



The Effect of Small-Sided Games Training on Improving Futsal Player Agility

Muhammad Ivan Faisal¹, Mochamad Yamin Saputra², Yudi Nurcahya³, Mulyana⁴

¹Fakultas Pendidikan Olahraga dan Kesehatan, Universitas Pendidikan Indonesia, Indonesia.

E-mail: ivanfaisal13@upi.edu¹, Mochyamins@upi.edu², udinurcahya@upi.edu³

Abstract

Agility is one of the physical demands needed in futsal. One effort to improve agility is through small-sided games training. Agility has a vital function, especially in coordinating multiple or simultaneous movements, facilitating mastery of techniques, and allowing players to accelerate when tricking opponents, and effectively utilizing relatively narrow spaces both when attacking and defending. This study aims to determine the effect of small-sided games training on improving the agility of futsal players. This research method uses an experiment with a pretest-posttest control group design involving 24 futsal players. Sample selection uses the Total Sampling Technique, with 12 treatments. This research instrument uses the Illinois Agility Test to measure the player's abilities before and after being given treatment. After the data is obtained, it is analyzed using SPSS Version 26 using the t-test. the calculated t value is 6.051 with a Sig. value. (2-tailed) of 0.000 and for conventional training results the calculated t is 3.997 with a Sig. value. (2-tailed) of 0.002. Based on the test results, the Sig. (2-tailed) value of both treatments Sig. <0.05 so that H₀ is rejected. For the results of the Independent sample t-test which aims to determine the difference in the influence of different treatments, the Sig. (2-tailed) value is 0.011 <0.05. So it can be stated that there is a significant difference in the influence of small-sided games training with conventional training on the agility of futsal players. The conclusion of this study is that the small-sided games training method has a more significant effect than conventional training on the agility of futsal players. The recommendation from this study, to improve the agility of futsal players, it is better to apply small-sided games training than conventional training.

Keywords : *small sided games, agility, futsal*

INTRODUCTION

One of the dominant physical characteristics in futsal is speed and agility (Zainuddin dan Yusuf, 2021). Agility is the ability to change direction quickly without disrupting balance. A person is said to be agile if they can move quickly and change direction quickly without disrupting their balance. Some people can move quickly but cannot change direction quickly, so they cannot be said to be agile (Yusuf & Zainuddin, 2020). Agility has a vital function, especially in coordinating multiple or simultaneous movements, facilitating technical mastery, and enabling players to accelerate when deceiving opponents, as well as effectively utilizing relatively narrow spaces both during attack and defense (Hasibuan et al., 2023). These characteristics require every futsal player or athlete to have superior technical abilities and physical condition. In this sport, good technical skills and optimal physical fitness are crucial during matches.

Based on the explanation that agility is very important for futsal players in terms of utilizing relatively narrow spaces both when attacking and defending. From the results of observations that have been carried out, it shows that the physical condition of extracurricular players of SMPN 23 Bandung is not good, one of which is seen in terms of agility and monotonous training. The Extracurricular Futsal Game of SMPN 23 Bandung during the match was found that many players were late in rotating when attacking, easily anticipated by the opponent, and the attack pattern did not run, or when defending, namely closing the opponent's movement, especially in the transition of players who were still very slow and less alert, so that this condition is very detrimental to the team if during the match the team will

The Effect of Small-Sided Games Training on Improving Futsal Player Agility

Muhammad Ivan Faisal, Mochamad Yamin Saputra, Yudi Nurcahya, Mulyana

easily concede through a quick counterattack from the opponent that the players cannot anticipate due to the lack of agility possessed by the players. Researchers are interested in solving this problem because if left unchecked it can hinder their achievements. because adolescence is the age where players are already in a critical period in the development of the futsal game. Here I want to provide insight to them how this agility greatly affects the game of futsal. Agility is an important aspect in the game of futsal.

The small-sided games training method directly applies technical, tactical, and physical training within a game, requiring players to face pressure-based situations as if they were in a real game. Small-sided games training helps athletes move with agility and speed, thus improving their dribbling, passing, and control skills in futsal (Nabila et al., 2024). From previous research (Astagna, 2014) entitled *Multidirectional Sprints And Small-Sided Games Training Effect On Agility And Change Of Direction Abilities In Youth Soccer* to compare the effects of Small Sided Games training and multidirectional sprint interventions on agility and change of direction (COD) abilities in young male soccer players, Small Sided Games specifically designed for abilities (COD) and agility in elite young male soccer players. It is hypothesized that a superior training effect can be produced by Small Sided Games interventions on agility. However, in this study, researchers see a novelty or renewal from previous research. Renewal by providing a small-sided games training program that has been adapted to the agility movements of adolescent futsal games (SMP), in this study the author tries to test how the effect of small-sided games training on improving the agility of futsal players. Of course, the author hopes that agility training using the small-sided games training method can have a significant impact and become a solution in future futsal training.

Small-sided games training is a training method that presents game situations similar to real games, allowing players to master technical, tactical, and physical aspects. Small-sided games training focuses more on directly applying physical, technical, and tactical training within a game. Small-sided games training is a modified training program, with modifications to the number of participants, field size, time, and facilities and infrastructure that have been subject to expert judgment (Nabila et al., 2024).

Futsal is a team game activity played by five against five people in a certain time duration which is played on a field, goal and ball which is relatively smaller than the game of soccer which requires speed of movement, is fun and safe to play and the winning team is the team that scores more goals against the opponent's goal (Julianur et al., 2019). Futsal is played by only five players, including the goalkeeper, on a smaller playing field, measuring 38-42 meters long and 15-25 meters wide, with a game duration of 2 x 20 minutes. Futsal is characterized by a fast-paced game, requiring both attack and defense, so good physical condition is essential (Pratama, 2021). In general, the player positions in futsal are divided into 4 (four) parts, namely: 1) goalkeeper, whose job is to keep the goal from getting the ball in (scoring a goal). 2) anchor, which is the position in front of the goalkeeper, which in soccer is better known as a defender. The anchor's job in futsal is not only to defend, but also to organize the team's play/the first player to start the attack. 3) flank is a player who is positioned on the side/on the wing who is tasked with acting as the motor of attack and being a connecting player between the anchor and pivot. 4) pivot, is the leading player in soccer called a striker. The pivot is tasked as a player who finishes the opportunity to become a goal (Mashud et al., 2019). Futsal has its own characteristics, namely dynamic foot movements, so the components that futsal players must have are endurance, strength, speed, agility, explosive power (power), and of course without leaving out other biomotor components (Fatchurrahman et al., 2019).

METODE

The method used in this research is the true experimental method. Experimental research methods can be defined as research methods used to determine the effect of certain treatments on others under controlled conditions. The main characteristic of a true experimental study is that the samples used for the experiment and as a control group are taken randomly from a specific population. So, the characteristic is that there is a control group and the samples are selected randomly (Sugiono, 2016). Research design provides procedures for obtaining the information needed to formulate or solve research problems. The design used is a pretest-posttest control group design. In this research design, two randomly selected groups are then given a pretest to determine whether there are any initial differences between the experimental and control groups (Sugiono, 2016). The population used in this study were 24 futsal extracurricular athletes of SMPN 23 Bandung. The sample used in this study was all 24 futsal

extracurricular players of SMPN 23 Bandung. Then, to determine the experimental and control groups, the ABBA random assignment system was used, with the intention of selecting samples randomly and then the best results were arranged in an ABBA manner, meaning the arrangement starts with group A then group B then group B then group A and so on. In this study, the Illinois agility test was used as an instrument to measure the level of agility (Hasibuan et al., 2023). The Illinois Agility Test is able to measure players specifically, including the basic movements of futsal. Furthermore, the Illinois Agility Test has a validity score of 86% and a reliability score of 93%. These percentages indicate that the instrument significantly influences the total score, indicating validity. The national standard for the Illinois Agility Test is as follows: ages 16 to 19.

Table 1 Illinois Agility Test Norms

Source: (Mackenzie, 2008)

Gender	Good	above average	Average	Below average	Low
Man	< 15.2 sec	15.2-16.1 sec	16.2-18.1 sec	18.2-18.3 sec	>18.3 sec
Woman	< 17.0 sec	17.0-17.9 sec	18.0-21.7 sec	21.8-23.0 sec	>23.0 sec

RESULTS AND DISCUSSION

Research result

The purpose of this study was to determine the effect of small-sided games training on improving the agility of futsal players. To determine the effect of small-sided games training on improving the agility of futsal players, researchers used the Illinois agility test instrument to measure the players' agility abilities. The results of this study can be described as follows. In this study, the sample consisted of 24 futsal players. This study was conducted from April 6 to 19, 2025, in Ciroyom, Bandung City. The treatment provided was small-sided games training for 12 meetings with a frequency of 2 times a week, namely on Wednesday and Saturday.

The data processing results used in this study were derived from tests conducted on the research sample. A pretest was conducted to determine the sample's initial agility abilities. The sample was then given treatment in the form of small-sided games training. After that, a posttest was conducted to determine the sample's agility abilities after being given the small-sided games training treatment.

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Pre-Test eksperimen	12	16.96	19.17	218.19	18.1825	.68268
Post-Test eksperimen	12	16.00	18.53	206.50	17.2083	.81526
Pre-Test Kontrol	12	17.68	20.05	225.11	18.7592	.90201
Post-Test Kontrol	12	16.55	20.04	219.23	18.2692	1.03696
Valid N (listwise)	12					

Image 1 *deskriptive statistic*

In Figure 1 above, it can be seen that the data obtained in conducting the pretest and posttest of the experiment, in the pretest there was a minimum result of 16.96, and a maximum result of 19.17, the average pretest value of 12 athletes was 18.18, and a standard deviation of 0.682. Then in the posttest there was a drinking result of 16.00, a maximum value of 18.53, the average posttest value of 12 athletes was 17.20, and a standard deviation of 0.815. Furthermore, it can be seen that the data obtained in conducting the pretest and

The Effect of Small-Sided Games Training on Improving Futsal Player Agility

Muhammad Ivan Faisal, Mochamad Yamin Saputra, Yudi Nurcahya, Mulyana

posttest of the control, in the pretest there was a minimum result of 17.68, and a maximum result of 20.05, the average pretest value of 12 athletes was 18.75, and a standard deviation of 0.902. Then in the posttest there was a drinking result of 16.55, a maximum value of 20.04, an average posttest value of 12 athletes of 18.26, and a standard deviation of 1,036.

Tests of Normality							
	kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
hasil	Pretest eksperimen	.205	12	.176	.943	12	.537
	posttest eksperimen	.115	12	.200 [*]	.963	12	.820
	pretest kontrol	.185	12	.200 [*]	.882	12	.094
	Posttest Kontrol	.143	12	.200 [*]	.981	12	.989

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Image 2 Uji Normalitas

Figure 2 shows the results of the data normality test using the Shapiro-Wilk Test. Based on Table 4.4, it can be seen that in the initial test, the experimental group obtained a statistical value of 0.943, df 12, and Sig. of 0.537. While in the final test, the statistical value was 0.963, df 12, and Sig. of 0.820. Furthermore, in the initial test, the control group obtained a statistical value of 0.882, df 12, and Sig. 0.094. While in the final test, the statistical value was 0.981, df 12, and Sig. 0.989. Based on the test results, both groups' data obtained a Sig. value > 0.05 so that both data were declared "Normally Distributed".

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
hasil	Based on Mean	1.006	3	44	.399
	Based on Median	.905	3	44	.446
	Based on Median and with adjusted df	.905	3	38.951	.447
	Based on trimmed mean	.994	3	44	.404

Image 3 uji homogenitas

Based on Figure 3, the results of the homogeneity test of Lavene's test for equality of variances obtained a significance value of 0.339 which means > 0.05, so Ho is accepted, so that the values of both the initial test data and the final agility test are interpreted as homogeneous or come from the same variant.

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre-test eksperimen - post-test eksperimen	.97417	.55766	.16098	.61984	1.32849	6.051	11	.000

Paired Samples Test								
		Paired Differences						
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df
					Lower	Upper		
pair 2	pre-test kontrol & post-test kontrol	.49000	.42471	.12260	.22015	.75985	3.997	11
								Sig. (2-tailed)
								.002

Image 4 Uji Paired Samples t-test

Figure 4 shows the results of the hypothesis test using the Paired Sample t-Test. Based on Table 4.6, it can be seen that the experimental group has a calculated t value of 6.051 with a Sig. (2-tailed) value of 0.000. Furthermore, for the control group, it has a calculated t value of 3.997 with a Sig. (2-tailed) value of 0.002. Based on the test results, the Sig. (2-tailed) value of both groups is <0.05 so H_0 is rejected. Therefore, it can be stated that there is a significant effect of small-sided games training on the agility of futsal players and there is a significant effect of the application of conventional full games 5 v 5 training on the agility of futsal players. However, if seen from the Sig. (2-tailed) value obtained, small-sided games training has a more significant percentage of influence than conventional training.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
hasil	Equal variances assumed	.819	.375	-2.786	22	.011	-1.06083	.38078	-1.85053	-.27114

Image 5 uji independent sample t- test

Based on Figure 5, the sig value ($<.011$) < 0.05 is obtained, so H_0 is rejected, so it can be concluded that there is a significant difference between small-sided games training and conventional training on the agility of futsal players.

DISCUSSION

The results of the data processing showed a significant difference between the experimental group that performed small-sided games training and the control group that performed conventional training. In the experimental group, small-sided games training significantly affected the agility of futsal players. Furthermore, the control group also had an effect on the agility of futsal players. The author found that the results of both treatments given to the sample had the same effect on the agility of futsal players. This can be proven through the results of the data processing above, each sample experienced an increase in both the experimental and control group samples. However, when viewed from the results of the data processing from both groups, the experimental group had a more significant effect on the agility of futsal players compared to the conventional training method carried out by the control group. Because Small-sided games training with 2 v 2 and 3 v 3 formats in a limited area with high intensity, makes players change direction very often because the area is smaller, the pressure is constant, the situation changes quickly and each player is more active. Conventional 5v5 full-game training with a larger area results in lower game intensity due to increased waiting time and fewer changes of direction due to the larger space, and is based on team tactics. Therefore, the hypothesis of this study is that small-sided games training significantly improves futsal player agility compared to conventional training methods that have been routinely used.

The Effect of Small-Sided Games Training on Improving Futsal Player Agility

Muhammad Ivan Faisal, Mochamad Yamin Saputra, Yudi Nurcahya, Mulyana

Where the experimental group's small side games training had a better effect compared to the control group. This is supported by research (Akhmad, 2024). The purpose of this study was to examine the effect of Small-Sided Games training as an effective strategy to improve agility in the Bima Sakti football club. Small-sided games training has a positive effect on the agility of the Football Club. This training helps improve athletes' ability to change direction and body position quickly and precisely while playing football. Small-sided games training has been proven to be more effective in improving athletes' agility compared to training carried out by the control group. Small-sided games training can be used in the process of training to increase endurance in futsal because small-sided games training includes technical, tactical, and physical aspects. With the hope of honing soccer playing skills both individually and in teams (Fauzan et al., 2021). Agility is one of the most important components of physical condition in the sport of futsal (Mohammad Hasan Basri & Noer Wahid Riqzal Firdaus, 2020). This is essential for each individual player and team to develop attacking and defensive tactics in futsal matches. With good agility, players can easily play futsal and achieve success.

Based on the test results conducted in this study, it can be concluded that there is a significant influence related to Small Sided Games Training on increasing the agility of futsal players, and there is a difference in the average value between the experimental and control groups. The sig value obtained $(0.011) < 0.05$ then H_0 is rejected, so it can be concluded that there is a significant difference between small sided games training and conventional training on the agility of futsal players.

CONCLUSION

Based on the research results and data analysis, the author can conclude that small-sided games training has a more significant influence on the agility of futsal players compared to conventional training.

REFERENCES

- Akhmad, N. (2024). *PENGARUH SMALL SIDED GAMES STRATEGI EFEKTIF MENINGKATKAN KELINCAHAN DI KLUB SEPAK BOLA BIMA SAKTI* Noor. 5(1), 323–329.
- Astagna, C. A. C. (2014). *Multidirectional sprints and small -sided games training effect on agility change of direction aabilities in youth soccer*. 28(11), 3121–3127.
- Fatchurrahman, F., Sudijandoko, A., & Widodo, A. (2019). The comparison of the effect of ladder drills in out training and ladder drills ickey shuffle exercises on increasing speed and agility. *Jurnal SPORTIF : Jurnal Penelitian Pembelajaran*, 5(1), 154. https://doi.org/10.29407/js_unpgri.v5i1.12753
- Fauzan, E., Setiasandi, R., Rahman, R., Jasmani Kesehatan dan Rekreasi, P., Muhammadiyah Kuningan, S., Author, C., Setiasandi Departement, R., & Jasmani Kesehatan dan Rekreasi Afiliasi, P. (2021). Pengaruh Small Sided Games Terhadap Kelincahan Dalam Permainan Futsal Di Ekstrakurikuler Smpn 1 Darma By-Sa 4.0. *Journal of Physical Education and Sport Science*, 3(3), 5–7.
- Hasibuan, D. A., Adi, S., Wahyudi, N. T., Raharjo, S., Malang, U. N., Jl, A., No, S., Lowokwaru, K., Malang, K., & Timur, J. (2023). *Pengaruh Variasi Latihan Ladder Drill Terhadap Kelincahan Pemain Ekstrakurikuler Futsal SMA Negeri 6 Malang*. 1(4).
- Julianur, Raharja, A. T., & Santoso, J. A. (2019). *PENGARUH LATIHAN STRATEGI MENYERANG MENGGUNAKAN POLA SISWA EKSTRAKURIKULER FUTSAL MAN 2 SAMARINDA* Julianur , Andri Tria Raharja , Januar Abdilah Santoso Pendidikan Olahraga , Universitas Muhammadiyah Kalimantan Timur Email : julianur@umkt.ac.id *PENDAHULUA*. 3(2), 70–81.
- Mackenzie, B. (2008). *101 Performance Evaluation Tests*.
- Mashud, M., Hamid, A., & Abdillah, S. (2019). Pengaruh Komponen Fisik Dominan Olahraga Futsal Terhadap Teknik Dasar Permainan Futsal. *Gladi : Jurnal Ilmu Keolahragaan*, 10(1), 28–38. <https://doi.org/10.21009/gjik.101.04>
- Mohammad Hasan Basri, & Noer Wahid Riqzal Firdaus. (2020). Latihan Speed, Agility and Quickness (Saq) Untuk Meningkatkan Kelincahan Pada Atlet Futsal Puslatcab Tahun 2020. *Jurnal Kejaora (Kesehatan Jasmani dan Olah Raga)*, 5(2), 62–65. <https://doi.org/10.36526/kejaora.v5i2.1033>
- Nabila, A., Pramadhan, K., & Sulistiadinata, H. (2024). *Prosiding Seminar Nasional Pendidikan Olahraga Prodi Pendidikan Jasmani Kesehatan dan Rekreasi STKIP Pasundan , 26-27 Juni 2024 Pengaruh Latihan Drill Bola Pantul Terhadap Keterampilan Passing Bawah Bola Voli Prosiding Seminar Nasional Pendidikan Olahraga*. 26–27.
- Pratama, S. A. (2021). Pengaruh Latihan Ladder Drill Icky Shuffle Terhadap Peningkatan Kelincahan

- Pemain Futsal SBI Dompu Tahun 2021. *Sportify Journal*, 1(2), 82–90.
<https://doi.org/10.36312/sfj.v1i2.10>
- Sugiono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan R&D* (Nomor April).
- Yusuf, P. M., & Zainuddin, F. (2020). Survei Kondisi Fisik Kelincahan Pemain Futsal Undikma. *Jurnal Ilmiah Mandala Education*, 6(1), 2019–2021. <https://doi.org/10.58258/jime.v6i1.1123>
- Zainuddin, F., & Yusuf, P. M. (2021). Pengaruh Latihan Ladder Drill Terhadap Kelincahan Dan Kecepatan Pemain Futsal Undikma. *Jurnal Ilmiah Mandala Education*, 7(2), 259–263.
<https://doi.org/10.58258/jime.v7i2.2064>