature normal or abnormal. In this research, test selected normality is *Shapiro-Wilk* test (*normality test*). Then a homogeneity test was carried out *to* evaluate whether the results of data collection in the initial test (*pre-test*) and final test (*post-test*) had variation the same or different. Test applied homogeneity is test *Levene.* After proven that data distributed normal and homogeneous, to be continued with testing hypothesis use *test paired sample T-test* to calculate the difference between two values the average that comes from from the initial test results (*pre-test*) and the final test results (*post-test*).

RESULTS AND DISCUSSION

Results

All participants must take a pre *-test to measure their passing* accuracy. After that, they will receive training. special (*treatment*) in the form of exercise *passing diamond* Which designed to improve accuracy *Passing.* Finally, participants will take a post - *test* to evaluate whether the *diamond passing practice has had a positive impact on their passing*

accuracy. The results of *the test scores* and *test types* are presented in Table 1 below.

Table 1. Results Descriptive Ability Passing SSB Tunjung Sekar City Poor

Variables	Mean	Mark Minimum	Mark Maximum	S D
Pre- test	4. 40	1	8	1. 847
Post- test	7. 85	6	10	1. 268

Based on the initial test (*pre-test*), the research results recorded that the minimum score was 1, the maximum score was 8, and the average score was 4.40. When the final test (*post-test*) was conducted, there was a significant increase where the lowest score rose to 4.40. 6, the highest score reached 10, and the average score increased to 7.85.

Table 2. Results Interpretation Norm *Test Short Passing* SSB Tunjung Sekar City Poor

Category	F	%
	Pre- test	
Very Good	0	0%
Good	4	20%
Enough	5	25%
Not enough	8	40%
Not enough very	3	15%
	Post- test	
Very Good	5	25%
Good	12	60%
Enough	3	15%
Not enough	0	0%
Not enough very	0	0%

On table 2 show that results interpretation norm own mark initial test (*pre-test*) with frequency the most is with category less than 8 students (40%). Whereas, mark test end (*post-test*) with frequency most namely in the good category with 12 students (60%).

Table 3. Results Test Normality Ability Passing SSB Tunjung Sekar City Poor

Variables	Results Normality Test	Conclusion
Ability Passing		
Pre- test	0. 395	Normal
Post- test	0. 055	Normal

Based on the normality check carried out with the help of SPSS software, it was found that the significance value for the measurements in the initial stage (*pre-test*) achieved 0.395, while for the measurement in The final stage (*post-test*) reached 0.055. Data can be said to have a normal distribution *if* its significance value is above 0.05, and conversely, data is said to not have a normal distribution if its significance value is below 0.05. Looking at these criteria, both groups of data in the study have met the requirements for normality because their significance values are both higher than 0.05. (Usmadi, 2020)This can be concluded that test normality on test beginning (*pre-test)* and test end (

post- test) > 0.005. It means data the stated distributed Normal. Next, a homogeneity test was performed using *Levene's* from SPSS to determine whether the data from the groups were homogeneous. The following are the results of the data homogeneity test.

Table 4. Results Test Homogeneity Ability Passing SSB Tunjung Sekar City Poor

Variables	Results Test Homogeneity	Conclusion
Mark Ability passing	0.136	Homogeneous

Based on the homogeneity test using *Levene's* A significance value of 0.136 (based on the mean) was obtained, which means that the assumption of data homogeneity was met because the significance value was >0.05. Therefore, it can be concluded that the data has a homogeneous *variance. The next stage is the hypothesis test using the Paired Sample T-Test* because based on the statistical tests that have been carried out, the data is normally distributed. The following table presents the results of the hypothesis test.

Table 5. Test Paired Samples Test Ability Passing SSB Tunjung Sekar City Poor

Variables		Mean	95%CI	Different mean	P value
Ability passing	*Pre- test*	4.40	-3,917 – (- 2,983)	- 3,450	.000
	Post- test	7.85			

Based on results test T-test, Which use Test *paired samples test* and a significance value of 0.000. This indicates a strong positive or significant influence between the initial test scores (*pre-test)* and the final test scores (*post-test).* Mark significance which shows 0.000 < 0.005 means that there is a statistically significant effect.

Discussion

This study proves that *passing training* using the *diamond model* clearly help improve accuracy *passing* (*passing accuracy)* on students at Tunjung Sekar Football School, Malang City. This can be seen from the results of data analysis, which showed an increase in the average value (*mean score)* between the initial test and the final test after the training program was implemented. The average initial value was 4.40 with a standard deviation of 1.847, while the average value after training increased to 7.85 with a standard deviation of 1.268. These findings indicate that training with the *diamond model* has a positive impact on students' *passing abilities.* In addition, the normality test showed that *the pretest* and *posttest data* were distributed normal with mark significance *Shapiro-Wilk* in on 0. 05, that is 0.395 for *the pretest* and 0.055 for *the posttest.* This strengthens the validity of the use of parametric tests. In the homogeneity test, the significance value of *Levene's* of 0.136 (based on the mean) indicates that the data has homogeneous variance, meaning that the tested groups have equal variance before and after treatment. The t-test also shows a very high influence between (*pre-test)* and (*post-test)*, namely 0.859 with a

significance of 0. 000. This indicates that there is a very strong influence between the two conditions. and proves that training with the *diamond model* does have an impact on increasing accuracy *passing.* In a way overall, results This indicates that model exercise *passing diamond* effective in hone ability technique precise and targeted *passing, because this training pattern trains concentration, coordination, and decision-making at a game tempo that resembles real match conditions.*

The results of this study are in line with findings from various studies. previous ones who both emphasized how important it is to use training models model) Which specific For increase skills base in football, especially in terms of passing the ball. One of the relevant studies is studies Which done by Setiawan et al., (2021) Which state that the use of systematic and structured training models can significantly improve passing accuracy in young players. In his research, training with certain patterns such as zigzags and two-way variations can improve focus player to target passing And repair position body when passing. These results support the findings of this study that training with a diamond pattern, which requires players to move and pass the ball in a diamond pattern in various directions and angles, effectively trains passing accuracy and consistency.

In addition, research by Srinivasan (2014) also shows that *passing technique training* combined with match simulations can improve tactical understanding and technical accuracy of young players. The *diamond training model* in this study has similar characteristics because it is designed to resemble match dynamics, including position rotation, movement speed, and quick decision-making. Thus, the success of the *diamond training model* in improving *passing accuracy* of students at SSB Tunjung Sekar Malang City has a strong theoretical and empirical basis, strengthening the argument that a training approach based on real game patterns has a significant impact on the development of basic soccer technical skills. Therefore, the application of the diamond training model exercise kind of This very relevant in context coaching player young, especially in building a solid technical foundation from an early age.

Based on the research results , the *diamond passing training method* has been proven to have a beneficial impact on increasing accuracy. *passing* para player, No all study similar report findings Which similar. One of the studies with different results is a study by Mawardi & Wahyudi, (2021) which provides a different perspective when examining the effect of static *passing pattern training* on the *passing skills* of 13-year-old players at a Football School. Ball (SSB) in region Java Middle. In research by Alfiyanto et al., (2024) found that no There is improvement significant to accuracy *passing* after given practice with pattern static, although duration And frequency exercise classified as intensive. These

results contrast with the findings in this study, which showed an increase significant thanks to the model exercise Which dynamic and resemble match conditions. These differences in results may be due to differences in training approaches. In the study Fahrevi et al., (2022), training was conducted monotonously without varying movement directions or time pressure, so players were less stimulated to make decisions and adjust body positions quickly. In contrast, the *diamond passing model* in this study requires players to move actively, communicate, and *pass* with precision in certain rotational patterns, resulting in higher physical and cognitive engagement (Agustin & Nur, 2024). Furthermore, these differences in results may also be due to factors such as age, motivation, and background. skills beginning for player Which different between studies. By Because that, although there are studies that do not show significant results from *passing practice* certain, results study This confirm importance choose model the exercises that contextual, varied, And challenge in a way motor as well as mental, so that able to increase *passing* accuracy to the maximum.

While research shows a significant increase *in passing accuracy after implementing the diamond passing training model,* several other factors influence students' *passing test results.* The first factor is the basic abilities or initial skills possessed by each student (Hakim et al., 2022). Differences in mastery of basic techniques, such as ball control, balance, and coordination, are also important factors. motoric, can provide impact on the effectiveness of the exercise. Students with base technique Which more Good tend experience improvement Which faster And consistent. Factor second is intensity And frequency exercise in outside research sessions. Some students may do additional exercises independently or follow activity football ball other in outside program exercise, Which contribute to improving their abilities. The third factor is individual motivation and focus during process exercise. Student Which more enthusiastic And focus when undergoing training tend to show more significant development, while students who are less enthusiastic or less concentrated tend to experience development Which more slow. Sometimes, condition physique And mental Also affect test results, such as fatigue, minor injuries, or stress from the environment around. External factors like field quality, conditions weather, as well as training equipment also play a role in support or hinder student performance during the test. Thus, although the *diamond training model* has been proven effective, success improvement *Passing* accuracy is also greatly influenced by a combination of various internal and external factors (Manurizal et al., 2024). This suggests that coaches need to consider individual and environmental conditions holistically to optimize the results of any training program implemented.

Study This own a number of advantages and superiority Which worthy noted,

especially in terms of Innovative and applicable training design. The use of the diamond passing training model as a treatment variable provides a contextual training approach that resembles real-world situations on the field. This makes this research relevant and practically useful, especially for coaches and youth soccer enthusiasts. Furthermore, this study uses numerical measurements through statistical tests such as normality, homogeneity, and paired sample t-tests, which provide objective analytical power. And can be accounted for Scientifically. This research was also conducted directly at the students' training sites, thus depicting the actual situation and ensuring ecological validity. However, this research also has several shortcomings. One his weaknesses is amount participant Which A little, that is only totaling 20 students, so that implementation results study to group the bigger one is necessary conducted carefully. Furthermore, the relatively short duration of the study may not have been sufficient to assess the long-term effects of diamond training on improving players' technical abilities. There are also several shortcomings. other, like No measuring factors others that could influence the results, for example level motivation, flavor tired, or how much often player train outside the program. This study also has not directly compared the diamond training model with other training models. Therefore, for further research it is recommended to involve more participants, with a longer implementation time. more long, as well as existence group comparator so that results Which obtained can provide a more complete picture of how effective different types of training are in improving young players' passing accuracy.

CONCLUSION

Based on the research results, we can conclude that the *diamond passing training method* has a real and significant impact on the accuracy level. students' *passing.* The statistical data analyzed showed clear and meaningful differences, indicating that this training approach was indeed beneficial in improving the students' *passing precision.* This training proved successful because it helped develop focus, motor coordination, and decision-making skills in game situations similar to real matches. This study supports previous results that stated that exercise Which designed in a way special And in accordance context very influential in improving basic football techniques, especially in terms of *passing accuracy.*

However, other factors such as the players' initial abilities, additional training outside of the schedule, physical condition, and the environment also influence training outcomes. Therefore, the success of any training method depends heavily on a comprehensive approach that considers multiple aspects. This study has several limitations, primarily related

to the relatively small sample size and short training duration. Therefore, for future research, it is recommended that researchers include a larger sample size to better generalize the results. Furthermore, a comparison or control group should be added to test the effectiveness of the training model used to compare it with other training models..

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