

## The Effect of Exercise Methods and Eye-Foot Coordination on Football Passing Accuracy

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### Abstract

The purpose of this study was to find out and analyze: Analyzing the influence between the passing practice of the fixed target and passing target the targeted shifted to the accuracy of passing the football. Analyzing the effect of high and low spy coordination on soccer passing accuracy. Analyzing the interaction of training methods and eye-foot coordination on football passing accuracy. This study uses an experimental method with a 2x2 factorial design, data analysis techniques using Analysis of Variants (ANOVA) at the significance level ( $\alpha = 0.05$ ). The populations in this study were the Garuda Perkasa U-15 players in Pemalang Regency in 2019 totaling 36 players. The sampling technique used purposive sampling with a total sample of 24 players. The results of this study: There is a difference in influence between the passing practice of the fixed target and the passing target of the moving target towards football passing accuracy with the value of  $\text{sig} = 0.039 < \alpha = 0.05$  and  $F_{\text{value}} = 4.800 > F_{\text{table}} = 0.504$ . There is a difference in influence between high and low spy coordination on football passing accuracy where  $\text{sig} = 0.001 < \alpha = 0.05$  and  $F_{\text{value}} = 3.554 > F_{\text{table}} = 0.504$ . There is an interaction between the training method and eye-foot coordination on football passing accuracy with  $\text{sig} = 0.014 > \alpha = 0.05$  and  $F_{\text{value}} = 7.289 > F_{\text{table}} = 0.504$ . The conclusions of this study are: There is a difference in influence between the passing practice of the fixed target and the passing target to move towards the accuracy of passing the football. There is a difference in influence between the accuracy of passing football of players who have coordination between high and low ankles. There is an interaction between the training method and eye-foot coordination on football passing accuracy.

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## INTRODUCTION

Soccer is a team game where one team consists of 11 players, one of which consists of 1 goalkeeper. Football games have the main goal, namely to win the game by scoring as many goals as possible to the opponent's goal and trying to maintain the goal so as not to concede the ball from the opponent's attack (Al-Ghani, 2017). Football is one of the most popular sports and is loved by the whole society, especially men, ranging from children, adolescents, and adults. This is evident from the fact that there is in the community that most of them like the football better than the other sports, both in urban communities and in rural one (Gema, Rumini, and Soenyoto, 2016).

According to Saputro, Hariyoko, and Amiq (2016) football is played on grass with two wickets, on two sides wide guarded each by a goalkeeper. Both teams other than the goalkeeper, fighting each other to the ball to put into the opponent's goal. Soccer is a highly demanding game in which the participants are subjected to numerous actions that require overall strength and power production, speed, agility, balance, stability, flexibility, and the adequate level of endurance (Jovanovic, Sporis, Omrcen, and Fiorentini, 2011)

Football sport has undergone many changes and developments from a simple form to become a popular soccer game that is liked and loved by the public (Apriansyah, Sulaiman, and Mukarromah, 2017).

Andrianto (2014) the techniques that must be mastered in football included: (1) ball-kicking technique (passing), (2) ball technique (controlling), (3) dribbling technique, (4) heading technique, (5) ball recognition and mastery techniques using instinct or feeling (ball feeling), (6) technique of kicking the ball towards goal (shooting), (7) the technique of deceit with the ball (feinting), (8) guard technique (goal keeping).

According to Irfan (2017) said soccer consists of two words, namely "soccer" and "ball." Football can be interpreted as kicking (using legs) while "ball" is a round tool made of

rubber, leather or the like. So Soccer is a game that is done by kicking a ball by a player, with a goal and aiming to put the ball into the opponent's goal. To play Football well, each player must master some basic techniques in playing Soccer, such as herding, feeding, controlling the ball (stopping), shooting, heading, grabbing the ball and goalkeeping techniques (Yasriuddin, 2012). Football is more than just sports, but rather became a show favored by all walks of life (Kommarudin, 2005). Players who are skilled in the game, especially Soccer, will continue to survive until the end of the game and can have a lot of trust in the team, while players who are slow or weak in soccer will rarely get feedback from teammates (Nururi, and Sulaiman, 2015). Yunus (2013) states that "football dribbling can be done with the back of the inner leg, dribbling with the back of the foot and dribbling with the inner back of the foot."

Sadik (2016) states that basic techniques or skills in soccer games: (a) passing (kicking ball technique), (b) stopping (the technique of stopping and controlling the ball), (c) dribbling (a dribbling technique). A soccer player is required to have a good mastery of basic techniques because this is the main requirement to become a qualified and highly skilled player in soccer games.

Passing is part of the kicking technique. In football, passing is the most widely used technique. A player who does not master the passing technique well, the player will not be a good player, and a good team is a team that all players master the ball passing technique well (Sukatamsi, 1984). Based on usability or function, there are several kinds of kicks, including (a) giving feedback to friends (passing), (b) to shoot the ball towards the opponent's goal, to make a winning goal, (c) to clear or sweep the ball to the area direct forward defense, usually done by defender, (d) to do various kicks. An important aspect of improving the ability is to conduct coaching and training, especially in improving football achievement in Indonesia (Hidayat, and Rahayu, 2015)

Coordination there are two in football games, namely the first coordination of motion

between hands, feet, and eyes (Faruq, 2008). Coordination is needed in almost all branches of sports that are competed and played. The level of good or not a person's coordination of movement is reflected in his ability to do a movement smoothly, precisely, quickly, and efficiently. Internal conditions include factors that are contained in an individual or other attributes that distinguish one player from another. One factor in internal conditions is physical ability. The physical ability associated with eye-foot coordination that influences the appearance of players both in training skill movements and in matches. Thus it can be said that good eye-foot coordination is a requirement in the effort to achieve maximum achievement for players in training in playing skills, in this case, is the ability to dribble. The difference in eye-foot coordination can be divided into two, namely high ankle coordination and low eye-foot coordination. The difference in eye-foot coordination that exists in the player must be considered as a decisive factor in soccer playing skills.

The difference in players in terms of eye-foot coordination will be a very important consideration in determining the training methods that are by the character of each player so that they can achieve optimal training results according to their potential. On the skills of Soccer games, namely passing the ball is an element of basic techniques that must be mastered by the football players. An important aspect of improving ability is to conduct coaching and training, especially in improving football performance in Indonesia (Hidayat, and Rahayu, 2015).

The results of observations carried out by data retrieval of passing skills in soccer games in some samples of the Garuda Perkasa U-15 SSB players in Pemalang Regency obtained an average of 40 on target including the category of underachieving who still needed to be improved to be better and even very good. In addition to taking observational data, interviews were also conducted with Pemalang Toyib Iskandar Garuda Perkasa U-15 SSB coach. Information obtained for conducting performance training

was not enough to be satisfied with the achievements that have been obtained so far, one of which is about passing ball skills. Pemalang U-15 SSB Pemalang Regency, especially for players in terms of passing skills, is still not good or maximal, seen in a series of official matches, trials, and training of the players who often miss the target when they pass the ball with speed. The training has also never been given a form of passing accuracy training to improve ball passing skills, one of which is a form of practice Passing Targeted Goals and Moving Target Passing.

Based on the description of the background above, the author is interested in conducting a study entitled "The Effect of Exercise Methods and Eye-Foot Coordination on Football Passing Accuracy" (Experimental Study of Exercise Passing Targeted Target and Passing Target Target Switching to Garuda Perkasa U-15 District SSB Pemalang Year 2019).

## **METHODS**

This study used an experimental method with a factorial 2x2 design. This method is testing the effect of one or more variables on other variables. In this study, the attribute variable is eye-foot coordination, with measurements being made to find out high and low eye-foot coordination. The populations in this study were the Garuda Perkasa U-15 players in Pemalang Regency in 2019 totaling 36 players. Sampling in this study used purposive sampling technique. So that in this study the sample used was the Garuda Perkasa U-15 SSB player Pemalang Regency in 2019 with a total of 24 players.

## **RESULTS AND DISCUSSION**

The presentation of the results of the study is based on statistical analysis performed on the initial test and the final test of ball passing accuracy. In this study, the sample was divided into two, namely high and low ankle coordination groups. Both high and low spy coordination groups will research the form of passing practice. The high spy coordination group is divided into two groups, the high group

1 will do the fixed target passing practice, and the high group 2 does the passing training for the target to move. Likewise, with the low eye-foot coordination group, the low group 1 will carry out the target's passing practice, and the low group 2 does the passing training for the target to move.

The research data used as an analysis is a record of the overall score obtained by each player after participating in training and treatment through two forms of passing practice, namely passing a fixed target and passing a moving target indicating that Garuda Perkasa U-15 SSB players in Pemalang Regency in 2019 with high and low spy coordination given the passing practice the target still has an average passing accuracy of 70.00. Pemalang Garuda SSB 15-Player in Pemalang Year 2019 with high and low spy coordination given passing training moving target targets have an average passing accuracy of 77.50 seconds. Based on the explanation above, it is shown that the Pemuda Garuda Perkasa U-15 SSB player in 2019 with high and low spy coordination given passing targets the target still has the better passing accuracy of football than the Garuda Perkasa U-15 SSB players in Pemalang Regency 2019 the coordination of high and low springs given passing training targets to move.

Data Normality Test was performed using Kolmogorov Smirnov test with the help of SPSS 16 at the 0.05 significance level. Samples come from populations that are normally distributed if the significance value is greater than 0.05 ( $\text{sig} > 0.05$ ) indicating that the results of the sig test for data normality of soccer passing accuracy are  $0.717 > 0.05$ , so the data are normally distributed.

The data homogeneity test was carried out using Leven's test with SPSS 16.0 at the 0.05 significance level. Data significance value is greater than 0.05 ( $\text{sig} > 0.05$ ), which means the sample data tested is homogeneous.

Homogeneity test results show the results of the sig test data homogeneity of soccer passing accuracy is  $0.606 > 0.05$ , so the tested data is homogeneous.

**Table 1.** Test Homogeneity of Football Passing Accuracy Data

F	df <sub>1</sub>	df <sub>2</sub>	Sig.
0.627	3	20	0.606

After the data is declared normal and homogeneous through the normality test and data homogeneity, then the researcher performs a hypothesis test using the GLM (Two-way ANOVA) test. From the results of testing, the data obtained are table 2.

**Table 2.** Two-way ANOVA test

Dependent Variable: Football Passing Accuracy					
Source	Type III sum of squares	df	Mean square	F	Sig.
Corrected model	1779.167 <sup>a</sup>	3	593.056	8.574	0.001
Intercept	130537.500	1	130537.500	1887.289	0.000
Eye-foot coordination	337.500	1	337.500	4.880	0.039
Passing practice	937.500	1	937.500	13.554	0.001
Eye-foot coordination * Passing practice	504.167	1	504.167	7.289	0.014
Error	1383.333	20	69.167		
Total	133700.000	23			
Corrected total	3162.500	24			

<sup>a</sup> R squared = 0.563 (Adjusted R squared = 0.497)

The results of the first research hypothesis test, it was proven that there were significant differences in the effect of passing training methods on fixed target and passing target shifting targets on the passing accuracy of the Garuda Perkasa U-15 SSB player Pemalang Regency in 2019. It is evidenced by the results of the ANOVA test with  $F_{\text{value}} = 4.800$  with a

significance value of 0.039, with a significance level of  $0.039 < 0.05$ . The method of passing training for target targets remains smaller than passing the target, shifting in improving football passing accuracy. The passing target training method still has an average increase in soccer passing accuracy of 70, while the passing target training method of moving targets has an average

of 77.50. The average increase in soccer passing accuracy in the Garuda Perkasa U-15 SSB players in Pemalang District in 2019 which carried out the target training passing method was smaller than the passing training method the target moved and had a significant difference.

The results of testing the second hypothesis turned out to be a difference of influence between players who have high eye-foot coordination with players who have low eye-foot coordination on soccer passing accuracy. Evidenced by the results of the ANOVA test with  $F_{\text{value}} = 3.554$  with a significance value of 0.001. With a significance level of  $0.001 > 0.05$ . Pemalang District Martial Arts SSB Player in 2019 who has high eye-foot coordination has an average increase in passing accuracy of football greater than players who have low eye-foot coordination, but the difference in improvement is significant.

The results of testing the third hypothesis there is no interaction between the passing practice (passing the fixed target and passing target moving target) and eye-foot coordination on soccer passing accuracy on the Garuda Perkasa U-15 SSB players in Pemalang Regency in 2019. The analysis shows that there is no the interaction between passing practice (passing fixed target and passing target to move target) and eye-foot coordination on soccer passing accuracy on SSB Garuda Perkasa U-15 Pemalang Regency in 2019. Evidenced by the results of the ANOVA test with  $F_{\text{value}} = 7.289$  with a significance value of 0.014. With a significance level of  $0.014 < 0.05$ . Pemalang Regency SSB U-15 SSB player of 2019 from the above statement can be stated that there is a significant interaction between training (passing fixed target and passing moving target) and eye-foot coordination on soccer passing accuracy.

## CONCLUSION

From the results of the analysis, the conclusions are as follows: There are differences in the effect of the practice of Passing Targets and Moving Passing Targets towards the Accuracy of the Garuda Perkasa U-15 SSB Player Passing in Pemalang Regency in 2019. There are

differences in the influence of high-leg coordination and low eye-foot coordination on Football Passing Accuracy on Garuda Perkasa U-15 SSB Players in Pemalang District in 2019. There is an interaction between training methods and eye-foot coordination on Football Passing Accuracy in Garuda Perkasa U-15 Regency SSB Players Pemalang Year 2019.

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