

THE EFFECT OF AN EDUCATIONAL CURRICULUM BASED ON METACOGNITIVE SKILLS IN TEACHING SOME OFFENSIVE SKILLS ON THE SPECIALIZED SCHOOL OF BASKETBALL IN BAGHDAD GOVERNORATE

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Abstract: The educational process depends on the means of conveying information from the teacher to the learner. Whenever appropriate, this means the learning process takes place better, faster, and with less effort, and the problem of research lies. The players lack learning in the meta-knowledge curriculum in basketball offensive skills than offensive skills. The aim of the research is to identify the effect of training exercises for educational numbers based on metacognitive skills in teaching some offensive skills with basketball. As for the research assignment, there are statistically significant differences between the results of the pre and post tests for the experimental group and in favor of the post tests. The experimental approach was used for its suitability to the nature of the problem. The research sample is a group of (14) players from the Specialized School of Sports Basketball They were divided into two groups (control) and (experimental) and by lottery with (7) players for each group. Through the results, conclusions were reached, the most important of which is the preference for the experimental group in the applied exercises for metacognitive education used in the educational curriculum for performance, which had an effective role among the members of the experimental group.

Keywords: educational curriculum, educational curriculum, educational curriculum, basket ball, sport education

INTRODUCCIÓN

The educational process depends on the means of conveying information from the teacher to the learner. Whenever this method is appropriate, the learning process is done better, faster, and with less effort (Perry et al, 2019). There have been many means or methods of transmitting information, and there has been great progress on them as a result of the development of modern concepts of the educational process (Hargrove, 2013). Its connection with the mental and cognitive abilities of the learner through his participation in building new forms of communication and making the educational facilities more effective and interesting (Tempelaar, 2006). The learning factor beyond the player needs for offensive and defensive information on the field. The defensive movements most often serve to prepare the offensive movements (Zabit, 2010). It is also an important factor in confusing the opponent, which makes him unable to think or anticipate the movement of the attacking player. As well as surprising the opponent by performing quick movements and recording a touch on him, and the movements must be accurate and well-timed in order for them to succeed (Gilbert, 2005). The game of basketball is one of the team games that are widely and widely used because it contains many skills, including defensive and offensive. This skill in motor learning is one of the only movement skills, meaning it has a clear beginning and a clear end, which enables the learner to know the parts of this skill (Medina et al, 2017).

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Therefore, the cognitive aspects of any player are extremely important. If the knowledge aspects, information, and previous experiences in the aspects of education accumulate, the more you increase the mastery of performance and quickly develop solutions to any variable. These changes may occur during play or previously unknown to the learner (Turan et al., 2009).

Hence the importance of research in identifying what the player possesses of metacognitive skills, because the player must use and store smart cognitive structures or structures. The skill is self-awareness by being a positive and active player in his environment with a high sense of himself as a conscious actor in the retention and retrieval of information (Cardelle-Elawar, 1992).

The offensive skills are considered and may not be drawn for the correct scientific curricula in the educational process according to the capabilities of the learners because these skills are necessary for the basketball player. It positively affects the performance of the player's movements, which are distinguished by the correct performance and technique, and the appropriate timing in the performance of each movement. Its success depends on correct education, by discovering a gap in the competitor's defense and investing it in the best way. Offensive skills are important skills for a basketball player. The problem of the research lies in the failure to invest players' metacognitive skills in their performance of offensive skills. The objective of this study is Preparing an educational curriculum based on metacognitive skills in teaching some offensive skills with basketball. As well as, Recognizing the effect of the educational curriculum on learning some offensive skills with basketball. Also, There is a positive effect of the educational curriculum prepared in learning some offensive skills according to metacognition skills in basketball.

RESEARCH METHODOLOGY

The researchers used the experimental approach to suit the nature of the research and the method of equivalent groups experimental and control. A reference for comparison, so that the groups "are completely equal in all their conditions except for the experimental variable that affects the experimental group."

Research Sample

The research community consisted of players from the Specialized School of

Basketball in Baghdad Governorate with basketball (males only). Under 16 years of age, and their number is (18) players. As for the research sample, it consisted of (14) players. The researchers excluded (4) players because they have high game skills and a high level of skill performance.

The members of the two control groups were identified, which included (7) players, and the experimental group also included (7) players. For the purpose of conducting homogeneity and equivalence in the adopted variables, equivalence and homogeneity were conducted between the two research groups (control and experimental).

In the pre-test of the variables that were adopted in the research, which included homogeneity, the sample was homogeneous through the use of the torsion coefficient (age, weight, height). As for equivalence in the pre-test for the variables that were adopted in the research and which were included in Table (1)

By applying the law of (T) for independent samples to the data for the tests, the calculated (T) value was less than the tabular (T) value. This indicates that the differences between the two groups are not significant, meaning that the two groups are equivalent

Determining the tests

The most important thing that the researchers need is to prepare a questionnaire to choose the appropriate tests for the skills under study. The form was shown to a group of (4) basketball specialists. After collecting and emptying the forms, the tests that achieved an agreement of (70%) and above were selected, and Table (2) explains that.

The followed test

First: Tests the offensive skills of the game of basketball:

1: Test the tabby by changing direction between (6) signs for (13.50 m) back and forth

The purpose of the test: To measure the velocity of the chuck when changing direction

Table 1. The equivalence of the two groups of research in the tests used.

Statistics Test	Unit	Experimental group		Control group		T value	The probability value	Function
		S	±A	S	±A			
High churn speed	Time	14,50	1,28	14,73	0,59	0,40	0,69	Unfunctional
The speed of chest handling	Time	12,51	0,87	12,99	0,88	0,94	0,36	Unfunctional
Scoring is persistence	degree	9,00	1,67	8,83	0,75	0,22	0,82	Unfunctional

Table 2. Percentage of expert agreement for tests of candidate offensive skills.

No.	For offensive skills	Candidate tests	Number of experts	Percentage	Results
1	The high chuck	The high speed of the chop is 20 meters	1	25%	X
		Test the pad from a high start with a change of direction between (6) signs for a distance of (13.50 m) back and forth	3	75%	accepted
2	Chest handling	Chest handling accuracy	1	25%	X
		Handling the ball and receiving it against the wall from a distance of 0.25 meters	3	75%	accepted
3	Scoring is persistence	Measuring the accuracy of free throw scoring from behind the free throw line. (20 throws)	3	75%	accepted
		Scoring from stability 10 shots	1	25%	X

The necessary tools: a basketball court, 6 signs, an electronic stopwatch, a tape length (1.50 m) drawn as a starting line, a whistle to give the start signal.

Performance specifications: The tester with the ball takes the standby position from the high start behind the starting line. When the start signal is heard, the tester runs with the pad, changing the direction between the signs, then turns around the last person and continues running with the chopper between the halves until it crosses the finish line.

Recording: Calculates the time taken by the laboratory from the moment the signal was given until it crossed the finish line

2: Handling the ball and receiving it against the wall from a distance of 2, 50m: (1991: 124: 6)

The purpose of the test: to measure the velocity of thoracic handling and receiving.

Crisis tools: smooth wall, tape measure, legal basketballs, electronic stopwatch.

Performance Specifications: The tester stands directly behind the starting line holding the ball. And at a start signal stethoscope he quickly handles the ball (chest handling) against the wall and receives it. This performance is repeated for 10 consecutive manipulations at the fastest possible speed.

Recording: It records the time taken for the laboratory to perform handling from the ball touching the wall for the first successful handling to the last successful handling.

3. Free Throw Test

The purpose of the test: To measure the accuracy of free throw scoring behind the free throw line.

Necessary tools: basketball court, basketball goal, basketball.

Number of attempts: Each player is awarded (20) attempts divided into four groups, each group consisting of (5) consecutive attempts.

Calculation of points: for each successful throw (a ball that enters the basket), one point is calculated and scored for each player, and no point is counted for the player when the ball does not enter the basket. The highest points that can be obtained are (20) points.

Second Exploratory Experience:

The researchers conducted an exploratory experiment on 12/13/2019 on the players of the research sample, which are 4 players from Al-Salwiya School in Baghdad Governorate.

Third : Pre-Exams

The researchers conducted the pre-tests before starting the training curriculum, which included the tests (offensive skills) on Saturday and Sunday at ten o'clock in the morning on 13-14 / 12/2019 in the hall of the Ministry of Youth and Sports.

Educational curriculum:

After I looked at many of the available scientific sources, as well as benefiting from the opinions of experts and specialists in the field of basketball and kinetic learning. Their good opinions were taken after the educational curriculum was

presented to them so that the research could achieve its goals "The basis for it is to reach the student's level to the best possible degree of progress in his specialized activity." (1988: 53: 1)

These two units included a simple explanation of the law of the game, the dimensions of the arena, and the creation of a kind of harmony between the learner and how to perform the correct skill so that the individual can form an incomplete initial picture at first. These two units were given to the two groups (experimental and control) on Saturday 14/12/2019 and in the Specialized School Hall in Baghdad A.

After completing the induction units, and on Sunday 12/15/2019, the application of the educational curriculum, which consisted of (24) educational units, took (8) weeks, distributed on Sundays, Tuesdays and Thursdays. The time of the educational unit is (45) minutes, as the curriculum is applied in the main section, which has a time of (30) minutes. This section included the theoretical part, which has a time of (10) minutes, which includes an explanation of the skill with a presentation of the application form to the learners

As for the practical (practical) part, its time was (20) minutes. This part included practical applications of skill exercises, metacognition exercises and a game of basketball. As for the preparatory section in the curriculum, its time was (10) minutes and consisted of general warm-up, which took (5) minutes and included walking and jogging with a variety of exercises. Either a special warm-up, which has a time of (5) minutes, also includes special exercises for stability and movement for all parts of the body. As for the final section, its time was (5) minutes, and this section included mini games and recreational duration of (4) minutes and one minute to perform the greeting and leave as usual.

Dimensional Tests

The dimensional tests were conducted on the research sample on Saturday 15/2/2020 in the Wissam Oribi Olympic Hall, closed for sports for a period of one day. The researchers followed the same procedures that they followed in the pre-tests in terms of time and place, the tools used in the tests, and the tools used.

Statistical Methods

To achieve the goal of the study, the researchers used the Statistical Package for the Social Sciences (SPSS):

RESULTS AND DISCUSSION

Presentation and analysis of the results of the pre and post tests of the experimental group. Tests: High chuck speed test, chest handling speed test, basketball scoring accuracy test:

By viewing Table (3), which shows the results of the pre and post test for the control group in the high chuck speed test. Thus, the difference is statistically significant and is in favor of the post test, as for the chest handling velocity test. Thus, the difference is not statistically significant and in the scoring accuracy test of reliability. The difference is thus not statistically significant

Analyzing the results of the pre and post tests of the experimental group in the tests, the high choke speed test, the chest handling speed test, the test of the accuracy of scoring from the stability of the basketball:

After the researchers finished their pre and post tests of the experimental group of the research sample, they intended to empty the data and treat it

Table 3. The result of the pre and post tests for the control group in the three search tests.

Statistics Test	Unit	pre		post		Value of T	Indication level	Function
		S	±A	S	±A			
High churn speed	Sec	14,73	0,59	13,88	0,66	9,00	0,00	Function
The speed of chest handling	second	12,99	0,88	12,40	0,73	5,65	0,00	Function
Scoring is persistence	Degree	8,83	0,75	10,00	0,63	3,79	0,01	Functioned

Table 4. The results of the pre and post tests for the experimental group in the three test.

Statistics Test	Unit	pre		post		Value of T	Indication level	Function
		s	±A	S	±A			
High churn speed	Sec	14,50	1,28	11,45	0,70	5,50	0.00	functioned
The speed of chest handling	Sec	12,51	0,87	9,64	0,59	5,16	0.00	Functioned
Scoring is persistence	Degree	9,00	1,67	14,50	0,83	7,20	0.00	Functioned

Table 5. Results of the dimensional tests for the experimental and control groups in the three tests.

Statistics Test	Unit	Experimental group		Control group		Value of T	Function level	Function
		S	±A	S	±A			
High churn speed	Sec	11,45	0,70	13,88	0,66	6,14	0.00	Functioned
The speed of chest handling	Sec	9,64	0,59	12,40	0,73	7,12	0.00	Functioned
Scoring is persistence	Degree	14,50	0,83	10,00	0,63	10,51	0.00	Functioned

statistically as shown in Table (4).

Through viewing Table (4), which shows the results of the pre and post test of the experimental group in the test of high churn speed.

Therefore, the difference is statistically significant and in favor of the post-test. As for the test of the speed of chest handling, thus, the difference is statistically significant and favorable to the post-test, and in the scoring accuracy test of reliability. Thus, the difference is statistically significant and in favor of the post-test.

Presentation and analysis of the results of the dimensional tests of the experimental and control group in the tests, the high choke speed test, the chest handling speed test, the scoring accuracy test of the stability of the basketball

By displaying the table 5, the results of the dimensional tests for the control and experimental groups in the test of high chuck speed. Thus, the difference is significant and in favor of the experimental group. And in the test of the velocity of chest handling. Thus, the difference is significant and in favor of the experimental group. As for the accuracy test of reliability, the difference is significant and in favor of the experimental group.

Comprehensive Discussion

After reviewing the results shown in Table (3), which shows the results of the experimental group in the pre and post measurements of the tests under study. Table (4) that shows the results of the control group in the pre and post measurements of the same tests, as well as Table (5) that shows the results of the post tests for the experimental and control groups. It is clear to us that the experimental group had a better level of development than the control group, according to the evidence of the results that we found in the tables. The results of the experimental group whose members applied special exercises were metacognitive in developing high mastery, handling and scoring. Their level development was better than the control group that did not use special exercises, but worked according to the methodology set by the team coach. What reinforces this talk is a return to the results of tables (3) (4) (5).

The researchers believe that metacognitive exercises lead to correct methodologies in competition exercises that develop the player's ability to qualify for special exercises beyond knowledge playing in basketball. The researchers attribute the reason for the differences also in the results between developing to the level of individuals and their ability to perform, and this process requires a great capacity in the physical abilities of the basketball player, and this was confirmed (Wajih, 2001: 197: 7). Repetition and training give the skill more mastery, competition, and more precise movement brilliance. Handling is the process of moving the ball to different places in the game. Through it, it is possible to obtain distinctive positions in order to achieve better correction ratios, and its safety depends on the outcome of the match.

The researcher Al-Tabtaba agrees that it is "the player's process of wearing the ball with one hand towards the ground." Scoring is the only way to reach

victory by hitting the opposing team's basket. Scoring the basket is the end result of mastering all basketball skills, training programs and game plans.

CONCLUSION

1. That the educational curriculum, according to metacognition exercises, has a positive effect on learning offensive skills with basketball
2. The applied exercises for metacognitive education used in the educational curriculum and accompanying the performance had an effective role among the members of the experimental group.
3. The presence of significant differences between the post tests (for offensive skills in basketball) and the experimental and control groups, and in favor of the experimental group.
4. There is a significant correlation between the accuracy of some offensive skills with basketball

The researchers recommend trainers in specialized schools for the gifted to use modern methods in the process of learning basic skills and for various sports. The researchers recommend using the educational curriculum according to metacognition exercises by the specialized schools' trainers

REFERENCIAS

Perry, J., Lundie, D., &Golder, G. (2019). Metacognition in schools: what does the literature suggest about the effectiveness of teaching metacognition in schools?. *Educational Review*, 71(4), 483-500]

Hargrove, R. A. (2013). Assessing the long-term impact of a metacognitive approach to creative skill development. *International Journal of Technology and Design Education*, 23(3), 489-517]

Tempelaar, D. T. (2006).The role of metacognition in business education. *Industry and Higher Education*, 20(5), 291-297]

Zabit, M. N. M. (2010). Problem-based learning on students critical thinking skills in teaching business education in Malaysia: A literature review. *American Journal of Business Education (AJBE)*, 3(6), 19-32]

Gilbert, J. K. (2005). Visualization: A metacognitive skill in science and science education. In *Visualization in science education* (pp. 9-27). Springer, Dordrecht]

Medina, M. S., Castleberry, A. N., &Persy, A. M. (2017).Strategies for improving learner metacognition in health professional education. *American Journal of Pharmaceutical Education*, 81(4)]

Turan, S., Demirel, O., &Sayek, I. (2009). Metacognitive awareness and self-regulated learning skills of medical students in different medical curricula. *Medical teacher*, 31(10), e477-e483]

Cardelle-Elawar, M. (1992).Effects of teaching metacognitive skills to students with low mathematics ability. *Teaching and teacher education*, 8(2), 109-121.]