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CONSTRUCTING TESTS FOR SHOOTING AND **PASSING SKILLS IN AM**PUTEE FOOTBALL PLAYERS

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Abstract

This study is aimed at:

- 1. Construct tests for shooting and passing skills in amputee football players.
- 2. Develop standardized tables and normative levels for these skills in amputee football players.

The researchers used the method of a descriptive survey. For the 2024–2025 season, 90 amputee football club players from Baghdad, Central Euphrates, Nineveh, and Basra (not including the Kurdistan Region) were included in the research population. The eleven goalkeepers were not allowed to play since their impairment (upper limb amputation) was different from that of the other field players (lower limb amputation). There were seventy players in the final sample after nine individuals were eliminated because of injuries. From this population:

- **Five players** were selected for a **pilot study**, representing **5.55%** of the research population.
- The construction sample consisted of forty-five players from Nineveh, Central Euphrates, and Basra, representing 50% of the total sample.
- The standardization sample comprised twenty players from Baghdad Club, representing 22.22% of the total population.

The study reached several key findings:

- 1. Construction of a **5.4-meter shooting skill test** for amputee football players.
- 2. Construction of an **8.5-meter shooting skill test** for amputee football players.
- 3. Construction of a short passing skill test for amputee football players.
- 4. Development of normative levels and scoring standards for the 5.4-meter shooting test.
- 5. Development of normative levels and scoring standards for the 8.5-meter shooting test.
- 6. Development of normative levels and scoring standards for the short passing test.

Based on these conclusions, the researchers recommend:

- 1. Adopting the constructed tests for amputee football players in sports clubs specialized in this category.
- 2. Utilizing these tests in talent identification and classification according to sports selection stages.
- 3. Constructing tests for additional fundamental skills not covered in this study.
- 4. **Integrating** the skill-based tests with **physical performance tests** for amputee football players.

5. Linking the current skill tests with psychological and functional assessments for amputee football **Keywords:** (Construction, Tests, Shooting, Passing, Amputee Football)

1- Introduction to Research

1.1 Research Background and Importance

For amputee football players in particular and persons with disabilities in general, participating in sports is one of the most successful and efficient ways to give their lives purpose and hope. Through athletics, athletes demonstrate to themselves, their loved ones, and the public that their impairment does not stand in the way of fulfilling their life goals. Playing sports gives them a purpose that allows them to overcome obstacles, endure

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pressure, and perform at higher levels, resulting in outcomes and accomplishments that validate their existence as people with full rights to participation in society and belonging. It also helps them develop self-confidence, determination, and perseverance.

For amputee football players, football offers a tremendous chance to improve their quality of life. It gives individuals a sense of involvement and community belonging while also enhancing their psychological health, emotional stability, and physical fitness. According to the article, "Individuals with limb loss often experience physical and psychological challenges due to amputation" However, "engaging in sports activities has significantly and positively contributed to the development of individuals with lower or upper limb amputations, enhancing their physical, psychological, and social well-being while helping to mitigate the negative effects of amputation" ¹

One activity that people with physical limitations, particularly those who have lost an upper or lower limb, participate in is amputee football. It is described as "a sport designed for individuals who have experienced the amputation or absence of a limb, with most of its rules closely resembling those of regular football".

The game is therefore divided into two parts, each lasting 25 minutes (2×25 minutes), with a 5-minute intermission. With a goal height of 2.2 meters, a width of 5 meters, and a depth of 1 meter, the field used for the match is between 40 and 60 and 55 and 70 meters.

Six outfield players with lower limb amputations (either above or below the knee) and one goalie with an upper limb amputation make up each team's seven players. Competitors are not allowed to use forearm crutches, wear prosthetic limbs, or purposefully use their remaining limbs to block the ball.²

Amputee football entails a range of basic abilities executed with one leg while utilizing forearm crutches to facilitate movement. Players must possess a high degree of technical preparedness to perform skills with appropriate form. To create training plans that are appropriate, improve performance, and reach higher levels of specialization based on the demands of the sport, coaches need to have reliable and objective indications of their players' health and technical competency.

The use of tests and measurements, which are useful instruments for assessment, is one of the main objective markers in this procedure. According to the statement, "as the cornerstone of contemporary scientific theories aimed at attaining elite athletic performance in any sport or discipline, tests and measurements are among the most effective and crucial tools for reinforcing the principles of structured scientific planning."³

One of the primary and most important instruments in any evaluation process is a test or measurement. Using objective measures yields accurate and vital data that may be used for a variety of basic measurement applications, such as scientific study, classification, and prediction. Sports performance measurement techniques are regarded as one of the most crucial resources a coach should have.

As stated,

"Coaches who have achieved great sporting accomplishments across various disciplines are those who have relied on research and measurement in planning and developing training. As a result, physical and skillbased tests and measurements have become an essential and integral part of the success of any training or

¹ Bragaru M., et al; Barriers and facilitators of participation in sports: a qualitative study on Dutch individuals with lower limb amputation: (PLoS One. 2013) p.8

² Yazicioglu, K. et al; Effect of Playing Football (Soccer) on Balance, Strength, and Quality of Life in Unilateral Below-Knee Amputees: (Am. J. Phys. Med. Rehab. 2007)p.86.

³ Al-Khuli, Muhammad Faris & Abu Al-Tayyib, Muhammad Hassan. Constructing a Test Battery to Measure Physiological, Skill, and Physical Variables Among Junior Boxers in Jordan. Jordan: The University of Jordan, Dirasat: Educational Sciences Journal, Vol. 46, No. 1, Supplement 2, 2019, p. 607.

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sports program aimed at enhancing technical and skill performance, leading many countries to place significant importance on this aspect."⁴

The development of skill assessments and its clear significance in assessing some of the fundamental abilities of amputee football players are what make this research significant, as it provides an unhindered perspective and evaluation of their ability level. Additionally, it offers solutions, performance evaluation, and error detection in training or competition settings, all of which will help coaches improve the game in a precise and objective way. Furthermore, the researchers conducted this study as a humanitarian and ethical obligation to support this significant societal group.

1.2 Research Problem:

To the best of their knowledge, the researchers did not identify any studies at the local or worldwide level that addressed the evaluation of the skill aspect of amputee football, despite their observation of local amputee football matches and their review of many scientific materials and references. Nevertheless, the sport has become more prestigious in the nation, particularly since the national squad earned a spot in the 2022 Amputee Football World Cup in Turkey. This led the researchers to build skill tests as a key factor in evaluating players with limb loss when performing various skills in this game. This research also aims to help coaches move away from self-assessment in measurement and to keep up with modern developments, benefiting those working in the field of training. The proposed tests will provide a more comprehensive and objective judgment to determine the skill level of players in amputee football.

1.3 Research Objectives:

The research aims to:

- 1. Develop tests for the scoring and passing skills of amputee football players.
- 2. Create normative tables and levels for some basic skills of amputee football players.

1.4 Research Scope:

- 1. **Human Scope:** Amputee football players from club teams in Iraq, excluding the Kurdistan region, for the 2024-2025 sports season.
- 2. **Temporal Scope:** From August 15, 2024, to February 2, 2025.
- 3. **Spatial Scope:** The fields and stadiums of the clubs of the research sample.

1.5 Definition of Terms:

1.5.1 Amputation (Amputation):

Defined by Ziad Kamil Al-Lala (et al., 2013), citing Abdulaziz Al-Sartawi and Jamil Al-Samadi (2010), as "the loss or removal of a limb from the body or a clear reduction in the size of one or more limbs. This amputation or deformity in the limbs can either be congenital (which is the majority) or acquired due to accidents or injuries."⁵

2- Research Methodology and Field Procedures:

2-1 Research Method:

The researchers used the descriptive survey method with the aim of "understanding the phenomenon under study, determining its current status, and identifying its strengths and weaknesses in order to assess the suitability of this situation or the need for partial or fundamental changes." ⁶

2-2 Research Population and Sample:

⁴ Mansour Nasser Al-Suwayan; Establishing Normative Standards for Certain Physical Fitness and Physiological Elements of Saudi U-17 Football Players: (Unpublished Master's Thesis, King Saud University, Riyadh, Saudi Arabia, 2006), p. 32.

⁵ Ziad Kamil Al-Lala (et al.), Essentials of Special Education, 2nd Edition (Amman: Dar Al-Messira for Publishing, Distribution, and Printing, 2013), p. 385. 6 Dawqan Obaidat; Scientific Research – Its Concept, Tools, and Methods: (Amman, Dar Al-Fikr for Publishing and Distribution, 1988), p. 201.

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The population is "all the elements that a variable can take"⁷, while the research sample "is the model on which the researchers perform their work, and in fields such as psychology, education, sociology, and sports science, for example, the sample is human"⁸.

Football players with amputations from Iraqi clubs, with the exception of the Kurdistan area, who played in Bagdad, the Central Euphrates, Nineveh, and Basra during the 2024–2025 season made up the research population. There were ninety players in all. The eleven goalkeepers were not allowed to play since they had a different kind of impairment (one arm amputation) than the other field players (one lower limb amputation). Seventy participants made up the final research sample after nine players were eliminated because of injury.

Five participants, or 5.55 percent of the research population, were chosen for the pilot study. Forty-five players, or half of the sample, were drawn from the clubs in Nineveh, Central Euphrates, and Basra for the construction sample. Twenty players from the Baghdad club, representing 22.22% of the entire population, were included in the standardized sample.

(Mohammad Khair Eddin Saleh, 2016) states that "the percentage for selecting the construction sample ranges between 40-70%" (4), which the researchers applied in determining their construction sample. The research sample was divided into two groups: the test construction sample and the standardization sample, selected by random draw. Table (2) illustrates this.

Name of Club	Test Standardization Sample	Test Construction Sample	Exploratory Trial Sample	Goalkeepers	Injured Players	Total Players	Percentage (%)
Baghdad	20	1	3	-	-	23	22.22
Nineveh	-	10	5	3	3	21	23.33
Middle Euphrates	-	20	-	3	3	26	28.89
Basra	-	15	-	2	3	20	22.22
Total	20	45	5	11	9	90	100

2-3 Research Tools and Equipment:

2-3-1 Data and Information Collection Methods:

The researchers used a variety of methods to collect data and information, as follows:

- 1. Arabic and foreign sources and references.
- 2. The internet.
- 3. A questionnaire to survey the opinions of experts and specialists on identifying some basic skills for amputee football players. (Appendix 2)
- 4. A questionnaire to survey the opinions of experts and specialists on determining the tests for some basic skills for ampute football players. (Appendix 4)
- 5. Personal interviews.
- 6. A data recording form. (Appendix 5)

2-3-2 Equipment and Tools:

- 1. One HP computer (1).
- 2. Two stopwatches (2).
- 3. Gray rubber bands for making squares inside the goals.
- 4. Ropes and cones.

⁷ Loy Al-Sumaidie (et al.); Statistics and Testing in the Sports Field, 1st Edition: (Erbil, B.M., 2010), p. 14.

⁸ Wajih Mahjoub; Scientific Research and Its Methodologies: (Baghdad, Directorate of Books for Printing and Publishing, 2002), p. 267.

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- 5. Marking pens for the forms.
- 6. Vietnamese type whistle.
- 7. Measuring tape (meter and parts).
- 8. Seven legal footballs.
- 9. A legal football field for amputee players.

2-4 Field Research Procedures:

2-4-1 Administrative Procedures:

The researchers carried out the following administrative procedures:

- 1. Conducted a field survey of the game in all football clubs in Iraq and gathered information about it.
- 2. Obtained a facilitation letter from the college addressed to the Iraqi Football Federation for amputees. (Appendix 1)
- 3. Obtained official approval from Dr. Mohammed Adnan Al-Najaz, President of the Federation, to carry out the tests for the current study.
- 4. Contact coaches and their assistants to schedule a date for each club.
- 5. Visited each club of amputee football players to review the information that the researchers would need later, according to the variables of the current study.

2-4-2 Identifying Basic Skills in Amputee Football:

To identify some of the fundamental amputee football talents that could be chosen for the study, the researchers conferred with experts and professionals (Appendix 3). For every skill, they determined the percentage. Those who obtained the highest agreement rates, that is, the highest percentage attained for each skill—were chosen from the results, which displayed the agreement percentages on the necessary skills. The researchers assumed that each talent would be adopted at a rate of at least 75%. According to Benjamin Bloom et al., "the researchers should obtain an agreement rate of 75% or more from the judges' opinions"⁹. Table (3) shows this.

Skill	Total Number of	Number of	Number of	Percentage
	Experts	Approvals	Rejections	(%)
1. Scoring				
A. Scoring from (5, 4m)	15	13	2	86.66%
B. Scoring from (5, 8m)	15	12	3	80%
C. Scoring from (8m or	15	10	5	66.66%
more)				
2. Passing				
A. Short Pass	15	12	3	80%

2-4-3 Construction of Tests for Some Basic Skills of Amputee Football Players

After identifying some of the basic skills for amputee football players, the researchers constructed (28) tests. Table (4) illustrates this.

Basic Skills	Distance	Number of Tests
1. Shooting Skill	3, 5 meters	(5) Tests

⁹ Benjamin Bloom (et al.); "Summative and Formative Student Assessment"; Translated by Mohamed Amin Mufti et al.; (Cairo, McGraw-Hill Publishing House, 1983) p. 126.

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2. Shooting Skill	5, 8 meters	(5) Tests
3. Short Passing	According to the test	(3) Tests

The questionnaire (Appendix 4) was presented to the esteemed experts and specialists (Appendix 6) to identify some of the basic skills for amputee football players. After the data was processed (Appendix 5), an agreement percentage of 75% or more was adopted. Table (5) shows this.

No.	Test	Test Number	Total Experts	Agreeing Experts	Disagreeing Experts	Percentage
		1	15	9	6	60%
	Shooting from a	2	15	8	7	53.3%
1	Distance (3, 5 m)	3	15	10	5	66.66%
	Distance (3, 5 m)	4	15	13	2	86.66%
		5	15	13	2	86.66%
		1	15	14	1	93.33%
	Shooting from a	2	15	10	5	66.66%
2	2 Distance (5, 8 m)	3	15	9	6	60%
		4	15	12	3	80%
		5	15	7	8	46.66%
3		1	15	6	9	40%
	Short Passing	2	15	12	3	80%
		3	15	12	3	80%

2-5 Pilot Experiments

2-5-1 First Pilot Experiment:

On Wednesday, November 13, 2024, a sample of five Nineveh Club players—or 5.55% of the research population—participated in the first pilot trial. With the help of the team in Annex (9), the experiment sought to determine whether the test was suitable for the sample level and to find obstacles that fit the test, as stated in Annex (7). The goals were to:

- 1. Assess the suitability of the tests for the sample level and the clarity of instructions.
- 2. Determine the time required to complete the tests during execution.
- 3. Identify the appropriate number of attempts that align with the objective of each test.
- 4. Ensure the safety of the tools used and the presence of proper spaces for the equipment.
- 5. Evaluate the sufficiency of the assistant team (Annex 9).

The results of this experiment showed the following:

- The appropriateness of the tests used for the research sample after making some adjustments based on the first pilot sample, as follows:
 - Modifying the distance in the shooting test and goal divisions.
 - Modifying the distance in the short pass test.
 - Modifying the distance in the medium pass test.

2-5-2 Second Pilot Experiment:

The researchers conducted the second pilot experiment on the same sample of five players from Nineveh Club, which was used in the first pilot experiment, to verify the adjustments made to some tests. This experiment took place on Tuesday, November 19, 2024, to ensure the readiness of the tests for implementation. 2-6 Scientific Validity of the Tests:

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- Validity:
 - **Face Validity**: Achieved by presenting the tests to experts who approved them, thereby granting the tests face validity.
 - **Construct Validity**: Determined by calculating the square root of reliability.
- **Reliability**: Determined by applying for and reapplying for the tests.
- **Objectivity**: Assessed by finding the correlation degree between the evaluation of two raters.

Test No.	Test	Measurement Unit	First Application (M ± SD)	Second Application (M ± SD)	Reliability Coefficient	Self-Validity	Objectivity
1	Shooting (5.4 meters)	Degree	6.977 ± 1.844	7.088 ± 1.725	0.893	0.944	0.93
2	Shooting (5.4 meters)	Degree	6.911 ± 1.689	6.955 ± 1.580	0.935	0.966	0.87
3	Shooting (5-8 meters)	Degree	7.555 ± 1.803	7.533 ± 1.752	0.983	0.991	0.91
4	Shooting (5-8 meters)	Degree	5.022 ± 1.011	4.755 ± 0.773	0.705	0.839	0.94
5	Passing (Short Pass)	Degree	5.888 ± 1.132	5.888 ± 1.112	0.928	0.963	0.98
6	Passing (Short Pass)	Degree	6.466 ± 1.235	6.377 ± 1.248	0.929	0.963	0.96

2-7 The Main Experiment:

2-7-1 Sample for Test Construction: The tests were conducted on a sample of forty-five players from Ninawa, Al-Furat Al-Awsat, and Basra clubs with the help of the supporting team, as shown in Table (2). The test days were divided as follows:

- Ninawa Club on Tuesday, December 3, 2024.
- Al-Furat Al-Awsat Club on Tuesday, December 10, 2024.
- Basra Club on Sunday, December 15, 2024.

2-7-2 Sample for Test Standardization (Application): The researchers applied the tests (Appendix 8) on the standardization sample, which consisted of twenty players from Baghdad Club, as shown in Table (2), on Friday, December 27, 2024, with the help of the supporting team (Appendix 9).

2-8 Statistical Methods: The researchers used the SPSS statistical package to process the data and extract the results according to the research variables.

3-1 Presentation of the Tests for the Skills of Shooting, Short Passing, Medium Passing, Rolling, and Trapping: In this chapter, the researchers present the final form of the tests they developed, which include the establishment of levels and standard scores. The researchers adopted the normal distribution with three levels, where each level represents two standard deviations. Figure (5) illustrates this.

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3-2 Display and Analysis of the Tests:

<u>3-2-1 Display and Analysis of the Goal Scoring Test from 4 Meters for Football Players with</u> Amputations

3-2-1-1 Detailed Specifications of the 4-meter Test for Football Players with Amputations

Test Name: Goal Scoring from 4 Meters from a Standstill Position on Specific Parts of the Goal for Football Players with Amputations.

Purpose of the Test: To measure the accuracy of goal scoring from four meters to the goal.

Requirements and Equipment:

- A legal football field for players with amputations
- Three legal footballs
- Whistle
- Measuring tape
- Clear adhesive tape (5 cm wide)

Performance Description: The ball is placed four meters in front of the goal line. The goal is divided into nine equal sections in the shape of squares using adhesive tape. The player must strike the ball with their kicking foot towards one of the marked squares when hearing the whistle. As illustrated in **Figure (6)**. **Conditions:** Each player is given three attempts. The attempt is re-evaluated if the ball hits the crossbar or the goalposts. If the player's crutches touch the ball during the test, the attempt is considered unsuccessful. **Scoring:**

- If the player scores in the middle square at the bottom of the goal or the one above it, they receive one point.
- If the player scores in the top center square, they receive two points.
- If the player scores in one of the top corner squares of the goal, they receive four points.
- If the player scores in the middle square on either side of the goal, they receive two points.
- If the player scores in one of the bottom corner squares, they receive three points.
- If the ball does not enter the goal, the score is zero.

The maximum score for the test is twelve points, and the minimum score is zero.

Unit of Measurement: Only the score (points).

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Figure (6) illustrates shooting from four meters from a stationary position for amputee football players. 3-2-1-2 Standard Levels and Standard Scores for the 5.4 Meter Shooting Test

Table (7) Descriptive Statistics for Test Number (4) / Shooting from 4 Meters

Statistic	Value
Mean (S-)	8.050
Standard Deviation (±SD)	1.820
Mode	8
Lowest Value	5
Highest Value	12
Skewness	0.027

From Table (7), we can infer that the test is appropriate for the sample level and closely approximates a normal distribution, as indicated by the skewness coefficient of 0.027, which falls within the range of ± 1 . This suggests a normal distribution of the sample results.

Table (8) Standard Levels for Test Number (4) / Shooting from 4 Meters

Level	Values	Frequency	Percentage (%)
High	Eleven and above	4	20%
Medium	8-10	11	55%
Low	Seven and below	5	25%

Table (9) Raw Scores and Standard Scores (δ-6) for Test Number (4) / Shooting from 4 Meters

Raw Score	Standard Score (δ-6)	Raw Score	Standard Score (δ-6)
5	22.064	9	58.7014

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6	31.2234	10	67.8607
7	40.3827	11	77.0201
8	49.542	12	86.1794

3-2-2 Presentation and Analysis of the 5-Meter Shooting Test for Amputee Football Players

3-2-2-1 Detailed Specifications of the 5-Meter Shooting Test for Amputee Football Players:

Test Name: Shooting from five meters from specified side locations for ampute football players.

Purpose of the Test: To measure the accuracy of the shooting skill from five meters from specified side locations inside the penalty area.

Equipment and Tools:

- A legal football field for amputee players
- Three legal footballs
- Whistle
- Measuring tape to mark the distance
- Clear-colored adhesive tape (5 cm wide)

Performance Description:

Within the penalty area, the ball is positioned five meters from the goal's center on either side. Clearcolored sticky tape is used to partition the goal into nine equal squares and indicate the ball's position. Every square has a point value given to it. When the whistle sounds, the player will kick the ball toward the goal, selecting the side of the goal to shoot from and kicking with the proper foot. In Figure (7), the precise execution is displayed.

Conditions:

Each player is given three attempts. The attempt is repeated if the ball hits the crossbar or goalposts. If the player's crutch touches the ball during the test, the attempt is considered unsuccessful.

- Scoring:
 - If the player scores in the bottom square or the one directly above it in the center of the goal, they receive one point.
 - If the player scores in the middle square at the top of the goal, they receive two points.
 - If the player scores in one of the upper corners, they receive four points.
 - If the player scores in the middle square on the sides of the goal, they receive two points.
 - player scores in one of the lower corners, they receive If the three points. The highest possible score for the test is twelve points, and the lowest score is zero.

Unit of Measurement: Only points.

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Figure (7) Shooting Test from (5) M for Amputee Football Players

3-2-2-2 Standard Levels and Standard Scores for the Shooting Test (5m)

Table (10) Descriptive Statistics for Test No. (5) / Shooting from 5 Meters

Mean (X)	±SD	Mode	Lowest Value	Highest Value	Skewness
7.650	1.496	8	5	10	-0.233

From Table (10), it can be inferred that the test is suitable for the sample level and follows a normal distribution, as indicated by the skewness coefficient (-0.233), which falls within the range (\pm 1). This suggests a normal distribution of the sample results.

Table (11) Standard Levels for Test No. (5) / Shooting from 5 Meters

Level	Values	Frequency	Percentage
High	Ten and above	4	20%
Medium	8-9	13	65%
Low	Seven and below	3	15%

Table (12) Raw Scores and Standard Scores (δ-6) for Test No. (5) / Shooting from 5 Meters

Raw Score	Standard Score (δ-6)	Raw Score	Standard Score (δ-6)
5	20.4709	8	53.9001
6	31.614	9	65.0431
7	42.757	10	76.1862

3-2-3 Presentation and Analysis of the (5m, 8m) Shooting Test for Amputee Football Players **3-2-3-1** Detailed Specifications of the (5m, 8m) Shooting Test for Amputee Football Players

- Test Name: Shooting from (5-8) Meters for Amputee Football Players.
- **Purpose of the Test:** Measure shooting accuracy from various locations.
- **Facilities and Equipment:**
 - A standard amputee football field.
 - Six official footballs.

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- Measuring tape to determine distances.
- A whistle.
- A 5 cm wide adhesive tape in a clearly visible color.

Test Description:

The goal is divided into six equal-sized sections using adhesive tape. The balls are placed on the penalty area line as follows:

- Two balls in front of the penalty area.
- One ball on the right sideline of the penalty area.
- One ball on the left sideline of the penalty area, measured from the goalposts at specific distances (5-8 meters).

Upon hearing the whistle, the player shoots using their dominant foot, aiming at the designated goal sections from their preferred position, either from the right or left side, as illustrated in **Figure (8)**.

Test Conditions:

- Each player is given three attempts.
- If the ball hits the goalpost or crossbar, the attempt is considered invalid.
- If the player's crutch touches the ball during the shot, the attempt is also considered invalid.

Scoring System:

- If the player scores in the **bottom** center section of the goal $\rightarrow 1$ point.
- If the player scores in the top center section of the goal \rightarrow 3 points.
- If the player scores in one of the top corner sections of the goal \rightarrow 4 points.
- If the player scores in one of the bottom corner sections of the goal $\rightarrow 2$ points.
- If the ball does not enter the goal $\rightarrow 0$ points.
- Maximum Score: twelve points.
- Minimum Score: zero points.
- **Unit of Measurement:** Points only.



Figure (8) Shooting Test from (5-8) M for Amputee Football Players **3-2-3-2** Standard Levels and Standard Scores for the Shooting Test (5-8m)

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Table (13) Descriptive Statistics for Test No. (1) / Shooting from 5-8 Meters

Mean (X)	±SD	Mode	Lowest Value	Highest Value	Skewness
7.600	1.500	8	5	11	-0.266

From Table (13), it can be inferred that the test is suitable for the sample level and follows a normal distribution, as indicated by the skewness coefficient (-0.266), which falls within the range (\pm 1). This suggests a normal distribution of the sample results.

Table (14) Standard Levels for Test No. (1) / Shooting from 5-8 Meters

Level	Values	Frequency	Percentage
High	Ten and above	2	10%
Medium	8-9	14	70%
Low	Seven and below	4	20%

Table (15) Raw Scores and Standard Scores (δ-6) for Test No. (1) / Shooting from 5-8 Meters

Raw Score	Standard Score (6-6)	Raw Score	Standard Score (δ-6)
5	21.1053	9	65.5587
6	32.2187	10	76.672
7	43.332	11	87.7853
8	54.4453		

3-2-4 Presentation and Analysis of the Shooting Test from the Penalty Area Corners for Amputee Football Players

3-2-4-1 Detailed Specifications of the Shooting Test from the Penalty Area Corners for Amputee Football Players

- **Test Name:** Measuring Shooting Accuracy from the Penalty Area Corners for Amputee Football Players.
- **Objective:** To measure shooting accuracy from the penalty area corners.
- Facilities and Equipment:
 - A regulation amputee football field
 - (3) official footballs
 - Measuring tape
 - Whistle
 - Clear adhesive tape (5 cm wide) for goal segmentation

Test Description:

The goal is divided into six equal-sized sections using clear adhesive tape. The footballs are placed at the corners of the penalty area, one in the right corner and one in the left corner. The player, upon hearing the whistle, must shoot the ball using their dominant foot toward the designated sections. (See Figure 9 for reference.)

Test Conditions:

- Each player is given three attempts.
- If the ball hits the crossbar or goalposts, the attempt is considered unsuccessful.
- If the player's crutch contacts the ball during the test, the attempt is also considered unsuccessful. Scoring Criteria:
 - Three points for scoring in the upper right or left goal sections.

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- **Two points** for scoring in the lower right or left goal sections.
- **One point** for scoring in the middle lower section of the goal.
- **Two points** for scoring in the middle upper section of the goal.
- Zero points if the ball does not enter the goal.
- Maximum Score: nine points
- Minimum Score: zero points
- Measurement Unit: Score only.



Figure (9) Test for Measuring Shooting Accuracy from Different Angles in the Penalty Area for Amputee Football Players

 Table (16) - Descriptive Statistics for Test No. (4) / Shooting Accuracy from Different Angles in the Penalty Area

n (X)	Standard D (±SD)	eviation Mode	Lowest Value	Highest Value	Skewness	
)	1.380	5	3	8	0.705	
From Table (16), we deduce that the test is suitable for the sample level and approaches a normal distribution, as indicated by the skewness coefficient of (0.705), which falls within the range of (± 1) . This confirms the normal distribution of the sample results.						
Table (17) - Standard Levels for Test No. (4) / Shooting Accuracy from Different Angles in the Penalty Area						
Level		values	Frequency	Percentage		
High		Seven and above	1	5%		
Medium		5-6	15	75%		
Low	/	Four and below	4	20%		
Table (18 Angles in) - Raw Score the Penalty A	es and Standard Scor Area	es (δ-6) for Test No. (4) / Shooting Accuracy f	rom Different	
Raw Sco	re S	tandard Score (δ-6)	Raw Score	Standard Score	(δ-6)	
3	1	7.3848	6	53.6239		

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4	29.4645	7	65.7036
5	41.5442	8	77.7833

3-2-5 Presentation and Analysis of the Short Passing Skill Test for Amputee Football Players 3-2-5-1 Detailed Specifications of the Short Passing Skill Test from (6 meters) for Amputee Football Players

- **Test Name:** Short Passing Test from (6) Meters for Amputee Football Players.
- **Purpose of the Test:** To measure the accuracy of short passing from (6) meters.
- Equipment and Tools:
 - Three (3) official footballs.
 - Clear-colored adhesive tape to mark squares, with the largest square measuring (90×90 cm), a smaller square inside it measuring (70×70 cm), and the smallest square inside measuring (50×50 cm).
 - Measuring tape to determine the distance between the passing area and the target squares for accuracy assessment.

• Test Description:

- The player performs a pass from a stationary position with the ball on the ground, using their dominant kicking foot, aiming at the designated square described above, positioned six meters away from the outermost square's boundary. As illustrated in Figure (10).
- Test Conditions:
 - The player must pass the ball onto the designated squares using their dominant kicking foot.
 - If the player's crutch touches the ball during execution, the attempt is considered invalid.
 - \circ Each player is given three attempts.
- Scoring Method:
 - **3 points** if the ball stops inside the smallest square $(50 \times 50 \text{ cm})$.
 - **2 points** if the ball stops inside the middle square $(70 \times 70 \text{ cm})$.
 - **1 point** if the ball stops inside the largest square (90×90 cm).
 - **Zero points** if the ball does not reach or stop inside any of the squares.
 - The maximum score for the test is **nine points**, while the minimum score is **zero points**.
- Measurement Unit: Score only.

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Figure (10): Short Passing Test from (6) Meters for Amputee Football Players 3-2-5-2 Standard Levels and Standard Scores for the Short Passing Skill Test Table (19) - Descriptive Statistics for the Short Passing Test from (6 meters)

Mean (X)	Standard Deviation (±SD)	Mode	Lowest Value	Highest Value	Skewness
5.850	1.460	6	3	9	-0.102

From Table (19), we deduce that the test is suitable for the sample level and approaches a normal distribution, as indicated by the skewness coefficient (-0.102), which falls within the range of (± 1) . This confirms the normal distribution of the sample results.

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T = 1 + (20) + 0 + 1 + 1		
Table (70) - Mandar	'A LAVAIC TAP THAN	nort Passing Lest from (6 meters)
1 a D C (20) - D canual	u Levels for the b	

Level	Values	Frequency	Percentage
High	Eight and above	4	20%
Medium	6-7	10	50%
Low	Five and below	6	30%
Table (21) - Raw	γ Scores and Standar <mark>d Scores (δ</mark>	-6) for the Short Pa	assing Test from (6 meters)
Raw Score	Standard Score (δ-6)	Raw Score	Standard Score (δ-6)
3	17.4592	7	63.1305
4	28.8771	8	74.5483
5	40.2949	9	85.9661
6	51.7127		

3-2-6 Presentation and Analysis of the Short Passing Skill Test for Amputee Football Players

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3-2-6-1 Detailed Specifications of the Short Passing Skill Test from (7 meters) for Amputee Football Players

- **Test Name:** Short Passing Test from (7) Meters for Amputee Football Players.
- **Purpose of the Test:** To measure the accuracy of short passing from (7) meters.
- Equipment and Tools:
 - Three (3) official footballs.
 - Adhesive tape to mark the target square, which measures $(70 \times 70 \text{ cm})$.
 - Measuring tape to determine the distance between the passing area and the target square for accuracy assessment.
- Test Description:
- The player performs a pass using their dominant kicking foot, aiming at the designated square positioned seven meters away. As illustrated in Figure (11).
- Test Conditions:
 - The player must pass the ball toward the designated square and kick it along the ground using their dominant kicking foot.
 - \circ If the player's crutch touches the ball during execution, the attempt is considered invalid.
 - Each player is given three attempts.
- Scoring Method:
 - **Three points** if the ball stops inside the square.
 - **Two points** if the ball stops on the boundary lines of the square.
 - **One point** if the ball enters the square but does not stop inside it and rolls out.
 - **Zero points** if the ball does not reach or enter the square.
 - The maximum score for the test is **nine points**, while the minimum score is **zero points**.
- **Measurement Unit:** Score only.

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Figure (11): Illustrates the Accuracy Test for Short Passing from (7) Meters for Amputee Football Players. 3-2-6-2 Standard Levels and Standard Scores for the Short Passing Skill Test

Table (22): Descriptive Statistics for Test No. (3) / Short Passing from 7m

Mean (X)	Standard Deviation (±SD)	Mode	Lowest Value	Highest Value	Skewness
5.8 50	1.460	6	3	9	-0.102

From Table (22), it can be inferred that the test is suitable for the sample level and closely follows a normal distribution, as indicated by the skewness coefficient (-0.102), which falls within the range of (± 1) . This confirms the normal distribution of the sample results.

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Table ((72).	Standard	I ovola for	Toot No.	(2) / C	bort Dog	ing from 7m
Table (43):	Stanuaru	Levels IOF	rest no.	(3) 3	mort ras	sing from /m

Level	Scores	Frequency	Percentage
High	Eight and above	4	20%
Medium	6-7	10	50%
Low	Five and below	6	30%
Table (24): Raw S	Scores and Standard <mark>Scores (δ-6</mark>)	for Test No. (3) / S	Short Passing from 7m
Raw Score	Standard Score (δ-6)	Raw Score	Standard Score (δ-6)
3	17.4592	7	63.1305
4	28.8771	8	74.5483
5	40.2949	9	85.9661
6	51.7127		

4- Conclusions and Recommendations

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4-1 Conclusions:

Based on the results presented in Chapter Four, the researchers reached the following conclusions:

- 1. Two shooting skill tests (4m and 5m) were developed for amputee football players.
- 2. Two shooting skill tests (5m-8m) were developed for amputee football players.
- 3. Two short passing skill tests were developed for amputee football players.
- 4. Standard levels and scores were established for the shooting skill tests (4m and 5m) for amputee football players.
- 5. Standard levels and scores were established for the shooting skill tests (5m-8m) for amputee football players.
- 6. Standard levels and scores were established for the short passing skill tests for amputee football players.

4-2 Recommendations:

Considering the conclusions reached by the researchers, the following recommendations are suggested:

- 1. Adopting the tests developed in this study for amputee football players in sports clubs specializing in amputee football.
- 2. Utilizing the developed tests for selecting and classifying players based on the stages of sports selection (orientation, specialization, and final selection) in amputee football.
- 3. Developing tests for other fundamental skills not covered in this study.
- 4. Linking the current skill tests with physical tests for amputee football players.
- 5. Integrating the current skill tests with psychological and functional tests for amputee football players.

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