

Effect of Similar to Playing Situations Exercises to Develop Some Motor Abilities and Basic Skills in Junior Football Players

¹Qays Banwan Shareef*

* Corresponding Author: **Qays Banwan Shareef**, e-mail: qaysbanwanshareef@utq.edu.iq

¹Directorate of Education in Thi Qar Governorate, Iraq

Abstract

Objectives. The current study aimed to identify the effect of exercises similar to playing situations in acquiring some motor abilities and basic skills in football.

Materials and Methods. The study included 32 First Division League junior football players (average age 15.07 years, height 1.58 meters, mass 54 kg) for the 2023-2024 season. A one-group pre- and post-test experimental design was used. The players were assessed before and after undergoing exercises that simulated playing situations to measure their impact on motor abilities and basic football skills.

Results. The results showed that exercises similar to playing situations had a favorable effect on the development of certain motor abilities and basic football skills in junior players.

Conclusion. The authors recommend incorporating exercises similar to playing situations, as applied in this study, within the training programs of junior football players to enhance their motor abilities and basic skills.

Keywords : Playing Situations, Motor Abilities, Basic Skills, Juniors, Football.

Introduction

The scientific progress that we see today in various areas of life is the result of experiences, experiences, and research through which many results have been inferred and obtained to serve humanity, "This development has been reflected in the field of physical education and its various means and has opened new horizons for researchers and scholars to identify the new in the processes of acquiring information, abilities and skills and developing them and achieving the best results by following everything new in mathematical sciences, which is a necessity that must be taken into account when planning the educational and training process and its curricula".]1[

Football enjoys care and attention everywhere because it is one of the games that have flourished in popularity significantly in the world, and football players need high motor performance and require using a lot of parts of the body to change locations while precisely retaining the same performance. One of the key elements of soccer is fundamental skills as well as, good physical health, motor skills, mental disorders informative, cerebral, and tactical elements that raise performance levels since skills are the cornerstone of learning any game, especially in football, skills that require appropriate training methods that help to master motor skills, football requires possession of basic skills at a high level for the

possibility of using these skills in various conditions of the match, so it requires attention to skill preparation through the selection of training methods which aimed to acquiring motor abilities and basic skills to improve skill performance level. It was necessary to prepare training methods similar to playing situations exercises that motivate the player during the application and "help develop skills to perform in conditions similar to what happens in the game, as these exercises play a major role in the success of the training process, these exercises aim to acquire motor abilities and basic skills and develop them to improve the level of skill performance".]2[

The importance of the current study through these exercises method and gradation and moving learning from easy to difficult and introducing the factor of suspense and excitement through similar play exercises, which increase the acquisition of players for basic abilities and motor ability more effectively than the conventional approaches.

Materials and Methods

Study Participants.

The participants in this study were 32 junior football players from Al-Nahdha Club, competing in the First Division League during the 2023-2024 sports season. The sample was selected deliberately to ensure homogeneity in terms of age, gender, and level of performance. All participants were male, with an average age of 15.07 years, an average height of 1.58 meters, and an average body mass of 54 kilograms. The selection criteria aimed to minimize differences in physical and motor abilities among the participants, thereby ensuring reliable and consistent results throughout the study.

Study organization.

This study followed an experimental approach utilizing a one-group pre-test and post-test design to assess the impact of exercises similar to playing situations on the development of motor abilities and basic football skills. The pre-tests were conducted on a football field under standardized conditions, with all procedures and support staff kept consistent to ensure uniformity during both the pre- and post-test phases. Before administering the tests, the researcher provided a detailed explanation and demonstration to ensure participants fully understood the test procedures. The motor ability and basic skill tests included agility (zigzag running among cones), coordination (numbered circuits), dribbling (dribbling between cones back and forth), passing (passing towards a small target at a distance of 10 meters), and scoring (shooting towards a goal divided into squares).

The training intervention consisted of exercises designed to simulate real match situations, such as 2v1, 2v2, 3v2, and 3v3 scenarios. These exercises were incorporated into

the main part of each training session. The program lasted for eight weeks and included a total of 24 training sessions, with three sessions per week. Each session had a duration of 90 minutes, where 70 minutes were dedicated specifically to exercises similar to playing situations. After completing the training program, post-tests were administered under the same conditions as the pre-tests to evaluate the participants' progress.

Statistical analysis.

The collected data were analyzed using several statistical methods to determine the effectiveness of the training program. Descriptive statistics, including the arithmetic mean and standard deviation, were calculated to describe the participants' performance. The percentage and development rate were used to illustrate improvements between pre-test and post-test scores. To examine the relationship between variables, the simple correlation coefficient (Pearson) was applied. Furthermore, a paired samples t-test was conducted to identify statistically significant differences between the pre-test and post-test measurements within the same group. These analyses provided a comprehensive understanding of the impact of the training intervention on motor abilities and basic football skills.

Results

The results of the study showed significant improvements in motor abilities and basic skills among junior football players after applying exercises similar to playing situations. Table 1 presents the mean values, standard deviations, mean differences, and development rates of the pre- and post-tests for motor abilities.

Table 1. Arithmetic Means, Standard Deviations, Mean Differences, and Development Rates for Motor Abilities

Test	Measurement Unit	Pre-test (M.)	St. D	Post-test (M.)	St. D	Mean Difference	Development Rate
Agility	Sec.	7.66	3.8	6.67	4.2	1.06	13.84%
Coordination	Sec.	12.23	6.1	11.15	7.3	1.08	8.83%

Table 2 shows the T-test results comparing pre- and post-test scores of motor ability tests.

The calculated T-values exceeded the tabular T-value of 2.09 at the significance level of 0.05 and degree of freedom (19), indicating statistically significant differences in favor of the post-tests.

Table 2. T-Test Values and Significance of Differences Between Pre- and Post-Tests in Motor Abilities

Test	Measurement Unit	Mean Difference (M-D)	Sum of Squared Differences	Calculated T	Tabular T	Difference Significance
Agility	Sec.	0.6	3.1	6.67	2.09	Significant
Coordination	Sec.	0.4	2.5	5	2.09	Significant

Regarding basic skills, Table 3 illustrates the pre- and post-test mean values, standard deviations, mean differences, and development rates. Improvements were observed across all measured skills: dribbling, passing, and scoring.

Table 3. Arithmetic Means, Standard Deviations, Mean Differences, and Development Rates for Basic Skills

Test	Measurement Unit	Pre-test (M.)	St. D	Post-test (M.)	St. D	Mean Difference	Development Rate
Dribbling	Sec.	16.70	1.35	15.30	1.73	1.40	8.38%
Passing	Degree	4.20	1.42	5.10	1.18	0.90	21.43%
Scoring	Degree	16.30	1.80	20.60	0.90	4.30	26.38%

Table 4 presents the T-test results comparing pre- and post-test scores of the basic skills tests. The calculated T-values exceeded the tabular T-value, confirming statistically significant improvements in all skills.

Table 4. T-Test Values and Significance of Differences Between Pre- and Post-Tests in Basic Skills

Test	Measurement Unit	Mean Difference (M-D)	Sum of Squared Differences	Calculated T	Tabular T	Difference Significance
Dribbling	Sec.	2.9	50.6	8.05	2.09	Significant
Passing	Degree	2.5	40.8	7.58	2.09	Significant
Scoring	Degree	3.7	52.3	10	2.09	Significant

Discussion

The statistical analysis of the results indicates that exercises similar to playing situations had a positive and significant effect on both motor abilities and basic football skills among junior players. The post-test improvements in agility reflect the effectiveness of these exercises in enhancing a player's ability to perform quick directional changes with stability and consistency. Agility is fundamental for football players as it integrates strength, speed, and flexibility, all of which are crucial for high-level performance. Improved agility allows players to combine multiple skills seamlessly or transition quickly from one movement to another during gameplay.

Similarly, the development of coordination observed in the post-tests demonstrates the role of neuromuscular adaptation facilitated by these exercises. Coordination is vital for athletes, particularly football players, to ensure synchronized muscle movements that enhance overall skill execution. The improvements confirm that training based on match-like scenarios can foster such motor abilities effectively, addressing common challenges faced by beginners such as movement disorganization and lack of muscle control.

For basic football skills, significant improvements were evident in dribbling, passing, and scoring abilities. The study attributes these gains to the well-structured, scientifically planned training program that gradually increased in complexity and intensity. Incorporating competitive elements within the exercises increased player engagement and motivation, activating both nervous and physical systems. This engagement led to enhanced psychological readiness, which further improved skill acquisition.

The researcher also highlights the importance of repetition in the learning process. The consistent practice of exercises allowed players ample opportunity to refine their techniques, with the number of repetitions carefully tailored to the age and developmental stage of the participants. This approach ensured optimal learning outcomes and skill mastery.

Moreover, the marked improvement in scoring ability can be attributed to the appropriateness of the exercises for the players' developmental stage. When training is delivered at the right time, considering players' physical and psychological maturity, it enhances their ability to absorb and execute complex motor skills. This underscores the interconnection between learning, maturity, and the capacity to perform specific football skills effectively.

Conclusions

Based on the findings of this study, it can be concluded that exercises similar to playing situations have a positive impact on the acquisition of certain motor abilities and basic skills in junior football players. Repeatedly performing specific exercises helped to acquire, establish, and improve these motor abilities and basic skills. Furthermore, the suitability of the activities for the players' age group greatly contributed to the effective acquisition of motor abilities and fundamental football skills. The elements of suspense, enjoyment, and competition embedded in exercises that mimic real game situations also played a key role in increasing players' motivation during training, thereby facilitating the learning process and enhancing the development of motor abilities and basic football skills.

In light of these findings, the following recommendations are proposed: incorporating exercises similar to playing situations, as applied in this research, into the training programs for junior football players; extending the use of such exercises to other sports and different age groups; emphasizing the importance of utilizing teaching aids during the execution of these exercises due to their effectiveness in skill acquisition and development; and selecting exercises that are appropriate for the players' age and developmental stage to ensure correct execution and support the learning process.

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