

Enhancing Shooting Accuracy in Futsal through Instep Drive Training Variations: A Pre-Experimental Study

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Abstract

Objectives: This study aimed to determine the effect of instep drive shooting training variations on shooting accuracy among NADIRA FC futsal athletes in 2023.

Materials and Methods: This study used a quantitative experimental method with a one-group pretest-posttest design. The participants were 20 NADIRA FC futsal athletes selected using total sampling. Shooting accuracy was measured using a shooting accuracy test before and after the training program. The data were analyzed using normality, homogeneity, and paired sample t-tests.

Results: The normality test showed that the data were normally distributed, with a significance value of 0.820. The homogeneity test showed that the data were homogeneous, with a significance value of 0.556. The hypothesis test showed a significant improvement in shooting accuracy after the instep drive shooting training variation, with $p = 0.000$. The t-test result also showed that t-count was higher than t-table, $4.858 > 1.729$.

Conclusions: Instep drive shooting training variations significantly improved shooting accuracy among NADIRA FC futsal athletes. This training model can be recommended as an effective technical exercise to improve shooting performance in futsal.

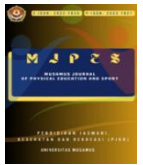
Keywords: futsal; instep drive; shooting accuracy; training variation; technical skill

Introduction

Futsal is a fast and dynamic team sport played on a relatively small court with strict rules and high technical demands. The game requires players to master several basic skills, including controlling, passing, dribbling, and shooting. Among these techniques, shooting is one of the most decisive skills because the main objective of futsal is to score goals.

Shooting accuracy is an important factor in futsal performance. A player who has good shooting accuracy can create more effective scoring opportunities and support team success. In futsal, shooting can be performed using different parts of the foot, including the inside foot, outside foot, toe, and instep. Instep drive shooting is commonly used because it allows players to produce powerful and directed shots toward the goal.

Initial observation at NADIRA FC showed that players still had problems in finishing attacks. During shooting practice, many shots were inaccurate and failed to reach the target. This condition indicates that players need structured shooting training to improve accuracy and finishing quality.



Previous studies have also shown that specific shooting training can improve shooting performance in football and futsal (Prakarsa, 2020; Suhardianto & Ismail, 2019).

Training variations are important because they help athletes adapt to different game situations. Variation in shooting practice can improve technical execution, concentration, body coordination, and decision-making. Therefore, this study aimed to determine the effect of instep drive shooting training variations on shooting accuracy among NADIRA FC futsal athletes.

Materials and Methods

Study Design

This study used a quantitative experimental method with a one-group pretest-posttest design. This design was used to compare shooting accuracy before and after the training treatment.

Study Participants

The participants were 20 NADIRA FC futsal athletes in 2023. Total sampling was used because all members of the population were included as research participants.

Study Organization

The treatment consisted of instep drive shooting training variations. The training was given for 18 meetings. Before the treatment, all athletes completed a pretest of shooting accuracy. After the training program, the athletes completed a posttest using the same shooting accuracy test.

Statistical Analysis

The data were analyzed using a normality test, homogeneity test, and paired sample t-test. The significance level was set at $p < 0.05$.

Results

Normality Test

The normality test showed a significance value of 0.820. Because this value was greater than 0.05, the data were normally distributed.

Table 1. Normality Test Result

Test	Sig.	Interpretation
Kolmogorov-Smirnov	0.820	Normal



Homogeneity Test

The homogeneity test showed a significance value of 0.556. Because this value was greater than 0.05, the data were homogeneous.

Table 2. Homogeneity Test Result

Levene Statistic	df1	df2	Sig.	Interpretation
0.743	3	8	0.556	Homogeneous

Hypothesis Test

The paired sample t-test showed that the significance value was 0.000, which was lower than 0.05. The t-count was also higher than the t-table, $4.858 > 1.729$. This result indicates that instep drive shooting training variations had a significant effect on futsal shooting accuracy.

Table 3. Hypothesis Test Result

Variable	t-count	t-table	Sig.	Interpretation
Instep drive shooting training	4.858	1.729	0.000	Significant

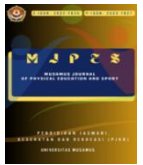
Discussion

The results of this study showed that instep drive shooting training variations significantly improved shooting accuracy among NADIRA FC futsal athletes. This finding indicates that structured and repeated shooting exercises can improve technical execution, body coordination, and accuracy when directing the ball toward the target.

The improvement occurred because instep drive shooting emphasizes the use of the instep area to produce a stronger and more directed shot. In futsal, this technique is important because players often have limited time and space to finish attacks. Therefore, athletes must be able to shoot quickly, accurately, and effectively.

This finding is consistent with Prakarsa (2020), who explained that variation-based shooting training can improve shooting accuracy in football players. It is also supported by Suhardianto and Ismail (2019), who found that shooting training variations contributed to better shooting skills in futsal. Similarly, Widianlara et al. (2015) reported that instep drive shooting training had a significant effect on shooting accuracy among football extracurricular students.

The results also support the idea that training variation is useful for preventing monotony and increasing athlete motivation. According to Romdani and Prianto (2018), systematic and repeated training with appropriate intensity can improve physical and technical performance. In this study, the 18-session training program allowed athletes to repeat shooting movements consistently, correct technical errors, and



improve their confidence when finishing attacks.

Overall, instep drive shooting training variations can be considered an effective training method for futsal athletes. Coaches may apply this model by adjusting target distance, shooting angle, movement before shooting, and pressure from defenders to make the exercise closer to real match situations.

Conclusions

This study concluded that instep drive shooting training variations had a significant effect on shooting accuracy among NADIRA FC futsal athletes in 2023. The statistical result showed $p = 0.000$ and $t\text{-count} > t\text{-table}$, indicating that the training program significantly improved shooting performance.

Therefore, instep drive shooting training variations can be recommended as a practical training model for improving futsal shooting accuracy. Coaches should apply this exercise consistently and progressively to develop better finishing ability in futsal players.

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