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The effect of an educational curriculum according to brain dominance in teaching some basic basketball skills to students

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Abstract---The educational process depends on the means of transferring information from the teacher to the learner, and this method, whenever it is appropriate, the learning process is done better, faster, and with less effort. The effect of preparing an educational curriculum on skills according to brain mastery in teaching some basic skills in basketball. As for the imposition of the research, 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. What is the research methodology? The experimental method was used for its suitability to the nature of the problem, and the research sample was a group of sportsmen, numbering (40) students, and they were divided into two groups (control) and (experimental) and by lottery (20) students for each group. And through the results, conclusions were reached, the most important of which is the preference of the experimental group in the applied exercises of brain mastery education and used in the educational curriculum for performance, which had an effective role among the members of the experimental group.

Keywords---brain dominance, skills in basketball, education.

Introduction and importance of the research

The educational process depends on the means of transferring information from the teacher to the learner, and this means, whenever it is appropriate, the learning process is done better, faster, and with less effort. In building new forms of communication and making educational facilities more effective and interesting, and the factor of learning according to brain sovereignty is needed by players for basic information on the field because the defensive movements in most cases work on the beginning of preparation for the basic movements and is also an important factor in confusing the opponent, making him unable to think. Or the kinetic expectation of the attacking student, surprising the opponent by performing quick movements and recording a touch on him, and the movements must be characterized by accuracy and good timing in order to be successful. Basketball is one of the group games with a wide spread and greatness because it contains many skills, including defensive and basic ones, and this skill in motor learning is one of the only moving skills, that is, it has a clear beginning and a clear end, which enables the learner to know the parts of this skill, so the cognitive aspects are. For any player, one of the important aspects is of high importance, because the more knowledge aspects, information and previous experiences accumulate in the aspects of education, the greater the mastery of performance and the rapid development of solutions to any variable that may occur during play or not previously known to the learner. Hence, the importance of research in identifying what students possess from Skills according to cerebral sovereignty, because the student must use smart cognitive structures or structures and store them, i.e. self-awareness through the learner being active, positive and active in his environment with a high sense of himself as an active and conscious element in retaining and retrieving information.

Research Problem

The basic skills and the correct scientific curricula may not be drawn for them in the educational process according to the capabilities of the learners because these skills are necessary for the student in basketball, brain sovereignty and thinking, as they positively affect the performance of the student's movements distinguished by performance and the correct technique and the appropriate timing in the performance of each movement in order to achieve the goal of its performance. Success depends on the right education, by discovering a loophole in the opponent's defense and investing it optimally because the basic skills are important skills for the basketball student, so the problem of the research lies in the lack of investment in skills according to the brain sovereignty of the students in their performance of the basic skills.

Research Objectives

The research aims to

1. Preparing educational units according to brain sovereignty for the second stage of the College of Physical Education and Sports Sciences.
2. Identifying the impact according to brain sovereignty and basic basketball skills for students of the second stage of the College of Physical Education and Sports Sciences.

Imposing search

1. There are statistically significant differences between the tribal and remote tests between the experimental and control groups, the basic skills of basketball for the students of the second stage of the College of Physical Education and Sports Sciences
2. There are statistically significant differences between the post-tests between the experimental and control groups, the basic skills of basketball for students of the second stage of the College of Physical Education and Sports Sciences.

Research Areas

1. The human field: second-year students in the College of Physical Education and Sports Sciences \ Misan University, whose number is (40) students for the year (2021-2022)
2. Spatial domain: Faculty of Physical Education and Sports Sciences - University of Maysan.
3. Time range: the period from (5/1/2022) to (15/5/2022)

Research methodology and field procedures

Research Methodology

The researchers used the experimental method to suit the nature of the research and in the style of equal experimental and control groups as a reference for comparison, so that the groups are completely equal in all their circumstances, except for the experimental variable that affects the experimental group.

Compound and Sample Research

The success of any study in scientific research depends on defining the community and selecting the appropriate sample for the type and objectives of the study. After the researchers confirmed the students' curriculum for the second stage of open basketball, the researchers identified the research community from the second stage students in the College of Physical Education and Sports Sciences \ Misan University, who numbered (40) students for the year (2021-2022). (Yar sampled the main experiment in a random way, and their number was (40) students who were divided into two groups (control and experimental), as the students of Division (B) were (20) students, which represents the experimental group that works according to the curriculum prepared by researchers in a cooperative learning method according to sovereignty The cerebral group, either the second group, Division A, numbering (20) students, to represent the control group, which works according to the method of the subject teacher followed.

Table (1) shows the equivalence of the two research groups in the tests used

indication	probabil ity value	Calculated T value	control group		experimental group		measuring unit	Statistical coefficients Test name
			±	S	±	s		
not	0,69	0,40	0.59	14,73	1,28	14,50	time	High chuck speed

significant								
not significant	0.36	0.94	0,88	12,99	0.87	12,51	time	pectoral handling speed
not significant	0,82	0.22	0.75	8,83	1,67	9:00	Degree	Scoring from persistence

Significant at significance level $\leq (0.05)$

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

Means of collecting information, devices and tools used in the research

Tools used in the research:

- 1- Tests and measurements
- 2- Personal interviews.

The devices used in the research

- 1- A Dell Pentium (4.2) laptop computer.
- 2- A Canon 2900 laser printer.
- 3- Two (2) Sony stopwatches
- 4- Plastic cones (20)
- 5- Wheelchairs and basketball whistle

Field Research Procedures

Specify the tests

The researchers prepared a form to choose the appropriate tests for the skills under study, and the form was presented to a group of basketball specialists, numbering (4), appendix (1) and (2). Table (2) illustrates this.

Table (2) shows the percentage of experts agreement for the tests of the candidate basic skills

The result	percentage	number of experts	Candidate Exams	for basic skills	No
X	%25	1	High speed chuck20 m	high chuck	1
Acceptable	%75	3	Tataba test from the high start by changing direction between (6) poles for a distance of 13.50) m) back and forth		
X	%25	1	pectoral handling accuracy	pectoral handling	2
Acceptable	%75	3	handling the ball and receiving it towards the wall from a distance of 50,2r		
Acceptable	%75	3	Measure the accuracy of free-throw scoring from behind the free-throw line. (20 throws(Scoring from persistence	3
X	%25	1	Scoring from stability 10 throws		

Research tests

First: Basic skills tests for the game of basketball

Tataba test by changing direction between (6) pillars for a distance of (13.50 m) back and forth: (1)

The purpose of the test: To measure the speed of the chuck by changing the direction

Necessary tools: Basketball court, 6 electronic stopwatches, adhesive tape with a length of 1.50 m to be drawn as a starting line, 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, and when he hears the start signal, the tester runs with the tambour, changing the direction between the pillars, then revolves around the last one and continues running with the tambour between the pillars until he 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

Handling and receiving the ball towards the wall from a distance of 50, 2 m: (2)

Purpose of the test: To measure and receive chest handling velocity.

Critical tools: smooth wall, tape measure, legal basketball, electronic stopwatch.

Performance specifications: The tester stands directly behind the starting line while holding the ball, and when the start signal is heard, he handles the ball (pectoral handling) quickly towards the wall and receives it. This performance is repeated for 10 consecutive shifts as quickly as possible.

Recording: Records the time it takes the laboratory to perform the manipulations from the ball touching the wall for the first successful manipulation until the last successful manipulation.

Free Throw Test (2)

Purpose of the test: To measure the accuracy of free-throw scoring from behind the free-throw line.

Equipment needed: 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.

Calculating Points: One point is calculated and scored for each player for every successful throw (a ball that enters the basket). The student does not count any point when the ball does not enter the basket.

Experimental Experiment

The researchers conducted an exploratory experiment on 13/1/2022 on the students of the research sample, who are students from the College of Physical Education and Sports Sciences \ Misan University, which numbered (4) students before doing his research with the aim of choosing research methods and tools, and he applied the tests that he set with a purpose behind the following: :

1. Ensure the validity of the tools that will be used in the field experiment.
2. Ensuring the ease of preparing and implementing the tests.
3. Note the suitability of the assistant work staff.

Tribal Tests

The researchers conducted tribal tests before starting the training curriculum, which included tests (basic skills) on Thursday at ten o'clock in the morning on 13/1/2022 in the hall of the College of Physical Education and Sports Sciences \ Misan University

Educational Curriculum

The researchers began preparing the educational curriculum after reviewing many available scientific sources, as well as benefiting from the opinions of experts and specialists in the field of basketball and kinetic learning. Because "the basis is to reach the student's level to the best possible degree of progress in his specialized activity." (1) These two units included a simplified explanation of the law of the game and the dimensions of the arena and finding a kind of harmony between the learner and how to perform the correct skill so that the individual could form an incomplete initial picture in the beginning. These two units were given to the two groups (experimental and control) on Saturday 16/1/2022 and in the hall of the Faculty of Physical Education and Sports Sciences \ Misan University. After completing the introductory units, on Sunday 3/13/2022, the application of the educational curriculum began, which consisted of (24) educational units and took (8) weeks, distributed on Sundays and Tuesdays. The time of the educational unit was (45) minutes, as the educational curriculum is applied in the main section, whose time is (30) minutes, and this section included the theoretical part, whose time is (10) minutes, which includes an explanation of the skill with a model of the application presented to the learners, either the part The practical (applied) time was (20) minutes, and this part included practical applications of skill exercises, metacognition exercises and the game of basketball. As for the preparatory section of the curriculum, its time was (10) minutes and it consists of the general warm-up, which time is (5) minutes and includes walking and jogging with a variety of exercises. As for the final section, its time was (5) minutes, and this section included small and recreational games of (4) minutes and one minute to perform the salutation and leave as usual.

Post-tests

Post tests were conducted on the research sample on Tuesday 15/3/2022 in the hall of the College of Physical Education and Sports Sciences \ Misan Closed University for Sports and for a period of one day. used.

Statistical means

In order to achieve the goal of the study, the researchers used the statistical package for social sciences (spss)

Presentation, analysis and discussion of the results

Presentation and analysis of the results of the tribal and remote tests for the experimental group. Tests: The test of the speed of the high drum and the test of the pectoral handling speed, the test of scoring accuracy from the stability of basketball:

Table (3) It shows the results of the pre and post tests for the control group in the three research tests

indication	Indication level	Calculated T value	dimensional		Tribal		measuring unit	Statistical coefficients
			±	s	±	s		Test name
D	0,00	9:00	0.66	13,88	0.59	14,73	second	High chuck speed
D	0,00	5,65	0.73	12,40	0,88	12,99	second	pectoral handling speed
D	0.01	3,79	0.63	10,00	0.75	8,83	Degree	Scoring from persistence

The degree of freedom (n-1) (20-1 = 19) and the significance level \leq (0.05)

By looking at Table (3), which shows the results of the pre and post test for the control group In the high-pitched speed test, it is clear to us that the arithmetic mean of the pre-test reached (14.73) degrees, with a standard deviation of (0.59), while the arithmetic mean in the post-test reached (13.88) degrees, with a standard deviation of (0.66). . When using the T-Test law for correlated samples, the calculated (T) value appeared (9.00) with a degree of freedom (19), and thus the difference is statistically significant and in favor of the post-test. As for the chest handling speed test, the arithmetic mean of the pre-test results reached (12.99) degrees, with a standard deviation of (0.88), while the arithmetic mean in the post-test reached (12.40) degrees, with a standard deviation of (0.73). When using the T-Test law for correlated samples, the calculated (T) value appeared (5.65), which is smaller than the tabular (T) value of (2.57) under the significance level (0.05) and with a degree of freedom (19), and thus the difference is Not statistically significant. In the scoring accuracy test from stability, the arithmetic mean of the pre-test results reached (8.83) degrees, with a standard deviation of (0.75), while the arithmetic mean in the post-test reached (10.00) degrees, with a standard deviation of (0.63)When applying the (T-Test) law for correlated samples, the calculated (T) value reached (3.79), which is smaller than the tabular (T) value of (2.57) under the significance level (0.05) and with a degree of freedom (19), and thus The difference is not statistically significant and analysis of the results of the tribal and remote tests of the experimental group in the tests of the high thrust speed test and the chest handling speed test, the scoring accuracy test from the stability of basketball:

After the researchers finished his pre and post tests for the experimental group of the research sample, he proceeded to unload the data and treat it statistically as shown in Table (4)

Table (4) It shows the results of the pre and post tests for the experimental group in the three tests

indication	Indication level	Calculated T value_	dimensional		Tribal		measuring unit	Statistical transactions
			±	S	±	S		Test name
D	0.00	5,50	0,70	11,45	1,28	14,50	second	High chuck speed
D	0.00	5,16	0.59	9,64	0.87	12,51	the second	pectoral handling speed
D	0.00	7,20	0.83	14,50	1,67	9:00	Degree	Scoring from persistence

The degree of freedom (n-1) (20-1 = 19) and the significance level \leq (0.05)
 By looking at Table (4), which shows the results of the pre- and post-test for the experimental group in the high-pitched speed test, it becomes clear to us that the arithmetic mean of the pre-test reached (14.50) degrees, with a standard deviation of (1.28), while the arithmetic mean in The post test has a score of (11,45), with a standard deviation of (0.70). When using the T-Test law for correlated samples, the calculated (T) value (5.50) appeared, which is greater than the tabular (T) value of (2.57) under the significance level (0.05) and with a degree of freedom (19), and thus the difference is Statistically significant in favor of the post test.As for the chest handling speed test, the arithmetic mean of the pre-test results reached (12,51) degrees, with a standard deviation of (0.87), while the arithmetic mean in the post-test reached (9.64) degrees, with a standard deviation of (0.59). When using the (T-Test) law for correlated samples, the calculated (T) value (5.16) appeared, which is greater than the tabular (T) value of (2.57) under the significance level (0.05) and with a degree of freedom (19), and thus the difference is Statistically significant in favor of the post test.In the scoring accuracy test from stability, the arithmetic mean of the pre-test results reached (9.00) degrees, with a standard deviation of (1.67), while the arithmetic mean in the post-test reached (14.50) degrees, with a standard deviation of (0.83). When applying the (T-Test) law for correlated samples, the calculated (T) value reached (7.20), which is greater than the tabular (T) value of (2.57) under the significance level (0.05) and with a degree of freedom (19). The difference is statistically significant and in favor of the post test.

Presentation and analysis of the results of the post-tests of the experimental and control groups in the tests of the high drum speed test and the chest handling speed test, the scoring accuracy test from the stability of basketball:

Presentation and analysis of the results of the post-tests of the experimental and control groups in the tests of the high drum speed test and the chest handling speed test, the scoring accuracy test from the stability of basketball:

Table (5) shows the results of the post-tests for the experimental and control groups in the three tests

indication	Indication level	Calculated T value	control group		experimental group		measuring unit	Statistical transactions Test name
			±	s	±	s		
D	0.00	6,14	0.66	13,88	0,70	11,45	second	High chuck speed
D	0.00	7,12	0.73	12,40	0.59	9,64	second	pectoral handling speed
D	0.00	10,51	0.63	10,00	0.83	14,50	Degree	Scoring from persistence

The degree of freedom (n-2) (40-2=38) and the level of significance \leq (0.05)
 By displaying the above table, the results of the posttests for the control and experimental groups are clear to us The arithmetic mean of the high-pitched speed test reached (11.45) degrees for the experimental group, with a standard deviation of (0.70), while the arithmetic mean of the control group reached (13.88) degrees, with a standard deviation of (0.66). The (T-Test) law for uncorrelated samples, as the calculated (T) value reached (6,14), which is greater than the

tabular (T) value (2.23) under the significance level (0.05) and with a degree of freedom (38), so the difference is significant For the benefit of the experimental group. In the chest handling speed test, the arithmetic mean reached (9.64) degrees for the experimental group, with a standard deviation of (0.59), while the arithmetic mean of the control group reached (12.40) degrees, with a standard deviation of (0.73). When using the (T-Test) law for uncorrelated samples, the calculated (T) value reached (7.12) which is greater than the tabular (T) value (2.23) under a significance level (0.05) and a degree of freedom (38). The difference is significant and in favor of the experimental group. In the scoring accuracy test of stability, the arithmetic mean reached (14.50) degrees for the experimental group, with a standard deviation of (0.83), while the arithmetic mean of the control group reached (10.00) degrees, with a standard deviation of (0.63). When using the (T-Test) law for uncorrelated samples, the calculated (T) value reached (10.51), which is greater than the tabular (T) value (2.23) under the significance level (0.05) and with a degree of freedom (38). The difference is significant in favor of the experimental group

Discussing the Results

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 and Table (4) which shows the results of the control group in the pre and post measurements of the same tests, as well as Table (5) which shows the results of the post tests for the two experimental groups and the control group, it is clear to us that the experimental group had a better level of development than the control group, as evidenced by the results that we found in the aforementioned tables, and the results of the experimental group whose members applied special exercises for brain mastery in developing the high drum, handling and scoring were better than the control group that did not. Special exercises are used, but they worked according to the method set by the team coach, and what reinforces this talk is to return to the results of tables (3) (4) (5). The researchers believe that the special exercises for brain mastery lead to the adoption of a correct methodology in the exercises of brain mastery that develop the students' ability to qualify. Special exercises for brain mastery playing in basketball. The researchers also attribute the reason for the differences in the results between the development of individuals to the level of individuals and their ability to, and this process requires a great ability in the physical abilities of the basketball player, and this was confirmed by (Wajeih, 2001) (1) that "repetition and training gives the skill more mastery, competition and more kinetic brilliance." Accuracy". Handling is "the process of moving the ball to different places in play, through which distinctive positions can be obtained in order to achieve better shooting rates, and depends on its safety as a result of the match." (2) The researchers agree that it is "the process of wearing the ball with one hand towards the ground by the student." (3) scoring is the only way to win by hitting the opposing team's basket; Scoring on the basket is the end result of mastering all basketball skills, training programs, and game plans (4) This is due to the brain power of learning. Individuals are characterized by the tendency to logical analytical processing of digital and verbal information and to prefer well-planned actions, as they work on arranging ideas in a linear form in order to make conclusions, make judgments and solve problems (5)

Conclusions and recommendations

Conclusions

1. The educational curriculum according to brain mastery exercises has a positive effect on learning basic basketball skills
2. The applied exercises related to education according to brain sovereignty and used in the educational curriculum and accompanying the performance had an effective role among the members of the experimental group.
3. There are significant differences between the post tests (basketball basic skills) and the experimental and control groups in favor of the experimental group.
4. There is a significant correlation between the accuracy of some basic basketball skills

Recommendations

1. Researchers recommend trainers in specialized schools for the gifted to use modern methods in the process of learning basic skills and for various sports.
2. The researchers recommend the use of the educational curriculum according to exercises for brain supremacy by the trainers of specialized schools.

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In the name of Allah the Merciful
Accessory (1)

Nomination of tests by the experts

To.....

Good greeting

The researchers intend to conduct a study entitled ((The Impact of an Educational Curriculum on Brain Dominance in Teaching Some Basic Basketball Skills to Students) and in view of your scientific standing and proven competence..... Please choose one test for each of the existing under-study In the attached form in order for us to complete the research requirements

Researchers

Note: Please put a tick (/) in front of the appropriate test.

the choice	the exams	Variables
	High speed chuck20 m	high chuck
	Tataba test from the high start by changing direction between (6) poles for a distance of 13.50m) back and forth	
	pectoral handling accuracy	pectoral handling
	handling the ball and receiving it towards the wall from a distance of 50,2	
	Measure the accuracy of free-throw scoring from behind the free-throw line. (20 throws)	Scoring from persistence
	Scoring from stability 10 throws	

Annex (2) Names of the experts to whom the questionnaire was distributed to determine the most important tests

Jurisdiction	Workplace	The name	No
Teaching methods / basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	Mother. Dr. Ali Abdel Imam	1
Training/Basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	Prof. Dr. Ahmed Abdel Emam	2
Kinetic learning / basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	Dr. Ali Aziz	3
Kinetic learning / basketball	University of Misan / College of Physical Education and Sports Sciences	Dr. Ali Mohamed Yassin	4