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Effect of 5 VS 5 Small Sided Games (SSGs) Training on Passing Accuracy of U-16 Football Athletes

Gunawan¹, Abd Rahman²

¹Master of Physical Education Study Program, Universitas Tadulako, Jl. Sukarno Hatta KM. 09, Central Sulawesi Province, Indonesia

²Chabillazha FC, Poso District, Central Sulawesi Province., Indonesia

Abstract

The purpose of this study was to determine the effect of small sided games training on the passing accuracy of U-16 football athletes in Poso Regency. The method used is an experimental method with pre-test and post-test designs. Using the "treatment, pre-test and post-test" design, the population is U-16 athletes who are registered with the PSSI Poso Regency Association. The sampling method is purposive sampling technique, which is a sampling technique using certain criteria. This study used a pre-experimental design, namely a one-group pre-test-post-test design, in which there was no control group. The sample is 24 people. Data collection techniques using field tests. The type of test is a test of the accuracy of passing the ball towards the goal. Based on the paired sample t test where Pair 1, obtained a Sig value (2-Tailed 0.000 <0.05) it can be concluded that there is a difference in the average initial test of passing accuracy in U-16 soccer athletes before being given small sided games training is 4.79 while the average value of the final test of passing accuracy is 7.33. This proves that there is an increase in the passing accuracy of U-16 football athletes in Poso Regency. Poso Regency U-16 football athlete.

Keywords: Small Sided Games; Passing Accuracy

INTRODUCTION

The development of football in Indonesia, especially in the province of Central Sulawesi, is quite rapid. The large number of competitions at all age levels, from U-14 to senior level, produces many talented young athletes. Currently, athletes' success in football depends on physical ability, technique, tactics and cognitive ability (Fortes et al. 2019; Narizuka, Yamamoto, and Yamazaki 2014). Football is a dynamic, unpredictable sport with fast muscle action and multiple changes of direction (Coutinho et al. 2018; Vestberg et al. 2012). In the game of football, one of the most dominant techniques used is passing (Ievoli, Palazzo, and Ragozini 2021).

Passing is a way to move the ball from one player to the next player (Muhamad Halim 2020). Passing undoubtedly represents a style of play, even compared to goals, shots and other summary statistics, representing more than 80% of events in football (Ievoli et al. 2021), however, players who concentrate too much on passing can result in a decline in team performance (Ichinose, Tsuchiya, and Watanabe 2021). Particularly in football, passing decision-making is important because a good pass can reach a team member who

is directly or indirectly unmarked and therefore create a goal-scoring opportunity, or it can reach a member who is in the most advantageous position (Fortes et al. 2019).

A successful passing process is one of the main determinants of a football team's attack performance, because the passing process can be positively correlated with a higher chance of winning the match (Bradley et al. 2013; Clemente, Sarmiento, and Aquino 2020). The passing process arises from the specific dynamics formed between teammates and depends on many conditions, including the team's scoring status, the opponent's defensive pressure, and the team's specific style of play or player decisions during the passing process (Clemente, Sarmiento, et al. 2020; Ichinose et al. 2021; Ievoli et al. 2021; Sarmiento et al. 2018). Therefore, passing strategies vary from team to team and within each team (Sarmiento et al. 2018). To understand a team's passing process, an observer must identify relationships between teammates. During a pass sequence, how the pass is made relates to the relationship between the players and the collective behavior of the team (Clemente et al. 2017; Clemente, Sarmiento, et al. 2020). The main obstacle governing the distribution of passes and connections between teammates is playing position (Clemente et al. 2017; Clemente, Sarmiento, et al. 2020). In fact, some studies show that playing position influences a player's advantage such that some positions are more likely to be involved in passing than others (Clemente, Afonso, et al. 2020; Sarmiento et al. 2018).

However, it should be noted that passing patterns are different at certain times in the match, such as transitions/counterattacks or attacks that lead to goals. Passing skills in soccer are complex perceptual motor skills that involve decisions about who will pass the ball and kicking the ball towards a teammate (Oppici et al. 2018). Previous research has shown that frequent switching of attention between the ball and player supports successful passing performance in soccer (Fenner et al. 2022a; Olthof, Frencken, and Lemmink 2015; Oppici et al. 2018). Passing accuracy must be practiced in various forms of training, one of which is through practice small sided games (SSGs).

Small-sided games (SSGs), namely modified games played on a smaller field area, using adapted rules and involving a smaller number of players (Milanović et al. 2019; Stojanović et al. 2021). Small-sided games (SSGs) are becoming increasingly common in team sports training environments. This training strategy is often used by coaches based on what has been deemed to be true that the main adaptations and benefits occur when training stimulates the specific movement patterns and physiological demands of the sport (Cvetković et al. 2018; Hammami et al. 2018). This method is used primarily for the development of technical-tactical actions, assuming an important role in the effective transfer of adaptations and advantages to the match context. Small-sided games (SSGs) in

football is a game with a small number of players on each side, played on a field smaller than a regular field and with adapted rules. SSGs are usually less structured but more fun than official games. Soccer coaches use SSGs to intentionally improve players' physical, technical, and tactical performance in game situations that recreate the inherent dynamic performance demands of soccer match play (Clemente 2018; Clemente et al. 2017; Sampaio et al. 2014; Sarmiento et al. 2018)

Training with small-sided games (SSGs) offer the opportunity to develop technical-tactical elements alongside specific fitness capacities such as endurance (aerobic and anaerobic), strength and agility (Caso and van der Kamp 2020; Christopher, Beato, and Hulton 2016; Clemente, Afonso, et al. 2020; Coutinho et al. 2018; Hammami et al. 2018). Small-sided games are played on smaller areas of the field, often under modified rules and with fewer players than traditional match play (Caso and van der Kamp 2020; Coutts et al. 2009; Hammami et al. 2018).

Players are required to have excellent technical and tactical skills to perform at a top level in the sport (Fenner et al. 2022b; Kilit, Arslan, and Soylu 2019; Olthof et al. 2015; Opstoel et al. 2015; Wallack, Tompkins, and Gruenberg 2008). To train and develop these skills, small-sided games (SSGs) are considered an excellent training tool (Barnabé et al. 2016; Olthof et al. 2015). Small-sided games (SSGs), evoke movement patterns and require decision-making skills similar to performance under stress and fatigue in competitive environments (Gabbett & Mulvey, 2008). For a player to perform the action, the time and spatial constraints in a small-sided game are similar in a full-sized game. Tactical behavior can be defined as the individual and collective actions of a team to use the best player skills to contribute to the team's offensive and defensive goals by scoring goals or preventing goals (Clemente et al. 2017; Modric, Versic, and Sekulic 2020; Olthof et al. 2015). Exercise small-sided games (SSGs) improve skills as well as facilitate tactical behavior during the game and depend on skill level and age (Fenner et al. 2022b; Olthof et al. 2015).

Exercise small-sided games (SSGs) are a popular and effective way to train the physical, technical and tactical demands at all age levels in matches with soccer sport-specific conditioning stimuli. A number of variables can be manipulated by the coach that can influence the physical, technical and tactical demands of the game, including changes in the number of players per team, the rules of the game, the use of goalkeepers, the coach's encouragement, and the size of the field (Christopher et al. 2016; Hodgson, Akenhead, and Thomas 2014; Olthof et al. 2015; Sampaio et al. 2014; Sarmiento et al. 2018; Silva et al.

2013). A problem that often occurs in athletes at all age levels is that many athletes pass the ball less accurately so that their attack and defense patterns become less effective.

Although there is evidence regarding the contribution of SSGs to the development of the tactical-technical component of the game, and their routine use by coaches (Francesco Sgrò et al. 2018; Menegassi et al. 2021; Torreblanca-Martínez, Cordero-Ojeda, and González-Jurado 2018) one format of SSGs does not address all required requirements. It is important to underline that the use of SSGs does not mean that the intended objectives have been achieved or whether the format used best suits the intended training context. More studies of 5 vs 5 SSGs drills are needed to better understand the impact of various game constraints on player needs, particularly on passing accuracy.

Thus, the aim of this research is to find out whether there is an effect of exercises small sided games (SSGs) 5 vs 5 players on ball passing accuracy of U-16 athletes in Poso Regency, Central Sulawesi.

METHOD

The type of research used in this research is quantitative research with experimental methods. Research design Which used that is one-group pre test-post test design (Caldas 2009; Jack Fraenkel, Norman Wallen, Helen 2012). The advantage of this design is that it is done pre test given post test so that it can be known with certainty the differences in results due to the treatment given (Creswell 2012). The research was carried out at the Poso Regency football field, which is the largest stadium in Poso Regency, Central Sulawesi Province in 2022.

The population in this study were all U-16 athletes from Poso Regency who were still actively training, totaling 37 people. The sampling technique used is Purposive sampling, namely a sampling technique using certain criteria (Creswell 2012; Jack Fraenkel, Norman Wallen, Helen 2012) namely: Still actively training, able to take part in the training program 24 times and ready to be a sample. Based on these criteria, those who met the sample requirements were 24 people.

The research instrument used in this research was a passing accuracy test called the short passing (Rachman, Raibowo, and Prabowo 2021).

Table 1. Categorization of Passing Accuracy

Score	Criteria
8-10	Good
6-7	Currently
1-5	Less

(Rachman et al. 2021)

RESULT AND DISCUSSION

Result

To see a description of the percentage of data from the initial test and final test of passing accuracy in the experimental group by implementing small sided games exercises can be seen in the table below.

Table 2. Descriptive Analysis

Group	N	Minimum	Maximum	Mean	SD
Pre Test	24	4	7	4,79	0,88
Post Test	24	6	9	7,33	0,91

Next, a paired sample t test is carried out, the paired sample test is used to find out whether there is a difference in the average of two paired samples.

Table 3. Paired Sample t Test

Paired	Sig. (2-Tailed)
Pair 1: Experimental Pre Test and Experimental Post Test	0,000 < 0,05

Based on table 3 of the paired sample t test where Pair 1, the Sig value (2-Tailed $0.000 < 0.05$) is obtained, it can be concluded that there is a difference in the average of the initial passing accuracy test. in U-16 soccer athletes before being given small sided games training was 4.79 while the average score for the final passing accuracy test was 7.33, which proves that there has been an increase in accuracypassing Poso Regency U-16 soccer athletes, it can be concluded that there is an influence of trainingsmall sided games (SSGs) 5 vs 5 on passing accuracy in Poso Regency U-16 football athletes.

Discussion

Application of exercisessmall sided games (SSGs) 5 vs 5 players have a significant influence on passing accuracy in Poso Regency U-16 soccer athletes. This is reinforced by the results of previous research that exercisessmall sided games (SSGs) as well as the right method will be able to influence passing accuracy in soccer athletes (Cvetković et al. 2018; Hammami et al. 2018; Olthof et al. 2015; Travassos et al. 2014). Wide variety of Exercisessmall sided games (SSGs) such as 3 vs 3 and 4 vs 4 improve physical and technical abilities in athletes of all age levels and genders (Caso and van der Kamp 2020; Christopher et al. 2016; Clemente, Afonso, et al. 2020; Fenner et al. 2022a; Hodgson et al. 2014; Johnston et al. 2014; Olthof et al. 2015). Exercisessmall sided games (SSGs) 5 vs 5 players are required to have good physical condition because it requires players to be able

to move faster and be more precise in making decisions (Alsuiadi 2015; Coutts et al. 2009; Fenner et al. 2022a; Hammami et al. 2018; Hodgson et al. 2014; Johnston et al. 2014; Sampaio et al. 2014; Sparkes et al. 2020; Stojanović et al. 2021).

It is known that SSGs not only develop players' technical and tactical skills (Budiman 2022), but can also encourage creative play (Barnabé et al. 2016; Caso and van der Kamp 2020; Clemente, Afonso, et al. 2020; Malqui et al. 2019; Romeas, Guldner, and Faubert 2016). Small-sided games (SSGs) are a very popular drill used in soccer to maintain a high level of activity while technical and tactical skills are trained (Cvetković et al. 2018; Milanović et al. 2019; Stojanović et al. 2021). The use of SSGs in training can help to determine training stimuli with game dynamics (3). Currently, SSGs are very popular exercises for all ages and standards of play, considering that it is possible that they simultaneously improve the physical condition, technical and tactical skills of players (Amani-Shalamzari et al. 2019; Fenner et al. 2022a; Wallack et al. 2008). Usagesmall-sided games (SSGs) are a common approach in training players of different ages and these popular training tasks offer many advantages in acquiring relevant skills and can provide physiological and tactical adaptations in the player's team play leading to performance development (Barnabé et al. 2016; Clemente, Afonso, et al. 2020; Hodgson et al. 2014; Olthof et al. 2015; Sampaio et al. 2014; Sarmento et al. 2018). The majority of studies on this research topic tend to focus on analyzing the physiological outcomes of SSG performance (Barnabé et al. 2016; Caso and van der Kamp 2020; Christopher et al. 2016; Matzenbacher et al. 2014), especially physical and motor responses (Casamichana & Castellano, 2010; Hill-Haas, Dawson, Coutts, & Rowsell, 2009). Although fewer studies have examined players' technical and tactical performance (Barnabé et al. 2016; Christopher et al. 2016; Fenner et al. 2022b; Matzenbacher et al. 2014; Olthof et al. 2015).

In recent years, studies of team techniques and tactics in SSGs training have focused on theoretically framed dynamic information related to player interactions and coordination tendencies that emerge on the field (Coutinho et al. 2018; Olthof et al. 2015; Sampaio et al. 2014; Sarmento et al. 2018). Player behavior in attack and defense can vary greatly and depend on the ongoing interactions between teammates and opponents. Previous research has confirmed that, from a constraint perspective, the formatting of SSGs (field size, number of players, and rule modifications) has implications for the emergence of individual and collective actions undertaken by players (Barnabé et al. 2016; Sarmento et al. 2018). This research only focuses on U-16 athletes in Poso Regency withone-group pre test-post test design experimental design,with the conclusion that SSGs 5 vs 5 training increases the players' passing accuracy, especially for U-16s. It is hoped that future research

can take a wider sample of U-16 athletes or those of a more senior age by involving a control group.

CONCLUSION

The results of data analysis show that there is an influence of training small sided games (SSGs) 5 vs 5 players on passing accuracy in U-16 soccer athletes in Poso Regency.

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