14 (3) (2025) 999 - 1004

Journal of Physical Education, Sport, Health and Recreations

https://journal.unnes.ac.id/journals/peshr

The Influence of 1 V 1 Athlete Matches on Decision-Making in Futsal

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Article History

Received September 2025
Accepted October 2025
Published Vol.14 No.(3) 2025

Keywords:
Training 1V1; Decision Making; Futsal

Abstract

This study aims to examine the effect of situational training, specifically 1v1 training, on improving the decision-making abilities of futsal players. The study design used an experimental method with a pretest-posttest control group model and involved 12 players from the Bandung Icon FC futsal club. The instrument used was the GPAI (Game Performance Assessment Instrument), and measurements were conducted quantitatively based on data on successful decision-making during matches. Normality and homogeneity tests were used to analyze the data, as well as paired and independent t-tests. The findings revealed that 1v1 training greatly enhanced participants' decision-making, as indicated by an increase in success rates from 33% to 84% in the experimental group. In comparison, the control group saw no notable changes. These findings support the efficacy of real-world and simulation-based training in improving players' cognitive, technical, and psychological skills, as well as strengthening brain connections in the automated decision-making process. The study's key finding is that incorporating situational training into futsal training regimens on a regular basis is critical for improving performance and competitiveness.

How to Cite

Shelby, K. V., Komarudin., & Febrianty, M. F. (2025). The Influence of 1 V 1 Athlete Matches on Decision-Making in Futsal. Journal of Physical Education, Sport, Health and Recreation, 14 (3), 999-1004.

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p-ISSN 2460-724X
e-ISSN 2252-6773

INTRODUCTION

In many nations, futsal, a sport with distinctive features, has developed quickly. Compared to soccer, it is played on a smaller field with fewer players than soccer, and every choice must be made quickly and accurately. Corrêa et al. (2020) say that being able to make decisions quickly is very important for success in this sport, which changes all the time. There is still not a lot of research on how to improve players' decision-making through situational training, even though technical and tactical training is getting better all the time.According to corrêa et al. (2016), a player's ability to assess the situation, interpret the actions of their opponent, and swiftly and accurately decide on the best course of action is strongly tied to their capacity to make effective decisions on the field. In truth, many futsal players struggle to make good decisions in fast-paced, stressful match conditions. According to one study (seidel-marzi et al., 2024), experience, imagery, and adequate simulation training all have a significant impact on this decision-making process. Minimal training experience will not enough to improve these skills, demanding effective training techniques that are applicable to real-world scenarios. Cases on the field frequently show that players are unable to maximize opportunities owing to poor or delayed decision-making. This is a subject that demands further investigation, particularly into training strategies that might dramatically improve player decision-making (cardoso et al., 2021).

1v1 training is thought to be an effective way to accelerate the learning process. This training simulates real-life scenarios in which players must swiftly study their opponents and determine the best course of action to traverse specific situations. According to burton et al. (2020), this training not only improves the technical parts of dribbling and shooting, but it also promotes immediate decision-making, which is critical to a team's success. 1v1 training directly improves players' visual and tactical abilities because the dynamics and unpredictability of the circumstances provided are similar to real-life match conditions (machado et al., 2020).

However, on the pitch, mental power, focus, and fast thinking are also important. According to (güllich, 2019), situation-based training, such as 1v1 matches, can boost player confidence, quicken decision-making, and increase mental resilience under pressure. As a result, this training is thought to promote instinctive responses and improve the quality of on-field actions, ultimately contributing to optimal outcomes.

However, not all coaches and players properly appreciate the advantages and efficacy of 1v1 training as a decision-making tool (qiu et al., 2024). Some continue to focus primarily on the technical components, resulting in suboptimal training that stimulates cognitive and psychological processes. As a result, empirical study is needed to demonstrate the effect of 1v1 training on futsal players' decision-making, encompassing technical, visual, and mental aspects.This research is expected to provide a comprehensive overview and strong empirical data to support the wider use of this training (Sæther et al., 2022).

From this description, it can be understood that situational-based training is highly relevant and important in improving the competence of futsal players, especially in the crucial decision-making aspect in fast-paced and high-pressure matches. A study (Gumusdag et al., 2025) developing a training model that can integrate tactical, visual, and psychological aspects will greatly assist coaches in creating more adaptive and responsive players (Araújo et al., 2019). Therefore, in-depth research is essential to assess the effectiveness of 1v1 training on decision-making, which is expected to contribute both scientifically and practically to the development of futsal at the national and international level (Fitri et al., 2021).

Sports classification identification is defined as the process of establishing a sport's primary features based on its technical, tactical, and psychological components. Futsal is a team sport that requires speed, fast decision-making, and the ability to interpret circumstances efficiently. According to (febrianty et al., 2024), this identification is critical for developing appropriate training programs to increase player quality based on the characteristics of the sport being played.

A study (djaba et al., 2024). 1v1 training is an extremely useful strategy for honing these skills because it concentrates on futsal-specific characteristics. This training allows players to improve their visualization capabilities, quick decision-making abilities, and technical skills in situations that require immediate reactions. Furthermore, 1v1 training improves psychological characteristics such as self-confidence and mental resilience, which are essential in this activity. Thus, situational training not only improves technical skills but also helps players understand and adapt to futsal's dynamic and competitive nature (febrianty et al., 2024).

Similarly, research on project-based learning (pjbl) reveals that it can improve students' conceptual comprehension by actively engaging them in the process of exploration, analysis, and

problem solving through experience (komarudin et al., 2020). In the context of sports, the ideas of pjbl are similar to situation-based training such as 1v1 futsal, as both require active participation, creativity, problem-solving, and quick decision-making. This means that in both academic and athletic learning, strategies emphasizing active and contextual participation have been shown to improve cognitive abilities and prepare students for real-world issues (roca et al., 2018).

This study aims to examine the effect of situational training, particularly 1v1 training, on enhancing the decision-making abilities of futsal players. The main objective is to explore how structured, game-based training can help players make faster, more accurate, and more effective decisions during dynamic match situations. In addition, the study seeks to identify how situational practice contributes to the development of players' cognitive, technical, and tactical aspects within a more competitive futsal performance context.

The novelty of this research lies in the application of a structured situational 1v1 training model specifically designed for futsal players, integrating both cognitive and tactical components within realistic game contexts. Unlike previous studies that have mainly focused on physical conditioning or technical drills, this study treats decision-making as a trainable skill through repeated situational exposure. This approach provides new insights into how context-based training can simultaneously enhance players' cognitive processing, tactical awareness, and overall game performance in futsal.

METHODS

This study took a quantitative method with a positivist paradigm, collecting data objectively and analyzing it statistically to determine the effect of 1v1 training on futsal players' decision-making (de Pinho et al., 2021). The research site was conducted out in FIFA- standard futsal fields, namely the Scudetto Field and BSD Bandung City, for eight meetings that took place from May 1 to May 30, 2023. The subjects of this study were 12 male futsal players from futsal clubs in Bandung City who actively participate in the Bandung League. They were chosen because they represent the population of futsal players aged 16-17 years with official competition experience, allowing them data obtained to reflect the characteristics of that population.

Data were obtained through direct observation during training and official matches, using the GPAI Decision Making instrument, which includes observational characteristics such as player decision-making, event timing, and situational context (Denardi et al., 2017). To ensure data validity and dependability, observations were undertaken in a systematic manner, with video recordings used as needed. To improve data accuracy, observer training was provided, instrument validation by lecturers and coaches was performed, and cross-checking was done with match recordings, resulting in more objective and accurate observation results.

The measurement technique included a rating system based on correct and incorrect judgment categories. A team of experts and futsal coaches tested and revised the instrument to ensure its validity. The obtained data was then evaluated using a paired sample t-test to compare pre-test and post-test results, confirming that training had a substantial influence on players' decision-making ability.

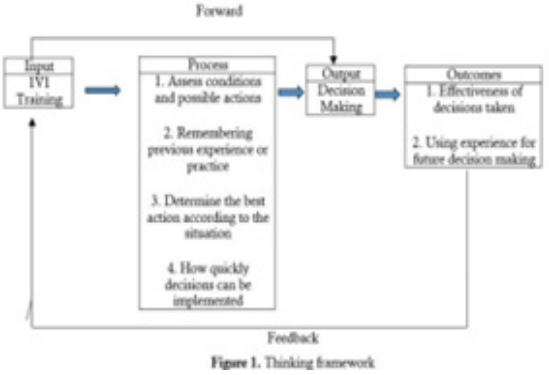

Figure 1. Thinking Framework

RESULTS AND DISCUSSION

This study was carried out during eight sessions on FIFA-standard futsal fields, namely the Scudetto Field and BSD City of Bandung, between May 1 and 30, 2023. The study included 12 male futsal athletes from Bandung City futsal clubs who competed in the 2025 Bandung League. During the process, data was acquired by direct observation during matches and training. Every dribbling decision-making event was recorded on an observation sheet, including the number of attempts, the level of decision correctness, and the situational setting (Barcellos et al., 2022). Next, the data was processed to assess the effect of training on players' decision-making abilities by analyzing the success rate and comparing the experimental and control groups, and statistical testing was performed to ensure the results' validity and significance (Denardi et al., 2017). The following section will go over the pre-

test and posttest data analysis results in greater detail, as well as the comparison of the groups that received training with those that did not, as well as the factors that influenced these changes.

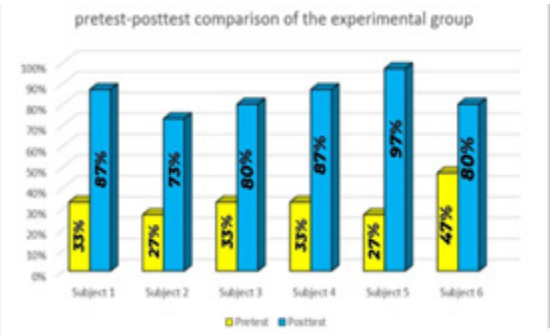

Chart 1. Experiment

Based on the data presented, the experimental group's dribbling decision-making ability improved significantly after receiving the training therapy. All individuals demonstrated an increase in the number of successes between the pretest and the posttest. For example, subject 1,subject 2, subject 3 and subject 4, who had just 5 successes in the pretest, improved dramatically to 13, 12, and 13 successes in the posttest, respectively. Eiffel saw the greatest growth, from four to fourteen successes. Similarly, Fadhlan saw an increase from seven to twelve triumphs. These findings suggest that the training provided can improve decision-making ability in dribbling situations during futsal matches.

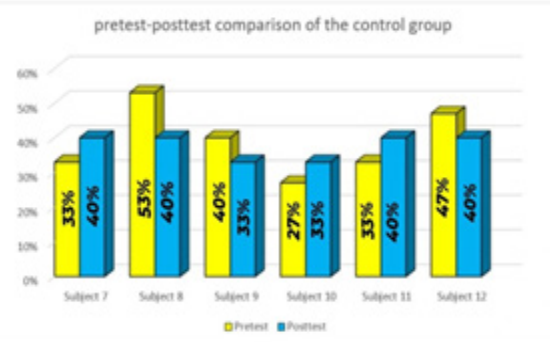

Chart 2. Control

Based on the statistics presented, it is clear that the pretest and posttest outcomes in the control group did not significantly rise. Some individuals saw a tiny gain, but it wasn't constant throughout. Farhan, Bilal, and Rafael only increased by one point, however some individuals witnessed a loss, such as Ihwana, who initially received 8 success points on the pretest but decreased to 6 on the posttest. Febri and Fauzan both had a drop from 6 to 5, and from 4 to 5. These findings suggest that without therapy or specific training, dribble decision-making abilities tend to plateau or even decline in some circumstances. This adds to the data that effective training interventions dramatically improve futsal decision-making skills.

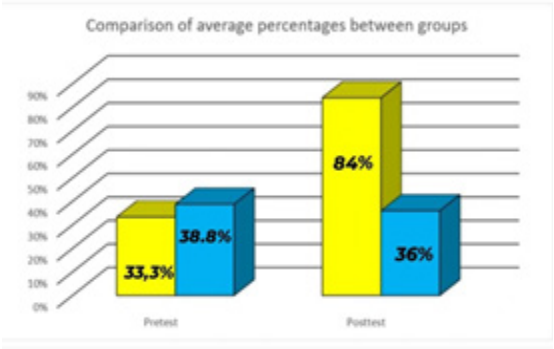

Chart 3. Comparison of Experiment and Control

The statistics given reveal that during the pretest, the average percentage of right decisions between the experimental and control groups did not differ significantly. The experimental group averaged 33.3%, while the control group's average was slightly higher at 38.8%. However, after the treatment was delivered, the experimental group showed a considerable rise, with a posttest average of 84.0%. Meanwhile, the control group had a modest decline to 36.0% during the posttest. This shows that the experimental group's specific training program had a considerable impact on their futsal decision-making ability. In comparison, the control group, which did not get special therapy, had very stable or even slightly declining outcomes.

In the previous discussion, it was explained that the training intervention was designed to enhance players' tactical awareness and decision-making abilities during game situations. To implement this intervention effectively, the coach uses a strategy board as a medium to deliver treatment to the experimental group. This practice represents the application of a situational approach in training, allowing players to visualize, analyze, and respond to various in-game scenarios. In the following section, the impact of this strategy on players' decision-making performance will be examined in detail. According to (du et al., 2022), through direct training and planned tactical simulations, players are taught to analyze game circumstances, comprehend their opponents' movement patterns, and determine the best course of action in a short period of time.

The treatment provided not only concentrates on technical factors, but also on the players' cognitive components, allowing for more effective and suitable decisions on the field in dynamic match situations.

CONCLUSION

According to the research findings, situational training, such as 1v1 training, has a substantial impact on futsal players' decision-making skills. The findings revealed a significant increase in average decision-making success from 33% to 84% following the training, whereas the group that received no therapy or merely conventional instruction tended to stagnate or decrease. This finding is consistent with the hypothesis that direct experience and simulation of real-world scenarios might accelerate neuronal circuits in the brain, helping players to assess field conditions more quickly and accurately, as well as make more effective decisions. In addition to technical features, this training helps players improve their self-esteem and psychological focus, allowing them to face pressure and competitive situations with greater confidence and calmness (voigt et al., 2023). Overall, the research findings support the importance of applying realistic and thorough training methods, which should be a vital component of any training program aimed at improving the quality and competitiveness of futsal players at all levels.

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