

## The Influence of Small Sided Games Training Method: Passing Amateur Athletes Football Players



Muhammad Rifqi Khoirun Nasihin<sup>1</sup>, Tri Hadi Karyono<sup>2</sup>, Ali Munir<sup>3</sup>

<sup>1,2</sup>Department of Sports Coaching Education, Yogyakarta State University, Yogyakarta, Indonesia.

<sup>3</sup>Department of Sports and Health Science, Yogyakarta State University, Yogyakarta, Indonesia.

**ABSTRACT:** Improving the basic skills of amateur athletes is a big task for a coach, one of which is the game of football itself. This study aims to determine the effect of small sided games training on the passing skills of football players. This study is a type of experimental research of one group pretest-posttest design with 16 treatments. The population in this study is 40 people, then the 40 population is not all used, only 24 athletes meet the criteria as subjects in this study. The instruments in this study are tests, observations, interviews, and documentation. The validity of the test in this study was 0.812 and the reliability was 0.879. The data analysis techniques of this study use prerequisite tests including normality tests, homogeneity tests, and t-test or t-est. The results of this study prove that small sided games-based training has a significant impact on the accuracy of passing in football games. This is proven by the results of data analysis in this study with a percentage of  $0.000 < 0.05$ , thus the hypothesis in the study is proven to have an influence on Yogyakarta State University football athletes. Then it was strengthened by the statistical results of the Mann Whitney test with asymp values. Sig. (2-tailed) by  $0.750 > 0.05$ . So based on these results, it can be concluded that the Small Sided Games Training Method has a significant impact on the results of passing skills in amateur athletes of the Student Activity Unit of Yogyakarta State University.

**KEYWORDS:** Small Sided Games, passing skills, football, athlete, Amateur.

### I. INTRODUCTION

Football is a very popular sport around the world, almost in every region there is a football field, not only adults who play football, old and young, big and small, rich and poor, employees, traders, farmers and even women also play football [1], [2]. Millions of people in this day and age are fascinated by the game of football [3]. Football is a game to seek victory according to the rules of FIFA (World Football Federation), namely by scoring more goals to the opponent's goal than conceding [4]. Football is a type of sport that has strict rules about physical contact, tripping from behind, body collisions and other violent aspects like in the game of football [5]. When viewed from the beginning and end of the movements that underlie various football game skills, such as running, jumping, kicking, and shooting. His skills can be categorized as discrete [6]. When viewed from the pattern of the environment in which football is carried out, football is a game that relies on open skills [7].

The purpose of the game of football is to put the ball into the opponent's goal, by manipulating the ball with the foot [8]. In addition to the eleven main players, each squad is also allowed to have reserve players [9]. During the 90 minutes, you must try to get points from the goals that have been scored, provided that the ball must go all the way through the goal line to be considered a legitimate goal [10]. Inserting the ball with any part of the body is allowed, but it is not allowed to use the hand except for a goalkeeper [11], [12]. Another goal of the football game is to prevent the opponent from putting the ball into the team's own goal [13]. After the first 45 minutes of play are completed, players will get a 15-minute break called half-time. The second half, which also lasted 45 minutes, will continue and the referee will give additional time (injury time) if necessary, and accordingly [14]. In addition, the purpose of passing in a football game is to pass the ball to teammates to create space, so that it can create goals into the opponent's goal and can maintain a defensive area for defensive players. The purpose of passing creates a pass that leads to the opponent's goal to score a goal and when the opponent attacks can defend the defensive area Santos et al, (2017:37). When you have a good pass, it will reduce mistakes on the field and the game of football will be more enjoyable for the spectators [16]. In addition to sports, football is very effective in growing and developing players' abilities and honing their skills in playing football

## **The Influence of Small Sided Games Training Method: Passing Amateur Athletes Football Players**

on the field [17]. Football is a game of kicking the ball with the aim of putting the ball into the opponent's goal and defending the ball itself from entering the goal and the player can use all limbs except the arm [18].

In the game of football, there are several basic techniques that need to be possessed by football players, namely kicking, stopping, dribbling, heading, tackling, throwing in and goal keeping. The goal is to provide passes, shoot many balls into the enemy's goal, to break the enemy's attacks, corner kicks, goal kicks, and free kicks [20]. Controlling the ball in playing football is an attempt to stop or take the ball until it is fully controlled. Throw in is a way to restart the game after the ball is out, that is, the ball leaves the field of play through the side line [12]. Because in the game of football not only techniques are needed, but teamwork is also needed, which is commonly called tactics. So that good basic techniques are needed for each player to be able to carry out tactics optimally. So in improving the basic technique of football players, there are several forms or training methods that want to be applied to UKM players of Yogyakarta State University, namely the practice method of rondo games and small sided games to improve the basic passing technique in football games.

There are many practice methods that are often used, namely passing and moving methods, triangle passing, one-two passing combinations, diamond passing, etc. to be able to improve the passing skills of football players. However, there are two training methods used to improve players' passing skills which have been supported by previous studies, namely the training method using the small sided games method. Researchers are interested in choosing this method because in small sided games training they are not only required to pass but players also have to continue to move to open up space, friends are not difficult to give passes, and referees are also required to think quickly in making decisions because the modified field is smaller than the field [21]. Thus, small sided games training is a training method applied in football games that almost resembles the real game by making changes such as the rules, the size of the field and the people involved in the game. Defining small sided games is a method that has benefits in terms of providing an improvement in passing accuracy with a game method that has a high level of pressure in terms of passing due to modifications in the rules and size of the playing field [22]. Small Sided Games is an exercise that has a good impact on improving a technique because this method can create a real game situation where this method also combines several aspects such as technique, tactics and even physicality [23]. Thus, the accuracy of passing can be done with the small sided games training method, because this method requires the player to feel as if the player is in a real game which is like facing a high-pressure situation and this training method also provides a variety of exercises [24].

Passing is the art of transferring the momentum of the ball from one player to another [25]. Passing is one of the ways to give/pass the ball to a teammate with the outside foot, the back of the foot, and can also be with the inside foot of this pass, this pass is very much used by players, especially with an attacking player or it can also be an attacking player [25]. Meanwhile, Pratama et al, (2022:34), interpret passing as one of the efforts to move the ball from one place to another using the inside foot. This means that basic passing techniques are needed in playing football because in a football game a team is able to carry out its tactics well must also be supported by good basic passing techniques [26]. Examples of players who have poor basic passing techniques are not close to the position of the ball, unbalanced balance of the player's body and the use of the foot on the ball that does not fit, there will be a wrong pass or the ball is cut by the opponent. Meanwhile, players who have good basic passing techniques, such as the position of the feet not far from the ball and the foot of the pedestal is right next to the ball, body balance that must be maintained and the contact of the feet with the right ball in the middle of the ball. So it can be concluded from the description above that good passing is needed by every football player in order to be able to carry out football game tactics.

Yogyakarta State University students are very active in playing football, especially PJKR students, there is also a Yogyakarta State University football team that is still active in training. In this training, students are trained to be able to improve the quality of playing football so that it can be useful for the team, especially in the Yogyakarta State University football team. In addition, the Yogyakarta State University football team also strives to create quality players so that they can excel, especially in football at the national and international levels. The Yogyakarta State University football team also often participates in several inter-university football tournaments, but the Yogyakarta State University football team always fails to achieve achievements because there are still problems that occur in players, especially the problem of poor basic passing techniques, therefore researchers are interested in providing a training method that can improve passing skills, namely the small sided games practice method. The problem in this study was found based on the results of data obtained from the observation of the Yogyakarta State University UKM football team in previous matches where the team always failed in a match because the players still made many mistakes in basic passing techniques and practice and when making selections. The researcher also conducted an interview with the head coach of the Yogyakarta State University of Football UKM and found that there was a gap among football players who were still lacking in passing in football games. This is the main basis for researchers to conduct scientific research at the Yogyakarta State University football UKM, to find out what is the main obstacle for players not to have good passing skills in the game of football, so that they fail to achieve achievements in various competitions both between universities and competitions between clubs. Achievements for each player due to the quality of the player's passing skills that are still lacking. And supported by several

## The Influence of Small Sided Games Training Method: Passing Amateur Athletes Football Players

coaches' submissions to researchers that the training programs implemented at UKM State University of Yogyakarta are still not fixed and still conventional so that in the training process at UKM State University of Yogyakarta the programs provided still use unusual programs and the training methods provided are also not effective so that there are problems with the quality of passing skills in players.

In a football team, the coach is required to be able to provide a good training program so that the training process can also run effectively, but the coach also admits that the knowledge in providing the program is still limited and has not found a suitable training method to be able to improve passing skills. But as a coach, you must be able to prepare several good training methods in improving passing skills in players so that the team can compete in a match and can even achieve achievements for the team and achievements for each player. Players who have good passing skills are players who get an effective and regular training program and the training methods obtained also affect the improvement of passing skills. So that it can be proven by players being able to provide achievements for the team and achievements for the player.

### II. MATERIAL AND METHOD

This study is a type of experimental research of one group pretest and posttest design with 16 treatments. [25] Experimental research is a way to find a causal relationship between two factors that are deliberately caused by researchers to find out a treatment. The population in this study is 40 people, which are in the form of football players of Yogyakarta State University. The researcher chose this population because the SMEs are still active in conducting training. Population is a generalization area consisting of Objects/Subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then drawn conclusions. The sample is part of the number and characteristics possessed by the population. So, the sample taken must be representative of the whole population. So in this study, the sample to be taken is 24 people from the existing population of 40 people. The researcher took this sample based on the criteria of players who had poor passing skills based on the results of the researcher's observations in the matches participated in by the Yogyakarta State University football UKM team and during the training and selection of the Yogyakarta State University football UKM team.

The instrument used in this study is a low passing accuracy test. The test is carried out to measure the passing accuracy ability of football players. This test is intended to measure the accuracy of the bottom pass. Data collection in this study uses tests and measurements. The tool used is a small goal with a width of 1.5 m and a height of 0.5 m with a kicker distance from the goal of 9 m, a line behind the goal is also 9 m, and a legal line of 1.5 m in length. A kick is valid and considered to be entered if it enters the field of the target field, hits the upper limit and/or hits the stake, and the severity of the kick must reach the back boundary line of the goal (distance 9 m). Assessment is the number of valid kicks out of ten kicks, with the standard norm given a score of 5-7 is categorized as poor, 7-10 is categorized as good and 10-14 is categorized as very good.

### III. RESULT AND DISCUSSION

#### Result

#### 1. Normality test

The normality test aims to find out whether the data from the research results comes from a normal distribution or not. To test the normality of the data in this study, the researcher used the Shapiro-Wilk test with the provision that if sig. > 0.05, the data is normally distributed. In the analysis of this study, the researcher used the help of SPSS 29.0 for windows.

Table 1. Normality Test

Tests of Normality							
	Posttest	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
Pretest	1	.304	12	.003	.777	12	.005
	Posttest	.209	12	.153	.824	12	.018

a. Lilliefors Significance Correction

Based on the statistical analysis of the normality test that has been carried out using the Shapiro-Wilk test in table 1 above, it shows that the posttest data in small sided games exercises with a significance value of 0.018 < 0.05, which means that the data is not normally distributed.

#### 2. Homogeneity test

The homogeneity test on the data in this study aims to find out whether the variance of the two research samples is homogeneous or not. In praising the data at the test stage, the two researchers used the same device, namely SPSS 29.0 for

## The Influence of Small Sided Games Training Method: Passing Amateur Athletes Football Players

Windows with the provision that if sig. > 0.05, the data is homogeneous. If the data in this study are homogeneous, then the researcher conducts an advanced analysis stage

**Table 2. Homogeneity Test**

Test of Homogeneity of Variance		Levene	df1	df2	Sig.
		Statistic			
Result	Based on Mean	.108	1	22	.745
	Based on Median	.200	1	22	.659
	Based on Median and with adjusted df	.200	1	20.477	.659
	Based on trimmed mean	.097	1	22	.758

Based on the statistical analysis of the homogeneity test that has been carried out using the descriptive test in table 2 above, it shows that the data in the small sided games exercise with a significance value of 0.745 > 0.05, which means homogeneous data.

### 3. Hypothesis Test

Based on the data above, there are abnormal and non-homogeneous data, so it is carried out with a non-parametric mann whitney statistical test to process the research data. The non-parametric mann whitney statistical test was used to determine the effect between the rondo game practice method on the improvement of passing skills in UKM athletes of Yogyakarta State University Football UKM.

The non-parametric mann whitney statistical test is an output used to test whether there is an influence of the rondo game practice method on improving passing skills. The results of the analysis are said to have an effect, if the significance value obtained is less than 0.05 ( $p < 0.05$ ). The non-parametric mann whitney statistical test in the rondo game practice group is presented in the following table.

**Table 3. Small Sided Games method**

Test Statistics <sup>a</sup>		hasil tes
Mann-Whitney U		.000
Wilcoxon W		78.000
Z		-4.231
Asymp. Sig. (2-tailed)		.000
Exact Sig. [2*(1-tailed Sig.)]		.000 <sup>b</sup>
a. Grouping Variable: SSG		
b. Not corrected for ties.		

Based on the results of the analysis in table 3 above, it is known that the asymp value sig. (2-tailed) obtained by the variable is 0.000 < 0.05 ( $p < 0.05$ ), so  $H_0$  is rejected and  $H_a$  is accepted. It can be concluded that there is an influence of the small sided games training method on improving passing skills.

### Discussion

The research was carried out for 1.5 months at the Yogyakarta Stadium involving 24 football UKM athletes from Yogyakarta State University. The players are given a small sided game training method, which is a practice method that can improve passing skills for football players [27], [28]. It can be proven from the statistical results where 24 athletes were able to perform basic passing techniques better, compared to the results of the pretest. Small sided games are a method of practice by presenting game situations like real games that allow players to gain mastery of technical, tactical, and physical aspects. It was concluded that small sided games are a training process with a small-scale field that aims to improve techniques and tactics in football games [29], [30]. Based on the results of the data analysis conducted by the researcher, presented in the table above that the results in the small sided games training method are not normally distributed with a value of 0.005 for small sided games. Based on the results in the table above, it is stated that the data value in small sided games is 0.745 which means that the data is not homogeneous and

## The Influence of Small Sided Games Training Method: Passing Amateur Athletes Football Players

homogeneous. After the data was declared abnormal and not homogeneous, then a T test was carried out using the non-parametric Mann Whitney test where the result of the score in the small sided games training method was 0.000, then  $H_0$  was rejected and  $H_a$  was accepted. The practice of small sided games has an influence on improving passing skills in football games. The results of the hypothesis test showed that the influence of small sided games training on passing skills in football games was strengthened by the results of data analysis of 0.000 which means less than 0.05 ( $p < 0.05$ ).

Based on the results of the pretest and posttest, the player experienced an improvement in the passing accuracy test. This happens because at the time of the initial test (pretest) players still rely on the initial skills that each player has. Where the player will know the skills obtained based on the score and value during the pretest itself. So it shows that there is still a need for improvement in the form of knowledge, both exercises and materials. To overcome the problems experienced by the players, the researcher provides treatment. The treatment that will be given by the researcher to the UKM football players of Yogyakarta State University in the form of small sided games practice in the hope of improving passing skills. Then the researcher gave a final posttest to the players to determine the ability to accurately pass the end after the treatment was given. So that the final posttest test shows that the final score and score obtained have increased from the initial test (pretest). This improvement is possible because the approach of the training method used strongly supports the condition of the players who are not good at performing basic passing techniques.

### IV. CONCLUSION

Based on the results of the research that has been obtained by the researcher, it can be concluded that there is a significant influence on the small sided games training method on improving passing skills. This can make reference material for especially coaches can be used as a reflection and a source of reference when providing a training program in a football team so that in the implementation of training, especially basic technique training in the game of football can run well and effectively.

### REFERENCES

- 1) A. López-Valenciano et al., "Epidemiology of injuries in professional football: A systematic review and meta-analysis," *British Journal of Sports Medicine*. 2020. doi: 10.1136/bjsports-2018-099577.
- 2) A. Knoppers, D. de Haan, L. Norman, and N. LaVoi, "Elite women coaches negotiating and resisting power in football," *Gender, Work Organ.*, 2022, doi: 10.1111/gwao.12790.
- 3) S. A. Meo, A. A. Abukhalaf, A. A. Alomar, O. M. Alessa, O. Y. Sumaya, and A. S. Meo, "Prevalence of prediabetes and type 2 diabetes mellitus in football players: A novel multi football clubs cross sectional study," *Int. J. Environ. Res. Public Health*, 2021, doi: 10.3390/ijerph18041763.
- 4) E. E. Madsen et al., "Can psychological characteristics, football experience, and player status predict state anxiety before important matches in Danish elite-level female football players?," *Scand. J. Med. Sci. Sport.*, 2022, doi: 10.1111/sms.13881.
- 5) R. G. Grashow et al., "Defining Exposures in Professional Football: Professional American-Style Football Players as an Occupational Cohort," *Orthopaedic Journal of Sports Medicine*. 2019. doi: 10.1177/2325967119829212.
- 6) D. Magistro et al., "An After-School Football Session Transiently Improves Cognitive Function in Children," *Int. J. Environ. Res. Public Health*, 2023, doi: 10.3390/ijerph20010164.
- 7) K. D. Parry, B. G. Clarkson, A. Bowes, L. Grubb, and D. Rowe, "Media Framing of Women's Football During the COVID-19 Pandemic," *Commun. Sport*, 2023, doi: 10.1177/21674795211041024.
- 8) J. M. Pratas, A. Volossovitch, and A. I. Carita, "The effect of performance indicators on the time the first goal is scored in football matches," *Int. J. Perform. Anal. Sport*, 2016, doi: 10.1080/24748668.2016.11868891.
- 9) F. M. Clemente, F. M. L. Martins, and R. S. Mendes, "Analysis of scored and conceded goals by a football team throughout a season: A network analysis," *Kinesiology*, 2016, doi: 10.26582/k.48.1.5.
- 10) J. M. Pratas, A. Volossovitch, and A. I. Carita, "Goal scoring in elite male football: A systematic review," *J. Hum. Sport Exerc.*, 2018, doi: 10.14198/jhse.2018.131.19.
- 11) D. R. Antequera, D. Garrido, I. Echegoyen, R. L. del Campo, R. R. Serra, and J. M. Buldú, "Asymmetries in football: The pass-goal paradox," *Symmetry (Basel)*, 2020, doi: 10.3390/SYM12061052.
- 12) B. Mićović, B. Leontijević, M. Dopsaj, A. Janković, Z. Milanović, and A. Garcia Ramos, "The Qatar 2022 World Cup warm-up: Football goal-scoring evolution in the last 14 FIFA World Cups (1966–2018)," *Front. Psychol.*, 2023, doi: 10.3389/fpsyg.2022.954876.
- 13) M. Zi and D. Gao, "A study of football goal trajectories of trained players through a kinetic model," *J. Eng.*, 2023, doi: 10.1049/tje2.12264.

## The Influence of Small Sided Games Training Method: Passing Amateur Athletes Football Players

- 14) R. D. Aguado-Méndez, J. A. González-Jurado, Á. Reina-Gómez, and F. M. Otero-Saborido, "Perceptions of Football Analysts Goal-Scoring Opportunity Predictions: A Qualitative Case Study," *Front. Psychol.*, 2021, doi: 10.3389/fpsyg.2021.735167.
- 15) D. S. Santos, K. L. Mansur, J. B. Gonçalves, E. R. Arruda, and F. C. Manosso, "Quantitative assessment of geodiversity and urban growth impacts in Armação dos Búzios, Rio de Janeiro, Brazil," *Appl. Geogr.*, 2017, doi: 10.1016/j.apgeog.2017.03.009.
- 16) J. M. Buldú, J. Busquets, I. Echegoyen, and F. Seirul.lo, "Defining a historic football team: Using Network Science to analyze Guardiola's F.C. Barcelona," *Sci. Rep.*, 2019, doi: 10.1038/s41598-019-49969-2.
- 17) E. Schulze, R. Julian, and T. Meyer, "Exploring Factors Related to Goal Scoring Opportunities in Professional Football," *Sci. Med. Footb.*, 2022, doi: 10.1080/24733938.2021.1931421.
- 18) R. Pratama, W. Welis, H. P. Fajri, and H. Badri, "Pengaruh Latihan Sepakbola Empat Gawang Terhadap Keterampilan Passing Dan Dribbling," *J. Stamina*, 2022.
- 19) J. K. Mara, K. W. Wheeler, and K. Lyons, "Attacking strategies that lead to goal scoring opportunities in high level women's football," *Int. J. Sport. Sci. Coach.*, 2012, doi: 10.1260/1747-9541.7.3.565.
- 20) A. M. Goh, E. J. Drinkwater, C. A. Harms, M. Scanlan, R. U. Newton, and F. Ma'ayah, "Characteristics of goals scored in open play at the 2017 and 2018 Australian national cerebral palsy football championship," *Int. J. Sport. Sci. Coach.*, 2023, doi: 10.1177/17479541221095941.
- 21) A. Stój, T. Czernecki, and D. Domagała, "Authentication of Polish Red Wines Produced from Zweigelt and Rondo Grape Varieties Based on Volatile Compounds Analysis in Combination with Machine Learning Algorithms: Hotrienol as a Marker of the Zweigelt Variety," *Molecules*, 2023, doi: 10.3390/molecules28041961.
- 22) F. Dou, J. Soriano, R. E. Tabien, and K. Chen, "Soil Texture and Cultivar Effects on Rice (*Oryza sativa*, L.) Grain Yield, Yield Components and Water Productivity in Three Water Regimes," *PLoS One*, 2016, doi: 10.1371/journal.pone.0150549.
- 23) S. Pérez et al., "Effect of small-sided games on football players," *Rev. Int. Med. y Ciencias la Act. Fis. y del Deport.*, 2019, doi: 10.15366/rimcafd2019.74.012.
- 24) N. Eniseler, Ç. Şahan, I. Özcan, and K. Dinler, "High-Intensity Small-Sided Games versus Repeated Sprint Training in Junior Soccer Players," *J. Hum. Kinet.*, 2017, doi: 10.1515/hukin-2017-0104.
- 25) A. Anwar, W. Widiastuti, and Y. Setiakarnawijaya, "Football Passing and Control Skills Exercise Model Based on Small Side Games For Ages 12-14 Years," *Budapest Int. Res. Critics Linguist. Educ. J.*, 2019, doi: 10.33258/birle.v2i3.420.
- 26) M. Asrul, T. Nugraha, and I. Kasih, "Differences in the Effect of Small Sided Game and Drill Training Methods on Passing Accuracy and V02Max in Football Games in High School Students," *Budapest Int. Res. Critics Inst. Humanit. Soc. Sci.*, 2021, doi: 10.33258/birci.v4i1.1627.
- 27) F. Clemente, M. S. Couceiro, F. M. L. Martins, and R. Mendes, "The usefulness of small-sided games on soccer training," *Journal of Physical Education and Sport*. 2012.
- 28) M. C. Jorge Rodrigues, L. S. Figueiredo, C. A. Barbosa de Lira, L. Laporta, and G. D. C. Teixeira Costa, "Cognitive processes in small-sided games," *Retos*, 2022, doi: 10.47197/retos.v44i0.90369.
- 29) N. Bonney, J. Berry, K. Ball, and P. Larkin, "Validity and reliability of an Australian football small-sided game to assess kicking proficiency," *J. Sports Sci.*, 2020, doi: 10.1080/02640414.2019.1681864.
- 30) D. Jara, E. Ortega, M. Á. Gómez-Ruano, M. Weigelt, B. Nikolic, and P. S. de Baranda, "Physical and tactical demands of the goalkeeper in football in different small-sided games," *Sensors (Switzerland)*, 2019, doi: 10.3390/s19163605.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.