

# The effect of competitive exercises in developing the skill of shooting by jumping from within the three-point arc of basketball for the youth class

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## **1.1 Introduction and Importance of Research:**

We cannot overlook the athletic progress in various sports, including basketball at the Arab, continental and global levels, and Iraq is one of the countries that seek to achieve that progress, and this progress is a reflection of knowledge of different sciences and scientific research.

Basketball is one of the group games that need to be developed through the competitive and physical aspects, especially as it is one of the fast-performing and tiring games due to the nature of its constantly moving and continuous performance, except for the legal stops that occur according to the requirements of the game, which requires that the player have a very high efficiency and physical ability that makes him Preserving his physical performance and his skillful ability to accurately shoot, so the development in the field of basketball that we observe through the achievements that are achieved and the level of remarkable performance performed by the players in competitions is the result of the concerted efforts of coaches and players in organizing training loads that affect the raising of the players' physical and skill efficiency, And sports training is not a science in itself to be able to achieve these achievements unless it is based on other sciences that help facilitate the path of success and establish it in a faster and better manner, as well as dedication to obtaining a high level by overcoming the complex movements that need high technical performance, Therefore, in order for a basketball team to be distinguished (skilled performer), its players must master competitive performance with a high degree of accuracy. Associated with motor velocity, especially shooting from long distances, and therefore intensified training to develop those motor skills as well as stability in changing

circumstances, and it is necessary to pay attention to the principles of designing exercises as their completion is appropriate for special situations during play in order for them to have an effective value, and therefore it is necessary That these exercises, both individual and compound, include a large part of the components of real matches through which players become more precise, especially when they are put under the pressure of competition.

Hence, the importance of research appears by preparing competitive exercises for young basketball players because these exercises that were developed were related to physical and skill aspects, so that we would modestly place competitive exercises under the hands of coaches to reveal the levels of players and work to develop their levels through these exercises.

### **1.2 Research Problem:**

Competitive exercises are one of the important means and one of the very necessary requirements in monitoring the development of the level of skill that the player or team has reached, and through what the researcher has touched and his proximity to the youth league, and his knowledge of many research and studies, it is necessary to prepare competitive exercises to develop offensive skills for long range aiming For young basketball players, as the research problem lies in the following:-

The previous special competitive exercises using devices and tools did not take into account that all skill performance is based primarily on the physical aspect, as it is not possible to perform the skill of shooting from jumping if it is not accompanied by a physical or kinetic ability, so hopping by jumping is one of the most important skills that focus on In order to win the match, it is considered one of the most critical corrections in the last periods of the match.

So, studying the skill of shooting from within the three-point arc is more accurate and reliable in competitive exercises similar to the conditions of the youth basketball match. Therefore, the researcher decided to study that phenomenon and find appropriate solutions for it.

### **1.3 Research Objectives:**

- 1- Preparing competitive exercises for young basketball players.
- 2- Identify the effect of competitive exercises on shooting accuracy by jumping from within the three-point arc of young basketball players.

#### **1.4 Imposing research:**

There are statistically significant differences between the pre and post tests of correction accuracy from within the three-point arc.

#### **1.5 Research fields:**

- The human field: the players of the National Center for Sports Talent Development in Youth Basketball.
- The temporal field: for the period from (1/10/2019) to (12/25/2019).
- Spatial field: the hall of the National Center for Sports Talent / Baghdad.

### **2- Research methodology and field procedures:**

#### **2.1 Research Methodology:**

The appropriate way to solve any problem in scientific research obliges the researcher to choose the appropriate approach to the nature of the problem to be researched, which is an important and fundamental step for the success of that research, and it is a path that the researcher follows to determine the various conditions and variables that pertain to a phenomenon and to control and control it <sup>1</sup>

#### **2.2 Research community and sample:**

A sample is defined as (a part or segment of the community that includes the characteristics of the original community whose characteristics we wish to identify, and that sample must be properly representative of all the vocabulary of this community)<sup>2</sup>.

The researcher identified the research community for the Baghdad Basketball League players who numbered (6) clubs, and his sample was from the youth category. As shown in the tableBelow.

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<sup>1</sup>Ahmed Farhan; Fundamentals of Scientific Research and Statistics in Physical Education, 1st Edition, Dar A-Diaa for Printing, Najaf, 2015, pg.29

<sup>2</sup>Ahmed Farhan; Fundamentals of Scientific Research and Statistics in Physical Education, 1st Edition, Dar Al-Diaa for Printing, Najaf, 2015, pg 99.

**Table No. (1) :**Shows the number of clubs and players

<b>T</b>	<b>The name of the club</b>	<b>Number of Players</b>
1	National Center for Talent Care	12
2	Sulaikh Club	12
3	Font Club	12
4	Armenian Club	12
5	Air Force Club	12
6	Al-Karkh Club	12
<b>Total</b>		<b>72</b>

### **2.3 Information collection methods:**

Arab and foreign sources and references, skill tests, a form to record data, a form to dump data.

### **2.4 devices and tools used in the study:**

The basketball court is legal, (10) legal basketballs, (2) stopwatch, a textile tape measure, and (10) signs.

### **2.5 The test used in the research:**

Aiming from jumping POEINT2

**Title** (Receipt ending with a jump shot - 2 points):

**The purpose of the test:** To measure the ability to perform the two attacking skills.

**Purpose tools:** a basketball court, four hurdles, 10 legal basketballs, a leather tape measure (20 meters), adhesive tape, an electronic stopwatch, two chairs, and a whistle.

**Procedures:** See Figure 1.

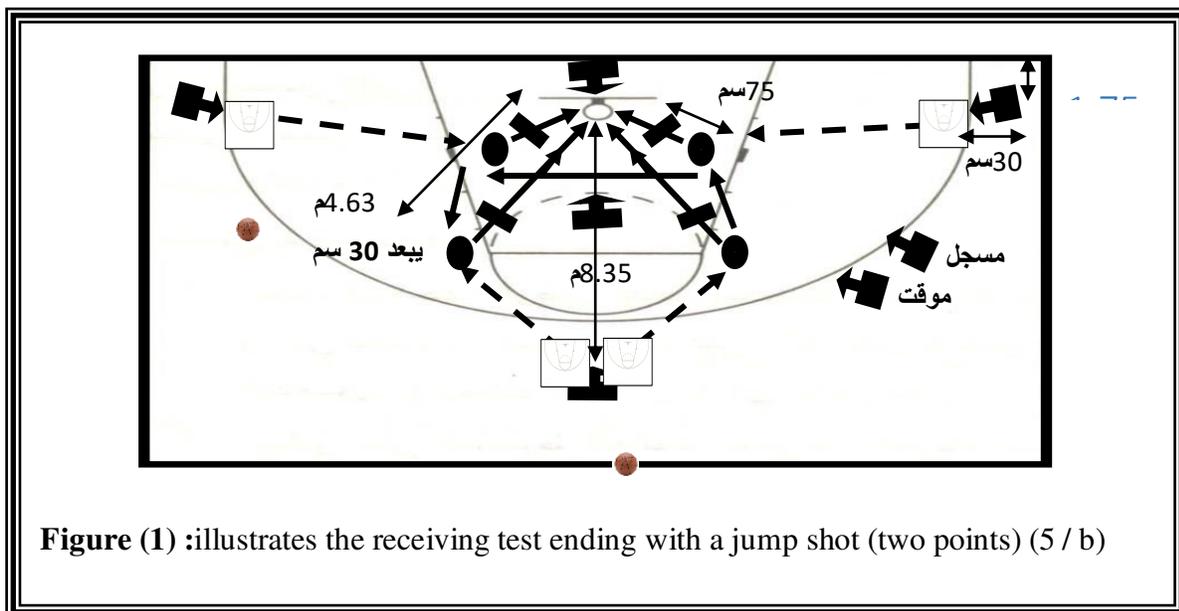
Determine a central point below the basket on which to base the marking of the main points.

The first and second points are marked on both sides of the central point at a distance of (4.63 m) and at the same time they move away from the corners of the free throw line (30 cm), and the

third and fourth sides of the central point (within the area) after each of them (2.21 m) from the central point, and represent a pause Test player.

Putting four barriers (the height of the column is 2 meters each, and the one suspended on each of them, with a length of 100 cm from the top and a width of 50 cm) at a distance of (75 cm) and in the direction of the tested player.

The first three points are located forward at a distance of (8.35 m) from the central point, and two points on the near sides after one of them (30 cm) from the arc line and away from the line under the basket (1.75 m), and represents the pause of one of the team members who hand the ball to each point.



**Figure (1) :**illustrates the receiving test ending with a jump shot (two points) (5 / b)

### Performance description:

The tested player stands on the side point near the end of the free throw line marked on the ground (on the right), and at the same time three members of the team stand with the ball on the points set at the start signal (whistle) the ball is delivered (chest handling with two hands) from the front To the left of the test player who performs the reception ending by shooting by jumping (two points) directly for three attempts (delivery is from the front), and then moving to the point within the area for two more attempts (delivery is from the right side), and then moving to the

point within the second area (delivery is From the left side), and then move to the side point (the left side) to perform three attempts (delivery is from the front), as shown in steps (1,2,3,4).

The tested player performs ten attempts divided into (three attempts from the right side - two attempts from inside the area - two attempts from inside the second area - three attempts from the left side).

Test conditions: speed in performance, assisting the tested player (alert) to perform attempts from their specified places, and one of the team members standing on the front point delivers (6) balls (three balls in a row twice) according to the performance description, and then (4) balls (Two consecutive balls from the right and the left side), and by a member of the second team standing to the right of the test player and the third to his left, and each player has only two wrong attempts.

**Test administration:** timer: gives the start signal as well as calculates the time taken to perform the test.

**Recorder:** Calls names first and marks both successful and unsuccessful attempts, and time second.

Score calculation: Calculates the time from the test player receiving the ball until the end of the tenth attempt after the ball leaves the tester's hand.

Divide the time by (60 seconds).

A score is calculated to the player for each successful jump shot.

A zero score is calculated for each failed jump shot.

Collect the scores (accuracy) of successful attempts.

Overall (final) score: dividing the precision score over time.

## **2.6 exploratory experience**

The exploratory experiment was conducted on Tuesday 10/1/2019 at (four) in the afternoon in the People's Hall. The experiment was conducted on a sample of the (2) youth lines club players from outside the research sample. The researcher obtained a number of points to be followed

during The main experiment to facilitate scientific physical and skill tests, and the aim of the experiment was the following: -

- Determine the exact location of the signs during the skill test.
- Know the time spent during the test.
- Training the assisting work team on the test and ensuring that the locations assigned to both the recorder and the timer are taken. The researcher concluded through this experience that the players must be committed to the instructions for the test in order to reach accurate results during the test.

## **2.7 Research procedures:**

### **2.7.1 Pre-tests for the research sample:**

The first pre-test was conducted on Wednesday, 10/10/2019 at four o'clock in the afternoon in the hall of the National Center for the Care of Athletic Talent for the special skill tests for accurate correction from jumping to areas ((2POINT)), during which the tests were conducted on the research sample after all devices and tools were put in place. Previously specified in the exploratory experiment.

### **2.7.2 Main Experience:**

The experiment began on Thursday 3/10/2019

Competitive exercises continued for a period of (8) weeks in the special preparation stage, and the weekly training days were (3) training units (Saturday, Tuesday, and Thursday) and the total number of training units for the curriculum was (24) training units.

The training unit time ranged from (25 minutes) to (30 minutes).

Rest time between repetitions (1: 1) minutes.

The rest time between groups is (3) minutes. The intensity was calculated on the basis of calculating vo2max for each player by 100% and then using the intensity of 80% up to 95% and the equivalent of the heart rate. The total daily and weekly training intensity was calculated by means of the law of the sum of the intensity of training units on the number of units. The

researcher gradually increased the intensity of the exercises, and the researcher used the method of high intensity interval training.

## **2.8 Exercises Used:**

The researcher prepared competitive exercises to develop the offensive skills for accuracy of aiming from within the three-point arc using some devices and assistive tools within the framework of the training curriculum for the special preparation stage, depending on the exploratory experience that he carried out taking into account the physical capabilities and possibilities available to the research sample and based on its preparation on the scientific basis for sports training and to Some scientific sources and references.

The competitive exercises prepared by the researcher were implemented by the assistant work team and under the direct supervision of the researcher. The time for applying the prepared exercises ranges between (25-30) from the main part of the training unit. Which:

- 1- Exercise 1 x 1 (player vs player going on the basket for correction).
- 2- Exercise 1 x 2 (one against two players going on the basket for correction).
- 3- Exercise 2 x 2 (two players against two players going on the basket for correction).
- 4- Exercise 2 x 3 (two players against three players going on the basket for correction).
- 5- Exercise 3 x 3 (three players against three players going on the basket for correction).
- 6- Exercise 3 x 4 (three players against four players going on the basket for correction).
- 7- Exercise 4 x 4 (four players against four players going on the basket for correction).
- 8- Exercise 4 x 5 exercise (four players against five players going on the basket for correction).
- 9- Exercise 5 x 5 (five players against five players going on the basket to shoot).

### **2.8.1 Dimensional Tests:**

Post-tests were conducted after the end of the implementation of the competitive exercises application on Thursday 19/12/2019 for the skill tests at four o'clock in the afternoon at the National Center for Sports Talent.

**2.9 statistical methods:**

The researcher used the appropriate statistical methods to solve and collect the data, researching this by relying on the statistical package which is (SPSS).

**3. Presentation, analysis and discussion of results:**

**3.1 Presentation and analysis of results:**

**3.1.1 Presentation and analysis of the results of the skill variables:**

**Table (2):** Arithmetic means and standard deviations between the results of the pre and post tests in the correction test from within the three-point bracket

Processors Statistic Variables	Alone Measurement	The pretest		Post test		P	P e	Values T Calculated	Sig	indication
		- Q	p ±	- Q	p ±					
Aiming test From inside the arc Three points	Degree	10.62	1.369	17.18	1.315	6.564	0.689	12.978	0.000	moral

Significance when (Sig) > (0.05), degree of freedom (n - 1) = 12 - 1 = 11, significance level (0.05)

Table (2) in the correction test from within the bracket of three points shows that the value of the arithmetic mean of this variable in the pretest is (10.62) and the standard deviation (1.36), while the value of the arithmetic mean in the post test of the variable itself was (17.18) and the standard deviation (1.315) As for the calculated T value, it was (12.978), while the value of (Sig) (0.00) was less than (0.05) at an error level (0.05) and a degree of freedom (5), and this means that the difference is significant and in favor of the post test, as shown in Figure (2).

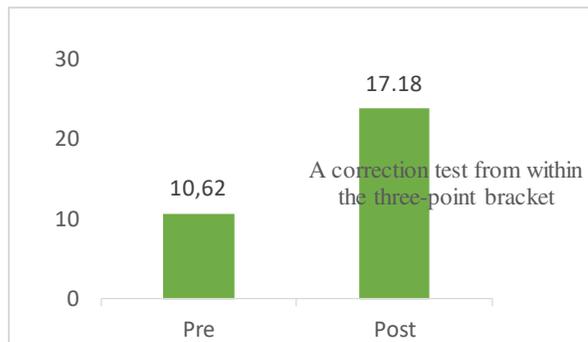


Figure (2):Shows the crosshair arithmetic from within the three-point bracket

### **Discussing the skill variables for two-point shot accuracy**

When discussing the results of the skill tests, we find that there are significant differences in the results of the pre and post tests and in favor of the post test. The researcher attributes this to the effectiveness of competitive exercises and their good application and relevance to the capabilities of the players, as it led to the development of (accuracy of correction from within the three-point arc), as well as maintaining the level of Performance The length of time of test performance, which in turn affected the offensive skill performance and improved results during the application of the post-test by increasing the player's ability to control and control the ball and the ease of transferring it from receiving to shooting. It must be accompanied by the development of physical fitness components, as well as the development of motor skills as two parts of one process. ”This was evident through the effectiveness of competitive exercises carried out by the researcher in a method of useful intensity training, which was consistent with the basketball game in terms of running at a maximum speed or less than The maximum level and the shooting by jumping, and that the graduation in the intensity of training according to the scientific basis and according to the needs of the players in the basketball game led to an increase in the player's ability in the governorate. On the speed of his performance to the longest possible period, and this is what (Hanafi Mahmoud Mukhtar) indicated, “that proper planning, choosing the appropriate intensity and taking into account the principle of graduation in it up to a state of fatigue is the most effective for developing the mathematical level.” This was evident in the offensive skill tests (accuracy of correction from Within the three-point arc), as he noticed the clear development in the players ’performance by maintaining their skill level, and (Hanafi

Mahmoud Mukhtar) referred to him ()“ that proper planning, choosing the appropriate intensity and taking into account the principle of graduation in it up to a state of fatigue is the most effective for the development of the athletic level. “This was evident in the offensive skill tests (the accuracy of shooting from within the three-point arc), as he observed the clear development in the players’ performance by maintaining their skill level during performance.

The researcher believes that the benefit of using competitive exercises has an effective role, which contributed to the development of the level of shooting speed and accuracy, as some studies have shown "a significant correlation between the skill level for shooting in basketball and the ability of the arms." Therefore, the main purpose of tests in basketball is to find Some standard levels on which the coach relies, through which he can objectively and accurately determine the player's technical, tactical and psychological abilities.

#### **4. Conclusions and Recommendations:**

##### **4.1 Conclusions:**

- 1- Competitive exercises prepared by the researcher have the effect of developing shooting skills by jumping from within the three-point arc.
- 2- The use of competitive exercises is an advantage in developing shooting skills by jumping from within the three-point arc.
- 3- Competitive exercises helped increase the players' self-confidence, which led to the development of their skill level.

##### **4.2Recommendations:**

Based on the conclusions reached by the study, the researcher developed a set of recommendations and proposals, which are as follows- :

- 1- The researcher recommends the necessity of using competitive exercises for the youth category, as they constitute a motive for the players, as well as raising the fear factor during the match.
- 2- The necessity of preparing training curricula for the use of competitive exercises for all age groups and for both sexes to develop corrective skills, because it is one of the necessary skills.

- 3- Attention should be paid to conducting similar studies on other samples of females or of other ages.

### **References**

- [1]. Ahmed Farhan; Fundamentals of Scientific Research and Statistics in Physical Education, Edition 1, Dar Al-Diya for Printing, Najaf, 2015, pg. 29.
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- [4]. Mona Abdul Sattar: The Relationship of Physical Preparation to Achievement Level, Master Thesis, University of Baghdad, College of Physical Education, 1989.