

The Effect of Various Small-Sided Games Drills on Improving Futsal Passing Techniques at SMAN 1 Madiun

Muhammad Ferry Pradana Suratno^{1A-E*}, Mokhamad Nur Bawono^{2B-D}, Dita Yuliasitrid^{3B-D}, Hijrin Fithroni^{4B-D}

^{1,2,3,4} Universitas Negeri Surabaya, Jawa Timur, Indonesia

muhammad.21063@mhs.unesa.ac.id^{1*}, mokhamadnur@unesa.ac.id², ditayuliasitrid@unesa.ac.id³,
hijrinfithroni@unesa.ac.id⁴

ABSTRACT

This study aims to determine the effect of various drill training methods combined with small-sided games on improving the basic passing techniques of futsal extracurricular participants at SMAN 1 Madiun. The research hypothesis states that there is a significant effect of the application of the combination of the two training methods on the passing ability of players. The research method uses a quantitative approach with a pre-experimental design of the one group pretest-posttest model. The sample consisted of 15 male students who are active in futsal extracurricular activities at SMAN 1 Madiun, who were selected by purposive sampling based on the criteria of activeness and a minimum of three months of training experience. Data were collected through a passing skills test that included static and dynamic passing, with a scale of 1-3. The results showed an increase in the average score from 1.87 in the pretest to 2.60 in the posttest. The paired t-test produced a significance value of 0.000 ($p < 0.05$), indicating a significant difference between the results before and after the treatment, with an effect size of -1.235 indicating a large effect. These findings demonstrate that a combination of varied drill methods and small-sided games is effective in improving basic passing skills, both in static and dynamic settings. The results of this study are expected to serve as a reference for coaches, sports teachers, and schools in designing more engaging and efficient training programs.

ARTICLE HISTORY

Received: 2025/10/21

Accepted: 2025/10/24

Published: 2025/10/30

KEYWORDS

Training;
Varied Drills;
Small-Sided Games;
Passing Techniques;
Futsal.

AUTHORS' CONTRIBUTION

A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Suratno, Muhammad Ferry Pradana; Bawono, Mokhamad Nur; Yuliasitrid, Dita; Fithroni, Hijrin. (2025). The Effect of Various Small-Sided Games Drills on Improving Futsal Passing Techniques at SMAN 1 Madiun. **Competitor: Jurnal Pendidikan Kepeatihan Olahraga**. 17(3), p. 2810-2817

INTRODUCTION

Physical education is a crucial aspect of formal education because it plays a role in developing an individual's physical, mental, and social abilities. Structured physical activity within physical education can improve motor skills and physical health, as well as shape character, attitudes, and positive values, aligned with national education goals (Sudirman & Jaya, 2020). In the secondary school context, extracurricular sports

activities are an effective medium for developing technical skills and game strategies, one example of which is futsal.

Futsal is a team sport played by two teams, each consisting of five players, including a goalkeeper. The game can be played on indoor or outdoor fields with a ball smaller than that of conventional soccer (Haris et al., 2020). Futsal is highly popular among adolescents due to its fast-paced, dynamic nature, and the need for good coordination between individual skills and team strategy (Wahyudi et al., 2020). Mastery of basic techniques such as ball control, passing, dribbling, and shooting is crucial for achieving optimal performance in matches (Ardiyanto et al., 2021).

Technically, futsal differs from soccer on a large pitch, particularly in the number of players, field size, and game duration. These require physical and technical skills, as well as quick decision-making (Narlan et al., 2017). One of the key techniques in futsal is passing, as it is used almost constantly throughout the match. Passes can be executed with the inside, outside, or sole of the foot, with variations such as one-touch passes, short passes, and long passes (Gumantan et al., 2021). Good passing technique mastery affects game speed, team coordination, and goal-scoring opportunities (Halimah et al., 2023).

Despite its importance, many high school players, particularly those participating in the futsal extracurricular at SMAN 1 Madiun, still struggle with accurate passing. This is often due to monotonous training methods, a lack of variety, and insufficient motivation for learning (Husyaeri & Saleh, 2022). Limited training variety can quickly lead to player boredom and reduce the effectiveness of mastering basic techniques (Hill-Haas et al., 2011). Therefore, it is important for coaches to implement training methods that can improve technical accuracy while maintaining player motivation and active engagement throughout the learning process.

Small-sided games (SSG) are one recommended training method. SSGs involve fewer players and a smaller field than regular games, with the aim of creating a match-like environment. This training has been shown to be effective in improving decision-making, game speed, and technical skills such as passing, dribbling, and shooting (Hill-Haas et al., 2011). Furthermore, drill training has also been shown to be effective in developing basic skills through structured repetition. Drills emphasize repetition of techniques with a clear focus, allowing players to master skills more quickly and efficiently (Hawindri, 2016).

Several studies have shown that combining varied drill methods with SSG can produce more effective training, as it not only trains technical skills but also increases player engagement and motivation (Sholeh et al., 2025). Varied training helps reduce boredom and provides different stimuli in each session, allowing for more optimal technical mastery (Taufiqurrahman et al., 2023). However, there is little research specifically examining the effect of combining varied drill methods and SSG on improving the passing technique of high school futsal players.

This research gap highlights the need for empirical studies to test whether the combination of varied drill methods and SSG can improve the passing accuracy of futsal players in a high school environment. Previous studies have largely examined drill

methods or SSG separately and have not considered player motivation and active involvement in the repetitive training process (Ardiyanto et al., 2021). Therefore, this study aims to answer the question: Does varied drill methods combined with small-sided games have a significant effect on the passing technique of extracurricular futsal players at SMAN 1 Madiun?

The novelty of this research lies in the integration of varied drill methods with SSG within a single training program, which is expected to not only improve technical skills but also create a fun training environment, stimulate motivation, and increase active player participation. The research findings are expected to provide practical contributions for futsal players, coaches, and schools, as well as serve as a basis for further research related to sports training methods at the secondary school level.

METHODS

This study used a quantitative approach with a One-Group Pretest-Posttest pre-experimental design, where one group of participants was given an initial test (pretest), followed a training program with a varied drill method combined with small-sided games, and ended with a final test (posttest) to assess the improvement of futsal passing techniques. The study was conducted at the Werkudara Sports Hall of SMAN 1 Madiun City for six weeks, with two training sessions per week, resulting in a total of 12 sessions. Each session consisted of varied drill exercises to train mastery of passing techniques through repetitions with variations in distance, passing type, and tempo, then continued with small-sided games to simulate real match situations, improving decision-making skills, accuracy, and technical precision in dynamic conditions. The study population was all 18 male students participating in the futsal extracurricular program at SMAN 1 Madiun for the 2024/2025 academic year. The sample size was 15 participants selected using purposive sampling. The criteria were active extracurricular players, having trained for at least three months, and having participated in at least one official tournament as a member of the school team (Sugiyono, 2013).

The research instrument was a passing skills test adapted from standard futsal training. This included passing to a static target to assess accuracy and passing while moving to evaluate technical mastery in dynamic situations. The assessment used a 1–3 scale, with 3 being excellent, 2 being adequate, and 1 being inadequate (Rafli Fauzan & Ishaq Gery, 2023). Data were collected through a pretest, implementation of the training program, monitoring participation and technical skills during training, and a posttest. Data analysis was performed using the Kolmogorov-Smirnov normality test, homogeneity test, and paired sample t-test to determine significant differences between the pretest and posttest at a significance level of 0.05 (Haris et al., 2020). The research procedure was designed to be replicable, with a clear sequence of steps from initial measurements, exercise implementation, monitoring, to final evaluation, and the use of standard instruments to ensure the accuracy of the measurement of participants' passing skills, so that the research results are trustworthy and reliable.

RESULTS AND DISCUSSION

Result

The data for this study were obtained from the results of futsal passing skill measurements before and after participants underwent a training program using various drill methods combined with small-sided games in futsal extracurricular activities at SMAN 1 Madiun. Data collection was carried out in two stages, namely the initial test (pre-test) and the final test (post-test), to assess changes in participants' passing abilities. The test consisted of two forms: an underhand pass through a cone to measure static pass accuracy and an underhand pass while moving (dynamic) to assess passing ability in active game situations. The measurement results of both tests are presented in Tables 1 and 2 below.

Table 1.

Descriptive Statistics of the Pre-Test and Post-Test for Underhand Passing Regarding the Cone

Statistics	Pre-Test	Post-Test
Mean	1,87	2,64
Standard Deviation	0,6	0,37
Number of Samples (N)	15	15
Average Difference (Δ)	0,77	

Table 1.

Statistik Deskriptif Pre-Test dan Post-Test *Underhand pass while moving* (Dinamis)

Statistics	Pre-Test	Post-Test
Mean	1,84	2,49
Standard Deviation	0,71	0,45
Number of Samples (N)	15	15
Average Difference (Δ)	0,65	

Based on the results in Tables 1 and 2, there is an increase in the average score of the participants' futsal passing ability after being given treatment through training using various drill methods combined with small-sided games. In the underhand passing test regarding cones, the average score increased from 1.87 to 2.64, while in the underhand passing test while moving (dynamic) it increased from 1.84 to 2.49. A comparison of the pre-test and post-test results is shown in the following graph.

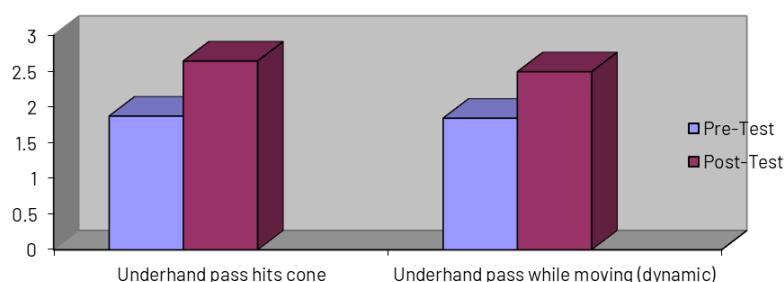


Figure 1.

Graph of Average Improvement in Pre-Test and Post-Test Results for Futsal Passing Ability

Based on the graphs of pre-test and post-test results for futsal passing ability, a consistent upward trend is evident across both types of tests. This improvement indicates a development in the participants' passing skills after undergoing a training program using a variety of drill methods combined with small-sided games.

Normality Test

A normality test was conducted to determine whether the research data was normally distributed. The test used the Kolmogorov-Smirnov method with SPSS version 25. The results of the normality test are presented in Table 3 below.

Table 3.

Results of the Normality Test for Futsal Passing Ability Data

Jenis Test	Sig. (Kolmogorov-Smirnov)	Information
Underhand pass hits cone	0,055	Normal
Underhand pass while moving	0,055	Normal

The test results in Table 4.6 show that the Asymp. Sig. (2-tailed) value for the underhand passing and moving passing tests is 0.055, respectively, greater than the significance limit of 0.05. This indicates that the data from both tests are normally distributed. According to Mishra et al., (2019), if the p-value in the Kolmogorov-Smirnov test is greater than 0.05, then the data does not deviate significantly from the normal distribution; thus, the data in this study meets the requirements for analysis using parametric statistical tests.

Homogeneity Test

The homogeneity test aims to ensure equality of variance between pre-test and post-test data. Analysis was performed using Levene's test with a significance level of 0.05. The results of the homogeneity test are shown in Table 4 below.

Table 4.

Results of the Homogeneity Test for Futsal Passing Ability Data

Jenis Test	Sig. (Based on Mean)	Information
Underhand pass hits cone	0,282	Homogen
Underhand pass while moving	0,49	Homogen

Based on the results of the homogeneity test, the significance value for the underhand passing test hitting the cone was 0.282 and for the passing while moving test it was 0.490. Both values were greater than the significance limit of 0.05, so the pre-test and post-test data were declared homogeneous. According to Field (2009), if the significance value exceeds 0.05, the assumption of homogeneity of variance is considered met. Thus, the data in this study met the assumption of homogeneity and were suitable for analysis using parametric statistical tests, namely the paired sample t-test.

Paired Sample t-test

After the assumptions of normality and homogeneity were met, the analysis continued using a paired sample t-test to determine any significant differences between

the pre-test and post-test results for futsal passing ability. This test was used because it involves measuring the same group under two different conditions (Afifah et al., 2022).

Table 5.

Paired Samples Test Results for Futsal Passing Ability Data

Test Type	t	df	Sig. (2-tailed)	Information
Underhand pass hits cone	-4,583	14	0,000	Significant
Underhand pass while moving	-4,000	14	0,000	Significant

Based on the results of the paired sample t-test, the underhand passing test regarding the cone obtained a t value of -4.583 with Sig. (2-tailed) = 0.000, and the passing while moving test obtained a t value of -4.000 with Sig. (2-tailed) = 0.000. A significance value of less than 0.05 indicates a significant difference between the pre-test and post-test results. These findings indicate that training with varied drill methods and small-sided games has a significant effect on improving the participants' futsal passing technique abilities.

Discussion

The results of the study showed a significant improvement in the participants' futsal passing skills after participating in training using a variety of drill methods combined with small-sided games (SSG). This improvement was evident in the difference in average pre-test and post-test results for both types of tests, both for underhand passing through cones and underhand passing while moving (dynamic).

These findings indicate that training using a combination of various drill methods and SSG effectively improves basic passing skills. The drill method provides players with the opportunity to repeat techniques in a focused and systematic manner, thereby improving accuracy and ball control (Ardiyanto et al., 2021). Meanwhile, the application of SSG allows players to practice these techniques in a more realistic game context, involving quick decision-making and team coordination (Hill-Haas et al., 2011).

These results align with research by Taufiqurrahman et al. (2023), which found that consistent drill training can significantly improve basic futsal passing skills. Furthermore, Halimah et al. (2023) also emphasized that SSG-based training plays a crucial role in improving both technical skills and tactical understanding in players. Therefore, the combination of these two methods has been shown to provide a more comprehensive stimulus to players' technical and cognitive abilities.

This significant improvement in results can also be explained by motor learning theory, where repeated practice under various conditions can strengthen motor memory and motor efficiency (Hawindri, 2016). The variety of training methods provided through SSG also helps players adapt to changing game situations, resulting in more consistent performance improvements.

Practically, these findings indicate that the use of varied drill methods combined with SSG can be an effective alternative training strategy for implementation in extracurricular futsal activities at school. This approach not only improves technical skills but also fosters motivation and active engagement of participants during the training process (Sholeh et al., 2025).

CONCLUSION

Based on the analysis and discussion, it can be concluded that training using a variety of drill methods combined with small-sided games significantly improved the futsal passing skills of extracurricular participants at SMAN 1 Madiun. This improvement was evident in the pre- and post-test results for two types of testing: underhand passing into cones and underhand passing while moving (dynamic).

The varied drills helped improve accuracy and ball control through systematic repetition of techniques, while the small-sided games provided playing experiences that mimicked real-life match situations, thus enhancing adaptability and decision-making. This combination of these two methods can be recommended as an effective training approach for developing basic futsal passing skills in schools and youth clubs.

REFERENCES

- Afifah, S., Mudzakir, A., & Nandiyanto, A. B. D. (2022). How to Calculate Paired Sample t-Test using SPSS Software: From Step-by-Step Processing for Users to the Practical Examples in the Analysis of the Effect of Application Anti-Fire Bamboo Teaching Materials on Student Learning Outcomes. *Indonesian Journal of Teaching in Science*, 2(1), 81–92. <https://doi.org/10.17509/ijotis.v2i1.45895>
- Ardiyanto, M. D., Januarto, O. B., & Yudasmar, D. S. (2021). Peningkatan Keterampilan Dasar Passing Futsal Memakai Metode Drill Bervariasi. *Sport Science and Health*, 3(11), 921–928. <https://doi.org/10.17977/um062v3i112021p921-928>
- Field, A. P. . (2009). *Discovering statistics using SPSS*. SAGE.
- Gumantan, A., Mahfud, I., & Yuliandra, R. (2021). JOSSAE (Journal of Sport Science and Education) Pengembangan Alat Ukur Tes Fisik dan Keterampilan Cabang Olahraga Futsal berbasis Desktop Program. *Journal of Sport Science and Education*), 6(2), 146–155. <https://doi.org/10.26740/j>
- Halimah, S., Nurwansyah, R., & Purbangkara, T. (2023). Pengaruh metode latihan small sided games terhadap keterampilan passing pada permainan futsal. *Jurnal Porkes*, 6(2), 355–369. <https://doi.org/10.29408/porkes.v6i2.18298>
- Haris, A., Wahyudi, U., & Yudasmar, D. S. (2020). Pengaruh Latihan Metode Drill Dan Metode Bermain Terhadap Keterampilan Passing Siswa Ekstrakurikuler Futsal. *Sport Science and Health*. <https://doi.org/http://joomla2.um.ac.id/index.php/Jfiklindex>
- Hawindri, B. S. (2016). Pemanfaatan Panduan Latihan Teknik Dasar Futsal Bagi Atlet Pemula. *Prosiding Seminar Nasional Peran Pendidikan Jasmani Dalam Menyangga Interdisipliner Ilmu Keolahragaan*, 284–292.
- Hill-Haas, S. V., Dawson, B., Impellizzeri, F. M., & Coutts, A. J. (2011). Physiology of small-sided games training in football: A systematic review. *Sports Medicine*, 41(3), 199–220. <https://doi.org/10.2165/11539740-000000000-00000>
- Husyaeri, E., & Saleh, B. M. (2022). Metode Latihan Drill Untuk meningkatkan kemampuan Passing pada permainan Futsal. *Jurnal Educatio FKIP UNMA*, 8(2), 521–525. <https://doi.org/10.31949/educatio.v8i2.1966>

- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67–72. https://doi.org/10.4103/aca.ACA_157_18
- Narlan, A., Tri Juniar, D., & Millah, H. (2017). Pengembangan Instrumen Keterampilan Olahraga Futsal. *Jurnal Siliwangi*.
<https://www.researchgate.net/publication/334362802>
- Rafli Fauzan, Z., & Ishaq Gery, M. (2023). Meningkatkan Teknik Dasar Passing Futsal Siswa Dengan Metode Drill Variasi Small Sided Games. *Journal SportIndo*.
- Sholeh, I., Supriyadi, & Sudjana, I. N. (2025). Pengaruh Variasi Latihan Ladder Drill Terhadap Peningkatan Kelincahan Pemain Sepakbola U-16 Ssb Kijang Merah - Core Reader.
- Sudirman, & Jaya, A. M. (2020). Efektifitas Metode Mengajar Keseluruhan Dengan Metode Mengajar Bagian Perbagian Terhadap Hasil Belmar Mengumpan (Passing) Kaki Bagian Dalam Pada Permainan Futsal Mahasiswa Fik Unm. *COMPETITOR: Jurnal Pendidikan Kepeleatihan Olahraga*, 12, 48–57.
- Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif Dan R&D*. ALFABETA.
- Taufiqurrahman, M., Sugiarto, T., Amiq, F., & Yudasmar, D. S. (2023). Penggunaan Metode Drill untuk Meningkatkan Keterampilan Teknik Dasar Passing Futsal pada Club Putri Sparta Football Sala Blitar. *Sport Science and Health*, 5(2), 158–168.
<https://doi.org/10.17977/um062v5i22023p158-168>
- Wahyudi, A., Wahyudi, U., & Amiq, F. (2020). Peningkatan Keterampilan Teknik Dasar Passing Futsal Menggunakan Metode Drill dan Metode Bermain pada Ekstrakurikuler Futsal Madrasah Aliyah. *Sport Science and Health*, 2, 24–31.
<https://doi.org/http://joomla12.um.ac.id/index.php/jfik/index>