The effect of an educational program using mental practice to developing the cognitive abilities and offensive skills of handball for students

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Abstract

The handball game is one of the group games that arose as a comprehensive college and was practiced as a team game, then it was divided into parts under the name of basic skills for the purpose of facilitating the learning process. Therefore, the reliance of some teachers in the faculties of physical education when learning group games on partial principles led to the separation of the basic skill from its total content within and for this game and the isolation of the learner from the unity of the overall picture that exists inside the stadium, The researchers noted that there is a deficiency in the outcome of skill and cognitive abilities, so the researchers decided to develop an educational program using mental practice in developing the cognitive abilities and offensive skills of students with handball as an attempt to solve them. The research aims to: Preparing an educational program using mental practice in developing the cognitive abilities and offensive skills of students with handball , preparing a measure of cognitive abilities for students in handball, and knowing the effect of the educational program using mental practice in developing the cognitive abilities and offensive skills of students in handball. The researchers used the experimental approach and identified the research community with students of the third school stage / Al Qalam University College / Department of Physical Education for the academic year (2021-2022), numbering (122) students distributed over the morning and evening studies, and 42 students were deliberately selected from the morning study, divided into Two divisions (A - B). The researchers chose from them (42) students in a random manner, one of them representing the experimental group and the second representing the control group. The most important conclusions were: The training program prepared by the teacher contributed to the development of cognitive abilities and offensive skills in handball and for the educational program using the best mental practice in the development of cognitive abilities and offensive skills in handball.

Keywords: Mental practice - cognitive abilities - offensive skills in handball

1.1. Introduction:

The educational process is one of the most important processes that play an important and significant role in the progress and development of peoples, as it positively affects the upbringing of new generations according to advanced practical foundations, and this progress is

measured by the extent of knowledge of modern learning and teaching methods and methods. Among the most prominent of these processes, which took a distinct role in this development, is kinetic learning, which requires attention to the issue of continuous renewal, as it is not permissible to adhere to educational practices just because they are the most common. Therefore, it is necessary to renew and expand to find educational alternatives for the purpose of achieving the desired goals of the educational process sought by those in charge of it, and the process of kinetic learning is characterized by diversity, richness and comprehensiveness, as it leads the learner to achieve the best performance in most of the basic skills of group games, so it is necessary to use types of There are many educational methods that directly affect the educational process to achieve the desired goals that it seeks, It is to reach the learner to the best performance through the use of different technical means and methods that help him to know the details of the performance of any skill in any game or activity, although the process of kinesthetic learning occurs for all individuals in terms of performance, thinking, pronunciation and interaction, so the focus here is on kinesthetic learning that leads to learning the skills of team sports, and the game of handball is one of these games because it contains many skills, including the defensive, which is widespread and wide, and the offensive one, which requires the learner to have a good level of skill performance and the availability of appropriate cognitive abilities that are consistent with his requirements. Diversity and comprehensiveness require the use of new educational methods in the development of skill performance. (Mohamed, J. J., Hrebid, N. K., & Hussein, A. R. A. 2022)

The cognitive abilities that pertain to team sports in general and handball in particular is one of the most important pillars that researchers seek to deepen and crystallize in the learner or player to reach good scientific contexts that deepen the vision in the field of specialization and find a base of information that contributes to the development of basic skills. On this basis, the learner or player must understand his motor duties and have scientific knowledge that qualifies him to perform the skills and advance his position in the educational process. The learner or player must first know and then practice secondly, because practice is a practical translation of what he has acquired knowledge of his field of competence and understanding, and cognitive abilities contribute to organizing movements, and arranging them into ideas and information for the learner or player to use in forming multiple responses to meet the requirements Various and changing toys, Hence the importance of purely and the need for it in the importance of mental practice and its active role in developing performance through the development of various motor programs that control the skill performance of students, as well as developing cognitive abilities in a way that supports mastering and developing basic skills is an important factor in raising the level of accuracy of information stored in memory movement and thus making an appropriate decision for the motor situation and then programming the selected motor response as it is one of the higher mental processes that have a close relationship with knowing the direction, distance, accuracy, time and place in the performance of the offensive skills of students in handball.

1.2. Research Problem:

Through the experience of researchers in the field of handball as former players and teachers at the present time, they noticed that there is a deficiency in the outcome of skill abilities, as well as a weakness in cognitive abilities, especially in the advanced stages of practice among college students in the Department of Physical Education and Sports Sciences, so they decided to develop a program Educational using mental practice in developing the cognitive abilities and offensive skills of handball students as an attempt to solve them.

1.3. Research objective:

- Preparing an educational program using mental practice in developing the cognitive abilities and offensive skills of students with handball.
- Preparing a measure of cognitive abilities for students in handball.
- Knowing the effect of the educational program using mental practice in developing the cognitive abilities and offensive skills of handball students.

1.4. Research hypotheses:

- The educational program using mental practice has a positive effect in developing the cognitive abilities and offensive skills of handball students.

1.5. Research fields:.

1.5.1.The human field: Third stage students at Al-Qalam University College / Department of Physical Education and Sports Sciences - for the academic year (2021-2022).

1.5.2.Time field: from 15/10/2021 to 1/3/2022.

1.5.3.Spatial field: Handball court at Al-Qalam University College.

2. Research methodology and field procedures:

2.1. Research Methodology:

The researchers used the experimental method to suit the nature of the research problem.

2.2.Research community and sample:

The research community was determined by the students of the third study stage / Al-Qalam University College for the academic year (2021-2022), which numbered (122) students, divided into two study divisions (A - B). The researchers chose from them (42) students from the morning study, and in a random way they were divided into two groups, one of them is the experimental group and the second represents the control group.

2-3 Means of collecting information, data, devices and tools used in the research:

2-3-1 Research Methods:

1- Test and measure. 2- Note. 3- Personal interviews.

2-3-2 Equipment and tools used.

1-Legal handball court. 2- Stopwatch. 3- A two (2) video camera (Canon).
4- Laptop calculator type (hp). 5- Weight measuring device. 6- tape measure. 7- Whistle number (2).
8- Number of hand balls (10). 9 - Shooting accuracy squares 50 x 50 cm. 10 - A metal tape measure (5 m long). 11 - 5 wooden poles. 12 - lamps (12). 13 - boxes of 60 cm height (2.14) - 30 pens.

2.4. Field research procedures:

2. 4. 1 Preparing the validity of the cognitive abilities scale for students in handball:

Two scales (Kamal Abdel Hamid & Muhammad Sobhi Hassanein,2002, p. 123) were adopted to measure the cognitive abilities of handball, which consisted of (72) paragraphs that dealt with all aspects of the game, and since the research under study dealt with the following aspects (basic skills, playing plans and the law of the game), so (51) was chosen just a paragraph,

2-5 The exploratory experiment of the scale: In order to ensure the clarity of the instructions of the two scales and the clarity of their paragraphs for the players, and knowing the time taken for their answers, as well as knowing the circumstances of their application and the accompanying difficulties or obstacles, the researchers applied the scales to a survey sample consisting of (30) randomly selected students On (10/25/2021) and on the playground of Al Qalam University College in Kirkuk Governorate, it was clear from this experience that the instructions and paragraphs of the two scales are clear and that the average time taken to answer the items of the scale amounted to (17) minutes.

5-1 Statistical analysis of the items: The statistical analysis aims to calculate the discriminatory power and internal consistency of the items of the scale. The researcher has followed two methods in analyzing the items of the scale:

First: The discriminatory power of the paragraphs: To detect the discriminatory power of the paragraphs of the two scales, the researcher used the two peripheral groups method, as this method is one of the appropriate methods for distinguishing the paragraphs. The total scores obtained by the students (30) are arranged in descending order after correcting the two scales. Then a percentage (50%) was chosen for the upper and lower groups of scores to represent the two extreme groups. On this basis, each peripheral group included (15) students, and then the researchers used the t-test for two independent samples using the statistical bag for social sciences (spss) and all items were accepted, and table (1) shows the results.

Table (1) shows the discriminatory power of the paragraphs of the cognitive abilities scale in handball.

N	Higher group		Lower group		T value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
1	5	0,00	3,55	0,70	3,75	0.00	Sig
2	5	0,00	3	0,84	10,38	0.00	Sig
3	4,73	0,45	1,83	0,38	21	0.00	Sig
4	5	0,00	3,11	0,90	9,15	0.00	Sig
5	5	0,00	3,31	0,97	7,18	0.00	Sig
6	3,31	0,47	1,83	0,38	10,37	0.00	Sig
7	5	0,00	4,12	0,73	1,89	0.001	Sig
8	5	0,00	4,33	1,53	4,63	0.00	Sig
9	3,89	0,73	1,83	0,51	9,80	0.00	Sig
10	5	0,00	2,77	0,42	22,66	0.00	Sig
11	3,89	0,87	1	0,00	14,02	0.00	Sig
12	5	0,00	2,88	0,47	19,53	0.00	Sig

13	5	0,00	2,33	0,48	23,98	0.00	Sig
14	5	0,00	3,55	0,51	3,79	0,001	Sig
15	4,47	0,51	1,05	0,23	25,79	0.00	Sig
16	4,52	0,51	1,33	0,48	19,43	0.00	Sig
17	5	0,00	3,27	1,60	4,69	0.00	Sig
18	5	0,00	1,94	0,93	14,21	0.00	Sig
19	5	0,00	2,11	0,67	18,63	0.00	Sig
20	5	0,00	2,22	0,73	16,55	0.00	Sig
21	4,57	0,50	1,88	0,58	14,99	0.00	Sig
22	5	0,00	3,44	0,98	6,90	0.00	Sig
23	5	0,00	1,44	0,85	18,12	0.00	Sig
24	5	0,00	3,22	0,42	18,12	0.00	Sig
25	5	0,00	4,17	0,75	4,19	0.00	Sig
26	5	0,00	3,33	0,48	14,98	0.00	Sig
27	5	0,00	1,61	0,50	29,47	0.00	Sig
28	5	0,00	2,50	0,78	13,87	0.00	Sig
29	4,57	0,50	1,27	0,46	20,68	0.00	Sig
30	5	0,00	3,72	1,22	4,54	0.00	Sig
31	5	0,00	4,11	1,07	3,59	0,001	Sig
32	5	0,00	2,27	1,17	10,07	0.00	Sig
33	4,68	0,47	1,77	0,42	19,46	0.00	Sig
34	5	0,00	2,05	1,16	11,05	0.00	Sig
35	4,82	0,37	1	0,00	43,47	0.00	Sig
36	5	0,00	2,33	0,59	19,58	0.00	Sig
37	5	0,00	4,16	0,70	5,14	0.00	Sig
38	5	0,00	1,27	0,46	35,23	0.00	Sig
39	5	0,00	2,66	0,48	20,98	0.00	Sig
40	4,47	0,51	1,66	0,48	17,08	0.00	Sig
41	5	0,00	2,22	0,73	16,55	0.00	Sig
42	5	0,00	1,61	0,50	29,47	0.00	Sig
43	5	0,00	2	0,76	17,06	0.00	Sig
44	5	0,00	1,55	0,51	29,38	0.00	Sig
45	5	0,00	3,66	0,48	11,99	0.00	Sig
46	5	0,00	3,61	1,24	8,87	0.00	Sig
47	5	0,00	4	0,84	5,19	0.00	Sig
48	5	0,00	1,11	0,32	52,46	0.00	Sig
49	5	0,00	2,27	0,89	13,27	0.00	Sig
50	4,63	0,49	1	0,00	31,06	0.00	Sig
51	5	0,00	4,17	0,42	3,26	0,030	Sig

Second: Internal consistency: The value of this indicator was extracted for the measure of cognitive abilities in handball using the Pearson correlation coefficient between the score of each paragraph and the total score of the scale, for all members of the sample numbering (30) students

by means of the Statistical Package for Social Sciences (SPSS) and Table (2) shows the results of the coefficients of link

Table (2) shows the correlation coefficient between the paragraph score and the total score of the scale

paragraph number	correlation coefficient	Sig level	Sig	paragraph number	correlation coefficient	Sig level	Sig
1	0,37−	0,004	Sig	2	0,37	0,002	Sig
3	0,46	0,03	Sig	4	0,34	0,005	Sig
5	0.42	0,00	Sig	6	0,27	0,03	Sig
7	0,45	0,002	Sig	8	0,82	0,00	Sig
9	0,65	0,00	Sig	10	0,46	0,001	Sig
11	0,36−	0,004	Sig	12	0,48	0,00	Sig
13	0,64	0,00	Sig	14	0,51	0,00	Sig
15	0,45	0,00	Sig	16	0.58	0,00	Sig
17	0,55	0,00	Sig	18	0,34	0,00	Sig
19	0,28	0,02	Sig	20	0,29	0,02	Sig
21	0,30	0,01	Sig	22	0.46	0,00	Sig
23	0,61	0,00	Sig	24	0,57	0,00	Sig
25	0,41	0,00	Sig	26	0,39	0,00	Sig
27	0,44	0,00	Sig	28	0,77	0,00	Sig
29	0,48	0,00	Sig	30	0,57	0,00	Sig
31	0.53	0,00	Sig	32	0.44	0,01	Sig
33	0,62	0,00	Sig	34	0,31	0,01	Sig
35	0,32	0,00	Sig	36	0.43	0,00	Sig
37	0,26	0,04	Sig	38	0,30	0,01	Sig
39	0,60	0,00	Sig	40	0,59	0,00	Sig
41	0,25	0,04	Sig	42	0,69	0,00	Sig
43	0,36−	0,003	Sig	44	0,56	0,00	Sig
45	0,36	0,00	Sig	46	0,33	0,007	Sig
47	0,39	0,001	Sig	48	0,30	0,01	Sig
49	0,49	0,00	Sig	50	0,32	0,009	Sig
51	0,42	0,07	Sig				

2-5-2 Scientific bases of the scale:

2-5-2-1 Scale validity: Validity is one of the important indicators and basic concepts in evaluating measurement tools. The researchers adopted two types of validity to verify the validity of its measures:

First: Content validity: This validity was achieved when the scale was presented to a group of experts and specialists to confirm the validity of its paragraphs.

Second: - The validity of the hypothetical composition: To achieve the validity of the hypothetical composition, the researchers used the following two methods:

1- The two peripheral groups: The ability of the paragraphs to distinguish between the players who possess the trait and those who do not possess it is one of the indicators of validity. In the current two scales, this was verified when the discriminatory power of the paragraphs was calculated using the two ends of the group method and using the t-test.
2- Internal consistency: The researchers used this indicator when they extracted the correlation coefficients of the degree of each paragraph with the total score of the scale.
2-5-2-2 Reliability of the two scales: To verify the reliability of the scale, the researchers used the following two methods:
First: Half-split method: This method depends on splitting the test whose reliability is required to be determined into two equal parts after applying it to one group. The homogeneity of the degrees of the two halves was verified by extracting the chi-value for them. Its calculated value reached (1,39) degrees and when compared with the tabular value (q) at the two degrees of freedom (29,29) and the level of significance (0.05) amounting to (1.53) it shows that it has no statistical significance. the scale . Then, the correlation coefficient between the total scores of the two halves was extracted using the Pearson method by means of the statistical bag (spss), as the correlation coefficient was (0.83). Since the extracted correlation coefficient means reliability for only half of the test, and in order to obtain complete reliability of the test, the Spearman-Brown equation was applied, thus the value of the test reliability coefficient was (0.90), which is a high indicator of the scale's reliability.
Second: - The method of internal consistency (Alpha Cronbach): The Alpha Cronbach equation was applied to the scores of the members of the sample of numbers (30) students using the statistical bag (spss), and it appeared that the value of the reliability coefficient is equal to (0.88), which is a high indicator of reliability that can be trusted.

2-6 Identify the most important forms of offensive skills:
To determine the most important forms of offensive skills in handball, the researchers prepared a questionnaire that included the forms of specific basic skills, and it was presented to a group of (9) experts and specialists to choose the most important of these forms. The acceptable relative importance score of (55.55%) and the forms that achieved this are:
1- Whip handling from above shoulder level. 2- Receiving the ball from chest level
3- Continuous dribbling . 4 - high shooting.
Table (3) shows the relative importance of skill forms.

N	Skills	Skill forms	Relative importance	Degree touchstone	Acceptable form
1	Receiving the ball	Receiving the ball with one hand	39.68	55.55%	
		Receiving the ball with two hands	44.44		
		Receiving the ball by jumping	42.85		
		Receiving the ball from chest level	72.22		Acceptable
2	Passing	Whip passing at head level	30.87		
		Shoulder level whiplash passing	70.13		Acceptable

		Passing for Side	33.33		
		Overhead passing	46.03		
		Feedback passing	26.24		
3	Dribbling	Dribbling the ball for one time	34.92		
		Continuously dribble the ball	60.38		Acceptable
4	Shooting	Shooting from the level of the head	39.68		
		Shooting over the head	19.76		
		Shooting from jumping forward	46.03		
		Shooting from jumping high	70.38		Acceptable
		Shooting from Fall down	24.28		

3-7 Determining the tests for the basic skills forms:

For the purpose of determining the most important tests for the forms of basic skills studied in handball, the researchers nominated a set of tests for each form from where they were presented in a questionnaire form to the (6) experts and specialists. After collecting the forms and unloading the data, the tests that obtained a relative importance less than (20) and less than a percentage of (66.6%), as shown in Table (4)

Table (4) shows the relative importance and the percentage of basic skills tests:

skills	N		Relative importance	Percentage	excluded test
Shooting	1	Shooting from jumping high on the accuracy boxes (50 × 50)	27	%90	✓
	2	Shooting from jumping high on a target drawn on the wall and divided into 5 circles	15	%50	x
Passing	1	Shoulder level whip passing in an oval drawn on a 30 sec wall	29	%96.6	✓
	2	Perform whiplash passing from shoulder level towards the target 30 m away from it	10	%33.3	x
Dribbling	1	Continuous dribbling for a distance of 30 m	25	%83.3	✓
	2	Dribbling in different directions	17	%56.6	x
Receive	1	Passing and receiving on a wall for a distance of 3 m	15	%50	x
	2	Passing and receiving on squares drawn on a wall for a distance of 3 m for 30 seconds	29	%96.6	✓

2-8 exploratory experiments:

As the exploratory experiments were carried out on a sample of (8) students from outside the research sample, and the experiment was conducted at (10) am on (15/11/2021) in the college playground to test offensive skills in handball. The researchers re-conducted the exploratory

experiments after passing (7 days) on Monday on (22/11/2021) and experiments were conducted on the same individuals and under the same conditions, through which the tests were re-applied, and the aim was to:

1. Ensure the efficiency of devices and tools.
2. Recognize the time taken for each test as well as the time of the total tests.
3. Adequacy of the assistant work team.
4. The level of difficulty of the tests in relation to the research sample.
5. Knowing the difficulties that the researcher faces in order to avoid them in the future.
6. Extracting the scientific bases for the tests (reliability and objectivity).

2-8-1 Scientific bases for the tests:

2-8-1-1 Validity of the test: Validity is "the accuracy with which the test measures the purpose for which this test was developed" (Kamash, Youssef Lazem, 2002, pg. 149). Honesty is one of the important qualities that a good test must be characterized by, and its concept refers to "the quality of the test as a tool for measuring what was originally designed to measure" (Al-Zahir, Zakaria & others, 1998, p. 132). For the purpose of extracting the validity of the candidate tests, the researchers presented the contents of the tests to a group of experts, and thus the researchers obtained the validity of the content.

2-8-1-2 Test Reliability: The test's reliability is "the value that expresses the extent of the accuracy of the test in extracting stable results if the test is repeated more than once on the same sample to give close results" (Al-Khouli, Amin Anwar, 1998, p. 227). It was used to calculate the reliability coefficient by (test and retest method) with an interval between the first and second test (7) days.) for the significance of the correlation the researchers concluded that the tests have high morale this is because all the calculated (T) values are greater than the tabular value of (1.94) and with a degree of freedom (7), which indicates that the tests enjoy a high degree of reliability as shown in Table (5).

2-8-1-3 Objectivity: Objectivity is defined as "the extent to which the arbitrator or examiner is free from subjective factors" (Farhat, Laila El-Sayed, 2001, p. 169). For the purpose of identifying the objectivity of the tests, the researchers used the simple correlation coefficient for the objectivity of the tests between (the scores of the first judgment and the second judgment). The data showed that all the tests have high objectivity. As shown in Table (5).

Table (5) shows the stability coefficient and the objectivity coefficient of the basic skills;

N	Tests	Reliability	Sig	Objectivity	Sig
1	Shooting from jumping high on the accuracy boxes (50 × 50)	0.85	0.000	0.92	0.000
2	Whiplash handling from head level in an oval shape drawn on a wall 30 seconds	0.81	0.000	0.88	0.000
3	Continuous dribbling for a distance of 30 m	0.82	0.000	0.91	0.000
4	Passing and receiving on squares drawn on a wall for a distance of 3 m for 30 seconds	0.79	0.000	0.85	0.000

2-9 pre-tests: The researchers conducted pre tests at ten o'clock in the morning at Al Qalam University College Stadium on (28/11/2021) on the members of the research sample of (42) students divided into two equal groups, the first group is control and the second is experimental.

2-9-1 Procedures for the homogeneity of the sample and the equivalence of the two research groups:

The researchers verified the homogeneity of the research sample members in tests using the (Levene) test, in which the value of the significance level (sig) greater than (0.05) appeared for all tests, and this indicates homogeneity among the members of the research sample. In order for the researchers to attribute the differences to the experimental factor, the equivalence between the two research groups was conducted in the studied tests. The appropriate statistical means were used, represented by a t-test for independent samples in which the significance level (sig) value greater than (0.05) appeared for all tests, and this indicates the equivalence of the two research groups, as shown in Table (6).

Table (6) shows the homogeneity of the sample and the equivalence of the two research groups in the variables investigated.

Tests	F . value	Sig	Calculated t value	Sig	Statistical significance
Cognitive Abilities Scale	2.19	0.179	2.81	0.499	Non sig
Shooting from jumping high	0.78	0.240	1.20	0.368	Non sig
Whip passing at head level	0.69	0.119	1.46	0.274	Non sig
Continuous dribbling for a distance of 30 m	0.54	0.280	1.38	0.199	Non sig
Passing and receiving	0.62	0.195	1.23	0.611	Non sig

2-10 Educational Program using mental practice:

The mental practice was conducted on (30/11/2021) until (27/1/2022) on the experimental research sample (21) students for a period of (20) minutes before the educational unit inside a quiet and secluded room at Al Qalam University College, knowing that the time for mental practice It is not included in the time allocated to the unit. The researchers designed and prepared a set of exercises to learn and develop the requirements for the performance of each of the skill of handling, receiving, clapping and aiming. The number of exercises was (24) exercises and they were distributed to the educational units at a rate of (3) exercises for each unit, taking into account the type and difficulty of the exercise and in proportion to the level of difficulty of the educational unit. The duration of the experiment was (8) weeks distributed over (16) educational units at a rate of (2) units in The week and the duration of each educational unit is (90) minutes, divided into (3) parts, which are as follows:

1- Preparatory part (Warm-up): Its duration is (15) minutes divided into three sections for each section (5) minutes, the first section for jogging, the second section for specialized Swedish exercises, and the third section for warm-up exercises with the ball, which was similar to the type of skill to be learned and developed.

2- The main part: its duration is (65) minutes and aims to learn the selected plans and skills. And the practical side, its duration (60) minutes, includes (40) minutes for applying the exercises designed by the researchers and (20) minutes for applying the exercises set by the trainer. The period of work and rest is within the time specified for each exercise, and each exercise has been given the appropriate amount of time according to its difficulty and the period of rest that the

players need. The experimental group has also been distributed into several groups in proportion to the type and requirements of the exercise for the purpose of achieving the maximum benefit from the educational process and in this part. Direct feedback was given to correct performance.

3- The concluding part: its duration is (10) minutes. It included recreational small games, as well as discussion with students about the contents of the educational unit and hearing their opinions.

2-15 Post tests: The researchers carried out the post tests on (1/30/2022) at ten in the morning on the two experimental research groups, in the post tests, the researchers were keen on the availability of the same temporal and spatial conditions in the pretest.

2-16- Statistical Means: The research data was analyzed using the Statistical Package for Social Sciences (SPSS) and by the following statistical means:

-Arithmetic mean. -standard deviation. - (t) test for correlated samples. - (t) test for independent samples. - Leven test - simple correlation coefficient.

3- Presentation, analysis and discussion of the results of the two groups.

3-1 Presenting the results of the tests for the control group and analyzing them for the pre and post tests:

Table (7) shows the arithmetic means, standard deviations, and the calculated (t) value for the control group in the pre- and post-test

Tests	Pre-test		Post-test		(T) value Calculated	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Cognitive Abilities Scale	25.39	3.83	27.64	2.74	3.46	0.000	Sig
Shooting from jumping high	2.47	0.84	3.68	0.70	1.89	0.000	Sig
Whip passing at head level	14.82	2.37	16.14	1.86	3.34	0.000	Sig
Continuous dribbling for a distance of 30 m	14.69	2.18	12.94	1.95	3.18	0.000	Sig
Passing and receiving	13.21	1.52	15.33	1.37	3.30	0.000	Sig

Table (7) shows the values of the arithmetic means, standard deviations, and the calculated value (t) for the control group in the pre- and post-test. Through the values, we notice differences in the arithmetic means and standard deviations for all tests in order to find out the differences, the researchers used the t-test for the corresponding samples, and all values were significant because the error rate is less than (0.05), so there is a preference for the post tests.

3-2 Presenting the test results of the experimental group and analyzing them for the pre and post tests

Table (8) shows the arithmetic means, standard deviations, and the calculated (t) value for the experimental group in the pre- and post-test

Tests	Pre-test		Post-test		(T) value Calculated	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Cognitive Abilities Scale	25.10	3.57	30.48	2.80	6.11	0.000	Sig
Shooting from jumping high	2.52	0.90	4.88	0.83	2.19	0.000	Sig
Whip passing at head level	13.77	2.60	19.40	1.61	6.41	0.000	Sig
Continuous dribbling for a distance of 30 m	14.89	2.31	10.22	1.71	5.39	0.000	Sig
Passing and receiving	12.70	1.68	17.11	1.55	5.90	0.000	Sig

Table (8) shows the values of the means, standard deviations, and the calculated (t) value for the experimental group in the pre and post test. Through the values, we notice differences in the means and standard deviations for all tests in order to find out the differences, the researchers used the t-test for the corresponding samples, and all values were significant because the error rate is less than (0.05), so there is a preference for the post tests.

3-3 Presenting the results of the tests for the control and experimental groups and analyzing them for the post-tests:

Table (9) shows the arithmetic means, standard deviations, and the calculated (t) value for the control and experimental group in the pre- and post-test

Tests	Control		Experimental		(T) value Calculated	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Cognitive Abilities Scale	27.64	2.74	30.48	2.80	4.20	0.000	Sig
Shooting from jumping high	3.68	0.70	4.88	0.83	1.88	0.000	Sig
Whip passing at head level	16.14	1.86	19.40	1.61	4.07	0.000	Sig
Continuous dribbling for a distance of 30 m	12.94	1.95	10.22	1.71	2.70	0.000	Sig
Passing and receiving	15.33	1.37	17.11	1.55	3.21	0.000	Sig

Table (9) shows the values of the arithmetic means, standard deviations, and the calculated (t) value for the two experimental and control groups in the post-test. Through the values, we notice differences in the arithmetic means and standard deviations for all tests. To find out the differences, the researchers used the t-test for independent samples, and all values appeared significant. Because the error rate is less than (0.05), there is a preference for the experimental group.

4- Discussing the results:

Through the foregoing presentation and analysis of the previous tables, it is clear that there is a development of the control and experimental group. The researchers attribute the development of the control group to the impact of the regular curriculum set by the trainer, in addition to the continuity and regularity of students in the lesson, which had a clear role in the development of the studied variables, as well as the repetition of basic offensive skills. It has a clear role in this development, and it was also confirmed by (Hanafi Mahmoud) "Continuity plays an important role in the player reaching a high level in terms of technical performance of the skill in terms of accuracy, integration, stabilization and the mechanism of high technical performance (Mahmoud, Hanafi, 1994, p. 54). As for the reason for the preference for the development of the experimental group, it is due to the presentation, explanation and clarification that precedes the mental practice in the educational units through the video presentation of the offensive skills performance models, whether local or global, with explanation and illustration with graphics for the players' movement according to the typical schematic paths to correct the drawn mental images and saved as a cognitive reference in the brain The student in order to have a reference for comparison between his actual performance and the model picture to detect errors and achieve internal feedback, on the one hand, and on the other hand, the development of the mental image of the schematic and skill performance greatly helps in developing students' performance in the process of mental practice, where the need for integrated mental images on the basis of which is the construction of appropriate motor programs and the requirements of motor performance in the game and thus summoning them and carrying out mental practice effectively Mental practice and its scientific procedures that include physical and mental relaxation of students. Where the researchers applied successive muscle relaxation in order to get rid of muscle tension and acquire the skill of controlling the nervous system to the optimum degree of relaxation, as (Maher Shaaban, 2009) indicated that "the student who is characterized by increased tension appears at a lower level than his real abilities" (Shaaban, Maher,2009, p. 11), after achieving muscular relaxation, mental relaxation is achieved, which is the basis on which mental practice is built by thinking about a specific point and directing thinking in the direction it wants and removing everything that is far and beyond what is desired to be learned, and this is what he emphasized (Samer Youssef and Wissam Salah, 2014). Mental relaxation training is in order to get rid of excessive excitability in the brain that has nothing to do with the skill required to think (Youssef, Samer & Salah, Wissam, 2014, p. 77). And then perform the mental visualization process by calling motor programs that were prepared and corrected through the cognitive aspects that preceded the mental practice, which leads to the implementation of these motor programs for motor performance with the performance of offensive skills and for a number of repetitions that he will perform mentally and exemplary, whether using internal mental visualization or The external or both in some cases, as indicated by (Yarub Khion, 2002) "The mental imagery is an attempt to recall previous events or experiences or to build a new mental image of a new event, Where it is used for the purpose of improving performance by reviewing the skill mentally, and this includes getting rid of errors to visualize the correct

method of technical performance (Khion, Yarub, 2002, p. 130). Increasing the repetition of mental practice of the schematic or skill states, there is the possibility of retrieval automatically, quickly and smoothly whenever the situation requires it, and this was confirmed by (Shamoon and Magda, 2001) "The repetition of mental practice, in fact, we reproduce every movement in this skill and work A symbolic sign, and by performing a lot of mental practices, we construct a stage for the movement to become automatic and easy to retrieve (Shamoun, Muhammad al-Arabi & Ismail, Magda Muhammad, 2001, p. 85). Also, the focus by the researchers is that the perception be accurate in the details of the motor performance in terms of space and time, which necessitates congruence between the perception and the actual performance, and this is of great benefit in activating the role of mental practice. Mental practice focused on the special role of visualization, as many researchers agree that the perception of activities is similar to the real movement, the course of which they are conceived. For example, the performance time is similar to its perception (Richard A.Schmidt and Timothy D.Lee., 2011. P359-360) . As well as (Schmidt, 2011) indicated that "the studies included the brain mapping technique, where they found a similar point in the activation of areas in the brain when movement is produced and is visualized, i.e., the excited areas in the brain are the same in mental and physical practice" (Richard A.Schmidt and Timothy D.Lee., 2011. P360-361).

5. Conclusions and recommendations:

5.1.Conclusions:

- The training program prepared by the teacher contributed to the development of cognitive abilities and offensive skills in handball.
- For the educational program using mental practice preference in the development of cognitive abilities and offensive skills in handball.
- Trying to reach integration in mental and physical practice is the right way to develop performance in handball.
- Achieving good relaxation for the players, whether physical or mental, that precedes mental practice has a great impact on obtaining a good perception and thus effective mental practice.

5.2.Recommendations:

- The necessity of using educational units that use mental practice in the development of cognitive abilities and offensive skills in handball.
- The need for teachers to pay attention to mental practice while learning and performing motor skills in educational units.
- Emphasis on the use of effective means of relaxation during mental practice, as this plays a major role in activating the work of mental processes.
- The necessity of adding special sessions to teach new students how to practice mentally and how it works in the academic stages.

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