

The effect of using the (K.W.L.H) strategy on creative thinking and learning some offensive skills in basketball

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Abstract

The preparation of educational units using the KWLH strategy)) for freshmen and correction skills in basketball for students of the first stage in the College of Physical Education and Sports Science_ Diyala University, and the identify the impact of the KWLH strategy) in creative thinking and learn the skills of class and correction in basketball For students of the first stage. The researchers used the experimental approach to its relevance to the nature of the research. The research sample consisted of (32) students from the first stage distributed on two groups for each group (16 students), and equivalence was found by scale and skill tests. After using a set of statistical means, it was presented and discussed, and the researchers concluded that the educational units prepared using the strategy (K-W-L-H) and the method used in the college had a clear impact on the variables under study, in addition to the superiority of the experimental group over the control in all study variables. In light of the findings, the researchers recommend the adoption of the strategy (K-W-L-H) in the variables under study, as well as a number of similar studies on other sports games.

Keywords: (K.W.L.H), Creative Thinking Strategy.

I. Introduction

Our time is characterized by a lot of progress and in all scientific and practical fields, and this calls us to keep abreast of changes to modern trends in teaching methods and strategies, and it has become an important matter for effecting change and stimulating the behavior of learners and creativity in thinking, as the goal that every teaching seeks is Reaching an environment in which students participate in the process of acquiring ideas and giving appropriate judgments and decisions in order to reach, as far as possible, the correct responses. Therefore, choosing the appropriate strategy according to thoughtful plans that advance the intellectual and scientific level gives the learner effective experiences and intellectual capabilities that would activate the role of the learner within the educational environment, and the strategies are often based on the side, thinking methods and the emotional state of students, and it also helps transfer practices and theoretical sciences to apply. The

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strategy (K-W-L-H) is one of the most important educational strategies that develop students' thinking through focus, making them think about the content of the lesson and expressing their opinions scientifically and stimulating students' previous knowledge through thinking and linking it to the new information that he learns. This strategy is used in the form of a table of four fields. Since thinking is what distinguishes a person and is considered the main pillar upon which society is built because it helps in developing different aspects of human life and people differ among themselves in the nature of their thinking as it is based on innovation and creativity, so the human capabilities must be developed in order to keep pace with development and progress. Based on the foregoing, the importance of the current research has emerged in the urgent need to search for modern, unconventional teaching strategies to keep abreast of what is modern and new in teaching strategies, which would raise the educational process from an intellectual, cognitive, and applied aspect in basketball learning, and among those strategies, The techniques are strategic (KWLH). As for the research problem, it crystallized in choosing the teaching strategy, which is one of the difficult tasks that lie with the teacher, which depends on multiple aspects, including the age of the learner, the nature of the subject, individual differences, etc, and basketball of sports that need to use strategies Make the student creative and think about achieving the best performance with the guidance and supervision of the teacher. Through the researchers' briefing on the progress of the educational process within the curriculum of the College of Physical Education and Sports Science - Diyala University, they found a lack of modern methods and strategies that develop learners' abilities to think and participate effectively in the learning process, so researchers sought to use the KWLH strategy to teach skills Understudy to create opportunities for students to gain experiences through the way of thinking and interacting, so the research problem was determined in the light of the following question: What is the effect of K.W.L.H's strategy on creative thinking and learning the skills of class and correction for students? And the research aims to prepare educational units using the KWLH strategy)) for freshmen and correction skills in basketball for the first stage students in the College of Physical Education and Sports Science_ Diyala University, or the second goal of the research is to identify the impact of KWLH strategy in creative thinking and learn the skills of correction and correction in basketball for stage students The first. The researchers assume that there are significant differences between the pre and post-tests of the two groups in creative thinking and learning the skills of chivalry and correction in basketball and that there are significant differences in the results of dimensional tests between the two groups in the variables under study.

II. Research methodology and field procedures:

- Research Methodology:

The researchers used the experimental method using the two groups' equivalent pre- and post-test.

- Research community and sample:

The research community was chosen by the intentional method represented by the first stage students in the College of Physical Education and Sports Science - Diyala University for the academic year (1820-2019), and the number (210) male and female students, and after two female students and a number of students were excluded, the research sample was chosen in a manner The lot reached (32) students distributed among the two divisions (BC), as Division (B) represented the control group, and Division (C) represented the experimental group at the rate of (16) students for each group, and homogeneity was not performed because the sample was homogeneous.

Parity was carried out for the individuals in the research sample, using (T) for the independent samples in the variables under study, namely (creative thinking and skill tests for my skills under study). According to the researchers' division of the research sample into two groups (control and experimental), the experimental group is exposed to the experimental variable, which is an approach using a strategy (KWLH), whereas the control group follows the method followed in the college, so the researchers adopted the experimental design used in the study in identifying two groups and table (3)) That clarifies. **Table (1)** the experimental design used in the study

Post-test	Independent variable teaching method	Tribal tests	Groups
Creative Thinking Scale	The method used	Creative Thinking Scale	Control
Skills tests under consideration	Impact of the K.W.L.H Strategy	Skills tests under consideration	Experimental

Determining search variables:

Determining the scale of creative thinking:

The scale of creative thinking prepared by (Thaer Khamis, 2011) was chosen by the researchers, which included (27) items that included positive and negative paragraphs and in front of each paragraph (three) alternatives, which are (I agree, hesitant, do not agree), and the grades are taken (1, 3,2) consecutively upon correction, so the highest score a student can obtain is (81), and the lowest (27),

Skill tests used:

The researchers adopted the following standardized tests:

First test: measuring the high plump velocity of (20 m) for the dominant arm (Fares, 151, 2002).

The second test: Free throw: Measuring the accuracy of the free-throw basketball with stability (Muhammad Allawi and Muhammad Radwan., 287,1987).

Two research experiments:

The exploratory experiment on the scale of creative thinking:

The researchers conducted the exploratory experiment on the scale of creative thinking on Wednesday 27/2/2019 and at exactly nine o'clock on (25) students from outside the research sample in the classroom. The experiment aimed to:

- Identify the issues that will accompany the research for the purpose of overcoming it, and fit the scale for the individuals in the sample.

- Determine the appropriate time.

III. The results of the pilot study were as follows:

- The time limit for answering the scale is 17 minutes.
- Find the scientific basis for a scale, although it is a codified scale.

The scientific basis for creative thinking measures:

Verify the scale of creative thinking:

The apparent honesty was relied upon to ensure the accuracy of the scale, so the researchers presented the scale to a number of experts and experts and their agreement, as shown in Table (4).

Table (2) Calculated (Ka2) values and their moral significance of the agreement of the experts and experts on the paragraphs of the scale.

significance	Ka2	Disagree	Agree	No.	significance	Ka2	Disagree	Agree	No.
moral	4.45	2	9	15	moral	11	0	11	1
moral	11	0	11	16	moral	4.45	2	9	2
moral	7.36	1	10	17	moral	11	0	11	3
moral	11	0	11	18	moral	7.36	1	10	4
moral	7.36	1	10	19	moral	11	0	11	5
moral	11	0	11	20	moral	7.36	1	10	6
moral	11	0	11	21	moral	11	0	11	7
moral	7.36	1	10	22	moral	4.45	2	9	8
moral	4.45	2	9	23	moral	7.36	1	10	9
moral	11	0	11	24	moral	11	0	11	10
moral	11	0	11	معنوي	moral	11	0	11	11

moral	7.36	1	10	26	moral	7.36	1	10	12
moral	11	0	11	27	moral	11	0	11	13
					moral	4.45	2	9	14

(Ka2) tabular with a significance (0.05) equals (3.84)

Stability of scale:

Half-segmentation was used, so the scale paragraphs were divided into two parts, which are the (even, odd) paragraphs, and then the correlation coefficient for the half-scale was extracted using the Pearson correlation coefficient, then the correlation coefficient for the scale as a whole was calculated through the (Spearman-Brown) equation for correction, and it showed The results show that the scale is characterized by a degree of stability, as shown in Table (5).

Table (3) shows the value of the stability coefficient of the creative thinking scale by half-squared division

Stability coefficient after correction with the Spearman Brown equation	Coefficient of stability, by the half-way method	the scale
0.97	0.93	Creative thinking

Objectivity of scale:

Since the objectivity of the scale depends mainly on moving away from personal opinions in the evaluation process, so the scale has a coefficient of objectivity, through experts agree on the validity of the correction key, which gives an evaluation of each answer depending on the alternatives which are (I agree, hesitant, do not agree), and take grades (1,2,3), respectively, so the evaluation process was objective and scientific, far from personal whims during the evaluation.

The Skill Experimental Experience:

The exploratory experiment on skill tests was implemented on Sunday 27/4/2019 and at exactly ten thirty in the morning on a sample of (9) students, and the results of this experiment were:

- Create a clear picture among researchers about the nature and how to apply the work.
- Know the time required to carry out the tests.

Scientific basis for skill tests:

The tests that were carried out applied to a sample similar to the research sample, so the researchers did not see the need to find the scientific basis for the tests.

Field research procedures:

Tribal tests:

The pre-test tests for the creative thinking scale for the two groups were conducted on Sunday, 3/3/2019. After completion, the skill tests were conducted.

Main experience:

The final experiment was applied on 5/3/2019 and lasted until 4/4/2019, where the researchers inserted a strategy (KWLH) on the educational curriculum followed at the College of Physical Education and Sports Science - Diyala University in addition to the method used by the teaching staff and by (4) Units for each skill, and the researchers followed in their application the following steps:

□ Give the two research groups (experimental - control) the same educational subject after conducting equivalence between them in the variables mentioned previously.

□ The experimental group represented by Division (C) was taught using the strategy (K-W-L-H), while the control group represented by Division (B) was studied using the method used in the college, and the following is an illustration of that:

The experimental group (A): This group was studied using the strategy (K-W-L-H). The strategic steps were followed, and the following is a clarification of the procedures that the researchers followed:

1- The subject to be taught and a K-W-L-H chart has been identified on the screen.

2- The chart was distributed in the form of papers to students, with the subject being written at the top of the page.

3- Detailed explanation for students on how to complete the plan using the stages of the strategy through the following steps:

□ the first column stage (K):

The teacher asks students to write down what they know about the topic in this column, through the process of arousal and retrieve their previous information on the subject for a period (4 - 8) minutes, as the previous experience of the learner is the basis from which to build new knowledge.

□ Second column stage w:

The teacher is instructing students at this stage to write down everything they want to know about the topic, by asking questions for a period of (4 - 6) minutes.

□ the third column stage (L):

Then the teacher explains, puts it, and applies it in practice by the students, and then requests the student to record in the third column (L) what they have already learned about the subject and their answers to the questions they asked in the second column and individually, i.e. work individually.

The fourth column stage (H):

Students in the fourth column (H) write down the resources the teacher provides them with (books, studies - research and journals - web sites) that provide them with information on the subject of the lesson for the purpose of developing and increasing their expertise.

• As for the control group: it is the one that implements the educational unit according to the method followed by the subject teacher, who often depends on the explanation and guidance from the teacher and the application of exercises by students, and thus the teacher makes all decisions in the stages of the educational process, which is (pre-stage Teaching - the teaching stage - the post-teaching stage) and the student must implement the directions and duties during the lesson.

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Post-test:

After completing the application of the educational program, the tests were applied, after which the dimensional tests for the scale of creative thinking and for the two groups were conducted on Sunday (3/4/2019).

Statistical means:

The researchers used statistical methods.

- Arithmetic mean.
- Standard deviation.
- Mediator.
- Coefficient of torsion.
- Test (T) for correlated samples.

Presenting, analyzing, and discussing the results:

Present the results for the pre and post-tests of the experimental and control groups (for the scale of creative thinking _ and the skills in question), analyze and discuss them:

Present the results for the pre and post-tests of the experimental and control groups (for the scale of creative thinking) and its analysis:

Table (4) Shows the arithmetic mean, the standard deviations, and the value (T) of the correlated, calculated, and tabular samples for the pre- and post-test of the creative thinking scale of the experimental and control groups.

Statistica l significan ce	T value		Post-test		Pre-tests		Franchises / Group	Sam ple volu me	Variable s
	Tabul ar	Calculat ed	stan dard devia tion	Arith metic mean	± standa rd	Arith metic mean			

					deviati on				
moral	2.16	8.70	1.01	56.01	2.83	49.23	Experimental group	16	Creative thinking Variables
moral		4.49	3.11	53.42	2.21	48.98	Control group	16	

* Table value (t) is below the significance level (0.05) and the degree of freedom is (15).

It is clear from Table (6) that the calculated value of (T) between the pre and posttest of the creative thinking scale of the experimental group was (8.70), and the control (4.49), and that the calculated value of (T) and for the two groups is higher than the value of the (T) tabular, which indicates There were significant differences between the two tests in favor of the post test.

Display the results of the pre and post tests for the experimental and control groups (for the skills under discussion) and analyze them:

Table (5) Shows the arithmetic mean, standard deviations, and (T) value of the correlated, calculated, and tabular samples for the pre- and post-test (for the skills in question) of the experimental and control groups.

Statistical significance	T value		Post-test		Pre-tests		Franchises group	Sam ple volu me	Variab les
	Tabul ar	Calculat ed	standa rd deviati on	Arith metic mean	± stand ard devia tion	Arith metic mean			
moral	2.18	13.4	0.67	8.99	0.88	12.90	Experimental group	16	Plump ball
moral		5.85	1.52	10.42	0.97	13.04	Control group	16	
moral		4.12	3.64	7.29	1.22	3.62	Experimental group	16	Free throw
moral		4.22	2.89	6.04	1.35	3.22	Control group	16	

									Variables
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*** Table value (t) is below the significance level (0.05) and the degree of freedom is (15).**

Table (5) shows that the calculated value of (T) between the pre-test and post-tests of the chivalric skill of the experimental group amounted to (13.4), and the control (5.85). T) calculated for the two groups in the above variables is higher than the tabular value (T), which indicates the presence of significant differences between the pre and post tests and in favor of the post tests.

Discuss the results of pre and post tests for the experimental and control groups:

By noting the results that appeared in Table (3), it was found that there were significant differences between the pre and posttests of the two groups in creative thinking and in favor of the post tests, and the researchers attribute these differences to the use of (KWLH) strategy that led to the development of their thinking by attracting and provoking their thinking from During the use of the strategy paper for assignment, which includes the stages that the student goes through, then stage (K) of the strategy requires the student to list the information and experience that the student possesses on the subject of the lesson, whether it is correct or wrong, and here begins to stimulate the mind and retrieve what Pre-formation on the subject, and in stage (W) that requires the student to mention and by asking intellectual questions about the educational subject to be taught, and through stage (L) that comes after the teacher's explanation and presentation of the subject and its application by the student, what he learned about a subject is written down. Here, the misconceptions will be corrected and the correct information and knowledge of the educational subject will be preserved. The researchers see that the educational curriculum contains a number of educational activities that were included in the stages of the strategy carried out by the student and encourage the teacher to him and move away from the pattern followed by thinking leading to abilities in parent thinking It is necessary, and he confirms that (Radhi, 97,1998) "that creative thinking does not grow except in an atmosphere of intellectual flexibility and get rid of rigid stereotypes and the fixed image because it is a pattern of thinking that leads to the discovery of a new solution to one of the problems", in addition to the control group, those differences that can be returned She appeared for the method followed by the subject teacher, as for the vocabulary of the curriculum used, which included many exercises, activities and educational methods, which had a clear impact on creative thinking, being the sponsor of the age, mental and cognitive level of learners. As for the results of learning the skills under research that appeared in Table (5), researchers can explain this until the use of (KWLH) strategy and its inclusion in the educational curriculum has contributed effectively to increasing the focus of students towards learning through observation, thinking and recalling information either (Majill, 2004, 273) believes that "one of the natural phenomena of the learning process is that there must be an development in learning as long as the teacher follows the proper steps and foundations of the learning process, and exercises on the right performance and focus on it until the performance is fixed and stable." In addition to the differences that have emerged The results of the control group, where The educational units that were implemented according to the method used for learning by the teacher and its impact in terms of organization and time devoted to explanation, presentation and progression of exercises and their implementation as well as feedback came in line with the level of students helped to stabilize the performance of the student, which strengthens the process of skill performance and indicated that (Arab, 37, 2002) "To achieve a very important principle of kinetic learning, which

is the principle of kinetic learning stages and gradualization in learning from acquisition to learning to steadfastness, and this is the development of kinetic learning."

Presentation and analysis of the results of the dimensional tests (for the scale of creative thinking - the skill tests under study) for the experimental and control groups:

Table (6) shows the values of the arithmetic mean, standard deviations, and calculated and tabulated (T) values for the dimensional tests of the variables under study for the control and experimental groups.

Statistical significance	Table (t) value	Calculated value (t)	Degree of freedom	Control group		Experimental group		measuring unit	Variables
				standard deviation	Arithmetic mean	standard deviation	Arithmetic mean		
moral	2.04	3.05	26	3.11	53.42	1.01	56.01	Degree	Creative thinking
moral		3.25		1.52	10.42	0.67	8.99	time	Plump ball
moral		4.46		2.89	6.04	3.64	7.29	Degree	Free throw

*** The value of (T) is below the significance level (0,05), and with freedom, (30).**

Through the above table, it is clear that the value of (T) calculated for the scale of creative thinking was (6.64), and for the two skills, respectively, it reached (3.95) (3.87), and since all values are greater than ((T calculated), which indicates the presence of significant differences between the two groups in the post-test And for the benefit of the experimental group.

Discuss the results of the post-test for the control and experimental groups:

By noting the results of the dimensional tests and all the variables, it became clear that there are differences in favor of the experimental group, and the researchers attribute these differences to the use of (KWLH) strategy that helped students to develop certain skills, the most important of which is creative thinking, as students' use of previous knowledge and experiences through thinking is of importance In order to link these experiences with the current education for the purpose of getting them to a stage that enables them to change their way of thinking in the various stages of education, and to get out of the principle of receiving information to the principle of building ideas, processing and transforming them into knowledge represented in making the student discover

and analyze, which It enabled him to move from the stage of knowledge to the stage of awareness of the cognitive processes represented in creativity and depth in knowledge and understanding and exploration and pointed out that (Hassan, 1999,19) that "the path of developing thinking in thinking and how to process information to benefit from it in different life situations, so that it has the ability to search and renew And innovation. " Therefore, it is necessary to use teaching strategies that work on that. During the educational process, students must complete their various educational tasks step by step. The researchers also see that the strategy (KWLH) used requires students to interact with the lesson through the duties that they are assigned through each stage. Of the stages of the strategy, since each stage performs a specific job in preparation for the next step in order for the learner to reach a kind of thinking, organization and knowledge balance, and indicates (Youssef and others 221-222,2002) "The individual tends to arrange and coordinate operations in interconnected and integrated systems, as it includes Organizing process placing the most DONC on a regular basis according to a system was easily absorbed, as the cognitive balance includes the pursuit of an individual in order to obtain the necessary information needed to reach understanding and comprehension ". The last stage of the strategy, represented in column (H), which contained providing students with resources and references, led them to increase information and develop their experiences and take note of all aspects of the educational subject, which effectively and positively affected their cognitive and applied experiences. Perhaps students are aware of the cognitive processes that were studied during the stages of the strategy (KWLH) as one of the metacognitive strategies that led to the superiority of the group, and confirmed (Lourdes & Garcia, 101,2000) "The teaching in accordance with metacognitive strategies gives learners the opportunity to perceive awareness and help them to address A specific task and thus improves their recall of acquired knowledge, as it increases their awareness of their intentions, motivations, cognitive abilities, and task requirements, and increases the control of their sources of knowledge. " The teaching strategy used had an impact on learners' awareness of the acquired knowledge and then applied it in practice, as the nature of work according to this strategy requires the student to codify the knowledge that was applied at the end of each educational unit and this would enhance and contribute to the development of the applied side as a training On what the student received from an educational subject, in addition to that, the strategy used contributed to the interaction of students with the lesson through the stages and duties, as it contributed to the increase and development of students' skills in addition to assessing their final outcome by filling them in the third and represented field (L) of the paper Duty, and he pointed out that (Hussein, 2007,196) "as the third step is completed to make the connections and helps the student to build the meaning, composition and organization of his information", as achieving progress with known experiences, creative thinking and balanced building is reflected positively on learning skill performance, (Flavell, 90,2004) also indicates that individuals need to know information that helps them in developing the strategies that they use in a manner appropriate to the tasks they are exposed to, and that training, monitoring, and self-organization improves the performance of learners in the classroom.

IV. Conclusion:

Through the results of the researchers, they concluded that the educational units prepared using the strategy (KWLH) and the method used in the college had a clear impact on creative thinking and learning the skills under research among students, in addition to that the results showed the experimental group achieved better results than Using the method followed by the college in all study variables. In light of the results, the researchers

recommend adopting the strategy (K-W-L-H) in the variables under study, as well as conducting many similar studies on other sports because of its effective impact on students' learning of motor skills, enriching their cognitive and intellectual aspects, and conducting more similar studies.

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