

# THE EFFECT OF AN EDUCATIONAL CURRICULUM ACCORDING TO THE MEMORY ACTIVATION STRATEGY TO LEARN BASKETBALL SKILLS AMONG THE STUDENTS OF AL-AMAL INSTITUTE FOR THE DEAF AND DUMB IN DIWANIYAH

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## ABSTRACT

*The study aimed to find out the effect of memory stimulation strategies and the level of performance among the students of Al-Amal Institute for the Deaf and Quantitative in Al-Qadisiyah. good in basketball skills, assuming that there are no significant differences between the pre and post-test in basketball skills. The researchers used the experimental approach with two experimental and control groups to suit the nature of the problem. The researcher used a questionnaire consisting of (10) ways to activate the memory. It was chosen based on the relevant sources and references, and then it was presented to a group of experts and specialists, as it obtained a high approval rate. Thus, the researcher applied the educational curriculum according to the memory activation of the questionnaire on the sample, using the appropriate statistical methods. To extract, analyze and discuss the results of which the researcher deduced, as it appeared that there are differences between the pre and posttests and in favor of the post tests in the methods of stimulating memory most common among students of the Al-Amal Institute for the deaf and dumb, which contributed to the process of enhancing learning and good performance in basketball skills*

**Keywords:** *Experimental Approach, Memory Activation Strategy, Deaf-Mute.*

## INTRODUCTION AND SIGNIFICANCE OF THE STUDY

Memory is considered one of the most important higher mental processes in humans, and its importance appears in many aspects during our daily dealings, including the human ability to retrieve “previous information and employ it in a specific activity, and memorization is one of the basics of learning that is indispensable for the student in any of the different fields of science, as It is inherent to the learner from the beginning of his learning to the end, because of its great effects on the level of academic achievement and information writing, and this depends on the method used in this

process in addition to organizing time (Olseo, 2000). It is common in the memorization process to take place in learning materials theoretically, and the student's memorization efficiency can be inferred from theoretical tests in which the method depends on the student's evaluation on paper and pen, and it can also be inferred from practical performance, i.e. learning certain skills, and after a period, individuals are tested with these motor skills. From here, the researcher went to find out what is the effect of an educational curriculum according to the methods of stimulating the memory that the student follows during learning and the application of basic motor skills for sporting events and the most important methods of retrieving information and remembering it in the practical test. So, the memorization process during the practical test of the material is to be learned, just like the theoretical test." Thus, the importance of the current study lies in knowing the effect of the curriculum according to the methods of stimulating memory most common among students of the Al-Amal Institute for the Deaf and Dumb in Al-Qadisiyah in learning some basic skills in basketball.

## **PURPOSE OF THE STUDY**

The purpose of the current study is to know the most important methods used by students to activate memory while enhancing the learning process in motor activity and achieving good performance, as well as knowing the differences between the pre and posttest in the basic skills of basketball after applying the educational curriculum prepared by the researchers.

## **RESEARCH OBJECTIVE**

- Preparing an educational curriculum according to methods of stimulating memory to learn basketball skills for students of Al-Amal Institute for the deaf and dumb in Diwaniyah.

## **RESEARCH HYPOTHESES**

1. There are no significant differences between the pre and posttest of the experimental group that learns according to methods of stimulating memory in the basic skills of basketball.
2. There are no significant differences between the pre and posttest of the control group that learn according to the institute's curriculum in the basic skills of basketball.
3. There are no significant differences between the post-tests of the experimental group that learns according to memory stimulation methods and the control group that learns according to the institute's curriculum in basic basketball skills.

## **RESEARCH FIELDS**

1. The human field: students of Al-Amal Institute for the Deaf and Dumb for the academic year 2018-2019.

2. The spatial field: the stadium, the square, and the hall of the Al-Amal Institute for the Deaf and Dumb.
3. Time range: 5/10/2018 to 25/11/2018.

## RESEARCH METHODOLOGY AND ITS PRACTICAL PROCEDURES

The researchers used the experimental approach with two groups, the experimental and the control, due to its suitability to the nature of the problem of the current research.

### Sample and Community of the Study

The researcher selected a sample, and they are students of the second intermediate grade at Al-Amal Institute for the Deaf and Dumb for the academic year 2018-2019, and they numbered (20) students, with (10) students representing the experimental group and (10) students representing the control group, ages (13-15) years, and they conducted the research. The homogeneity of the sample in terms of (chronological age, intelligence, and basic skills), as shown in Table (1).

*Table (1) The Homogeneity of The Research Sample with The Selected Variables*

Variables	Scale Unit	Mean	Dev. Std.	Coefficient Of Difference	Sig.
<i>Chronological Age</i>	<i>The Year</i>	12.9	22.271	22.271	Homogeneous
<i>Intelligence</i>	<i>Degree</i>	37.7	9.442	9.442	Homogeneous
<i>Thoracic Handling</i>	<i>Repetition</i>	4.6	7.434	7.434	Homogeneous
<i>Tabia Change Direction</i>	<i>Time</i>	21.8	16.247	16.247	Homogeneous
<i>Scoring From Constancy</i>	<i>Frequency</i>	3.4	13.294	13.294	Homogeneous

### Research Field Procedures

#### *Tests Employed in The Study*

After the researcher identified the basic skills that he will apply in the educational curriculum, which are (chest handling, plumpness, scoring from stability) if they are presented with the tests that he will use to a group of experts and specialists in the field of basketball. *If approved 100%. Thus, the researcher identified these tests, which are:*

1. Handling test against a wall for 30 seconds (the score is given for the number of correct tackles)
2. Plump test around the pillars for a distance of 10 m back and forth (time taken)
3. Scoring towards the basketball board from a distance of 4m (the number of goals scored in 10 attempts)
4. After the researcher conducted the stability tests on a group of students from outside the research sample.

### *Memory Activation Strategies Questionnaire*

For the purpose of identifying the most important memory activation strategies, the researcher resorted to preparing a questionnaire consisting of ten paragraphs, each paragraph representing a strategy. One of the memory activation strategies that the student could use when training a specific skill or when preparing for the practical test of the learned skills. The researcher relied on preparing paragraphs. The questionnaire was based on the study of (Ziyad Barakat 2010), the study of (Mastropieri, et al.) and the study of (Lin & Makeachie, 2003). The researcher used a five-point correction key (a grade (5) is always awarded, (4) is often given, (3) is sometimes given, (3) is rarely given, (2) is not used, and (1) is not used. It is (50) degrees and the lowest score for the scale is (10) degrees (Appendix 1), and the researcher also relied on the percentage standard in knowing the importance of each method of memory activation that the student may use based on the study (Ziyad Barakat, 2010) and as shown below :

- Very little : Less than 50%
- Little : From 50% to 59%
- Moderate: From 60% to 69%
- Larger: from 70% to 79%
- Very large: from 80 and above

After that, the researcher resorted to presenting the questionnaire items to a group of experts and specialists in the field of cognitive psychology, tests, and measurement, whose number is (10), if all of them obtained an acceptance rate that ranged between 80%-90% of the percentages of their total opinions about each paragraph, and after that the researcher resorted to extracting The stability of the questionnaire by extracting the reliability coefficient by re-testing method on the sample on which the stability of the basic skills was conducted, reaching (0.86). Thus, the researcher relied on the questionnaire in the current study, as shown in Table (2).

**Table (2) memory activation strategies**

No.	Strategies
1.	Training on the important parts of the skill.
2.	Review the previous steps you learned about the skill.
3.	Relate movements to some familiar ideas.
4.	Repeat the performance of the skill mentally.
5.	Distributed training at periods interspersed with rest periods.
6.	Compare my current performance with my previous performance.
7.	Use aids in the process of learning and mastering the skill.
8.	Understanding the best performance steps instead of memorizing them.
9.	Reciting aloud the steps and parts of the skill before performing it.
10.	Working on the overall performance of the skill and then return to learning its parts.

### **Educational Curriculum**

The researchers prepared the educational curriculum according to the methods of stimulating memory, as it consists of 12 educational units distributed over six weeks, two units per week. The educational unit time is 60 minutes divided into 10 minutes preparatory section and 50 minutes main and final section. (Chest handling, plump, scoring from stability).

### **The Main Experiment**

Pre-tests The researcher applied the specified tests to the two research samples in and after that the educational curriculum was applied to the experimental sample by two days a week (Tuesday and Thursday) at three o'clock in the afternoon in the sports center in the housing. After completing the units of the curriculum, the researcher conducted the post-tests on (14-15/10/2018) with the help of the assistant staff. He collected the data and classified it for the purpose of processing it statistically.

### **PRESENTATION AND DISCUSSION OF THE STUDY RESULTS**

Before starting to analyze the responses of individuals, the research determined the rates of acceptance of the strategy and the extent of its use by the sample members to stimulate their memory during education and during the stages of applying the prepared curriculum. He developed an exploration of their capabilities and how to deal with them, so we find them interacting with everything new and trying to try it, so create this difference between them, as shown in Table (3).

**Table (3) The Levels of Using Memory Activation Strategies**

No.	Strategies	Acceptance Coefficient		
		Medium-(69%-60)	Good (70-79%)	Very Good (80%)
1.	Training on the important parts of the skill	0.31	0.41	0.52
2.	Review the previous steps you learned about the skill	0.11	0.50	0.36
3.	Relate movements to some familiar ideas	0.22	0.23	0.16
4.	Repeat the performance of the skill mentally	0.53	0.41	0.58
5.	Distributed training at periods interspersed with rest periods	0.34	0.39	0.55
6.	Compare my current performance with my previous performance	0.28	0.40	0.47
7.	Use aids in the process of learning and mastering the skill	0.17	0.14	0.27
8.	Understanding the best performance steps instead of memorizing them	0.21	0.27	0.14
9.	Reciting aloud the steps and parts of the skill before performing it	0.15	0.29	0.43
10.	Work on the overall performance of the skill and then return to learning its parts	0.35*	0.13	0.11

**Presenting and Discussing the First Hypothesis:**

The answer to the first hypothesis, which states (there are no significant differences between the pre and posttest of the experimental group that learns according to methods of stimulating memory in the basic skills of basketball), the researcher used the t-test for two interrelated samples to extract the results of the hypothesis, as shown in Table (4).

**Table (4) The Differences Between the Pre and Post-tests of The Experimental Group in The Skills Under Study**

Skill	Tests	Mean	Std Dev.	T- Calculated Value	T-Tabulated Value	Sig.
<i>Thoracic Handling</i>	Pre-Test	4.6	0.342	5.456	2.6	Valid
	Post-Test	8.5	1.045			
<i>Plump Change Direction</i>	Pre-Test	21.8	3.542	3.744	2.6	Valid
	Post-Test	15.3	2.894			
<i>Scoring From Constancy</i>	Pre-Test	3.4	0.452	4.516	2.6	Valid
	Post-Test	6.7	1.56			

It is clear from the above table that the preference in learning the skills (thoracic handling, clapping by changing direction and aiming from persistence) was for the post-test of the group that learns according to the methods of stimulating memory if the calculated T value reached respectively (5.456), (3.744) and (4.516), which is It is greater than the tabular value of (2.6) at the level of significance of 0.05 and the degree of freedom 9. The researcher attributes that the curriculum prepared according to the “scientific foundations and the suitability of the nature of the research sample of the deaf and dumb had a prominent role in the scientific learning of basic skills in basketball, as one of the axioms of learning and teaching is to fit Content with the nature of the selected sample (Al-Sulaykhi, 26: 2009). If the researcher focused on the distribution of educational exercises from easy to difficult and from simple to complex, according to calculated and studied steps interspersed with periods that are appropriate with the nature and type of exercise as well as the chronological age.

#### **Presenting and Discussing the Second Hypothesis:**

The answer to the second hypothesis, which states (there are no significant differences between the pre and posttest of the experimental group that learns according to the Institute's curriculum in the basic skills of basketball), the researcher used the t-test for two interrelated samples to extract the results of the hypothesis, as shown in Table (5).

**Table (5) The Differences Between the Pre and Post-Tests of The Control Group in The Foals Under Study**

Skill	Tests	Mean	Std Dev.	T- Calculated Value	T-Tabulated Value	Sig.
<i>Thoracic Handling</i>	Pre-Test	3.3	0.453	3.875	2.6	Valid
	Post-Test	6.4	0.065			
<i>Plump Change Direction</i>	Pre-Test	21.8	3.542	1.654	2.6	Not Valid
	Post-Test	20.4	3.417			
<i>Scoring From Constancy</i>	Pre-Test	3.4	0.452	1.064	2.6	Not Valid
	Post-Test	3.9	0.645			

It is clear from the above table that there is no preference in learning the skills (thoracic handling, clapping by changing direction and aiming from stability) for the group that learns according to the curriculum prepared at Al-Amal Institute for the Deaf and Mute if the calculated T value is respectively (3.875), (1.654) and (1.064). Comparing it with the tabular value of (2.6) at the level of significance of 0.05 and the degree of freedom 9. It was found that the post-test in the chest handling test "only" was statistically significant. The researchers attribute this to the fact that the thoracic handling skills are among the basket skills that do not need "complications to learn them". As for the other skills, their lack of development is due to the lack of scientific foundations for the curriculum prepared at the Institute of Hope and its inappropriateness to the nature of the sample and devoid of suspense and excitement, all of which are reflected on The level of learning the selected basic skills.

### **Presenting and Discussing the Third Hypothesis:**

The answer to the second hypothesis, which states (there are no significant differences between the post-tests of the experimental group that learns according to methods of stimulating memory and the control group that learns according to the institute's approach in basic basketball skills). The researcher used the t-test for two independent samples to extract the results of the hypothesis, as shown in Table (6)



**Table (6) Differences in The Post Tests of The Experimental and Control Groups in The Skills Under Study**

Skill	Tests	Mean	Std Dev.	T-Calculated Value	T-Tabulated Value	Sig.
<i>Thoracic Handling</i>	Experimental	8.5	1.045	3.925	2.4	Valid
	Controlled	6.4	0.065			
<i>Plump Change Direction</i>	Experimental	15.3	2.894	3.088	2.4	Valid
	Controlled	20.4	3.417			
<i>Scoring From Constancy</i>	Experimental	6.7	1.56	3.002	2.4	Valid
	Controlled	3.9	0.645			

It is clear from the above table that the preference in learning the skills (thoracic handling, clapping by changing direction and aiming from stability) was given to the experimental group that learns according to methods of stimulating memory if the calculated T value reached respectively (3.925), (3.088) and (3.002), which is greater from the tabular value of (2.4) at the level of significance of 0.05 and a degree of freedom of 18. The researcher attributes this to the fact that "the educational curriculum prepared according to methods that stimulate memory had an impact on learning and retention of learning, especially motor learning. It is based primarily on the process of continuous training on the skill and its repetition in a motor or mental manner, provided that it is interspersed with rest periods that help in correcting the skillful duty for By way of comparison between the current and previous performance, and this result is consistent with the principles of (Thorndike) theory confirmed the existence of a significant link between fruitful and good learning and between many variables, the most important of which are: training and conscious practice to understand the positive self-activity that the learner performs during the learning process.

## CONCLUSIONS

1. It appeared that there were differences between the pre and post-tests of the group that learns according to the most common memory activation strategy among the students of Al-Amal Institute for the Deaf and Dumb in Al-Qadisiyah.
2. Learning according to the memory activation strategy contributed to the process of enhancing learning and good performance in basketball.

3. There was no difference between the pre and post-tests of the control group that learns according to the methodology instituted at Al-Amal Institute.
4. The skill of thoracic handling has been learned for both groups well due to the ease of its motor parts.

## RECOMMENDATIONS

1. Working on the inclusion of memory activation strategies in the curricula of the Al-Amal Institute for the Deaf and Dumb.
2. Working on other skills, including scoring and reservation within educational curricula prepared for people with special needs.
3. Studying of some mental abilities related to working memory for people with special needs.

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### Appendix (1) Test Memory Activation Strategies

Dear student..... Greetings

You have in your hands a set of strategies to stimulate memory during the revision of theoretical or practical materials. Please tick (correct) either the appropriate alternative for each of the following paragraphs according to your inclinations to use it during cognitive or motor achievement.

No.	Strategies	Extent of Use				
		I do not use it	Rarely	Sometimes	A lot	Always
1.	Training on the important parts of the skill					
2.	Review the previous steps you learned about the skill					
3.	Relate movements to some familiar ideas					
4.	Repeat the performance of the skill mentally					
5.	Distributed training at periods interspersed with rest periods					
6.	Compare my current performance with my previous performance					
7.	Use aids in the process of learning and mastering the skill					
8.	Understanding the best performance steps instead of memorizing them					
9.	Reciting aloud the steps and parts of the skill before performing it					

*Note/ The sign language interpreter translates each item and the keys to answer the it for the sample of the study. The study sample then answer each item and mov and move to the next time and so on.*