
THE INFLUENCE OF EL RONDO'S GAME METHOD ON INCREASING PASSING ACCURACY IN FOOTBALL GAMES

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Abstract

The rondo game is a method that is often used to train the passing skills of football players. The aim of this research is to determine the effect of the El Rondo method on increasing passing in football games. This type of research uses an experimental method with a pretest and posttest model design. The data collection technique in this research used purposive sampling. The population in this study were all SSB national shoot football players. The sample in this study consisted of 18 players. Specific procedures for this research process include 1). Carry out an initial test without using the el rondo method, by making a predetermined pass 2). Carrying out the final test using the el rondo method, passing with the el rondo formation, 3). Play to see the progress of passing accuracy using the El Rondo method. The data analysis technique in this research uses a pretest-posttest model with a t-test design approach including normality, homogeneity and hypothesis testing. The results of this research show that there is a significant influence on the passing training method using the el rondo method. Passing accuracy in the game of football is a very important aspect, because good passing can create opportunities for the team. The el rondo method can be useful not only in increasing passing accuracy but can function in organizing a team game. Based on the results of this research, it can be concluded that there is an influence of training using the rondo game method on improving passing technical skills in the game of football.

Keywords: Rondo Game, Passing Technique, Football Player

INTRODUCTION

Football has undergone rapid development, driven by advancements in modern science and technology. These innovations impact physical conditioning, game techniques, tactics, and players' mental preparation (Kang & Yun, 2021; Sugiyama et al., 2017). Among the essential components of football,

basic techniques play a pivotal role. Mastering these techniques enables players to utilize a variety of movements effectively during a match (Wang et al., 2022). Core techniques in football include dribbling, passing, ball control, heading, and shooting. These elements, combined with attributes such as speed, agility, and endurance, are central to an athlete's success on the field (Komarudin & Wali, 2022).

Proper execution of basic skills positively influences performance during gameplay. Ideally, all players should possess proficiency in these foundational skills (Mauerer et al., 2022). Techniques are also intrinsically linked to biomotor abilities, such as flexibility, which helps athletes achieve a broader range of motion and reduce the risk of joint injuries (Wali et al., 2023). Various methods exist to enhance these basic football techniques, particularly passing, which is critical to gameplay.

Passing, a fundamental football skill, involves delivering the ball accurately to a teammate. This technique is crucial for creating opportunities to score (Putra et al., 2023). Proper training is essential for improving passing accuracy. Research by Novaldi (2021) highlights that passing techniques must be practiced systematically, progressively, and repetitively using appropriate methods. Effective training methods include triangle passing, wall passes, square drills, long passing drills, and the el rondo method, each offering unique benefits.

The triangle pass method has been shown to improve passing accuracy among 20-year-old players, although challenges like stiffness during position changes remain (Hutagaol & Endriani, 2024). Similarly, the el rondo method significantly enhances muscle strength and passing accuracy, as supported by Ramadhan et al. (2023) and Amahoru et al. (2023).

Despite the importance of passing techniques, players at SSB Tunas Muda in Kupang City face challenges in mastering this skill. Observations revealed issues such as poor passing accuracy, weak passes, and imprecise short and long passes, often leading to lost possession. The current training methods, including pair passing, circle passing, and triangle passing, lack variety and fail to address these deficiencies effectively.

Interviews with the coach confirmed that the training process primarily focuses on gameplay, defensive strategies, attacking patterns, and shooting, with limited emphasis on passing. Furthermore, several organizational and structural issues hinder progress includes: i) lack of age and skill-based classification during training sessions, ii) mixed training groups, creating difficulties for younger players with weaker passing abilities, iii) inadequate evaluations of training effectiveness and iv) insufficient facilities and limited training opportunities for all players.

SSB Tunas Muda, established in 2002 in Kupang City, East Nusa Tenggara, aims to nurture young players aged 12 to 16 years with aspirations of becoming professional athletes. The school has experienced significant growth, increasing from 40 participants in 2023 to 190 in 2024. However, the challenges related to passing techniques necessitate innovative solutions to ensure optimal player development.

This study hypothesizes that the el rondo training method can significantly improve the passing accuracy of young players at SSB Tunas Muda. The method emphasizes repetition, organization, and a systematic approach to training, addressing both technical and tactical deficiencies.

METHODOLOGY

Research Design

This study employs an experimental research design, as described by Lipnicki et al. (2022). The experimental method is used to determine the effects of a specific treatment. By administering the treatment, the study identifies and analyzes causal relationships. This research incorporates a pretest-posttest design, wherein participants' performance is assessed both before and after the intervention (Addini & Widayari, 2022).

The study involves one independent variable (the El Rondo training method) and one dependent variable (passing accuracy). Research variables are essential components determined by the researcher to collect data, analyze problems, and draw conclusions (Hodges et al., 2019).

Location and Duration

The research was conducted in Merdeka Village, Kota Lama District, Kupang City, over one month, from October 2022 to November 2022.

The participants in this study were football players from the Tunas Muda Football School in Kupang City. The sample consisted of 18 players, including 12 players aged 16 years and 6 players aged 12 years. The players demonstrated varying skill levels, with 4 players exhibiting very good skills, 5 players showing low skill levels, and the remaining participants displaying average abilities. Additionally, their football experience varied; the majority had approximately one year of experience, while a few had only a few months of practice. This data was gathered through initial observations and interviews conducted with the coaches and administrators, providing valuable insights into the participants' backgrounds and abilities.

Inclusion Criteria for Participants

The following criteria were used to select participants: i) physically healthy players, ii) no physical disabilities, iii) no existing health problems and iv) full commitment to participate in the research process from start to finish.

Procedure

The El Rondo training sessions were structured to optimize players' performance and skill development. Each session began with a 10-minute warm-up, consisting of dynamic exercises designed to prepare the players physically and mentally for the drills. The main training component involved 40 minutes of El Rondo passing drills. During this phase, the players were divided into two groups of 3 to 5 players, positioned in a circle formation. Each player was allowed only one touch per turn, emphasizing precision and quick decision-making. Variations in the drills included a smaller circle formation, which aimed to enhance the players' speed and accuracy in passing while maintaining possession against opposing players. This structured approach ensured a focused and effective training environment.

Data Collection

Data were gathered using tests and interviews to measure passing accuracy and collect qualitative insights. The test involved assessing players' passing performance using the El Rondo method in a circular drill setup.

Data Analysis

The data analysis followed a systematic approach to ensure the reliability of the findings. First, a normality test was conducted to confirm that the data followed a normal distribution. Next, a homogeneity test was performed to verify that the variances across groups were consistent and uniform. Finally, a one sample t-test was used to evaluate the significance of changes in passing accuracy, applying a significance level of 5%. This comprehensive methodology provided a rigorous framework for assessing the effectiveness of the El Rondo training method in enhancing passing accuracy among young football players.

RESULTS

The initial test results assessed the passing accuracy of SSB Tunas Muda players. The purpose of the test was to evaluate the participants' ability and skill in executing accurate passes. The initial test was conducted one day prior to administering the Rondo game training, which spanned six weeks.

Table 1: Pretest Results for Passing Accuracy Tunas Muda Football School Kupang City players

Subject	Score Chance			The Final Result
	1	2	3	
1	1	1	1	3
2	1	3	0	4
3	0	0	3	3
4	0	1	3	4
5	1	1	3	3
6	3	0	0	3
7	1	3	0	4
8	1	3	1	2
9	3	1	0	4
10	3	1	0	4
11	0	3	1	4
12	0	3	0	3
13	0	1	1	2
14	1	3	0	4
15	1	1	1	3
16	1	0	3	4
17	0	3	1	4
18	3	0	1	4

The results from the pretest, as shown in Table 1, indicate that the basic passing technical skills of the SSB Tunas Muda Kupang City players were significantly low. This was observed when the researchers conducted the training sessions three times consecutively without incorporating the Rondo game as part of the training method. Based on these findings, the researchers concluded that the passing abilities of the SSB Tunas Muda Kupang City players remained at a very low level.

Table 2. Posttest Results for Player Passing Accuracy Tunas Muda Football School Kupang City players

Name	Score Chance			The Final Result
	1	2	3	
1	3	3	3	9
2	1	3	3	7
3	3	3	1	7
4	3	3	3	9
5	1	3	3	7
6	3	3	0	6
7	3	3	1	7
8	3	3	3	9
9	3	3	0	6
10	1	3	3	7
11	1	3	3	7
12	1	3	3	7
13	1	3	3	7
14	3	3	3	9
15	1	3	3	7
16	1	3	3	7
17	3	3	3	9
18	3	3	3	9

The results of the pretest served as a benchmark for the researchers to conduct experiments on the SSB Tunas Muda players in Kupang City, followed by a posttest. The posttest results are shown in Table 2 above. There is a significant difference between the pretest and posttest results, as Table 2 clearly illustrates. The first and second treatments in the posttest show notable differences compared to the pretest results, as the pretest did not utilize any media to improve passing ability, whereas the posttest involved the use of the Rondo game. Therefore, the posttest results indicate that changes have occurred in the passing abilities of the SSB Tunas Muda players in Kupang City.

Table 3. Results of Pretest and Posttest Descriptive Statistical Analysis

Descriptive Statistics								
	N	Minimum	Maximum	Sum	Mean	Std.	Std.	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Deviation	Statistic
Pretest	18	2	4	62	3.44	.166	.705	.497
Posttest	18	6	9	136	7.56	.258	1.097	1.203
Valid N (listwise)	18							

Based on the data obtained from the pretest and posttest results, the researcher conducted a comprehensive summary of the 18 samples, revealing differences between the pretest and posttest results. The pretest results showed a minimum score of 2, a maximum score of 4, a mean of 3.44, a standard deviation of 0.705, and a variance of 0.497. The posttest results, on the other hand, showed a minimum score of 6, a maximum score of 9, a mean of 7.56, a standard deviation of 1.097, and a variance of 1.203. These results demonstrate a significant improvement in the passing ability of the SSB Tunas Muda Kupang City players. To ensure the validity of the research data, three tests were conducted: the Normality test, the Homogeneity test, and the t-test.

Table 4: Normality Test Analysis Results

Tests of Normality							
Zscore: Pretest	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	Df	Sig.	Statistic	Df	Sig.	
Pretest	-2.04946	.	2	.			
	-.63060	.	6	.	.	6	.
	.78825	.	10	.	.	10	.
Pretest	-2.04946	.260	2	.			
	-.63060	.401	6	.003	.770	6	.031
	.78825	.327	10	.003	.770	10	.006

a. Lilliefors Significance Correction

Based on the results of the normality test presented in Table 4, the data in this research is considered normal, indicating that the research data does not contain errors. Therefore, the data from the normality test can proceed to the next test, the homogeneity test.

Table 5. Results of Homogeneity Analysis

		Sum of Squares	Df	Mean Square	F	Sig.
Pretest	Between Groups	.044	2	.022	.040	.961
	Within Groups	8.400	15	.560		
	Total	8.444	17			
Posttest	Between Groups	20.444	2	10.222	.	.
	Within Groups	.000	15	.000		
	Total	20.444	17			

Based on the results of the homogeneity test presented in Table 5, the data in this study is considered homogeneous, meaning that the research data does not contain errors. Therefore, the data from the homogeneity test can proceed to the next test, the t-test.

Table 6. Results of t test analysis

One-Sample Test

Test Value = 0

	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pretest	20.735	17	.000	3.444	3.09	3.79
Posttest	29.231	17	.000	7.556	7.01	8.10

After passing two tests, namely the normality test and homogeneity test, the researcher conducted a t-test to determine whether the main hypothesis, "There is an influence of training using the rondo game method on passing technique in soccer games at SSB Tunas Muda Kupang City," could be supported. Based on this hypothesis and the results of the study, it was found that training using the rondo game method does indeed have an influence on improving passing technical abilities in soccer games.

DISCUSSIONS

Football is a sport that is widely popular worldwide, including in Indonesia (Sunarto et al., 2023). It is a team sport where each player has specific roles, such as defender, midfielder, attacker, and goalkeeper (Li et al., 2022). These roles are supported by mastering fundamental techniques. Basic football techniques must be understood and mastered by every football player (Meier et al., 2023). The key football movement techniques include running, dribbling, passing, and shooting, which are essential skills that need to be trained repetitively, systematically, and programmatically. These techniques should be practiced to the point where players can perform them without losing balance and maintaining body awareness (Wali et al., 2023; Fufu et al., 2024). Mastering basic techniques is fundamental to playing football. It is essential to understand that to excel in football, players must develop their basic skills (Dimic et al., 2018). Football is played by two teams of 11 players, with a referee and two assistants overseeing the match, and one additional referee acting as a substitute (Sudharto, Pelana & Lubis, 2020). The game takes place on a football field that measures between 100 to 110 meters in length and 64 to 75 meters in width. Direct contact between players of opposing teams occurs during the game (Simanjourang et al., 2021).

Every football player must be capable of controlling and playing the ball during a match, which requires mastering the basic football techniques (Alben, Tirtawirya & Niyonsaba, 2022). These basic techniques are divided into defensive and attacking techniques (Gerling et al., 2021). Defensive techniques include proactive defending with body contact, intercepting, tackling, and clearing the ball from the defensive area. Attacking techniques include feints, control, passing, dribbling, shooting, and heading. A player must master several basic techniques to perform effectively in their respective positions on the field. Key skills that players need to develop include dribbling, passing, shooting, ball-

winning, heading, using the non-dominant foot, and spontaneous movements (Gebert et al., 2020). Receiving, dribbling, passing, shooting, and heading are basic techniques that all players must continually develop. The best players are those who have mastered strong techniques, and good mastery of basic techniques will make a player reliable (Gebert et al., 2020).

In football, Rondo is a method used to improve passing ability, implemented at all levels of play (Scaglia et al., 2020). This method requires a group of players (at least three) to pass the ball among themselves (Jenewein et al., 2014). Tiki-taka, a style of play developed by Barcelona, was influenced by the El Rondo exercise, where one player is positioned in the center of the field to intercept passes from others in the circle. This repetition improves players' skills in short passes. El Rondo is also effective in improving passing in football because it emphasizes mastering the passing technique (Fitrian, 2022). The El Rondo method is beneficial for improving passing accuracy, enabling players to develop good passing techniques and enhance their game vision (Soemardiawan & Yundarwati, 2022).

Passing is a crucial technique in football, often used to advance the ball toward the opponent's goal and to defend the team's area. Good passing reduces mistakes on the field and makes the game more enjoyable for spectators (Soemardiawan & Yundarwati, 2022). The passing technique typically involves delivering a flat pass, which is faster than other types of passes. The execution of this technique begins with the player standing with their shoulders facing the target, positioning the supporting foot beside the ball, swinging the kicking leg sideways with the toes pointing upwards, and then kicking the ball using the inside of the foot while keeping the foot's position in line with the target (Skitnevskiy et al., 2021).

The primary reasons for focusing this research on increasing passing accuracy at SSB Tunas Muda include: 1) Players must first be trained in basic techniques, which are vital for playing football, 2) Improving passing accuracy has a significant impact on the players' skills, 3) Players will be less likely to lose the ball and make fewer mistakes, and 4) Research has proven that training using the El Rondo method significantly improves passing accuracy. This is supported by Soemardiawan and Yundarwati (2022) research, which found that El Rondo-based training improves various movements and positively impacts other basic techniques such as control, shooting, and player concentration. Furthermore, research by Ramadhan et al. (2023) confirmed that the El Rondo training method has a greater impact on passing and shooting accuracy than other methods, such as jumble box, pair passing, and drill training. Thus, it can be concluded that the El Rondo training method significantly enhances player performance, both individually and as part of a team.

The El Rondo-based training program should be implemented consistently and continuously. Based on this research, it is recommended that coaches regularly incorporate the El Rondo method in training sessions for young SSB football athletes and, if necessary, during match situations. It is also suggested that this training method be integrated into physical and tactical training, ensuring its relevance beyond the period of this study. The researchers acknowledge that the field of sports science is dynamic and evolving, and they hope that future research will explore the El Rondo method across various sports, particularly football. The limitations of this study could be addressed in future research by increasing the sample size and skill level of players, and by incorporating varied training methods.

CONCLUSIONS

Based on the analysis of the posttest data, the results of this study demonstrate that the rondo game has a significant impact on improving passing accuracy in soccer. Therefore, the researchers conclude that this research has effectively contributed to enhancing technical abilities in soccer, with important implications for the academic and coaching communities.

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REFERENCES

- Addini, S. N., & Widyasari, C. (2022). Effect of experimental methods on early children's creativity. *Early Childhood Research Journal (ECRJ)*, 4(1), 31-57.
- Amahoru, N. M., Hidayat, R., Mahyuddin, R., & Muslim, M. (2024, January). The influence of el-rondo training on the futsal passing skills. In Second Makassar International Conference on Sports Science and Health (MICSSH 2023) (pp. 140-143). Atlantis Press.
- Fufu, R. D. A., Talan, R., & Naviri, S. (2024). Pengaruh latihan plyometric terhadap kecepatan, kekuatan dan daya tahan atlet futsal junior. *Sport, Pedagogik, Recreation and Technology: Jurnal Ilmu Pendidikan Jasmani Olahraga, Kesehatan dan Rekreasi (Sparta)*, 7(1), 23-29.
- Fitriani, Z. A. (2022). Pengaruh Latihan Small Sided Games Dan Latihan Rondo Terhadap Ketepatan Passing Pada Pemain Klub Futsal Aldifa Banjarmasin. *JSES: Journal of Sport and Exercise Science*. <https://doi.org/10.26740/jses.v5n2.p50-58>
- Gebert, A., Gerber, M., Pühse, U., Gassmann, P., Stamm, H., & Lamprecht, M. (2020). Costs resulting from nonprofessional soccer injuries in Switzerland: A detailed analysis. *Journal of Sport and Health Science*, 9(3), 240-247.
- Gerling, S., Pollinger, T., Dechant, M. J., Melter, M., Krutsch, W., & Michel, H. (2021). Coronary artery z score values in adolescent elite male soccer players. *Cardiology in the Young*, 31(3), 381-385.
- Hodges, G., Eadsforth, C., Bossuyt, B., Bouvy, A., Enrici, M. H., Geurts, M., & Venzmer, J. (2019). A comparison of log Kow (n-octanol–water partition coefficient) values for non-ionic, anionic, cationic and amphoteric surfactants determined using predictions and experimental methods. *Environmental Sciences Europe*, 31(1), 1-18.
- Hutagaol, N., & Endriani, D. (2024). The effect of double triangle and double square trainings on passing results in disparasu football players aged 10-11. *Journal of Indonesian Active in Sports*. 1(1), 29-34.
- Jenewein, W., Kochanek, T., Heidbrink, M., & Schimmelpfennig, C. (2014). Learning collaboration from tiki-taka soccer. *Harvard Business Review*.
- Kang, J. H., & Yun, Y. K. (2021). Football talent development stages from the viewpoint of complexity theory. *Korean Journal of Sport Science*, 32(1), 140-153.
- Komarudin, K., & Wali, C. N. (2022, January). The effect of the t-sprint training method and zigzag running on increasing speed, endurance and agility in u18 footballers. In Conference on Interdisciplinary Approach in Sports in conjunction with the 4th Yogyakarta International Seminar on Health, Physical Education, and Sport Science (COIS-YISHPESS 2021) (pp. 70-75). Atlantis Press.
- Li, H., Cui, C., & Jiang, S. (2024). Strategy for improving the football teaching quality by AI and metaverse-empowered in mobile internet environment. *Wireless Networks*, 30(5), 4343-4352.
- Lipnicki, Z., Małolepszy, T., Gortych, M., & Grabas, P. (2022). Simple analytical and experimental method of solidification PCM material inside a spherical capsule. *International Communications in Heat and Mass Transfer*, 135, 106083.
- Mauerer, W., Joblin, M., Tamburri, D. A., Paradis, C., Kazman, R., & Apel, S. (2021). In search of socio-technical congruence: A large-scale longitudinal study. *IEEE Transactions on Software Engineering*, 48(8), 3159-3184.
- Meier, H. E., García, B., Yilmaz, S., & Chakawata, W. (2023). The capture of EU football regulation by the football governing bodies. *JCMS: Journal of Common Market Studies*, 61(3), 692-711.
- Novaldi, S. (2021, February). Analysis of Basic Techniques of Shooting Football School Players Imam Bonjol Padang City. In 1st International Conference on Sport Sciences, Health and Tourism (ICSSHT 2019) (pp. 135-139). Atlantis Press.
- Putra, A. N., Zarya, F., & Bahtra, R. (2023). The development of a differentiation-based learning model in football school students. *Journal of Physical Education and Sport*, 23(12), 3282-3291.

- Ramadhan, R., Afrinaldi, R., & Nasution, N. S. (2023). El rondo training methode on passing accuary in football. *Jurnal Maenpo: Jurnal Pendidikan Jasmani Kesehatan dan Rekreasi*, 13(1), 24-35.
- Scaglia, A. J., Costa, V. H. S., Júnior, J. B., Misuta, M. S., & Machado, J. (2021). Possibilidades e potencialidades técnico-táticas em diferentes tradicionais jogos/brincadeiras de bola com os pés. *Retos: nuevas tendencias en educación física, deporte y recreación*, (39), 312-317.
- Simanjorang, E. K., Wahjoedi, W., & Sphyanawati, N. L. P. (2020). Pengembangan Video Tutorial Materi Passing Sepakbola Mata Pelajaran PJOK untuk Kelas X SMA/SMK. *Jurnal Pendidikan Jasmani, Olahraga Dan Kesehatan Undiksha*, 8(3), 99-107.
- Sudharto, A., Pelana, R., & Lubis, J. (2020). Latihan dribbling dalam permainan sepakbola. *Gladi: Jurnal Ilmu Keolahragaan*, 11(02), 140-150.
- Skitnevskiy, V. L., Balashova, V. F., Sedov, I. A., Krasilnikova, Y. S., Stepanov, R. A., & Prokhorova, O. V. (2021). Organizing a training process of school football class for children of elementary school age. *Revista on Line de Política e Gestão Educacional*. <https://doi.org/10.22633/rpge.v25iesp.2.15283>
- Sugiyama, M., Khoo, S., & Hess, R. (2017). Grassroots football development in Japan. *The International Journal of the History of Sport*, 34(17-18), 1854-1871.
- Sunarto, W., Suharjana, S., Nugroho, S., Wali, C., Sumaryanto, S., & Komarudin, K. (2023). The effect of circuit training on improving the physical condition of northwest pantar football athletes. *International Journal of Human Movement and Sports Sciences*, 11(1), 1-9.
- Alben, A. S. C., Tirtawirya, D., & Niyonsaba, T. (2022). Effects of small-sided games training program on vo2 max and football playing skills. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(1).
- Wali, C. N., Lengo, M. D., Bili, L. D., Olok, W., Boru, M. J., & Bete, D. E. T. (2023). Efforts to increase perisai diri athletes' agility, speed, balance and flexibility components through shuttle run, zigzag run, and formation of 8 training method. *Jurnal Keolahragaan*, 11(2), 281-290.
- Wali, C. N., & Widiyanto. (2021). Shorinji kempo basic technique training method based on local wisdom for beginners kenshi. *Journal Sport Area*, 6(3), 421-432. [https://doi.org/10.25299/sportarea.2021.vol6\(3\).6403](https://doi.org/10.25299/sportarea.2021.vol6(3).6403)
- Wang, Z., Tan, B., & Yi, B. (2022). A study on the optimization and improvement of the construction of the campus football development model by a factor analysis method under the background of "healthy china". *Journal of Environmental and Public Health*, 2022(1), 3260571.
- Wali, C. N., Lengo, M. D., Bili, L. D., Olok, W., Boru, M. J., & Bete, D. E. T. (2023). Efforts to increase Perisai Diri athletes' agility, speed, balance and flexibility components through shuttle run, zigzag run, and formation of 8 training method. *Jurnal Keolahragaan*, 11(2), 281-290.
- Soemardiawan, S., & Yundarwati, S. (2022). Efektifitas metode latihan el rondo dan 1-2 combination pass untuk meningkatkan passing pemain undikma Fc. *JUPE: Jurnal Pendidikan Mandala*, 7(3).