

“DESIGNING & LEGALIZING A TEST TO MEASURE MOTOR EXPECTATION OF VOLLEYBALL PLAYER DUE TO THEIR SPECIALIZATIONS”

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Abstract:

This study asserted the importance of motor expectation as it is closely related to serve reception skill considering correct reception as the key to gain points. Being late in correct response in ball reception causes failure to reach the ball on time as a result of ball speed in serving skill. The significance of the study is shown in finding a test that helps players who receive the ball to make right expectation for the place of ball landing. The objective was to design and legalize a test of measuring motor expectation of volleyball players. The researchers used the descriptive method, while the sample of the study was from the 1st and premier division players.

Keywords: Test legalization, motor expectation, volleyball

1. INTRODUCTION:

Correct planning based on a scientific basis in learning and training leads to continuous and rapid development in all individual and team sports. Accordingly, trainers are interested in preparing players mentally, physically and skillfully in order to reach the highest levels and expectations that are near to factual playing conditions. Thus, sport practicing is one of the bases of success and progress as it expresses the extent of full consistency between brain and body. The relation between mental element, physical and skill performance became the point of interest for training specialists as the development of athletes depends on right expectation and elapsed time to respond this expectation. This is because any late response for a certain skill performance may cause failure in reaching the ball on time, especially in ball reception skill as a result of ball speed. Hence, the significance of the study is to find a test that helps the player who receives the ball to make right expectation and response to the ball which contributes to overcome the difficulties facing our players in reception forming a great obstacle to our volleyball teams.

Problem of the Study:

The reception skill is the cornerstone of building attack. Therefore, a receiving player has to set his expectation to receive the ball in a correct manner due to his fast response to the ball in addition to skill level that he should adopt in order to complete ball reception. This is the level of world-class teams. From this respect, researchers noticed the contrary for our local teams and even at the level of the national team that there is a clear vacillation at serve reception because of incorrect expectation of the point of ball landing, so this, in turn, leads to late response and losing a lot of points that may end the match. Here, the problem of the study emerges.

Objective of the Study:

The study aims to design and legalize a test to measure motor expectation of volleyball players.

2. METHODOLOGY:

The researchers used the descriptive method using survey as it is proper to solve the problem of the study. Van Dalen refers that: “applied researches aim to determine the nature and characteristics of some phenomena in order to determine, analyze or view the status quo to extract results and set expectations or predictions about the development of these phenomena” (63, 2).

Sample of the Study

The sample of the study is represented in a group of volleyball players (76 players) divided into two parts: design sample and legalizing sample chosen purposively from 1st division clubs including: (Abi El Khasib, Al Madina, Al Qurna, Al Gabayesh, Al Sadek) clubs taking (10) players from each club (43.956% of the studied population) as shown in table No. (1)

Table (1) Numbers and details of the studied sample

Sample of the study	The sample on which scientific basics applied		Technicians Sample		Eliminated Players	Population
	Validity	Reliability	Validity	Reliability		
76	24	12	40	43.956%	15	91

Steps of Designing the Test:

One of the main factors in designing and legalizing tests is to return to references and sources related to tests as a questionnaire was designed and presented to specialist experts.

Field Procedures of the Study:

Muafaq & Raja Test to measure expectation

- **Test Name:** Muafaq & Raja Test to measure ball expectation
- **Purpose of the Test:** measuring ball expectation
- **Tools:** legal volleyball court – 20 volleyballs – measuring tape – various tapes to plan the court – whistle – net to collect balls – a form to measure points.
- **Performance:** the tested player stands inside the court inside square No. (4), the recorder stands outside the court. Next, the recorder asks the player about his expectation of ball landing at which place on the court which is divided into multiple divisions “note that there are a lot of divisions of the court as in figure no. (1)”. At the position of each division, there is a pole with a number. The player has to expect ball landing in the square in which the pole number is found and whistles to declare the start of first stage serve and so on till the end of the ten attempts. Next, the tested player says his expectation of the ball landing place at the moment of its release from the hand of the server player.
- **Counting points:** in case of ball landing anywhere, there will be a point for anywhere in which the ball lands based on the following order:

Place of ball landing	Points
- At the correct expectation place inside, outside court or at the net	- 5 points
- Besides the correct expected place	- 2 points
- Far from the correct expected place inside court	- 1 point
- Ball outside the court	- Zero
- Ball falling between two places	- The most point counts

Conditions of Testing:

- 1- There should be understanding from the tested persons.
- 2- They should understand a key for the test points.
- 3- There should be a preparation by the tested persons.

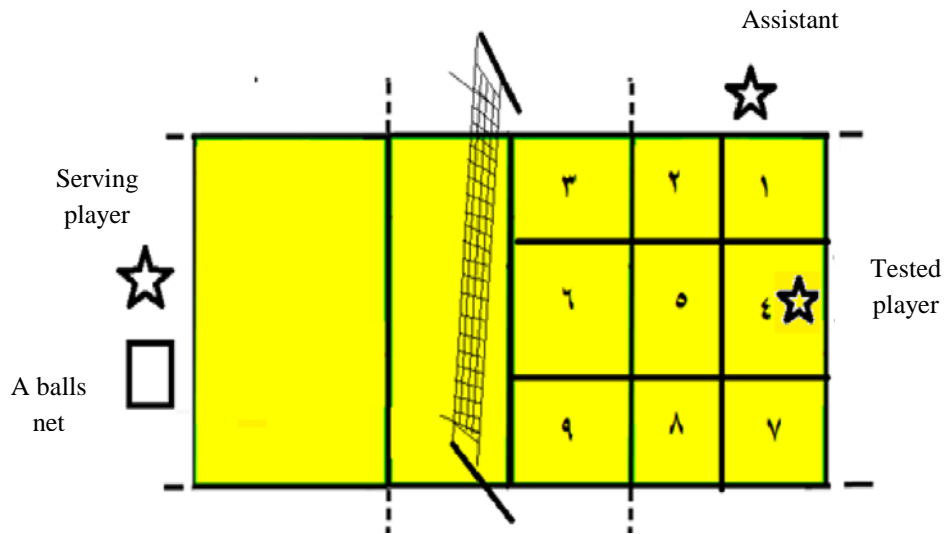


Figure (1): Planning of the volleyball court in expectation test

Exploratory Trial:

The exploratory trial was performed for the purpose of determining difficulties facing the researchers. These were very important as the researchers faced great difficulty in how to explain the test and how to start it which led to repeat the testing till a certain stage and then mastering test performance by some players (outside the sample of the study) to determine the most important difficulties including alerting players to move and stand taking the reception position in the place in which the ball lands during hearing the whistle. This was a very important point.

Coefficients of the Test

Test Reliability:

In order to ensure test reliability in the study, the researchers used retesting method on a sample consisting of 14 players representing Al Basra University volleyball team. The retesting was made after five days and correlation coefficient was counted as in table (2)

Table (2) Arithmetic mean, Standard Deviation S.D, counted and tabulated R value of the test

Statistical treatments Variables	Measure Unit	Distinct Players		Beginners		Counted T Value	Tabulated T Value	Significance
		Mean -	S.D	Mean	S.D			
Expectation	Point	31.285	6.207	22.857	7.720	3.744	2.68	Significant

- Tabulated (T) value under significance level 0.05 and freedom degree 12 = 0.612 (7, 343).

Test Validity:

“It is the test’s ability to distinguish between two logically distinct groups in terms of the measured characteristic” (166, 1), as both researchers performed the test on two even samples in number but different in levels as shown in table (3).

Table (3) Arithmetic mean, Standard Deviation S.D, counted and tabulated T value of the test

Statistical treatments Variables	Measure Unit	1 st Test		2 nd Test		Counted R Value	Tabulated R Value	Significance
		Mean -	S.D	Mean	S.D			
Expectation	Point	31.167	4.427	35.917	15.253	0.811	0.612	Significant

- Tabulated (T) value under significance level 0.05 and freedom degree 22 = 2.68 (343, 3).

Objectivity:

It means of disagreement between estimators in judging a certain thing or subject (4, 22). As it is known for us, the test is clear and easy for members of the sample as it only requires a player to hear the whistle and immediately move to the expected position of ball landing which shows easy performance of the test and it is not difficult. In addition, scoring points does not contain any complexities except the place of ball landing and the place of player’s expectation when moving towards it. All of these positions have points in the data recording form and there is no other explanation or understanding to the position of ball landing.

The Main Trial

The main trial was performed on 15/02/2015 till 15/03/2015 according to sample position.

Detailed presentation of the sample’s members, their arithmetic means and standard deviations

Table (4) Arithmetic mean, standard deviation and number of members of the sample according to their specializations:

	Number	Expectation Test		Percentage
		Mean	S.D	
Preparing player	10	30.9	8.006	25%
High player	10	23.8	4.263	25%
Fast player	10	25.5	2.635	25%
Free player	10	30	3.197	25%
Total	40			100%

Discussion of Results of contrast analysis of the (F) counted and tabulated values of Muafaq & Raja Test to measure volleyball players’ expectation

Table (4) shows that the highest expectation level emerges at the preparing player as a result of the experiences that he owns which is asserted by Wagih Mahgoub (106, 5) saying that: “the extent of expectation success is according to previous trials to a far extent and on movement analysis, so we find that motor expectation is weak for beginners.

Table (5) Results of contrast analysis of the (F) counted and tabulated values of Muafaq & Raja Test to measure volleyball players’ expectation

Contrast sources	Total deviation squares	Freedom degree	Average squares (contrast)	Counted (F) value	Tabulated (F) value	Significance
Inter-groups	482.9	3	160.966	6.474	2.86	Significant
Intra-groups	895	36	24.861			
Total	1377.9	39				

- Tabulated (F) value under significance level 0.05 and freedom degrees 3 and 36 = 2.86 (358, 3).

Table (5) in Muafaq & Raja to measure expectation shows that counted (F) value (6.474) is bigger in value than tabulated (F) value (2.86) at significance level 0.05 and freedom degrees 3 and 36. This means that there are significant differences between different playing groups

in volleyball, so the researchers will resort to the Least Significant Difference (LSD) Test to define which groups are better than the others.

Discussing results of differences between means and the LSD values in Muafaq & Raja Test to measure volleyball players' expectation

Table (6) showing means differences and the LSD values in Muafaq & Raja Test to measure volleyball players' expectation

Means Difference		Difference value	LSD value	Significance
Preparing	Free		1.839	Insignificant
30.9	30	0.9		
Preparing	Fast			Significant
30.9	25.5	5.4		
Preparing	High			Significant
30.9	23.8	7.1		
Free	Fast			Significant
30	25.5	4.5		
Free	High			Significant
30	23.8	6.2		
Fast	High		Insignificant	
25.5	23.8	1.7		

Table (6) shows that after taking away means' values due to different playing classifications, the researchers compared results of mean differences with the LSD value (1.839). Since the result of the Least Significant Difference (LSD) and group of free player is 0.9 which is less significant difference, this means that there are no significant differences between them and this is applied on both high and speed player groups.

Table (6) also shows that the value of difference in other groups is shown as we notice the distinction of preparing player over high and speed player groups. We also notice the distinction of free player over high and speed player groups. As a result of table (6), it can be found that there are clear differences in expectation level between players' expectations and the preparing player came first among the other specializations. The researcher attributes this distinction to preparing players as due to being calm and concentrated which was asserted by Wagih Mahgoub (107, 5) saying: "the motor system is related to nervous positions and how a layer explains his expectation of the sent tools of the opponent player as the case in serving despite his speed as a player can receive the ball and expect its arrival".

3. Conclusions:

- 1- The designed measuring test is effective in measuring expectation.
- 2- There are statistically significant differences between players according to their specializations at the level of expectation of ball landing position
- 3- The preparing player achieved the highest correct expectation points followed by free player, fast player and then high player.

4. RECOMMENDATIONS:

- 1- The designed and legalized test to be authorized for the purpose of player's selection.
- 2- It is necessary to authorize the designed test during training units for players' training.
- 3- It is recommended to increase interest with reception skill as it is a key to build effective attack and, in turn, achieve winning.
- 4- It is recommended to authorize scientific basics (depending on the extent of mental processes acquired by the individual such as attention, expectation and perception in players' selection at different sport games.

5. REFERENCES:

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