DESIGN AND LEGALIZATION OF THE ONE-HANDED AND OVERHEAD HANDLING TEST FOR WHEELCHAIR BASKETBALL PLAYERS IN IRAQ.

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Abstract:The development and progress of the civilization of human societies has witnessed a great interest in recent times by scholars and researchers. Therefore, most of these societies have been interested in physical education in general because of its great role in the development and progress of these countries as well as the interest in the physical, skill, psychological and functional capabilities of individuals in a large way and the different methods of measuring them In order to reach the highest levels and achieve achievements in all fields.

It is these categories that were given. Societies concern for them is the category of the disabled, which represents a large segment of the members of society, especially the countries that have been exposed to natural disasters or wars. And this concern is with these. The category came as a result, either for humanitarian reasons, which are concerned with the members of society, and to view them with equality and justice, or because the sport of people with special needs (People of Determination) has become a sport of achievements, achieving record numbers and representing their countries well in international forums.

Among the games that people with special needs play is wheelchair basketball, which is one of the factors of success that the player has physical and skill abilities.

As basic skills are one of the most important factors for the success of technical performance that must be available to basketball players on the chairs if they have mastered the performance of these skills as required, so there must be methods for measuring the performance of these skills in an accurate scientific manner in order to clearly identify the level of skills of the players And work on developing their level to reach the advanced level in performance and achieving the goals of sports training.

Among these basic skills are the two skills of back-and-head handling, which are important for the wheelchair player, and here lies the importance of research to find a way to measure these two skills of wheelchair basketball players, and apply tests on them to show the players' skill level each according to the accuracy of his technical performance for them. It allows coaches to select players as well as know their real level in these two basic skills in wheelchair basketball.

1. INTRODUCTION

Research problem:

The basic skills are the cornerstone of each game, and among these games is the basketball game, and finding a method for measuring it greatly contributes to standing on the level of

players and the possibility of their development. The head is with wheelchair basketball players, so they tried to delve into this problem and come up with a test for each skill in order to obtain real scores for the players 'performance level in the performance of these two skills with high accuracy.

Research objectives:

Designed a skill test for one-handed handling and overhead handling for wheelchair basketball players.

2- Setting standard levels of test results for the two-hand handling skills and wheelchair basketball players overhead handling

Research areas:

The human field: It includes the 108 wheelchair basketball players.

Time range: from 1-8-2018 to 23/4/2019.

Spatial domain: It includes the closed halls of the clubs under discussion.

2. RESEARCH METHODOLOGY AND FIELD PROCEDURES:

Research methodology: The researchers used the descriptive approach for its relevance to the nature and problem of the research

Research community and sample: The research community and sample included wheelchair basketball club players for the 2018-2019 season, and their number reached 108 players, constituting 100% of the original community, and they were chosen by the intentional method.

Methods and tools for gathering information:

Information gathering methods included

Arab and foreign references and sources

Observation and experimentation

- International global network (the Internet)

Tests and measurements

Assistive work team

Tools and devices used

- A measuring tape length of 20 meters

Manual calculator

Calculator (laptop)

10 basketballs

2 wheelchairs

- whistle

- One-handed return handling accuracy measuring instrument (ring)

Field research procedures:

The researchers adopted the steps for building skill tests, namely:

First - Determining the goal of the test: - The goal or purpose of designing the two tests is to find a means of measuring the skill performance of wheelchair basketball players in the two-handed handling skills and overhead handling.

Second - Determining the characteristic or phenomenon to be measured: The characteristic to be measured is two basic skills in wheelchair basketball, which are rebound handling with one hand and handling over the head.

Third - Analyzing the phenomenon for its primary elements: By looking at the sources and references, the researchers found that basketball consists of several basic defensive and offensive skills used by players, and among the offensive skills is handling (passing) of all kinds, chest and back, with two hands and one hand, as well as handling over the head and

over the shoulder. In their research, design a test of the two-handed and overhead handling skills

Fourth - Test Units Test: By presenting the two tests to experts and specialists to amend the test specifications and placing the appropriate notes for them, the two tests were presented in their initial form to 11 experts and specialists to clarify their opinions and take their observations and rates of agreement, and after collecting the questionnaires that were presented to the experts, it was found that there is 100% agreement on the two tests .

Fifth - Presenting the final exams

Test name: One-handed bounce handling (preferred).

- Purpose of the test: to measure the accuracy of handling feedback with one hand.
- Tools used: tape, tape measure, whistle, paper and pens.

Test procedure:

The number of balls that the laboratory can implement is calculated by touching the circle drawn on the ground and passing it by the ring carried on an iron pole that is (1 meter) from the ring and at a height from the ground (45 cm) and a distance (5 meters) and the diameter of the rings is (45 cm).

Performance description:

The player stands behind the starting line, which is away from the circle drawn on the ground (4 meters), and upon hearing the signal, he performs the test by pushing the ball with one (preferred) hand over the circle drawn on the ground, as it must touch the circle and enter the portable throat for five consecutive attempts.

Test conditions:

The laboratory is behind the starting line.

He passes the ball as it touches the circle drawn on the ground and enters the portable ring.

- The number of attempts is five.

Test administration:

- The laboratory gives a score of (2) if the ball touches the circle drawn on the ground and enters the throat.
- The laboratory is assigned a score of one if the ball touches the circle drawn on the ground or if it enters the throat
- The tester is given a zero if the ball does not touch the circle or does not enter the throat.

Score calculation:

Score the marks obtained by the laboratory in the five attempts

The maximum score for all five attempts (10 points).

Test name: Overhead handling.

The purpose of the test: to measure the accuracy of handling overhead.

- Tools used: tape, tape measure, whistle, paper and markers, basketballs.

Test procedure:

The number of balls that the laboratory can implement is calculated by touching the circles drawn on the ground, as the circles are placed on the center line and the circles are of (80 cm) and a circle is of (120 cm) and the large circle is of (160 cm).

Performance description:

The player stands behind the starting line that is away from the final line (4 m) inside the field and begins to throw the ball on the condition that the ball touches one of the circles placed on the midline of the stadium, and each tester is given (5) attempts.

Test conditions:

The laboratory is behind the starting line.

He pushes the ball if it touches one of the circles placed on the midfield line on the court.
- The number of attempts is five.

Test administration:

Note: Give the test start signal.

Score calculation:
- The tester gives (3) scores if the ball touches the small circle.
- The tester gives a score (2) if the ball hits the center
- The tester (1) gives one score if it touches the large circle ball.

The maximum score for the test is (15) points.

Exploratory experience:

The researchers conducted their exploratory experiment on the wheelchair-bound youth team of 18 players on Wednesday 10/3/2018 at 2 p.m. The tests were repeated after 7 days to conduct the second exploratory experiment on Wednesday 10/10 / 2018 in the Specialized Center of the Youth Ministry of the Paralympic Committee, and the main purpose of conducting the first exploratory experiment was to ensure the validity of the testing tools and to know the time taken to take the test and the actual measurements to describe the performance of the test conditions, as well as to inform the assisting staff on the tests, while the second exploratory experiment was to extract The scientific basis for the tests designed.

The scientific basis for the tests:

-Honesty

A truthful test is a test that measures what is actually set for it.

Validated content:

The researchers extracted the validity of the tests, as they used the validity of the content or content through the questionnaire question naira that was distributed to experts and specialists to seek their opinions about the validity of the tests, as "we can prepare the test as valid if it is presented to a number of specialists or experts in the field that the test measures and they judge That he measures what he has put to measure adequately (2).

Finding the distinguishing ability:

The researchers resorted to the discriminatory honesty, as they arranged the raw scores obtained by the members of the survey sample in descending order from the highest degree to the lowest degree, and the (50%) of the highest grades were chosen, amounting to (9) players, and the same from the lower grades, as the percentage of (50%) of the higher and lower scores represent the best percentage, and accordingly the (T) test was used for equal (independent) samples, and after statistical treatment of the data, it was found that all the calculated (T) values were significant, which indicates that the two tests are distinct as shown in Table (1).

Table (1) the arithmetic mean and standard deviation of the upper and lower groups and the calculated T-value and its significance in calculating the discriminatory power of the two tests.

Name of the test	Groups	the sample	The arithmetic mean	standard deviation	The calculated (t) value	error percentage	Significance
One-handed feedback handling.	Upper group	**9**	**6.000**	**0.866**	**5.547**	.000	Sign
	Lower group	**9**	**3.778**	**0.833**			
Overhead	Upper	**9**	**5.667**	**1.414**		.000	Sign

handling	group				**6.080**		
	Lower group	**9**	**2.444**	**0.726**			

Finding the difficulty and ease of skills factor:
To ensure the difficulty of the tests on the sample members, the researchers found the difficulty and ease of skills. Muhammad Sobhi Hassanein states, "Whenever the score is confined to (± 3), whenever this indicates that the degree is distributed moderately (naturally), either if it is more or less than that, the meaning of this There is some defect in choosing the sample or the tests used "(1) and by using the statistical significance (coefficient of torsion and standard error) to find out the results of the research sample that were obtained as a result of the initial study conducted on the members of the exploratory sample as in Table (2).

Table (2) the arithmetic means, standard deviations, the mean, standard error, and torsion coefficient of the two tests.

Name of the test	The arithmetic mean	Mediator	standard deviation	Standard error	Coefficient of torsion
One-handed feedback handling	**4.055**	**3.500**	**1.984**	**0.467**	**0.524**
Overhead handling	**4.888**	**5.000**	**1.409**	**0.322.**	**0.078**

Stability coefficient:
First: Test and retest:
The researchers conducted the test in the first pilot experiment on 10/3/2018 and the second survey after 7 days, i.e. on 10/10/2018) and then treated the results of the two tests statistically using the Pearson Correlation Law. The results came that all the correlation coefficients (coefficient of stability) were good, as the correlation coefficient for the results of the feedback test with one hand reached (0.88). The correlation coefficient of the results of the handling test over the header reached (0.85), which is a high correlation coefficient that can be relied upon.
Second: Halftone segmentation:
The researchers divided the paragraphs of the sub-axes of the scale into two halves. The first half included the odd-numbered paragraphs, and the second half included the even-numbered paragraphs. After that, the simple correlation coefficient Pearson was extracted for the sum of the scores of the two halves of the test, and because these values represent the stability coefficients of the half of the test for the sub-axes, so the researchers corrected them using the Coffin equation to obtain the stability of the test as a whole.
As the one-hand handling test correlation coefficient reached (0.89) and the overhead handling test correlation coefficient reached (0.91).
Objectivity of the test:
The tests that were used in this research are clear and easy to understand by the sample members, and they have specific and clear instructions for application and scoring points free from ambiguity and interpretation. This is why these tests are highly objective.

The main experiment:

The main experiment was conducted on the building sample, which consisted of (84) players representing six clubs, namely (Diyala, Al-Shumukh, Wissam Al-Majd, Kirkuk, Babel, Najaf, and Peaks, as the time required for the building sample was from (10/15/2018 to 10/25) / 2018), and collecting all the data obtained by the researcher through conducting tests, and then processing them statistically

Distinguishing ability of the construction sample:

After conducting the main experiment and collecting and unpacking the data, the raw scores for each test were arranged in ascending order from the lowest degree to the highest degree, then (50%) of the higher grades as well as (50%) of the lower grades were chosen, as the number of the upper group reached (42) and the number of the group Al-Dunya (42) also to identify the ability of the tests to distinguish between the group with outstanding performance and non-outstanding performance. Accordingly, (T) tests were used, and after processing the data statistically, it was found that all the calculated values were significant. As shown in Table (3).

Table (3) the arithmetic mean and standard deviation of the upper and lower groups, the calculated (T) value and its significance in calculating the discriminatory power of the skill tests of the construction sample..

Name of the test	Groups	the sample	The arithmetic mean	standard deviation	The calculated (t) value	error percentage	Significance
One-handed feedback handling	Upper group	42	7.095	1.206	16.799	.000	Sign
	Lower group	42	3.357	0.791			Sign
Overhead handling	Upper group	42	10.405	1.563	14.790	.000	Sign
	Lower group	42	6.024	1.115			Sign

Specifications of tests on construction sample:

When the tests are suitable for the research sample, this means that the sample will be distributed naturally. Therefore, the law of torsion coefficient was used to verify that the results of the sample members are moderately distributed according to each of the examined skill tests as an indicator to indicate this. As shown in Table (4).

Table (4) shows the arithmetic mean, standard deviations, the mean, standard error and torsion coefficient for skill tests of the construction sample.

the tests	the sample	The arithmetic mean	Standard error	standard deviation	Mediator	Coefficient of torsion	The standard error for the coefficient of torsion	less value	highest value
One-handed feedback handling	**84**	**5.226**	**0.233**	**2.136**	**4.500**	**0.237**	**0.263**	**1.00**	**10.00**

Overhead handling	**84**	**8.214**	**0.282**	**2.584**	**7.500**	**0.255**	**..263**	**3.00**	**14.00**

Statistical means: The researchers used to extract the search results on the statistical bag (spss).

Presentation, analysis and discussion of results:

Statistical description of the distribution of tests to the legalization sample:

The researchers extracted the arithmetic means, standard deviations, the median and the torsion coefficient to identify how the tests were distributed when applied to the rationing sample, and Table (5) shows the descriptive statistics of the tests.

Table (5) shows the description of the statistical tests of skill for a sample of rationing.

The tests	the sample	The arithmetic mean	Standard error	standard deviation	Mediator	Coefficient of torsion	The standard error for the coefficient of torsion	less value	highest value
One-handed feedback handling	**108**	**5.194**	**0.185**	**1.921**	**5.000**	**.346**	**.233**	**1.00**	**10.00**
Overhead handling		**8.046**	**0.243**	**2.522**	**8.000**	**-.014**	**.233**	**1.00**	**14.00**

Standards and levels:

After taking the steps for applying the two tests to the sample members, the results were obtained in raw scores, and in order to achieve the research objectives of finding standard scores for the skills of Iraqi basketball clubs players on wheelchairs, as "obtaining raw grades is an easy matter for the measurement. The difficulty lies in interpreting these scores and giving them meaning and significance, due to the difference in measurement methods from one test to another, and in order to reach the standards, the raw scores must be converted into standard scores, which are a means of determining the relative status of the raw scores, and then these scores can be interpreted and their results evaluated.

Among them is the use of the modified Standard Score as one of the standard methods for evaluating the numbers scored by the players.

Note that its values range from (80-20) i.e. from the highest to the lowest, and thus the second research objective has been achieved.

After the standard scores of the sample results were found in the designed tests, the standardized levels were determined according to the Kaos curve of a normal distribution.

Presentation and discussion of the results of the standards and levels of skill tests:

Presentation and discussion of results of standards and levels of one-handed feedback handling test:

Table (6) shows the raw scores and their frequencies, percentage, cumulative, and modified(Z)-and-(T) scores for the one-handed feedback test.

Raw grades	Repetition	percentage	Percentage Cumulative	z	T
1.00	**2**	**1.9**	**1.9**	**-2.183**	**28.17**
2.00	**6**	**5.6**	**7.4**	**-1.662**	**33.37**
3.00	**7**	**6.5**	**13.9**	**-1.142**	**38.58**
4.00	**27**	**25.0**	**38.9**	**-.621**	**43.78**
5.00	**29**	**26.9**	**65.7**	**-.101**	**48.99**
6.00	**11**	**10.2**	**75.9**	**0.419**	**54.19**
7.00	**9**	**8.3**	**84.3**	**0.940**	**59.4**
8.00	**10**	**9.3**	**93.5**	**1.460**	**64.6**
9.00	**6**	**5.6**	**99.1**	**1.981**	**69.81**
10.00	**1**	**.9**	**100.0**	**2.501**	**75.01**
Total	**108**	**100.0**			

Table (7) shows the frequency, levels, and percentages of standard scores for the one-hand handling feedback test.

Degree	Repetition	percentage	the level
29-20	2	**1.85**	Very weak
39-30	13	**12.03**	weak
49-40	56	**51.85**	Acceptable
59-50	20	**18.52**	Average
69-60	16	**14.81**	good
79-70	1	**0.93**	very good
Total	108	The arithmetic mean	standard deviation
		5.194	**1.921**

Through Table (7) it was found that the research sample was concentrated between (acceptable, average) and the researchers attribute that to the importance of this skill in the wheelchair basketball game as it is one of the skills that players use during matches, as offensive skills are the basis for competition that It is the duty of coaches to pay attention to it, because it is one of the factors affecting good skill performance, which "guarantees the success of all movements and under the various circumstances facing the player during the competition. In skill tests.

As the effective way to transfer the ball between players during the match is to advance it, and that the game of basketball is a permanent movement and variable position in relation to (for the attackers or defenders), so the handling must be accurate with the appropriate speed and the use of handling from long or short distances is important Very well for the team whose players are good at handling all kinds to be able to keep the ball for the duration of the legal attack.

Presentation and discussion of the results of the overhead handling test standards and levels:

Table (8) shows the raw grades and their frequencies, percentage and cumulative, modified Z and T scores for the overhead handling test.

Raw grades	Repetition	percentage	Percentage Cumulative	Z	T
1.00	**1**	**.9**	**.9**	**-2.793**	**22.06**
2.00	**2**	**1.9**	**2.8**	**-2.397**	**26.03**
3.00	**4**	**3.7**	**6.5**	**-2.000**	**29.99**
5.00	**6**	**5.6**	**12.0**	**-1.207**	**37.92**
6.00	**7**	**6.5**	**18.5**	**-.811**	**41.89**
7.00	**20**	**18.5**	**37.0**	**.414**	**45.85**
8.00	**34**	**31.5**	**68.5**	**.018**	**49.82**
9.00	**8**	**7.4**	**75.9**	**0.378**	**53.78**
10.00	**11**	**10.2**	**86.1**	**0.775**	**57.75**
11.00	**3**	**2.8**	**88.9**	**1.171**	**61.71**
12.00	**6**	**5.6**	**94.4**	**1.567**	**65.67**
13.00	**3**	**2.8**	**97.2**	**1.964**	**69.64**
14.00	**3**	**2.8**	**100.0**	**2.360**	**73.6**
Total	108	100.0			

Table (9) shows the frequency, levels and percentages of standard scores for the overhead handling test.

Degree	Repetition	percentage	the level
29-20	**7**	**6.48**	Very Weak
39-30	**6**	**5.56**	Weak
49-40	**61**	**56.48**	Acceptable
59-50	**19**	**17.59**	Average
69-60	**12**	**11.11**	Good
79-70	**3**	**2.78**	Very Good
Total	**108**	Arithmetic mean	standard deviation
		8.046	**2.522**

Through Table (7), it was found that the research sample was concentrated between (acceptable, average). The researchers attribute that to the wheelchair basketball game is a movement sport with a great deal of functional and psychological benefit, and all body systems participate in its performance, so it requires a great neuromuscular compatibility. To control the ball and control the movement and maneuver of the wheelchair, as this game requires speed, strength and flexibility for the upper parties in order to perform all basic skills and carry out the planning duty well,

The team that is characterized by quick and accurate handling between the players indicates that its level is good, as good handling leads to good correction. , "As this skill depends on the player's performance, field experience and his ability to implement it during the movement of the chair or stopping it, in a way that serves the planning duty in the match so

that the rapid advance towards the opposing team's basket or the exchange of positions and deception with the chair and the ball has a clear effect on the success of this handling at the core of Plotting performance on the field.

The researchers also attribute the importance of handling from above the head as it is used extensively in the match and this confirms its importance as one of the basic skills in the game of wheelchair basketball, as the most important scientific facts that distinguish organized games, including basketball in general and wheelchair basketball in particular Is that the development in it depends on the level of mastery and mastery of the skills in general and the offensive in particular, starting from the beginning of the match until the end of the match in an elaborate and accurate manner, and this is consistent with what was brought by Wajih Mahjoub by saying that it "has certain characteristics such as interaction, coordination, movement compatibility, accuracy and speed in performance as well as the use of the appropriate skill." Skill is retained until tiredness.

3. CONCLUSIONS:

The researchers drew the following conclusions:

- A large number of the research sample was distributed at the level (acceptable - medium) in the one-handed feedback test.

A large number of the research sample was distributed in the (acceptable - and average) level in the overhead handling test.

A small percentage appeared in the other levels in the feedback handling and overhead handling tests.

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