The Effect of the Wallace Model on Mental Fitness and Learning the Chest Pass Skill in Basketball Among Students

Marwan Yaseen Ayed, Assistant Prof. Dr.Emad kadhim thajeel

College of Physical Education and Sport Science , University of Thi-Qar , Thi-Qar 64001 , Iraq

Marwanyaseen89@gmail.com

emadsport85@utq.edu.iq

Keywords: (Wallace, Learning, Skills, Basketball, Students)

2024م **1445هـ**

Abstract

The importance and necessity of the research are manifested in being a serious scientific attempt by the researcher through his university-level experience to benefit from the Wallace Model and to determine its impact on teaching some basic offensive basketball skills and the ability to apply it in a scientifically correct manner in students' learning. This is aimed at enriching the educational process by finding an effective means for learning and teaching, thereby achieving the desired goals of the educational process. The research problem, as observed by the researcher during physical education classes at the College of Physical Education and Sports Sciences at Al-Ain University, lies in the students' difficulty in performing certain offensive basketball skills, which may be attributed to the lack of models or strategies that take into account individual differences. Such models work to make the learner active, creative, and capable of problem-solving. The research objectives were to prepare educational units according to the Wallace Model for learning some offensive basketball skills, identify the impact of the Wallace Model and the method used by the instructor on learning these skills, and identify the differences in post-test results between the control and experimental groups in learning some offensive basketball skills. The researcher used the experimental method suitable to the nature of the research problem, using the design of two equivalent groups (control and experimental) with pre- and post-tests. The research population consisted of first-stage students (morning study) at the College of Physical Education and Sports Sciences – Al-Ain University for the academic year 2023/2024. The research sample consisted of (32) students representing (13.38%) of the research population, with two divisions of (16) students each. One of the most important conclusions was that the Wallace Model had a positive effect on learning the chest pass skill in basketball for students.

1-Research Definition

1-1Introduction and Research Importance:

We live today in a world where information and knowledge flow continuously due to technological development and scientific advancement. Mental fitness plays an important role in how students process their information and acquire experiences and skills. Mental fitness is considered one of the cognitive methods as it helps develop the learning process of sports skills by addressing individual differences among students and adapting to life. It is one of the intelligent performances that enable a person to adapt to surrounding conditions and interact with problems and difficulties with high confidence. Mental fitness eliminates negative thoughts and replaces them with positive ones, taking advantage of new ideas and interacting positively with changes and developments by recalling and employing the individual's information, skills, and experiences. Focusing on a single teaching method in the educational process can have a positive effect on some students and a negative effect on others.

Basketball is one of the competitive team sports that has gained significant popularity worldwide and includes many offensive and defensive skills. Offensive skills are among the important and difficult skills that learners cannot perform easily, as they require more time and greater effort to learn. Learning these skills is an effective element in achieving the best results. Hence, the importance and necessity of the research arise as a serious scientific attempt by the researcher through his university-level experience to benefit from the Wallace Model and to determine its impact on the mental fitness of learners.

1-2Research Problem:

Physical education classes have suffered from students' weak performance in basic basketball skills, particularly the chest pass skill, which is related to their low level of mental fitness, affecting their ability to understand and apply.

These difficulties are attributed to the lack of suitable educational models that take into account individual differences and stimulate thinking and problem-solving. Hence, the need emerged to employ the Wallace educational model as an effective entry point for developing mental fitness and better skill performance among students in offensive basketball skills. The research problem is summarized in the following question:

Does the Wallace educational model contribute to developing mental fitness and improving the performance of the chest pass skill among students of the College of Physical Education in basketball?

1-3 Research Objectives:

• Building a scale for mental fitness related to some basic offensive basketball skills for students.

• Preparing educational units according to the Wallace Model for mental fitness to teach some basic offensive basketball skills for students.

• Identifying the impact of the Wallace Model and the method used by the instructor on mental fitness and learning some basic offensive basketball skills for students.

1-4 Research Hypotheses:

• There are statistically significant differences in mental fitness and learning some offensive skills in the pre- and post-tests for the control and experimental groups in favor of the post-tests.

• There are statistically significant differences in mental fitness and learning some offensive skills in the post-tests between the control and experimental groups in favor of the experimental group.

1-5 Research Fields:

1-5-1 Human Field: First-year students / College of Physical Education and Sports Sciences / Al-Ain University.

1-5-2 Time Field: From 5/12/2023 to 11/4/2024.

1-5-3 Spatial Field: Basketball court and classrooms at the College of Physical Education and Sports Sciences / Al-Ain University.

6-1 Definition of Terms:

Wallace Model: A British scientist who worked in the field of teaching. This model is based on critical thinking and creative problem-solving and consists of four stages despite the existence

of different approaches to analyzing, synthesizing, and generating creative ideas: (preparation, incubation, illumination, verification[1] .

Mental Fitness: The ability of the mind to remain active and effective in facing psychological pressures, solving problems with flexibility, harmonizing with others, and experiencing satisfaction[2].

2- Research Methodology and Field Procedures

2-1 Research Method:

The researcher used the descriptive method in building the scale and the experimental method for its suitability to the nature of the research problem, using the design of two equivalent groups (control and experimental) with pre- and post-tests.

2-2Research Population and Sample:

The research population consisted of first-year (morning study) students at the College of Physical Education and Sports Sciences – Al-Ain University for the academic year 2023/2024, totaling (99) students distributed over 3 classes.

As for the research sample, it represents a number of individuals or items selected according to a specific rule or method from the statistical population that this sample represents[3].

The researcher used the morning study students of Al-Ain University as the sample for building the mental fitness scale. They were chosen intentionally and totaled (99) students, representing (41.8%) of the research population.

The application sample was selected from first-year (morning study) students in the College of Physical Education and Sports Sciences – Al-Ain University for the academic year 2023/2024.

---

[1] Fadel Khalil Ibrahim and Dalia Farouq: The Effect of Using the Wallas Model in Developing Skilled Thinking and Geographical Culture Among Geography Department Students at the College of Basic Education, The International Journal of Educational and Psychological Studies, Vol. 11, No. 1, 2022,p:168-185.

[2] Ali Abdul Azim: Mental Fitness, from the World Wide Web (Internet), Management and Self-Development Forum, 2013,p:255.

[3] Ali Al-Fartousi: Principles of Statistical Methods in Physical Education, Baghdad, Al-Muhaimin Printing Press, 2016,p:77.

It consisted of (32) students, representing (13.38%) of the research population, with two divisions of (16) students each. Using a random lottery method, Division (B) was chosen as the control group taught by the instructor's regular method, and Division (C) was chosen as the experimental group using the Wallace Model. The researcher excluded students who had failed, were injured, or had high absenteeism, totaling (15) students from both divisions.

Table (1)

shows the details of the excluded students.

Failed Students	Injured Students	Frequent Absentees	Participants
2	1	2	10

2-3 Data Collection Tools and Equipment Used in the Research

2-3-1 Data Collection Tools:

(Arabic and foreign sources and references ,The internet ,Observation ,Personal interviews ,Mental fitness scale)

2-3-2 Equipment and Tools Used in the Research:

(Standard basketball court, iPhone 11 mobile phone, 20 official basketballs, 3 adhesive tapes, 4 whistles ,1 electronic scientific calculator (Kadio brand), Metric measuring tape , 2 Dell laptops , Chinese medical scale (seca), 1 stopwatch , Ballpoint pens).

2-4 Field Research Procedures

2-4-1 Steps for Building the Cognitive Failure Reduction Scale:

2-4-1-1 Determining the Objective of the Scale:

Building a scale to measure mental fitness for first-year students in the College of Physical Education and Sports Sciences / Al-Ain University. The objectives were:

• General Objective: Identifying the mental fitness of the research sample.

• Specific Objective: Using this tool for measurement purposes.

2-4-1-2 Identifying the Phenomenon to be Measured:

The phenomenon to be measured must be clearly defined in concept and scope. The target phenomenon is the mental fitness in basketball for first-year students of the College of Physical Education and Sports Sciences / Al-Ain University.

2-4-1-3 Preparing the Items of the Mental Fitness Scale:

The researcher prepared (45) items for the mental fitness scale targeting first-year students at Al-Ain University, anticipating the possibility that some items might be eliminated during statistical analysis. Two approaches were used: reviewing relevant sources and examining several questionnaires.

2-4-1-4 Defining the Criteria and Formulation of the Scale Items:

After reviewing related sources and previous studies, the researcher formulated the items with response alternatives as follows: (Very High Degree, High Degree, Medium Degree, Low Degree, Very Low Degree). All items were positively worded.

The total score was calculated by summing the selected alternatives marked by the examinees (students), who would choose the response that reflects their opinion or belief.

The researcher adhered to the criteria identified by Thorndike and Hagen (1980)[4] , which include: (Each item should address an important aspect of content, not trivial matters , Avoiding verbal complexity; vocabulary and reading requirements should be minimal ,Each item should be self-contained and not dependent on the previous or next item ,Avoiding misleading or trick questions).

2-4-1-5 Determining the Validity of the Mental Fitness Scale Items:

The researcher presented the 45 preliminary items to a group of (13) experts specialized in testing, measurement, teaching methods, psychology, and motor learning to assess the validity

[4]Robert Thorndike and Elizabeth Hagen: Measurement and Evaluation in Psychology and Education, Translated by Abdullah Zaid and Abdul Rahman Adas, Amman, Jordan Book Center, 1989,p:205-208.

of each item in measuring the intended objective. Based on the Chi-square test (Ka^2) at a significance level of (0.05), (3) items were excluded.

Table (2)

shows the excluded and retained items for the mental fitness scale.

No.	Number of Excluded Items	Sequence of Excluded Items	Remaining Items
1	3	9-25-32	42

2-4-1-6 Choosing the Rating Scale for the Test:

After reviewing several existing scales, the researcher adopted a five-point Likert scale for the test as shown in the following table:

Table (3)

Shows the rating scale for the test

Very High	High	Medium	Low	Very Low
5	4	3	2	1

2-4-1-7 Instructions for Responding to the Scale:

Instructions were prepared to guide the respondents on how to answer the scale items. The instructions emphasized not writing the name and clarified that responses would be used solely for scientific research purposes.

2-4-1-8 Pilot Study for the Mental Fitness Scale:

The researcher applied the scale to a pilot sample of (10) first-year morning students at Al-Ain University on Tuesday, 5/12/2023, at 9:00 a.m. After conducting the pilot study, the researcher collected and tabulated the data in preparation for statistical analysis. Its importance lay in identifying (challenges the researcher may face during testing, the best methods to complete the task, the assisting team's efficiency, problems in understanding the instructions or wording, and the difficulty or clarity of the scale items).

2-5 Administering the Scale to the Construction Sample:

The researcher distributed the scale questionnaires to a sample of first-year students at Al-Ain University after gathering them in a classroom. They were asked to answer the items to assess

item discrimination power and the effectiveness of the alternatives used. This was conducted on Thursday, 7/12/2023, at 9:00 am.

2-6 Statistical Analysis of Scale Items

2-6-1 The Two Extremes Groups for the Scale:

The researcher applied the scale to the construction sample of (99) students, then ranked the total scores in descending order. A percentage of (27%) was chosen, equivalent to (27) questionnaires, for the high group, and the same for the low group. The researcher used the independent samples t-test via SPSS to compare the results and identify item discrimination indicators. Four items (7, 18, 26, 33) were excluded due to a significance level higher than (0.05).

2-6-2 Internal Consistency of the Scale Items:

The researcher calculated internal consistency by computing the Pearson correlation coefficient between each item and the total score on the construction sample of (99) students. Items with low correlation to the total score were removed.

2-7 Final Version of the Mental Fitness Scale:

After performing all statistical analyses, the final version of the mental fitness scale consisted of (38) items. The maximum score was (190), the minimum score was (38), and the hypothetical mean was (114).

2-8 Skewness Coefficient:

Using SPSS, the researcher calculated the skewness coefficient, which reached (0.764), as shown in Table (4):

Table (4)

Shows the arithmetic mean, standard deviation, standard error, and skewness coefficient for the mental fitness scale construction sample.

Variable	Mean	Std. Deviation	Standard Error	Skewness
Mental Fitness	128.654	16.87	1.68	0.764

2-9 Standard Scores for the Scale:

The researcher statistically processed the scale results using the mean, standard deviation, z-score, and t-score.

2-10 Standard Levels of the Scale:

The researcher chose to have five levels for the mental fitness scale, as shown in Table (5)

Table (5)

Shows the standard levels for the mental fitness scale.

Level	Standard Score	Adjusted Score	Raw Score	Count	Percentage
Very High	+3 - 1.8+	80-68	190-160	17	17%
High	+1.8 - 0.6+	68-56	159-130	20	20%
Medium	+0.6 - 0.6-	56-44	129-99	41	41%
Low	-0.6 - 1.8-	44-32	98-69	19	19%
Very Low	-1.8 - 3-	32-20	68-38	3	3%
Total				100	100%

2-11 Scientific Foundations of the Scale

2-11-1 Validity

2-11-1-1 Content Validity:

This was verified by presenting the scale to experts in sports psychology, testing and measurement, motor learning, and basketball. Their feedback confirmed its suitability, with a total of (13) experts participating.

2-11-1-2 Construct Validity:

Construct validity was examined using two statistical methods: the two extremes groups and internal consistency. "This is considered the most complex type of validity, as it relies on theoretical assumptions verified experimentally"[(5)] .

[(5)]Cronbach, L. J.: Essentials of Psychological Testing, New York, Harper & Row, 1970,p:32.

2-11-1-3 Scale Reliability:

The researcher used the split-half method to calculate reliability. The scale items were divided into (19) odd and (19) even items. The Pearson correlation coefficient between the two halves was (0.962). Then, the Spearman-Brown equation was applied to estimate full reliability, resulting in a coefficient of (0.868), indicating high reliability.

Table (6)

Illustrates the split-half reliability and correlation coefficient for the scale

Cronbach (1st Half)	Cronbach (2nd Half)	Pearson	Spearman-Brown
0.985	0.912	0.962	0.977

2-11-1 4-Objectivity of the Scale: Since the test contains multiple-choice answers, it is considered objective.

2-12 Skill Test Description

Chest Pass Test[6]:

Test Name: Passing and receiving the ball toward concentric circles on a wall from a distance of 5 meters.

Purpose of the Test: To measure the skill of direct chest passing toward a target.

Required Equipment: Smooth wall, 2 official basketballs, measuring tape, chalk, non-elastic rope, and a nail to determine the shared center of the three circles.

Procedures:

- Three concentric circles are drawn on a smooth wall using chalk and a non-elastic rope with a nail as the common center.
- Diameters of the concentric circles from smallest to largest : (Small circle: 45 cm , Medium circle: 98 cm , Large circle: 150 cm) .

[6]Faez Basheer Hammoudat et al.: Foundations and Principles of Basketball, University of Mosul, University Press, 1985,p:46.

The bottom edge of the large circle is 90 cm above the ground. A line is drawn on the floor 5 meters from the wall directly facing it.

Performance Description:

- The player stands directly behind the starting line holding the ball with both hands.
- Each player is allowed one practice chest pass before the actual test.
- The player begins by executing chest passes at the concentric circles using both hands (direct chest passes).
- The player continues performing 10 consecutive direct chest passes.
- The player must not cross the marked line on the ground.

Test Administration:

- One recorder calls out names and records the scores.
- One judge stands near the player to ensure proper performance and count the attempts.

Scoring:

- 3points for each direct chest pass that hits the small circle.
- 2points for each pass that hits the medium circle.
- 1point for each pass that hits the large circle.
- The maximum score for the test is 30 points.

2-13 Pilot Study for Skill Tests:

The researcher conducted a pilot study for the skill tests on Wednesday, 6/12/2023 at 9:00 a.m. at the basketball court of the College of Physical Education and Sports Sciences / Al-Ain University on a sample of (10) students from the research population.

2-14 Second Pilot Study:

This was conducted on Monday, 11/12/2023 at 10:00 a.m. on a sample of (10) students from the research population. The aim was to identify potential obstacles the researcher might face when implementing the first educational unit (chest pass) based on the Wallace Model,

determine the time required for each phase (Preparation, Incubation, Illumination, Verification), and assess the appropriate duration for each section of the educational unit.

2-15 Scientific Foundations of the Skill Tests

2-15-1 Validity:

The researcher ensured content and face validity by presenting the skill test (chest pass) to a panel of experts for feedback, which confirmed its validity.

2-15-2 Reliability:

To calculate the reliability coefficient, the chest pass test was administered and then re-administered.First application: 6/12/2023 (first pilot study), Second application: 13/12/2023 (Wednesday) at 10:00 a.m., with a 7-day interval ,The Pearson correlation coefficient between the two sets of results was calculated to determine reliability.

2-15-3 Objectivity:

To ensure objectivity, the researcher used judges during the re-administration of the tests on 13/12/2023. After statistically processing the results using correlation coefficients, objectivity was confirmed for all skill tests.

Table (7)

Shows the scientific foundations (reliability coefficient, objectivity coefficient) for the skills used in the research.

No.	Tests	R Reliability	Sig.	Significance	R Objectivity	Sig.	Significance
1	Chest Pass Test	0.827	0.000	Significant	0.912	0.000	Significant

Significant at 0.05 level.

2-16 Pre-Tests:

Pre-tests for the mental fitness scale were administered to the control and experimental groups on Wednesday, 20/12/2023 at 9:00 a.m. in the classrooms of the College of Physical Education and Sports Sciences – Al-Ain University, in the presence of the subject instructor and research assistants, under the direct supervision of the researcher.

2-17 Main Experiment (Educational Units)

The researcher prepared the educational unit for the experimental group according to the Wallace Model, consisting of four stages and adapted to the research sample. The unit duration was 90 minutes. Implementation started on Wednesday, 27/12/2023 and ended on Sunday, 5/1/2024. The unit was applied by the subject specialist in basketball.

2-18-1 Stages of Applying the Wallace Model [7]

Preparation Stage:

The teacher identifies the students' prior knowledge about the chest pass skill by asking questions such as: "What do you know about the chest pass in basketball? What is its importance? What are its requirements? Is it used for long or short distances?" Then the teacher explains the skill, how to perform it, the biomechanical body position, hand movement, body balance, and connects the skill to the students' prior knowledge. The teacher's role here is to activate existing knowledge, identify the skill (problem), understand its elements, and analyze it before performing. This enhances thinking and creativity, helping students understand the problem and reduce psychological pressure while attracting positive thoughts toward the skill.

Incubation Stage:

The student detaches from the problem (from conscious to subconscious) for a short time, gathering ideas about the chest pass. Ideas arise spontaneously as the learner exerts mental effort to solve the problem and answer the posed questions using all relevant knowledge. The teacher withdraws during this phase to reduce pressure, enabling the student to generate positive, solution-oriented ideas.

Illumination Stage:

After defining the problem and gathering thoughts, students start building ideas and forming initial solutions. They move from the subconscious to conscious understanding and execution of

[7] Wallas, G.: The Art of Thought, Jonathan Cape, 1926,p:79.

the skill. The learner performs the skill freely to reach the correct form. Creativity may appear here as the student aims to master the skill and avoid negative performance thoughts.

Verification Stage:

This stage involves verifying the correctness of the solution or performance. The teacher evaluates results to correct or enhance aspects of the performance. The learner assesses whether the performance is satisfying; otherwise, returning to earlier stages (incubation and illumination) may be necessary to achieve mental and physical creativity in execution.

2-19 Post-Tests:

Post-tests for the mental fitness scale were conducted for both the control and experimental groups at 9:00 a.m. on Wednesday, 31/1/2024.

2-20 Statistical Tools:

The research results were analyzed using SPSS software, version 2023.

3- Presentation, Analysis, and Discussion of Results

3-1 Presentation, Analysis, and Discussion of Mental Fitness Scale Results:

Table (8)

Shows the arithmetic means, hypothetical mean, standard deviations, standard error, and skewness coefficient for the mental fitness scale

Scale	Sample Size	Mean	Hypothetical Mean	Std. Deviation	Std. Error	Skewness	Level
Mental Fitness	32	138.025	114	10.870	1.92	0.453	High

Table (9)

Shows standard scores, raw scores, levels, counts, and percentages of the Mental Fitness Scale for the application sample.

Level	Standard Score	Adjusted Score	Raw Score	Count	Percentage
Very High	+3 – 1.8+	80–68	190–160	5	16%
High	+1.8 – 0.6+	68–56	159–130	16	50%
Medium	+0.6 – 0.6–	56–44	129–99	5	16%
Low	–0.6 –1.8–	44–32	98–69	4	13%
Very Low	–1.8 – 3–	32–20	68–38	2	5%
Total				32	100%

This result can be interpreted as a positive indicator that first-year students in the College of Physical Education and Sport Sciences possess a high level of mental fitness in the offensive skills of basketball. This indicates their good ability to employ mental capabilities, organize thoughts, and make decisions during skill performance, which contributes to facing the challenges associated with various game situations.

The researcher believes that this advanced level was achieved due to the effectiveness of the adopted educational programs, particularly the use of contemporary teaching methods that stimulate students' thinking and motivate their mental capabilities. Moreover, employing modern teaching models by the teacher inside the classroom provides a rich educational environment that supports learners in developing solutions and creative thinking, thus helping enhance the level of mental fitness.

Through reviewing the data in Table (9), it is shown that the high level recorded the highest percentage among the sample members, as the number of students who achieved this level reached (16) out of (32), at a rate of (50%). This reflects a clear growth and development in the mental abilities of the study sample and is considered a positive indicator attributed to the effectiveness of the educational methods followed in the study, especially the use of the adopted instructional model, which contributed to developing the learners' mental and cognitive abilities. This achievement serves as evidence of the students' ability to consciously deal with various educational situations and analyze them logically and thoughtfully.

3-2 Presenting and Analyzing the Results of the Pre- and Post-Tests of the Mental Fitness and Motor Satisfaction Scales for the Control Group:

Table (10)

Shows the means, standard deviations, calculated (t) value, (sig) value, and the type of significance for the pre- and post-tests of the mental fitness scale for the control group

Variable	Unit	Pre Mean	Pre SD	Post Mean	Post SD	T	Sig.	Significance
Mental Fitness	Score	90.12	3.96	124.12	3.48	24.77	0.000	Significant

- Significant at a significance level $\geq (0.05)$.

3-3 Presenting and Analyzing the Results of the Pre- and Post-Tests of the Mental Fitness Scale for the Experimental Group:

Table (11)

Shows the means, standard deviations, calculated (t) value, (sig) value, and the type of significance for the pre- and post-tests of the mental fitness scale for the experimental group

Variable	Unit	Pre Mean	Pre SD	Post Mean	Post SD	T	Sig.	Significance
Mental Fitness	Score	91.31	5.08	151.93	4.41	35.81	0.000	Significant

•Significant at a significance level $\leq (0.05)$.

Through Tables (10 and 11), the presentation and analysis of the results of the pre- and post-tests of the basketball mental fitness scale for both the control and experimental groups revealed statistically significant differences in favor of the post-tests for both groups, but with varying degrees. The researcher attributes this to the fact that teaching offensive skills theoretically and practically gives the learner a great opportunity to acquire improvement in the mental level of these skills through the questions posed by the learner to the teacher, or they may be internal (mental) questions related to the learner's brain. Since the educational unit was prepared by the researcher according to the Wallas model, which includes a large set of exercises for these skills in the main part, in addition to the information provided by the teacher about performance, "It requires sincere effort to provide the practitioner with basic cognitive

aspects and scientific principles to which he can refer in practicing motor skills, in order to achieve full understanding of the nature and objectives of the practiced sports activity " [8]

3-4 Presenting and Analyzing the Results of the Pre- and Post-Tests of the Offensive Skill (Chest Pass) for the Control Group:

Table (12)

Shows the means, standard deviations, calculated (t) value, (sig) value, and the type of significance between the pre- and post-tests of the chest pass skill for the control group

Variable	Unit	Pre Mean	Pre SD	Post Mean	Post SD	T	Sig.	Significance
Chest Pass	Score	17.18	2.04	21.75	1.77	6.24	0.000	Significant

•Significant at a significance level $\leq (0.05)$.

3-5 Presenting and Analyzing the Results of the Pre- and Post-Tests of the Offensive Skill (Chest Pass) for the Experimental Group:

Table (13)

Shows the means, standard deviations, calculated (t) value, (sig) value, and the type of significance between the pre- and post-tests of the chest pass skill for the experimental group

Variable	Unit	Pre Mean	Pre SD	Post Mean	Post SD	T	Sig.	Significance
Chest Pass	Score	16.87	1.70	27.62	1.02	20.65	0.000	Significant

*Significant at a significance level of $< (0.05)$.

[8]Mohammed Al-Arabi Shamoun: Mental Training in the Sports Field, Cairo, Dar Al-Fikr Al-Arabi, 1996,p:26.

Through the presentation and analysis of the results in Tables (12) and (13), it was revealed that there were significant differences between the results of the pre- and post-tests for both groups, in favor of the post-tests and the offensive skill in basketball under study. The researcher believes that the reason for this is that both groups underwent an educational unit designed to include educational objectives that assist in teaching students and preparing them for practicing the teaching profession. Thus, these programs bring about tangible learning among the research sample in the field of the studied skills. "If learning is applied within a curriculum characterized by clarity and objectivity, it leads to increased learning and, consequently, skill development in both the cognitive and practical aspects " [9]

Nahida Abdul-Zaid (2008) states that most of the changes that occur during the learning process happen through the information provided to the learner while learning the skill. This information, which can take various forms (theoretical or practical), must be essential and should be conveyed using appropriate teaching methods, techniques, and field experience[10] .

3-6 Presenting and Analyzing the Results of the Post-Tests of the Offensive Skill (Chest Pass) for the Control and Experimental Groups:

Table (14)

Shows the means, standard deviations, calculated (t) value, (sig) value, and the type of significance between the post-tests of the chest pass skill for the control and experimental groups

Variable	Unit	Control Mean	Control SD	Experimental Mean	Experimental SD	T	Sig.	Significance
Chest Pass	Score	21.75	1.77	27.62	1.02	11.49	0.000	Significant

*Significant at a significance level ≤ (0.05.(

[9]Qasim Lazzam Jabr: Topics in Motor Learning, Baghdad, Al-Jumua Press, 2005,p:56.

[10] Nahida Abdul Zaid: Fundamentals of Motor Learning, 1st ed., Al-Dhiaa Press, Iraq, 2008,p:88.

Through presenting the results of the post-tests for the chest pass skill of the control and experimental groups, it was found that there was a statistically significant difference with a probability of error (0.05) in favor of the experimental group. The researcher attributes this improvement observed in the experimental group members to the positive interaction of students with the teaching models based on constructivist theory (Wallas Model), which focuses on the student and makes them the center of the educational process during the lesson. This is done by involving them in various activities, taking into account the presentation of educational material in an interesting and meaningful way, suitable to the students' abilities and capacity to understand the information related to the studied skills. This aligns with what Abdulrahman Al-Saadani and Thanaa Al-Sayed Ouda mentioned: "Teaching models based on constructivist philosophy generally emphasize the active role of students in the learning process to produce meaningful learning based on understanding " [11].

Arabic and Foreign References:

1- Hamid Al-Arabi Shamoun: Mental Training in the Sports Field, Cairo, Dar Al-Fikr Al-Arabi, 1996.
2- Cronbach, L. J.: Essentials of Psychological Testing, New York, Harper & Row, 1970.
3- Wallas, G.: The Art of Thought, Jonathan Cape, 1926.
4- Robert Thorndike and Elizabeth Hagen: Measurement and Evaluation in Psychology and Education, Translated by Abdullah Zaid and Abdul Rahman Adas, Amman, Jordan Book Center, 1989.
5- Abdulrahman Mohammed Al-Saadani and Thanaa Al-Sayed Ouda: Scientific Education: Its Approaches and Strategies, Egypt, Dar Al-Kitab Al-Hadith, 2006.
6- Ali Al-Fartousi: Principles of Statistical Methods in Physical Education, Baghdad, Al-Muhaimin Printing Press, 2016.
7- Ali Abdul Azim: Mental Fitness, from the World Wide Web (Internet), Management and Self-Development Forum, 2013.

) [11](Abdulrahman Mohammed Al-Saadani and Thanaa Al-Sayed Ouda: Scientific Education: Its Approaches and Strategies, Egypt, Dar Al-Kitab Al-Hadith, 2006,p:123.

8- Fadel Khalil Ibrahim and Dalia Farouq: The Effect of Using the Wallas Model in Developing Skilled Thinking and Geographical Culture Among Geography Department Students at the College of Basic Education, The International Journal of Educational and Psychological Studies, Vol. 11, No. 1, 2022.

9- Faez Basheer Hammoudat et al.: Foundations and Principles of Basketball, University of Mosul, University Press, 1985.

10- Nahida Abdul Zaid: Fundamentals of Motor Learning, 1st ed., Al-Dhiaa Press, Iraq, 2008.

11- Qasim Lazzam Jabr: Topics in Motor Learning, Baghdad, Al-Jumua Press, 2005.

Appendix (1)Shows the final version of the Mental Fitness Scale items.

No.	Statement	Very High Degree	High Degree	Moderate Degree	Low Degree	Very Low Degree
1	When I successfully perform the chest pass in basketball, that success motivates me to perform it again.					
2	When I receive an opportunity from the teacher to improve my chest pass performance, I make the most of it.					
3	When I face difficulty learning the chest pass, I do not give up—I look ahead and keep trying.					
4	When I find a new way to improve my chest pass performance and raise my skill level, I strive to develop further rather than stay at my current level.					
5	When I encounter new and difficult drills to learn the chest pass in basketball, it drives me to persist in learning them.					
6	When I try to recall the chest pass technique, I visualize a mental map to help me remember.					
7	If I make mistakes at different times while learning the chest pass, it motivates me to remember and perform it better the next time it is required.					
8	When asked a question about the chest pass, my answer is quick.					
9	When my classmates borrow basketballs or other equipment from me, I remember what they borrowed, even after a long time.					
10	If my way of performing the chest pass differs from a classmate's, it motivates me to learn and perform better.					
11	If a classmate asks me for help learning the chest pass and it takes up my time, I assist as much as I can.					
12	When I don't cooperate with my classmates in learning the chest pass or other skills, I later hold myself accountable for it.					
13	I put myself in the shoes of classmates who find it difficult to learn the chest pass and empathize with them.					
14	When I face a difficult situation while learning the chest pass, I have the ability to face it.					
15	If my classmate gets emotional while learning the chest pass, I empathize with their reaction.					

16	If a problem arises during class, I cooperate with my classmates to solve it.					
17	If a classmate asks me to help explain the chest pass, I do not refuse.					
18	When performing the chest pass with my classmates, I feel a sense of harmony with them.					
19	When the teacher explains the chest pass or any other skill, I notice that they look at all the students.					
20	I feel that learning the chest pass or any basketball skill has a positive impact on my health and happiness when practicing it.					
21	I feel happy when I master the chest pass in basketball.					
22	When I see a drill related to the chest pass in basketball, I consult with my classmates and teacher on how to perform it.					
23	When I face a confusing situation or drill in the chest pass, I try to overcome it.					
24	If I feel embarrassed about my performance in the chest pass, I continue performing it.					
25	If I discover a difficulty in performing a chest pass drill, I act personally and resolve it by making a quick decision.					
26	When I'm asked to perform a chest pass drill, I recall the instructions for performing it.					
27	If conflicts with classmates increase during basketball class, I ignore them and consider it normal.					
28	I have the ability to connect different basketball skills while playing.					
29	When I am in a competitive situation performing the chest pass, it makes me a strong competitor.					
30	When I feel pressure from the accumulation of basketball skills, I can perform them without anxiety or confusion.					
31	When I am tasked with teaching classmates the chest pass and it requires effort and endurance, I do not quit because of its difficulty but continue with it.					
32	If I know the opposing team is strong or claims to be better than me, it motivates me to think about how to perform the chest pass better.					
33	When the teacher introduces a more difficult method for performing the chest pass, like arm movement variations, I stick to the usual easier method.					
34	If I don't like the chest pass but the teacher assigns me to explain it, I use all my capabilities to succeed in explaining it.					
35	If a classmate performs the chest pass better than me, I insist on performing it better myself.					
36	If I learn a drill in the chest pass and get used to it, it makes learning another drill easier.					
37	If a classmate mocks me during a basketball drill, I ignore the mockery and continue performing.					
38	If I'm asked to give my opinion on a classmate's performance in the chest pass, I provide constructive feedback when evaluating them.					

Appendix (2)Educational unit

Notes	organization	Educational unit details	the time n minutes	cational unit sectior

mphasize presence, calmness, ar regular general exercise. mphasize performing the exercise correctly.	×××××××	d in a straight line to register attendance and start the lesson with the agre on shout, followed by general body preparation exercises in all its details. xercises related to the main section, such as (arm rotation, fast jogging, tr rotation, neck rotation, etc.)	15 7 8	reparatory Section duction and Warm– hysical exercises
Developing mental fitness through eloping analysis, interpretation ar mparison between scoring from a still and scoring from a standstill, loping deep understanding throu ng theory to application (example zing performance and making qu decisions verbally. Stimulating students' interests by hing the importance of the skill w enting it in detail and by making t questions interesting. dents become confused and men f answers. The learner tries to re solutions away from the teacher, rarily separated from direct guida recover his thoughts and mentally process the information. ng to link between mental and ac work. e teacher here emphasizes creat rity among learners and emphasi teamwork. nts try to perform the skill as it w ed and work to overcome negati ughts about the skill and reinforc e thoughts. Students help their c classmates. st only one minute between each exercise. acher divides the students accor exercise used until they perform	##########	**reparation phase) 15 minutes** : The students are divided into cooperativ each group consisting of (4) students. Then the teacher asks the groups a mental question, (How do you prepare mentally before receiving the ba shoot? ype of shot do you think is best for the situation? And why? Do you think a efensive movement before shooting? How does it affect your decision? Ea is asked to answer one question orally, followed by a detailed demonstrat teacher about the skill to be learned, explaining the body mechanics and t k what was explained to the students' previous answers about the skill. Th acher asks one of the students to perform a simple exercise that demonstr ning the skill at different angles and distances. Then, during the execution ts are asked to think and answer orally (Were you able to adjust the timir ot to suit the situation? Did you feel that the direction of the shot was perf u notice any errors in your technique during the execution? What were the . **sery stage) 10 minutes**: The teacher asks the students to sit individually read out on the field, then instructs them as follows: (Take two minutes to ember (what feedback did you get from the coach? Did it help you? Did y ct the result of the shot before executing it? What strategy will you adopt at the successful shot ?) Discussion and practice are not allowed during th and the teacher moves away from the student so that he does not fall un hological pressure so that the student tries to reach positive ideas related g the problem, then discuss with the teacher the answers they reached ab the performance. **Lighting stage) 23 minutes**: The teacher asks each student to perform th ting skill freely without interference or correction. The teacher supervises a s, but it is not technical, but rather as follows: (Focus on the feeling of the your body balance, try more than one way to place the feet when performi let the student choose the different performance options. The teacher als sizes that the exercises chosen by the student target thinking and gives th examples: ting from the middle of the field between (5) markers, changing hands onc ht and once to the left, then making a peaceful goal, then pulling the ball, ing to the beginning with patting . The duration of the exercise is (4 minut with a break of (3 minutes), and it is repeated again. . roup at the baseline under the basketball backboard with balls and a grou of the court. The student under the basket makes a chest pass to the stu	70 2 5 45	Main Section Educational activity - Practical activity

required. Developing self-observation and uctive self-criticism among learn acher's role is to correct mistake this stage. eacher evaluates and identifies g rmance from poor performance a es whether or not it is necessary turn to the previous two stages. Helping learners achieve motor action at the end of the skill learn unit.		left side of the court, then starts running to circle around the person to rec pass from the student on the left of the court, and makes a peaceful goal er student makes the follow-up, after that the place is changed . The dura e exercise is (4 minutes) with a break (4 minutes) and it is repeated again **ification phase) 22 minutes**: The teacher divides the students into pairs then asks them to do the following: o groups of students, one in the middle of the field, and the other on the r the field, with the ball in their possession. The first student from the right dribbles while running and then scores a peaceful goal. At the same time, dent from the other group follows up on the ball after scoring , with the gr ng. The duration of the exercise is (4 minutes) with a break (3 minutes) a is repeated again. e student stands in the middle of the court and begins to dunk quickly tow e basket. In the middle of the distance, a barrier (chair or cone) is placed enting an imaginary defender that must be overcome with a simple maneu student then immediately executes the ladder shot. After shooting, he retu the side to prepare for another attempt. The student is encouraged to use of direction or speed to overcome the barrier, focusing on balance and ti np while shooting. Mistakes are corrected immediately by the teacher or w d . The duration of the drill is (4 minutes) with a (3-minute) break, and th is repeated. he teacher's role here is to correct the position of the hands and legs, loo ctly, and identify common mistakes that may occur during performance, a them with feedback during their performance, evaluate their performance, diagnose good performance from poor performance.		
mphasis on correct performance	×× ×× ×× ××	y two students pass the ball between them, keeping a close distance betw them.	5	Final section