

Effect of Ball Feeling Training on Dribbling Skills of Nusantara FC Semarang Futsal Athletes

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ABSTRACT

This study aims to determine the effect of ball feeling training on the dribbling skills of futsal athletes at Nusantara FC Semarang. This study was motivated by the lack of dribbling skills among players and the limited variety of training exercises for basic dribbling techniques. This study used a quantitative method with a one-group pretest-posttest design, involving 20 futsal athletes aged 16-19 years from Nusantara FC Semarang. The data collection instrument used was a dribbling test based on Dewi & Pakpahan (2018), conducted before and after the ball feeling training intervention over 4 weeks. Data analysis techniques included a prerequisite test (normality test) and a paired sample t-test at a significance level of 0.05. The results of the study showed that ball feeling training had a significant effect on improving dribbling ability, with the average time decreasing from 15.24 seconds (pretest) to 12.75 seconds (posttest), and a significance value of 0.001 ($p < 0.05$). The conclusion of this study is that ball feeling training can effectively improve dribbling skills.

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INTRODUCTION

Futsal is one of the sports that has experienced rapid growth, both globally and in Indonesia (Buya et al., 2021). This sport is fast-paced, dynamic, and emphasises individual technical skills, physical condition, and strong teamwork (Prasetyo & Rudiana, 2020). Futsal is played by two teams, each consisting of five players, on a field that is smaller than a conventional football field (Herlambang et al., 2022). Player substitutions can be made freely without any limits. Unlike other indoor football variants, futsal uses lines as field boundaries, not walls or boards. Futsal demands a solid mastery of basic techniques, as teams with better playing skills tend to be more capable of controlling the ball and dominating the game (Setiawan et al., 2021). Thus, mastering basic futsal techniques is the foundation of a team.

Basic futsal techniques include passing, control, chipping, dribbling, and shooting (Mashud et al., 2019). Among all these techniques, dribbling plays a crucial role as it allows

players to retain the ball, bypass opponents, and create attacking opportunities. Dribbling in futsal is a basic skill that combines speed, agility, and accurate ball control to outmanoeuvre opponents in a fast-paced game (Gunawan et al., 2016). Dribbling skills not only require speed and agility but also motor coordination, quick decision-making, and ball awareness. Good dribbling skills allow players to bypass opponents, create opportunities, and control the game more effectively (Fazri et al., 2024). This technique can be performed with the inside, outside, or sole, depending on the situation. During dribbling, players maintain ball control while adjusting direction and speed, and protect the ball with their body if necessary. The main principle to remember is that dribbling is used to create space to obtain a better position for passing or shooting, or to give teammates time to position themselves in a more advantageous position (Janwar & Ghani, 2018). Without good dribbling skills, players will struggle to cope with opponent pressure in tight spaces and maintain ball possession during the game.

However, mastering dribbling techniques among novice or teenage futsal players often poses a significant challenge. One example can be seen at Nusantara FC Semarang Futsal Club, where initial observations revealed that most players have weaknesses in dribbling skills. The lack of variety in basic dribbling technique training is one of the causes of the low dribbling skills of Nusantara FC Semarang players. This poses a challenge for coaches in designing innovative and relevant training programmes tailored to the players' characteristics.

Ball feeling exercises can serve as an effective alternative solution. Ball feeling is a type of training designed to enhance players' motor sensitivity to the ball by relying on various touches using specific body parts, particularly the feet, thighs, and head, excluding the hands (Rahman & Annas, 2023). Ball feeling training is one form of individual training performed by players using their feet to develop the ability to control, manage, and respond to the sensations felt when touching the ball (Febrian, 2021). This sensitivity allows players to sense the position, movement, and speed of the ball without always having to look at it directly. Ball feeling also helps players make quick and accurate decisions, such as when to dribble, pass, or shoot, based on the body's response to the ball's touch.

Regular and systematic training is a crucial factor in developing the basic skills and individual abilities of futsal players (Rasyono et al., 2024). Ball feeling training is very important for futsal players, and a training programme is necessary as one way to improve players' dribbling skills. With adjusted training frequency and varied movements, this training can minimise boredom while strengthening.

Dribbling is one of the most important techniques in futsal, as it is directly related to a player's ability to control the ball, get past opponents, and create attacking opportunities. To develop this skill, effective and well-structured training methods are required, one of which is ball feel training. This type of training focuses on improving a player's sensitivity and control of the ball through repetitive ball manipulation exercises. Several studies have shown that ball feel training has a significant impact on improving dribbling skills in futsal. Fauzi (2022) found that students participating in futsal extracurricular activities at SMAN 19 Kabupaten Tangerang experienced an improvement in dribbling ability after undergoing ball

feel training, characterised by better ball control and smoother execution during dribbling. A study by Ismail et al. (2024), which compared game-based training with ball-feel training among players of Club Marshal FC, also showed that both methods significantly improved dribbling skills, although ball-feel training produced more consistent and stable results. Similarly, Fadhillah et al. (2022) reported that variations in ball-feeling training effectively improved the dribbling skills of futsal extracurricular participants at State High School 1 Jalancagak. These findings suggest that ball-feeling training is an effective and relevant method for developing basic futsal techniques, particularly in enhancing dribbling skills both in educational settings and sports clubs.

The application of training principles is an important aspect that needs to be considered in the development of training programmes, such as the principles of individualisation, overload, specificity, progressivity, and reversibility (Sidik, 2022). The principle of individualisation in training emphasises that each individual has unique physical, physiological, and psychological characteristics, so training programmes must be tailored to the needs, abilities, and goals of each person. The principle of overload is one of the fundamental principles in physical training, emphasising the importance of providing training loads that exceed the body's normal capacity to induce physiological adaptation. The principle of specificity states that the type of training load administered will determine the results or effects obtained from the training. The principle of reversibility in training refers to the fact that physical adaptations gained through training are not permanent and can be lost if training is stopped or significantly reduced.

In the context of youth sports development, training that focuses on basic techniques and is psychologically enjoyable will have a greater positive impact than conventional, monotonous training approaches. Regular and varied training can develop athletes' basic skills while strengthening their mental and motivational aspects. Thus, ball feeling training is expected to not only improve technical dribbling skills but also shape the character and competitive spirit of the players.

METHODS

This study used a quantitative approach with an experimental method and a one-group pretest-posttest design, which aimed to determine the effect of ball feeling training on dribbling skills in Nusantara FC Semarang futsal athletes. This study was conducted in the city of Semarang, involving 20 male futsal athletes from June to July 2025. The sampling technique employed was purposive sampling with criteria including being aged 16–19 years, not currently injured, and willing to participate in the entire training programme. Data collection involved administering dribbling tests before and after the intervention to obtain information about dribbling skills. The experimental group received a ball feeling training programme over four weeks with a training frequency of three times per week.

Each session in the futsal ball control training programme is designed gradually and systematically, starting from mastering basic techniques to developing more complex

ball manipulation skills. In the first, second, and third sessions, players are trained to perform juggling exercises individually and in pairs to familiarise their feet with ball contact in static and dynamic conditions. Training continues in the fourth, fifth, and sixth sessions, with a focus on rolling the ball forward and backwards alternately using the outside, inside, and sole, aiming to improve coordination and stability of movement. In the seventh and eighth sessions, training emphasises stepping on the ball in place and moving in a zigzag pattern to train movement rhythm, body stability, and muscle response to changes in direction. In the ninth and tenth sessions, the training focused on kicking the ball using the inside of the foot, both in static and moving conditions, as well as combination exercises involving pushing the ball with the outside of the foot and pulling it back with the inside alternately. The eleventh and twelfth sessions consist of more complex exercises through ball manipulation with a combination of movements using the outside, inside, and sole, performed in static and dynamic positions. Additionally, zigzag dribbling exercises through markers are applied to improve ball control in situations resembling actual match conditions.

The research instrument used the dribbling test by Dewi & Pakpahan (2018), which has been validated and reliability-tested. The tools used included: (1) a futsal court as the location for measurements and training, (2) a futsal ball, (3) cones, (4) a stopwatch to measure dribbling speed, and (5) observation forms and measurement result recording forms. Before the study began, all participants were informed about the purpose, benefits, and procedures of the study and were asked to sign an informed consent form.

Table1.
Dribbling Speed Norms

No	Category	Times (Second)
1	Excellent	<11,91
2	Good	11,91-13,20
3	Fair	13,21-14,50
4	Poor	14,51-15,80
5	Very poor	>15,80

Source: (Dewi & Pakpahan, 2018)

The data were analysed using descriptive statistical tests and paired sample t-tests to determine significant differences between the pretest and posttest. Before testing the hypothesis, the Shapiro-Wilk normality test was conducted to verify the normal distribution of the data. All data processing was performed using SPSS version 25, with a significance level of $\alpha = 0.05$. The selection of the appropriate statistical method aimed to produce more accurate and relevant data interpretation for the research objectives.

RESULTS AND DISCUSSION

This study aims to determine the effect of ball feeling training on the dribbling skills of 16-19-year-old futsal athletes from Nusantara FC Semarang. A total of 20 research subjects were given a pretest and posttest of their dribbling skills using a futsal ball

dribbling test instrument. During the research process, this group was given ball feeling training for four weeks with a training frequency of three times per week. The following is a summary of the dribbling test results of the research subjects:

Table2.

Results of pretest and posttest dribbling

No	Subject	Pre-test	Post-test
1	S1	15.27	12.31
2	S2	16.10	13.10
3	S3	14.93	12.63
4	S4	15.73	13.45
5	S5	14.82	12.87
6	S6	15.98	13.00
7	S7	14.71	12.92
8	S8	15.60	13.34
9	S9	14.68	12.10
10	S10	15.50	12.78
11	S11	15.42	12.90
12	S12	14.96	13.00
13	S13	14.75	11.92
14	S14	15.80	12.47
15	S15	14.63	12.78
16	S16	15.16	12.54
17	S17	15.38	12.60
18	S18	15.00	12.13
19	S19	15.70	13.21
20	S20	14.80	12.96
Mean		15.24	12.75

Source: (Researcher, 2025)

The results of the dribbling test measurements showed that all subjects experienced an improvement in dribbling skills after participating in the four-week ball feeling training programme. Based on the table above, the average pretest score was 15.24 seconds, and the average posttest score decreased to 12.75 seconds. This decrease in time indicates an improvement in ball dribbling speed after the treatment. Before conducting further statistical analysis, a normality test is required to ensure that the data is normally distributed. The normality test was performed using the Shapiro-Wilk test because the sample size was less than 50. The test results are presented in the following table:

Table 3.

Normality Test Results

	Statistic	Sig	Distribution
Pre-test	.934	0.186	Normal
Post-test	.971	0.769	Normal

Source: (Researcher, 2025)

Based on Table 3, the Shapiro-Wilk test significance value is > 0.05 for both the pre-test 0.186 and post-test 0.769. This indicates that the pre-test and post-test data are normally distributed. Next, a paired sample t-test was conducted to determine whether there was a significant difference between the pre-test and post-test scores.

Table 4.

Paired Sample t-test Results

	Mean Pre	Mean Post	Difference	t
Pretest-Posttest	15.24	12.75	2.49	24.707

Source: (Researcher, 2025)

Based on the data obtained, the average post-test score decreased compared to the average pre-test score. This indicates that the treatment can improve athletes' dribbling skills. The statistical test results show a significance value of 0.001, which is less than 0.05 (<0.05), so the null hypothesis (H_0) is rejected. It can be concluded that ball feeling training has a significant effect on athletes' dribbling skills.

Discussion

The results of the study indicate that there is a significant effect of ball feeling training on improving the dribbling skills of 16–19-year-old futsal athletes from Nusantara FC Semarang. This is demonstrated by a significant decrease in the average dribbling time from the pretest to the posttest. Based on the results of the paired sample t-test, a significance value of 0.001 ($p < 0.05$) was obtained, indicating that ball feeling training has a positive impact on athletes' dribbling ability.

Ball feeling training is designed to enhance foot sensitivity and body coordination with the ball through repeated touches and controls. Ball feeling training includes movements such as rolling and manipulating the ball with both feet, dragging the ball in various directions, pushing it in a controlled manner, juggling, walking on the ball, and using the outside of the foot to direct or push the ball (Muharram et al., 2024). This training not only involves motor skills but also enables better ball control in dynamic game situations. With increased sensitivity to the ball, players find it easier to dribble, avoid opponent pressure, and maintain ball possession in limited space.

The findings of this study align with previous research by Fauzi (2022) and Ismail et al. (2024), which showed that ball feeling training is effective in improving dribbling skills in futsal. This training has proven to enhance reaction speed, ball control, and players' confidence when carrying the ball. Additionally, a varied and enjoyable training approach helps reduce boredom during the training process, particularly for young players.

Practically, the results of this study indicate that a training programme emphasising ball feeling can serve as an effective alternative to basic technical training, particularly in developing dribbling skills. Therefore, futsal coaches at the youth development level are advised to integrate ball feeling training into their regular training programmes to enhance individual players' technical performance.

CONCLUSION

Based on the results of quantitative research on ball feeling training and its effect on dribbling skills in 16–19-year-old futsal athletes at Nusantara FC Semarang, it can be concluded that this training has a significant effect on improving futsal dribbling skills.

Ball feeling training includes sole tapping and dragging back, forward, and backwards, sole rolling, toe tapping and ball shuffling, V-dragging and pushing, alternate toe touching, instep and outstep touching, sole rolling, instep and outstep turning, and ball juggling. The training was conducted regularly over twelve sessions and proved effective in improving basic futsal dribbling techniques. For future research, it is recommended to include additional variables or control groups and refine the ball feeling training programme.

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