Building a Cognitive Test For Offensive and Defensive Formations in Volleyball and Codifying it for the Fourth Stage Students, College of Physical Education and Sports Science, Diyala University

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Abstract

The importance of the research was evident because the volleyball player does not depend on mastery and mastery of only one skill, but full knowledge of all skills and their knowledge in terms of movement to different playing centers and their work requires him to have special mobility capabilities that qualify him to perform such a role, and here the guidance of the coach plays an important role. The exchange of information between the athlete and the coach (the teacher and the learner), as well as receiving information before the motor performance, "and during it provides an opportunity to fine-tune and organize the behavior commensurate with the situation facing or required despite knowledge of the performance requirements. This in itself is a good measure by which the trainer can know the athlete's ability to analyze. Correct and solving the kinetic duty intellectually and applying it in practice, that is, standing on a level.

Keywords*: cognitive test, offensive, defensive, volleyball, codifying.*

Introduction

High levels of sport and achieving victory will not be an easy process to achieve because the level of sports in most activities has reached high levels in terms of (technique, tactics). And because the steps for the success of any sporting activity in any society must follow the appropriate and correct method, which mainly aims to advance the game of volleyball and the actual extension of the practice of this activity becomes a link to the highest levels, there is no doubt that their goal is one in developing and advancing it, and all of this is done Through the amount of knowledge information that acquires and applies its quality for long periods and indicates **(1)** that scientific knowledge is the outcome of information that represents an understanding of the game's philosophy in the field of teaching, arbitration, training and everything related to the numbers of an angel capable of performing his duties well within the field Volleyball game as it formed Scientific knowledge in the teaching field is an important station for determining the level of perception for students, as it relates to the ability to create a state of interdependence between understanding and cognitive perception and the ability to apply this through performance, and in the field of training this interconnection appears stronger to achieve high-level achievement. Scientific knowledge takes special significance in colleges of physical education as it is the cornerstone of the level of students' understanding and their understanding of theoretical vocabulary and the practical applications that they absorbed, and because the level setting for measuring students 'ability in the field of scientific knowledge is still based on the teaching experience and his observation in setting scientific degrees for students, as this measure It is subject to the teaching self-observation more than it is subject to codified standards, and all educational systems are unanimously agreed that the teacher is one of the basic elements of the educational process, without an academically qualified teacher and professionally

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trained who understands his large and comprehensive role, cannot reaching to achieve the desired goals in the delivery of different knowledge to the new generation. The main source that the researchers obtained for the problem is the lack of a cognitive test in offensive and defensive moves in volleyball for fourth-stage students, as the difficulty of the position and the movements in the attack and defense depend on the amount of knowledge prior to the student in order to be in an accurate position and an optimal accurate response because mastering the defensive formations It depends on the organized harmony and coordination between the players in the arena and is the basis of the coordinated collective attack in volleyball, and this depends on what he indicated [2] "that the athlete uses his intellect and intelligence to implement tactical plans and try to discover a brother Technically loyal ".

Research methodology and field procedures:

Research Methodology:

The researchers used the descriptive method with survey method and correlations

Society and research sample:

The researchers chose the research community in a survey method, which represented the fourth stage students in the College of Physical Education and Sports Science - Diyala University for the academic year (2018-2019), and the number (197) students only, whose names are included in the official lists of the Registration Division, and the research samples were chosen. Unorganizedly randomly (lots) and divided into.

• The polled sample, whose number was (25), with a percentage of 12.69%.

The actual application sample, whose number was (78), with a percentage of (39.59%).

• A sample was excluded and their number was (84), with a percentage of (42.63%).

As shown in the details in Table 1.

Table (1) shows the total number of people, the survey sample and the sample.

Applied sample	Construction sample	Survey Sample	Total number	Class
15	17	5	37	a
14	18	5	37	B
14	19	5	38	C
16	20	5	41	e
19	20	5	44	F
78	84	25	197	Total

Means, devices and tools used in the research:

Means of collecting information:

Scientific sources (Arabic and foreign).

International Information Network (Internet)

- Tests and measurements.

- Test results registration forms.

Building the cognitive test:

Determining the dimensions of the cognitive test:

The researchers determined the dimensions of the cognitive test based on the fourth-level volleyball course (College of Physical Education and Sports Science),

which are offensive and defensive formations of volleyball, according to the sectorial curriculum of the Ministry of Higher Education and Scientific Research.

Formulation of test items:

Q1) When a team plays with an offensive plan (5-1), the team consists of:

a. Three stomachs and three attackers.

B. Two minerals and four attackers.

C. One stomach and five attackers.

Q3) When the team plays with the offensive plan (6-0), each player reaches:

a. Center 4 is the stomach.

B. Center 3 is the stomach.

C. Center 2 is the stomach.

Q5) In Plan (5-1), when the equipment prepares the ball for the hitters, it retreats to the defense to:

a. Center (6).

B. Center (5).

C. Center (1).

Q 7) In the offensive plan (5-1), when the stomach is at the center (6), it is:

a. He moves to prepare the ball to occupy the position (3).

B. Moves to prepare the ball to occupy the center (4).

C. Moves to prepare the ball to occupy the position (2).

Q 9) In the offensive plan (5-1), when the equipment moves from the rear centers to prepare the ball, it retracts to defend:

a. Center (6).

B. Center (5)

C. Center (1).

Q11) Plan (4-2) is one of the most used plans for a category:

a. Applicants.

B. Youngsters.

C. Cubs.

Q13) When the team is in transmission mode in Plan (5-1) it is preferred to:

a. The stomach is in the center (6).

B. The stomach is in the center (1).

C. The stomach is in the center (2).

Q15) In the offensive plan (4-2), when the equipment is at the center (4) at the reception, it is preferred that:

a. Moves to occupy the position (3).

B. Moves to occupy the center (2).

C. It never moves and stays in the same position.

Q17) The defensive plan (6) advanced means:

a. Back-row players should be on the same footing.

B. The back row players should be diagonally.

C. The back row players must be in the number (8).

Q19) When the opponent performs an overwhelming beating from center (4) and without a blocking wall, the appropriate defensive formation is:

a. Defensive formation (1-3-2).

Q2) When a team plays with an offensive plan (4-2), the team consists of:

a. Four stomachs and two attackers.

B. Minerals and four attackers.

C. Three stomachs and three attackers.

Q4) In the offensive plan (5-1), when the equipment is in the center (1) and during the reception, then:

a. It moves from its center to the center (3).

B. It moves from its center to the center (4).

C. It moves from its center to the center (2).

Q6) Advance teams often play with an offensive plan:

a. (4-2).

B. (5-1)

C. (6- Zero).

Q8) In the offensive plan (5-1), when the stomach is at the center (5), it is:

a. He moves to prepare the ball and occupies the center (2).

B. He moves to prepare the ball and occupies the center (3).

C. Moves to prepare the ball and occupies the center (4).

Q10) When the team plays with the plan (4-2), the two preparers are:

a. They are always distributed in parallel.

B. They are always distributed in reverse.

C. Always distributed randomly.

Q12) When the team is in the reception position in the plan (5-1) it is preferred to:

a. The stomach is in the center (1).

B. The stomach is in the center (2).

C. The stomach is in the center (3).

Q14) The offensive plan that contains the largest number of strikers is:

a. Offensive plan (6- Zero).

B. Offensive plan (4-2).

C. Offensive plan (5-1).

Q16) The most effective defensive plan against the opposing team's attacks is:

a. Defensive Plan (6) advanced.

B. Defensive plan (6) overdue.

C. Two-bracketed defensive plan.

Q18) The defensive plan (6) overdue means:

a. The back row players are V-shaped.

B. Back row players have to be straight.

C. The back-row players should be arc-shaped.

Q20) When the overwhelming beating is not so light and easy that the ball can be expected to fall, we:

a. We use a wide defensive formation.

B. We use a narrow defensive formation.

C. We use random defense formation.

Preparation of specifications table:

Table (2) shows the semesters, the number of hours, the percentage, cognitive goals and the number of questions for each semester

Rounding	The number of questions for each chapter	Implemen-tation 30%	Under-standing 30%	Remember 40%	percen-tage	The number of hours	Chapters
4	3.6	1	1	2	0.066	2	6-0
8	7.8	2	2	4	0.133	4	4-2-2
8	7.8	2	2	4	0.133	4	4-2-3
12	12	3	4	5	0.20	6	5-1

Cont... **Table (2) shows the semesters, the number of hours, the percentage, cognitive goals and the number of questions for each semester**

4	3.6	1	1	2	0.066	2	6- Late
4	3.6	1	1	2	0.066	2	6- Advanced
8	7.8	2	2	4	0.133	4	Loose player
12	12	3	4	5	0.20	6	Attacking player cover
60		15	17	28	100	30	Total

The test experiment:

a. Exploratory experience:

The researchers conducted the exploratory experiment without the main research sample on (11/12/2018) to verify the clarity of the test instructions in terms of formulating questions, answering their paragraphs, and determining the time required to answer, the efficiency of the auxiliary work team, and the difficulties and obstacles that the researcher may encounter when Take the test, and the test was applied to a survey sample of (25) students from the fourth grade / College of Physical Education and Sports Science / University of Diyala, and the results were positive in terms of rushing towards the test, and this only indicates the sincerity of the answer, and not falsify it from the sample .

B. The main experiment of cognitive test:

After the test, with its instructions and questions, became ready for application, the researchers began with the auxiliary work team applying the test to the research sample (the construction sample) and their number (84) students for the period from 18-20 / 12/2018), and after completion the data has been scheduled for individuals The construction sample, as a prelude to statistical analysis.

Main experience:

After the results of the experimental experiments confirmed the safety and correctness of the implemented procedures and included the conditions and scientific specifications for the tests as well as the relevance of the research sample, the cognitive test was applied in its main final form and it consisted of (78) rationing sample students from all people and were randomly chosen for the accuracy of the study description on (4/22/2019).

The researchers used the statistical realities (SPSS)

1. Factors of ease and difficulty
2. Coefficient of discrimination
3. Arithmetic mean
4. Standard deviation
5. Standard grade g and rate c

View, analyze and discuss the results

View and analyze the results of raw scores, repetitions, and percentages achieved for scout skills tests and discuss them. **(3)**

Good tests are those that include criteria that give the raw values that are extracted through the application of the tests a meaning and meaning, as the criteria help the laboratory to identify its relative position in its group, and this is an important and necessary measure to achieve the conditions of evaluation. **(4)**

Statistical description Show the cognitive test of defensive and offensive formations, analyze and discuss them:

Table (3): The statistical description shows the cognitive test of defensive formations Attacking volleyball.

78	**Valid N**
0	Missing
45.321	**Mean**
0.456	**Std. Error of Mean**
4.027	**Std. Deviation**
0.587	**Skewness**
0.272	**Std. Error of Skewness**

From Table (3), descriptive statistics show the cognitive test of defensive and offensive formations, and there are very important indications that we can infer the moderation of the research sample on the standard error (Kaos), which is that all the values of the arithmetic circles were greater than the values of standard deviations, as well as the value of the standard error , Which constitutes the second indication of the equinox, and finally the torsional coefficient values, which ranged from (± 1). After that, the researchers extracted the codification steps on a sample of (78) students in the fourth stage by converting the raw grades into real grades, which is the adjusted T value.

Display and analyze the standard levels, the results of the raw scores and their repetitions, and the percentages achieved for the cognitive test of defensive and offensive formations in volleyball:

Natural distribution is an objective method for estimating grades, especially if the group on which measurements are made is large, in addition to that it is one of the most common distributions in the field of physical education because many of the characteristics and characteristics that are measured in this field are approximated in the natural curve.

Table (4) shows the raw scores and levels for the cognitive test of defensive and offensive formations in volleyball

T	Cumulative Percent	Valid Percent	Percent	Frequency	Date	
36.79	11.5	11.5	11.5	9	40.00	Cognitive scale
39.27	23.1	11.5	11.5	9	41.00	
41.75	34.6	11.5	11.5	9	42.00	
46.72	42.3	7.7	7.7	6	44.00	
49.2	53.8	11.5	11.5	9	45.00	
51.69	57.7	3.8	3.8	3	46.00	
54.17	73.1	15.4	15.4	12	47.00	
56.65	84.6	11.5	11.5	9	48.00	
59.14	88.5	3.8	3.8	3	49.00	
61.62	89.7	1.3	1.3	1	50.00	
66.59	94.9	5.1	5.1	4	52.00	
74.04	100.0	5.1	5.1	4	55.00	
		100.0	100.0	78	Total	
45.321			Arithmetic mean			
4.027			standard deviation			

Table (4) the reality of the sample level in the cognitive test of defensive and offensive formations despite its importance if its percentage (46.153%) was above the level of acceptance of the total of the research sample and (53.846%) under the level of acceptance meaning meaning as well as the highest frequency was at the level of Admission is (15.384%), and this is the case of the fourth stage students in the College of Physical Education and Sports Science, Diyala University in offensive and defensive formations, and this is in line with what it indicated [(5)] as scientific knowledge is an important variable in learning the motor skills that It requires understanding and perception when performing and learning it, "and through Mullah The general moment, we see that a student or player with good physical ability with a specific field intelligence is better in responding to performance and the method of using effort than another student who possesses the same specifications with a weak level of intelligence. [(6)]

Conclusion

The cognitive test proved its validity in measuring the cognitive aspects of defensive and offensive formations of volleyball by distributing it moderately to the building sample and its ability to distinguish between the completion of the sample members with a high and low level in addition to achieving high honesty, consistency and objective transactions. Positive and more positive levels and that the research sample was more than (46.153%) above the admission line; therefore the researchers recommend adopting the cognitive test in the continuous evaluation process for students, as well as adopting the criteria that the research reached during the evaluation process The selection, continuous updating (modification) of standards according to scientific knowledge and over the years, and the cognitive test extracted can be codified on other age groups (male - female) and the development of standards.

Conflict of Interest: student of College of physical education and sport science, University of Diyala, Iraq.

Source of Funding: Self-funding

Ethical Clearance- Taken from: College of physical education and sport science, University of Diyala committee.

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