

The Effect of Specialized Transitional Speed on Developing some Offensive Variables for the Youth Football Pivot Player

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Abstract: Every study endeavor is driven by a specific goal that researchers aim to achieve. The present study seeks to design specialized transitional speed exercises and subsequently examine their effectiveness in developing selected offensive variables for the youth football pivot player. Transitional speed is considered one of the most critical physical attributes that distinguish athletes across various sports disciplines. It is defined as the ability to move swiftly from one location to another, it also requires a combination of strength, speed, and endurance. In this context, the study explores the significance of transitional speed in different sports and how to develop and enhance it among athletes. The experimental method was employed using a one-group design with pre- and post-tests. The sample of the study consisted of pivot players from Al-Miqdadiya Football Club, with the experimental group comprising two pivot players from the club. Additionally, a pilot sample included one pivot player outside the main study sample. Following the administration of tests, implementation of the primary training experiment, and achievement of results and statically analyzing them, the researchers came up with the following key conclusions: transitional speed exercises proved effective in improving selected offensive variables for youth football pivot players. The researchers recommend palcing greater emphasis on the development of the pivot player, both defensively and offensively.

Keywords: Exercises, Transitional Speed, Pivot Player

Introduction

Exercise is considered a fundamental part in preparing athletes both generally and specifically across all sports and athletic disciplines, provided it is practiced systematically and based on scientific principles. It is one of the various forms of physical activity, and its primary objective is optimal performance and the development of the capacity to execute essential skill requirements (Al-Hadithi, 2013, p.109). Coaches utilize exercises to ensure the precision of players' execution of fundamental skills—especially those applied in matches—while linking them to tactical learning and enhancing physical attributes. These exercises foster motor coordination in athletes (Mukhtar, 1996, p.125).

Abd Zaid (2013, p.157) defined exercise as “a set of physical positions and movements aimed at shaping and building the body and developing various motor abilities to achieve the highest possible level of athletic and functional (professional) performance in different life domains, based on educational and scientific principles of movement.” Similarly, Watout and Abdulaziz (2012, p.11) described it as “all exercises performed with

or without equipment, executed for educational purposes during physical and motor development to achieve high levels of athletic or professional performance.”

In football, training is a pedagogical process with scientific planning aimed at elevating the player to the highest possible level. It encompasses the preparation of all players across different skill levels and capacities, involving multidimensional development—physically, technically, and tactically. Sabah Ridha referred to sports training as “a specialized process for developing multiple athlete attributes, directed toward achieving optimal results” (Ridha et al., 1991, p.57). To achieve peak performance and keep pace with the sport’s evolution, training must be scientifically grounded and systematically organized in terms of training load and its distribution across training cycles to enhance both physical and technical aspects and integrate them effectively (Al-Khashab et al., 1999, p.12). Football training is defined as “a long and demanding process built on sound scientific foundations, aimed at training and refining football players using specialized and available methods to reach the highest possible training state for each player” (Al-Khashab et al., 1999, p.68). **Transitional speed** is a critical element in many sports such as football, basketball, sprinting, and gymnastics. Athletes with high transitional speed tend to perform better in matches and competitions. It plays a vital role in evading opponents and escaping challenging situations during gameplay. In football, transitional speed is essential due to the dynamic shifts on the field and the need to move from one location to another at maximum speed. It is one of the most important specialized physical attributes, contributing significantly to both defensive and offensive skills such as sprinting to gain possession, intercepting the ball, or occupying good space.

Jasim (2015, p.69) defined transitional speed as “the ability to move from one location to another in the shortest possible time, involving the movement of body mass in any of the four directions.” Khuraibit (2014, p.214) described it as “moving from one place to another at maximum possible speed, which means covering a specific distance in the shortest time possible, typically used in dual-nature movements such as sprinting.” Its importance is evident in team sports, particularly when escaping opponent pressure during competitive performance—especially when transitioning from walking or light jogging to peak sprinting speed in minimal time to achieve performance goals.

The **pivot player** is considered the heart of the football game, providing a certain level of balance to the team. Positioned as a defensive midfielder with offensive tendencies, the pivot stands ahead of the defenders and acts as the team’s regulator. His primary role is to disrupt opposing players and contribute to various tactical aspects, including directing teammates. Playing in this position requires physical strength, fitness, observational skills, and a comprehensive view of the field (Mahsasi, 1997). The pivot initiates attacks, applies pressure on the ball carrier, supports defenders in coverage, monitors opposing forwards in midfield, creates scoring opportunities, and occasionally takes shots during offensive plays (Ibrahim, 1985, p.64).

Study Problem:

The researchers observed that the pivot player serves as a vital link between defense and attack. This position demands speed, spatial awareness, and rapid movement and reaction. Therefore, training for this role must be of high quality and receive significant

attention. The researchers aimed to train the pivot players using transitional speed exercises to prepare them for any scenario in the match.

Study Objectives

- a. To design specialized transitional speed exercises.
- b. To examine the effectiveness of these exercises in improving selected offensive variables for the football pivot player.

Study Hypothesis

There are statistically significant differences between pre- and post-tests in favor of the post-tests regarding the study variables.

Study Domains

- a. **Human Domain:** Pivot players from Al-Miqdadiya Football Club (2 players) for the 2025 season.
- b. **Time Domain:** From February 8, 2025, to April 4, 2025.
- c. **Place Domain:** Al-Miqdadiya Football Club Stadium.

Methodology

Method of the Study

The researchers adopted the experimental method because of its appropriateness to the sample and problem of the study

Sample of the Study

The sample of the study included pivot players from (Al-Miqdadiya Football Club). The experimental group consisted of two (2), deliberately selected, pivot players while the pilot sample was consisted of one pivot player who was not from the sample of the study.

Methods of Data Collection, Devices, and Tools

2.3.1 Methods of Data Collection

- Arabic and international sources
- Data extraction form
- Measurement procedures

2.3.2 Devices and Tools Used

- One laptop computer
- One handheld electronic calculator
- One digital camera
- Measuring tape
- Ten official footballs
- Training mannequins
- Poles
- Stopwatch
- Standard football pitch

Field Procedures of the Study

Developing of Transitional Speed Exercises

Following a comprehensive review of numerous scientific sources and previous studies, and leveraging research expertise, a specialized training program was designed and developed consisting of ten exercises focused on transitional speed. The primary aim of this program was to enhance and develop selected offensive variables in football performance.

These exercises were characterized by a progressive structure, ranging from simple to complex, and were carefully designed based on scientific principles and the fundamentals of sports training. This approach was intended to maximize their effectiveness in improving players' performance. The exercises were implemented during the main experimental phase on the study sample to evaluate their impact on the development of offensive performance among football players.

Tests used in the Study

Test 1: Accurate Shooting Toward a Divided Goal (*Ali, 2004, p. 80*)

- **Purpose of the Test:** To assess the accuracy of shooting toward the goal.
- **Tools and Equipment Used:**
 - Six footballs
 - Tape to mark the designated shooting area
 - Standard football goal
 - Football pitch

Test Administration Method

- Six footballs are placed along the penalty area line, positioned 18 yards from the goal. The balls are spaced one meter apart. The player stands behind ball number 1, and upon receiving the start signal, is instructed to shoot toward the designated scoring zones outlined in the test. Each zone varies in difficulty and importance. The player must shoot sequentially from ball 1 through ball 6, using the foot..
- The test begins with ball number 1 and concludes with ball number 6.
- An attempt is considered invalid if the player fails to score in any of the three designated zones on either side of the goal, as well as the central zone.

Scoring Method

- Points are awarded based on the accuracy of the shot within the predefined goal zones, as follows:

Target Zone Score Awarded

Zone 4 4 points

Zone 3 3 points

Zone 2 2 points

Zone 1 1 point

Missed Shot 0 points

- This scoring system is applied to each of the six footballs. The total score is calculated by summing the points from all attempts, which serves as an indicator of the player's shooting accuracy performance.

Test 2: Passing Toward a Small Goal at a Distance of 10 Meters

(Ali, 2004, pp. 84–85)

- **Purpose of the Test:** To assess passing accuracy.
- **Tools and Equipment Used:**
 - Footballs
 - Training mannequins
 - Measuring tape
 - Small goal (dimensions: 100 cm width × 75 cm height)
- **Performance Description:** The player stands 10 meters away from the goal, holding the ball. Upon hearing the start signal, the player performs a controlled pass toward the goal.
- **Scoring Method:** Each player is given three passing attempts, scored as follows:
 - ⊙ **2 points:** For a successful attempt where the ball enters the goal.
 - ⊙ **1 point:** For an attempt where the ball makes contact with the goal.
 - ⊙ **0 points:** For an unsuccessful attempt where the ball does not touch the goalThe total score from the three attempts is used to evaluate the player's passing accuracy.

Test 3: Ball Rolling Between Mannequins from Goal Line to Penalty Area and Back

(Hamza, 1999, p. 35)

- **Purpose of the Test:** To measure ball rolling ability.
- **Tools and Equipment Used:**
 - One football
 - Six training mannequins
 - Stopwatch
- **Test Setup:** Six mannequins are fixed to the ground with the following spacing:
 - Distance between each mannequin: 2.5 meters
 - Distance from the first mannequin to the goal line (starting line): 4 meters
- **Performance Description:** The player stands behind the starting line. Upon receiving the start signal, the player rolls the ball between the mannequins, proceeding to the penalty area and returning to the goal line.
 - Each player is given two attempts.
 - The best attempt is recorded;
- **Scoring Method:** The time taken by the player to complete the ball rolling back and forth between the mannequins is recorded.
 - The player's best attempt is determined based on the shortest time achieved.
 - The times from both attempts are compared, and the better result is recorded.

Pilot Experiment

The researchers conducted a pilot experiment on a single player outside the main study sample on Saturday, February 8, 2025, at the Al-Miqdadiya Club football pitch. The purpose of this pilot experiment was to verify the suitability of the exercises and tests for the study sample, and to assess the efficiency of the supporting study team.

Based on the outcomes of this pilot experiment, the researchers were able to make necessary adjustments to the exercises and testing protocols prior to their implementation with the main sample, thereby enhancing the accuracy and reliability of the research procedures.

Pre-test

Upon completion of all preparatory procedures and verification of readiness, the researchers conducted the pre-test on Friday, February 14, 2025, at the Al-Miqdadiyah Club football field. The objective of this test was to assess the performance of the study sample prior to implementing the training program, thereby establishing baseline data for subsequent comparative analysis.

Main Experiment

The study sample consisted of two youth players from Al-Miqdadiyah Club, both of whom play in the central midfield position (pivot). These players were selected to undergo specialized training sessions to enhance transitional speed. The researchers designed targeted exercises aimed at improving the players' ability to transition effectively during gameplay. These exercises were implemented during the main phase of each training session.

- **Weekly Training Frequency:** 3 sessions per week (Saturday, Monday, Friday)
- **Training Program Duration:** 6 weeks
- **Total Training Sessions:** 18 sessions

Exercise Characteristics

- **Stimulation:** The exercises were designed to motivate the players and elicit peak performance.
- **Progression:** The training content followed a progressive structure, advancing from simple to complex tasks to facilitate gradual adaptation and improvement.

Training Modality

- **Type of Training:** High-intensity interval training (HIIT) with repeated bouts
- **Work-to-Rest Ratio:** 1:3 (1 minute of work followed by 3 minutes of rest)

The aim of this training and exercise was to enhance specific offensive capabilities in football. Through the application of intensive and targeted drills, the program sought to improve the players' athletic performance and increase their effectiveness during matches.

Post-test

Following the completion of all training sessions, the researchers conducted the post-test the study sample on Friday, April 4, 2025. The test was administered identical conditions to those of the pre-test. The purpose of this assessment was to evaluate the impact of the training exercises on the performance of the study sample and to compare the outcomes of the pre and post tests.

Statistical Methods

The researchers utilized the Statistical Package for the Social Sciences (SPSS) to perform the statistical analyses.

Result and Discussion

Presentation and Discussion of the Research Sample Results on the Study Variables in the Pre- and Post-tests.

Table (1). Displays the results of the research sample in the study variables for both the pre-test and post-test assessments.

Variables	Measurement Unit	Pre-test		Post-test		F test	F value	T	Significance
		Mean	Standard Deviation	Mean	Standard Deviation				
Passing	Successful attempts	1.5	0.35	2.75	0.46	1.25	0.25	5	Significant
Shooting	Total Points	6	2.39	11	3.16	5	1.569	3.185	Significant
Rolling	Second	11.2	1.53	9.33	0.705	1.896	0.543	3.492	Significant

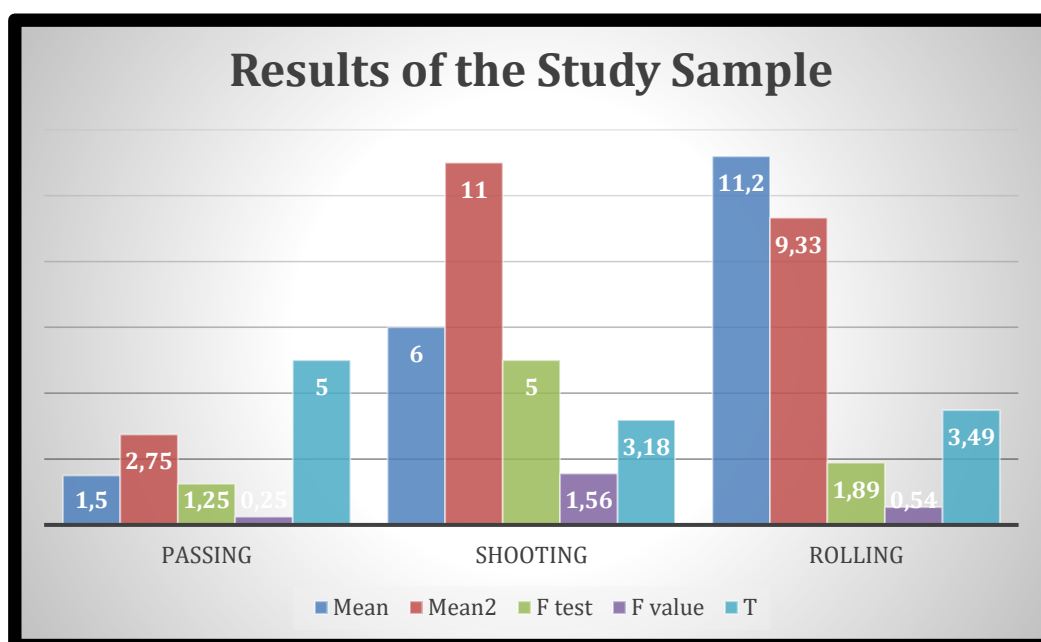


Figure (1). Illustrates the Study Results of Pre and Post Tests

Table (1) reveals statistically significant differences between the pre-test and post-test scores of the research sample, favoring the post-test across all examined variables. The researchers attribute these differences to the effectiveness of the transitional speed-specific exercises, which were implemented during the main part of the training session. The use of high-intensity interval training with repeated efforts had a clear and substantial impact on the development of the research variables.

This finding aligns with the assertion of Abdel-Fattah (1997, p.196), who stated that “various exercises are used to develop speed, including those specifically designed to enhance reaction time.” Similarly, Hassanein (1995, p.267) emphasized that “achieving optimal performance with minimal errors results from effective and appropriate training, enabling the player or learner to perform with speed and precision—hallmarks of reaching the automatic phase of performance.”

Sheikhly (2002, p.63) further noted that “the training process aims to qualify and improve the athlete’s level through scientifically grounded programs. These improvements stem from adherence to fundamental principles of training science, including the principle of progressive overload and the alignment of training load with the athlete’s capabilities.”

Training the holding midfielder (pivot player) requires individualized and specialized sessions, distinct from the rest of the team. The player demonstrated notable discipline during the exercises, which contributed to the development of his skills. Kamash (1999, p.16) affirmed that “a player must master the skills and, if seeking to advance his technical level, must become accustomed to executing the skill with consistency and high efficiency—enabling it to be used individually or collectively within tactical frameworks to execute optimal performance.”

Commitment to structured training session and the application of varied exercises with correct repetitions leads to improved player performance. Hussein (1998, p.34) pointed out that “an athlete can master a skill effectively when training is specialized during the training unit. The more repetitions of the skill, the more precise the mastery—provided the training is well-executed and aligned with the physical attributes required for the skill.” One of the most critical attributes for a holding midfielder is technical sensitivity during ball-rolling, which is considered one of the most fundamental skills in football. It serves as the foundation for learning and developing other skills and is deeply intertwined with core ball-related techniques, especially during the build-up and execution phases of offensive plays. As Mohammed (1994, p.124) stated, “rolling is vital and commonly used during the build-up phase of team attacks. Its importance increases during the development and execution stages, particularly when the opposing team focuses on defending near the penalty area.” Similarly, passing is among the most essential skills, as it forms the basis for constructing attacks. Successful passing is the cornerstone of scoring opportunities. The pivot often participates in goal-scoring actions, necessitating focused development of this skill. Increasing repetitions during training enhances experience, sensitivity, and accuracy in targeting the goal.

Conclusion

Following the statistical analysis of the obtained results, the findings revealed positive outcomes and noticeable improvements in the study variables, attributed to the application of transitional speed-specialized exercises. The researchers concluded that the implemented training regimen played an effective role in enhancing the targeted variables among youth football pivot players. Moreover, the use of progressive training principles—moving from simple to complex exercises—facilitated effective engagement and correct execution by the sample of the study, which in turn contributed to the observed development. Based on these findings, the researchers recommend placing greater emphasis on the pivot player position and enhancing its associated skills, given its central role in modern football. They also advocate for the integration of transitional speed exercises in the development of additional performance variables and across other playing positions.

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