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A Comparative Study Of Some Physical Attributes Among Different Playing Positions Of Football Players

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Abstract

Football is a diverse game that requires players to have multiple physical abilities, physical characteristics, and skills that are closely linked to each other to achieve excellence. The preparation of players and the improvement of their technical, physical, and tactical-psychological levels are the primary goals for which training programs are built and tests are conducted. However, the question remains as to which physical attribute is more available than others for this success. Therefore, the choice was made to focus on two important physical attributes in the game, namely speed-strength and agility. The importance of the research lies in revealing which of the different playing positions in football possess one of these two attributes more than others. The problem of the research is that the researcher observed through his field experience that all team players are subjected to the same physical exercises without distinguishing between one position and another in football. Since each playing position has specific characteristics and physical attributes to a certain degree that players must possess, the problem of the research lies in determining which of the different playing positions in football requires speed-strength and agility more than others.The objectives of the research are to identify the level of speed-strength among Al-Nasiriya Club football players, to identify the level of agility among Al-Nasiriya Club football players, to identify the differences between different playing positions in football in terms of speed-strength among Al-Nasiriya Club football players, and to identify the differences between different playing positions in terms of agility among Al-Nasiriya Club football players. The researcher used the descriptive approach, which is suitable for the nature of the research problem. The sample was chosen intentionally from Al-Nasiriya Club football players. The researcher used a set of necessary devices and tools to help obtain the required results to achieve the objectives and hypotheses of the research, in addition to relying on appropriate statistical means to process the results obtained.

Keywords: Comparative Study, Physical Attributes, Different Playing Styles, Football.

Introduction

The development witnessed in all areas of life is a defining characteristic of our current era, which has given sports a prominent place in the lives of nations and peoples. Numerous activities and events have become available to humankind, showcasing various forms of. His abilities spanned various fields and disciplines, and football was one of these games that held a prominent place among people at all levels, whether in official tournaments or in popular activities and practices of the game (Admin, 2025). Football is a diverse sport that requires its players to possess a range of physical abilities and attributes (Kuswoyo, 2018, 2020). Physical and technical skills are closely linked in order to achieve excellence, because preparing players and raising their technical, physical, tactical, and psychological levels is the primary goal for which training programs are developed and tests are conducted(Abarghoueinejad et al., 2021; Aiken, 1985; MacNamara et al., 2010). It is well known that integration in defense and attack, the ability to achieve a high level of performance, and the ability to play effectively are all crucialc(Abarghoueinejad et al., 2021). Good and skillful use of playing techniques is a crucial requirement in football; the success and progress of any team depends on possessing these qualities (Ah & S, 2020; Andrew et al., 2013). However, the question remains: which physical attributes are most important for this success? Therefore, two important physical attributes in the game were chosen: strength combined with speed and agility.

The importance of this research lies in identifying which of the different playing styles in football possesses one of the two characteristics more than the others.

Research Problem: The development that takes place in the game must be based on sound scientific principles and the use of proper planning in preparing the team, so that modern methods have become a conscious and skillful blending of individual and group play, and each of them serves and complements the other. However, the researcher, through his field experience, observed that all players on the team undergo the same physical exercises without differentiating between different playing positions in football (Dwi Saputro et al., 2018; Haney Aguirre-Loaiza, 2025). Because each playing position has specific characteristics and physical attributes that players must possess to a certain degree, the research problem lies in identifying which of the different playing positions in football are the most common. Two attributes are most needed: speed-strength and kinetic speed.

Research Objectives:

The research aims to:

1- Identify the level of speed-strength among Al-Nasiriya football club players

2- Identify the level of kinetic speed among Al-Nasiriya football club players

3- Identifying the differences in speed-strength characteristics between the various playing styles in football among Al-Nasiriya football club players.

4- Identifying the differences in speed-strength characteristics between the various playing styles in football among Al-Nasiriya football club players.

Research Hypotheses:

The researcher hypothesizes the following:

1- There are differences between the different playing positions in football in terms of the characteristic of speed-strength.

2- There are differences between the different playing positions in football in terms of the characteristic of kinetic speed.

2- Research Methodology and Field Procedures

2-1 Research Methodology:

The researcher used the descriptive method with a survey approach because it is suitable for the nature of the problem. This method aims to collect data and attempt to select hypotheses and answer the questions.

2-2 Research Sample:

The research sample was selected purposively and consisted of (15) players from the Al-Nasiriya Sports Club football team, out of (20) players who participated in the qualifiers. Thus, the sample constituted (75%) of the original total.

2-3 Research Methods and Equipment:

1. Arabic Sources and References

2. Two Stopwatches

3. Measuring Tape

4. Five Footballs

2.4 Field Research Procedures:

2.4.1 Identifying and Testing the Variables:

In order to determine the variables of physical abilities, the researcher resorted to using scientific sources and research that dealt with the above topic, as well as taking into account the instructions of the supervisor and conducting personal interviews with people with scientific and field experience, as the physical attributes were determined, namely (strength characterized by speed and movement speed).

After identifying the physical attributes, the researcher consulted scientific sources and references to determine physical ability tests.

2-4-2 Test Description:

1- Test (Forward Jump Maximum Distance in 20 Seconds) (Qais Naji: 1984)

 The aim of the test: To measure the speed-strength of the leg muscles. Equipment

(1) A playing field measuring approximately 20-30 meters.

(2) A timer.

(3) A measuring tape.

Performance Description: After the researcher explained the test components in detail, a proper warm-up was conducted to prevent injuries and ensure successful test performance. The test involved jumping (from a fully bent knee position) on a line. The distance is measured in 20 seconds, ensuring that no part of the body touches the ground during the jumps except the feet, and that the jumper stays within the marked line. Maximum strength and speed are exerted to achieve the greatest possible distance.

Evaluation: The distance covered is an indicator of the speed-strength of the leg muscles.

2- 10m Flying Start Sprint Test (Ezzat Mahmoud Kashef: 1987).

Purpose of the test: To measure kinetic speed. Required equipment: A track and field or an arena at least 15m long and of suitable width. The testing area is marked by three parallel lines where:

(S) = Starting line

(Y) = Acceleration zone

(P) = Speed demonstration zone.

3 timing devices and assistants

Performance description: Each player takes their assigned running field in the starting zone. Upon hearing or seeing the signal to start, they accelerate to reach their maximum speed, working to complete the speed acquisition phase in the acceleration zone. The second starting line is where the timer begins, counting down to the nearest second as the competitor covers a 10-meter distance, culminating in crossing the finish line.

Test Instructions:

1- Players must assume the correct starting position (high start directly behind the starting line).

2- Speed of execution.

3- Two players are selected simultaneously to ensure a competitive environment.

4- Selection is repeated twice after giving the competitors a sufficient rest period.

Recording: The time of the longest attempt out of two is recorded using three electronic timers.

2-4-3 The Exploratory Experiment:

"The exploratory experiment is a small-scale experiment conducted by the researcher to determine the extent to which the validity of the main experiment has changed. Its importance lies in identifying the negative aspects that the researcher will face in order to avoid them in the main experiment (Wajih Mahjoub: 1988)" The researcher conducted the experiment on a sample of (4) players on Monday, November 24, 2025, at 10 AM, in order to identify the most important difficulties and obstacles that researchers may face while conducting the main experiment.

2-4-4 Main Experiment:

The researcher began the main experiment on Sunday, December 14, 2025, at 10:00 AM with the main experimental sample, and the results were recorded for statistical analysis.

2-7 Statistical Methods:

The researcher used SPSS version 25 to extract the results.

3- Presentation and Discussion of Results

3-1 Presentation and Discussion of Results of Differences Between Playing Lines in Football in the Attribute of Kinetic Strength

Table No. (1)

Shows the values of the arithmetic means, standard deviations, and research variables

Playing Lines	Explosive Speed	Power Characterized by Speed

	x	sd	x	sd
Defense	3.12	0.33	2.19	0.19
Midfield	3.67	0.21	2.16	0.9
Attack	3.11	0.12	2.18	0.4

Table (1) shows the values of the arithmetic means and standard deviations for the different playing lines in football in the two attributes of movement speed and speed-strength, where the defensive line players achieved an arithmetic mean of (3.12) with a standard deviation of (0.33) in movement speed and they achieved (2.19) with a standard deviation of (0.19) Midfielders achieved a mean score of (3.67) in movement speed with a standard deviation of (0.21), and in speed-strength they achieved (2.16) with a standard deviation of (0.9). Forwards achieved a mean score of (3.11) in movement speed with a standard deviation of (0.12), while in speed-strength they achieved a mean score of (0.19).

The calculated value is (2.18) with a standard deviation of (0.4).

Table No. (2) shows the results of the variation in the lines of play in football in the characteristic of kinetic speed.

Source of Variation	Temperatures	Sum of Squares (SS)	Mean Square (MS)	F Value		Error Rate	Statistical Significance
				Calculated (Computed)	Tabulated (Critical)		
Between Groups	2	0.198	9.88	0.468	3.88	0.05	Not Significant
Within Groups	12	2.534	0.211				

Table (2), which shows us the calculated and tabulated (F) value and the significance of the differences in the kinetic speed attribute between the different playing lines in football, reveals that there are no statistically significant differences between the playing lines in this attribute. This means that the players' level is similar in all playing lines, but this type of speed is often What are the closed movements that are performed once and end, such as the movement of kicking the ball, shooting and dribbling with the ball, meaning that each movement skill or line of play has a specific movement speed, and the researcher attributes

this to the fact that all players are subjected to the same physical exercises without differentiating between one line of play and another, which made them at a similar level.

3-2 Presenting and discussing the differences in strength and speed between the playing lines in football:

Table No. (3)

Source of Variation	Temperatures	Sum of Squares (SS)	Mean Square (MS)	F Value		Error Rate	Statistical Significance
				Calculated (Computed)	Tabulated (Critical)		
Between Groups	2	4,232	2,116	0,468	3,88	0,05	Not Significant
Within Groups	12	0,233	1,943				

Table (3) shows the calculated and tabulated (F) value and the significance of the differences in the speed-strength attribute between the different playing lines in football. We note that there are no statistically significant differences between the playing lines in this attribute, meaning that the football players in Al-Nasiriya Club, despite their different playing lines, are They possess almost the same level of speed-strength attribute, and the researcher attributes this to the fact that the players practice the same physical exercises both during and outside of training time.

4-1 Conclusions:

In light of the results obtained, the researcher reached the following conclusions:

1- The football players in Al-Nasiriya Sports Club possess good movement speed ranging between (3.48 – 3.59 / second).
2. The football players at Al-Nasiriya Sports Club possess a speed-strength rating between 2.16 and 2.20 meters.

3. There is no significant difference in speed between the various playing positions in football.

4. There is no significant difference in speed-strength between the various playing positions in football.

4-2 Recommendations:

The researcher recommends the following:

1- Focusing on exercises that develop speed and speed-strength due to their significant importance in football.

2- Emphasizing the development of physical attributes essential for most positions on the football field.

3- Conducting similar studies on other physical attributes in football.

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