

## THE IMPORTANCE OF DIVERSIFYING THE USE OF SOME MODERN TEACHING METHODS IN IMPROVING SOME PHYSICAL QUALITIES IN THE LONG JUMP

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### Abstract

The purpose of this study is to understand the importance of the diversification of some modern teaching methods to improve some physical attributes of long jump speed, in order to know the most effective methods in long jump. To achieve the main objective, the researchers used the experimental method. Thirty male students of 18 to 22 years old, were randomly selected to study at the Institute of Physical Education and sports of Mostaganem. They divided into a pilot sample and a control sample. The researchers concluded that the use of several teaching methods in the physical education and sport lesson had a positive effect to improving physical performance in long jump.

**Keywords:** Modern teaching methods, diversification of teaching, physical qualities, long jumping.

### INTRODUCTION

Teaching has become a clear system with inputs and outputs, the inputs are represented in the objectives, curricula and teaching aids, and the processes are represented in the methods and methods of teaching followed, while the outputs are represented in what has been achieved from the goals set by the teacher or what has been achieved from the general objectives of education.

Each of these stages has a different nature and a specific function, despite the sequence of these stages and their close connection with each other, followed by the preponderant feeding, the result of which is the continuation, modification or replacement processes at any of the previous stages. From the above, it is clear to us that teaching is an art and a science, so we can describe the successful teacher in his work as an artist teacher, the teacher is the one who develops the ideas of students from one stage to another, what is meant by teaching is all the conditions and possibilities provided by the teacher in a particular teaching situation, and this means that there are conditions and capabilities that must be available, and they are represented in the place of study, the play area, its safety from obstacles, tools, teaching aids and alternative tools available, as well as the air temperature, devices and tools used. (Khafaja, 2002). Instruction is a purposeful educational process, taking into account all the factors that make up education, during which both the teacher and students cooperate to achieve the so-called educational goals, and teaching is also a selective social process in which all parties that interest them in the educational process,

including administrators, workers, professors and students, interact for the purpose of learners' growth and respond to their desires and characteristics, and choose knowledge, principles, activities and procedures that suit them and are consistent at the same time with the spirit of the times and the requirements of Social life. (Atallah, 2006). Moska Mosten says: "The term teaching style was chosen twenty years ago, in order to distinguish between the specifications of teaching, and the terms in circulation at that time, such as contexts, models and fields," and adds Afaf Abdul Karim: "Modern teaching methods appeared in 1966, and its pioneer was Moska Mosten. These methods have been applied in the field of physical education and sport, and since then teachers have been working on them successfully" and before that teaching was seen as a private activity. (Abdul Karim, 1998). The idea of diversifying teaching has begun to

take its place in educational policies for different countries since 1989 when the Declaration of the Rights of the Child was proclaimed, and the year 1990 As a result of the World Conference on Education held in Jomtien, It was followed by the Dakar Conference in 2000, which recommended education for excellence and excellence for all (Kujak, 2008). For example, the inclusion method is distinguished from other previous methods, its focus on the evaluation process carried out by the student himself instead of the teacher by using the worksheet (the touchstone) and thus the student acquires the ability to evaluate himself and rely on it, while the reciprocal method in which the class is organized and students are

distributed into even groups, and the exchange between the teacher and the student so that the teacher makes planning decisions and the performing student makes implementation decisions, and the observed student issues evaluation decisions, and this method is usually It helps the student to correct his artistic performance, especially in the first stage of learning the skill, and the best characteristic of this method is the common spirit of cooperation among students. The long jump is one of the ancient Olympic sports, the days of the Greeks, where their need to cross rivers, trenches and barriers that stand in their way during war and peace, and its importance in the past was within the five-a-side competition program in the Olympic holidays, as it was from stability, then the need for the ability to push became a lead from the To run in the sixth century BC, and the rise was done from a specific place with a column lying or fixed shortly before the hole, as the rider was old carrying in his hands during the jump weights for the purpose of strengthening weighted arms during the process of ascension, and the development of the long jump with the development of science and theories learning until it became his approach path and then A prepared place from which to help rise to the front and higher and fly to cover a distance and then land in a non-solid place (sand pit), and jump competitions entered the Olympic representation since 1896 for men, that is, since the first modern Olympic Games in Greece, either for women, so I entered the long and high It started from the 1928 session. (Harbbash, 2013)

The importance of the research lies in its focus on the best strategy in the use of modern teaching methods in the educational process that helps improve the strength characteristic of speed, because of the great benefit it provides to teachers of physical education and sports at the Institute of Physical Education and Sports in Mostaganem in particular, and to the experience of field researchers in this field, and his knowledge of the importance of diversifying modern teaching methods in the class, and highlights the importance of research also in giving researchers a look at professors on how to test the most appropriate teaching methods, and know the optimal method in teaching long jumping Through the development of his physical and skill abilities. Therefore, the problem of the research was as follows: What is the best teaching strategy in improving the strength characteristic of speed in the effectiveness of the long jump?

Through this general question, the following sub-questions emerged for us:

- 1- Are there statistically significant differences between the use of the traditional method and two methods together (the imperative method and the implicit method) in favor of both methods in improving some physical qualities in the long jump?
- 2- Are there statistically significant differences in the use of three methods together (imperative style, implicit method and reciprocal method) in favor of the three methods in improving some physical qualities in the long jump? The current study aims to identify the effectiveness of diversifying modern teaching methods in improving some physical characteristics in the long jump among students of the Institute of Physical Education and Sports in Mostaganem, and to identify the most methods that can be employed during the class that help the professor in performing his teaching tasks.

## METHOD AND TOOLS

### Study methodology

Due to the nature of the current study, researchers have used the experimental method to suit the nature of the research problem.

### Study sample

Our study population consists of 200 first-year Bachelor of Physical Education and Sports students at the Institute of Physical Education and Sports in Mostaganem during the 2019-2020 academic year. The research sample consisted of 60 students first year Bachelor of Physical Education and Sports males studying at the Institute of Physical Education and Sports, and after the homogenization was divided the study sample into two experimental groups distributed as follows (the first experimental group 30 students, the second experimental group 30 students) and equivalence was made for them in the variables under study (Table 1).

The torsion coefficient was extracted by the method of moments. Table (1) shows that the values of the torsion coefficient calculated for the variables of age, height and weight are smaller than (-+1) so the research sample is homogeneous among themselves in these variables.

Table 1: Showing the homogeneity of the sample in height, weight and age

Variables	Arithmetic mean	Standard deviation	Torsion coefficient
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Length	175.50	4.45	-0.315
Weight	70.55	4.98	-0.081
lifetime	21.10	0.747	-0.223

Table 2: Shows the equivalence between the two groups in the variables from the study

Variables	First Experimental		Second Experimental		Value of t	Significance
	Going to-	on	Going to-	on		
Vertical jump test of stability (for Sargent)	62.22	3.77	63.58	3.37	1.59	Non D
Long jump of stability	2.87	0.11	2.95	1.02	0.95	Non D
Jump for 10 steps of running	25.10	4.02	25.26	3.15	3.96	D
60m sprint test from moving start	7.12	0.68	7.06	0.58	2.66	D
Long jump from running	5.23	0.75	6.02	0.64	2.53	D

### Tools used in the study

The researchers used several research tools to access the data required in the research, namely scientific sources, questionnaire, interview, test, measurement and educational program.

**Educational curriculum:** The researchers prepared the educational curriculum (educational program) using two different methods of teaching, namely the imperative method and the implicit method, and another program using three methods: the imperative method, the implicit method and the training method, and it was applied over a period of six months from (04/10/2019-04/02/2020) by two classes per week, and the time of each educational unit was (90) minutes, so that they divided the physical education and sports class into three sections, the preparatory section (warm-up and explanation) and the section Main (physical exercise, model, application and free play) Concluding section (light running).

### - The proposed educational units using some modern teaching methods:

The researchers developed educational units for learning some of the physical abilities of the long jump and the level of digital achievement "under research" by following the modern teaching methods of both the experimental group and the two control groups in light of the growth characteristics of this age stage .

### - The foundations of the development of educational units: the following were taken into account

- Taking into account the growth characteristics of this stage.
- The content of all units should suit his/her educational and behavioral objectives.
- The educational units should be characterized by diversity and simplicity.
- The educational units should achieve personal integration in terms of the learner's relationship with himself and his relationship with others.
- The principle of taking into account individual differences.

### - The content of the educational units:

- In light of the structure of each of the learning methods used and its educational and behavioral objectives in the research, the researchers developed the educational units for each of the three experimental groups.

### Educational units using the diversification of the two cooperative-reciprocal methods:

- Educational objective: The researcher has set goals for educational units that work to achieve, which is to identify the impact of the use of diversification of the two methods (cooperative - mutual) on some physical abilities for the long achievement jump and the level of digital, and based on this the researcher
- Design of the assignment sheet for cooperative and reciprocal methods:

- Assignment sheet for the use of the combination of the two methods (cooperative method - reciprocal method):

The researchers designed the assignment paper using the installation of the two methods (cooperative method - reciprocal method) where students use it in the form of groups of five students in its first part group leader and two student performers and students observer and encourager The second part of the assignment paper is divided students into the student performed and student observed interchangeably and the professor explain the duties included in this paper at the beginning of the lesson where the use of pictures and illustrations, and includes the following:

Name - colleague - date - week - unit number - time - special topic - style - performance description - repetition - rest - evaluation - performance performance of the student performing and the student observer - guidance instructions observed during performance. Appendix 05

- Assignment paper for the use of the collaborative method:

The researchers designed the assignment paper using the cooperative method, where students use it in the form of groups of five to six students, divided as follows: a group leader, two performing students, and two observer students, and work in workshops provided by the professor, who explains the duties included in this paper at the beginning of the class, where the pictures and illustrations are used, and the following are included:

Name - colleague - date - week - unit number - time - special topic - style - performance description - repetition - rest - evaluation - performance performance of the student performing and the student observer - guidance instructions observed during performance. Appendix 06.

- Assignment sheet using the interactive method:

The researchers designed the assignment paper using the reciprocal method, where students use it in the form of pairs of the performing student and the observed student interchangeably, where pictures and illustrations are used.

Name - colleague - date - week - unit number - time - special topic - style - performance description - repetition - rest - evaluation - performance performance of the student performing and the student observer - guidance instructions observed during performance.

### **Specifications of the tests used**

#### **Length test.**

The laboratory stands with the trunk straightened and looking forward and then the moving plate is installed above his head to record the height in centimeters, the shoes must be removed and the heels should not be raised.

#### **Weight Test:**

The laboratory stands on the scale quietly and after the stability of the indicator records the weight and must remove heavy clothes and adhere to stability above the medical scale. (Khalifa, 1999)

#### **Wide jump test of stability:**

The tester stands in front of the starting line, slightly opening his legs with the knees bent.

Recording: When falling, we measure the distance between the starting line and the last part of the body that touches the ground, the best attempt is taken from the two attempts. (Hassanein, 1995)

#### **Test sprint 30m of the mobile:**

Purpose: Maximum speed measurement

The tester stands behind the starting line, the first line, and when the signal is heard, it starts running, until it reaches the second line, it starts running at full speed until it crosses the third line.

Registration: Calculates the time it took to cover the distance of 30 meters from the second line to the third line.

#### **Fleischmann's slalom running test:**

From the standby position of the high start behind the starting line point A and when the start signal is heard, the tester runs between the signs in the form of 8 and after reaching the last sign it returns to finish at the starting line point B.

Recording: The time from giving the signal to the end at point B is calculated and 0.1 seconds are added at each touch of the sign. (Brahm, 1995)

#### **Test of bending the trunk from a long sitting position:**

The laboratory sits tall with the back straightened and hands on the side in contact with the ground, and the laboratory tries to extend the arms in front with their straightness and bend the torso forward to reach as far as possible.

Recording: The measurement is taken at the end of the fingers of the hand on the ruler. (Hassanein, 1995)

#### **Long jump test: (Hassanein, 1995)**

From a standing position and along the approximate running field, the laboratory runs 7 steps before reaching the ascent line directly, raises the appropriate foot directly behind the ascent line, and pushes the ground to jump in front of three times to the farthest possible distance so that it performs a hopscotch, then a step, then a jump, then a fall, and here are two cases right, right, left or vice versa. (Tarzynski, 1987)

Recording: The measurement is from the inner edge of the elevation line to the last part of the body touching the ground, i.e. the last trace that leaves the last part of the body touching the ground and recorded in meters and centimeters.

### INTERPRETATION AND DISCUSSION OF RESULTS:

The results were processed in the light of the previously developed hypotheses, and were in the following sequence:

- To achieve the first hypothesis, which includes identifying the effectiveness of teaching in the two methods of command and implication in raising the level of physical performance and skill in the long jump, the test (T) was used for symmetrical samples with pre- and post-tests, as shown in the table below:

Table (3): Arithmetic averages, standard deviations, value and significance (T) for the pre- and post-tests for physical and skill tests for the first experimental group by applying the two methods together.

Variables	Pre-test		Post-Test		Value of t	Significance
	Going to-	on	Going to-	on		
Vertical jump test of stability (for Sar Gent)	64.28	3.85	64.96	3.25	2.21	D
Long jump of stability	2.95	0.15	3.01	1.12	2.53	D
Jump for 10 steps of running	26.23	3.95	26.86	3.45	3.56	D
60m sprint test from moving start	7.26	0.76	7.65	0.62	2.54	D
Long jump from running	5.95	0.86	6.82	0.68	2.94	D

Tabular value (T) at the level of significance ( $=0.05$ ) and below the degree of freedom ( $29$ )  $=2.04$ .

From Table (3), it is clear that the calculated value of (T) amounted to (2.21) and from this it is clear that there are significant differences between the two tests, because the calculated value of (T) is greater than the value of (T) table. As for the long jump test of stability, the value of T (calculated) was (2.53), hence it is clear that there are significant differences between the two tests because the calculated T value is greater than the tabular value of (T). As for the 60 m running test from the moving start, the calculated value of T (2.54), hence it is clear that there are

significant differences between the two tests because the calculated T value is greater than the tabular value of (T). As for the jump test for 10 steps of running, the calculated value of T was (3.56), hence it is clear that there are significant differences between the two tests because the calculated T value is greater than the tabular value of T.

The second hypothesis, which includes identifying the effectiveness of teaching in the three methods of command, training and implication, and the (T) test was used for symmetrical samples with pre- and post-tests as shown in Table (4)).

Table (4): Arithmetic averages, standard deviations, value and significance (T) in the pre- and post-tests of the tests for the second experimental group by applying the three methods.

Variables	Pre-test		Post-Test		Value of t	Significance
	Going to-	on	Going to-	on		
Vertical jump test of stability (Lsar Gent)	64.50	3.82	64.99	3.24	2.22	D
Long jump of stability	2.93	0.16	3.06	1.11	2.59	D
Jump for 10 steps of running	26.29	3.94	26.95	3.56	3.45	D
60m sprint test from moving start	7.33	0.56	7.85	0.68	2.26	D
Long jump from running	5.98	0.89	6.89	0.75	2.82	D

Tabular value (T) at the level of significance ( $\alpha=0.05$ ) and below the degree of freedom (29) = 2

Table (4) shows that there are significant differences between the two tests, because the calculated value of (T) is greater than the value of (T) tabular value.

As for the long jump test of stability, the calculated value of T was (2.59), hence it is clear that there are significant differences between the two tests because the calculated T value is greater than the tabular value of T. As for the jump test for 10 steps of running, the value of T (calculated) was (3.45), hence it is clear that there are significant differences between the two tests because the calculated T value is greater than the tabular value of (T). As for the 60m sprint test from the moving start, it is clear that there are significant differences between the two tests because the calculated T value is greater than the tabular value of (T).

As for the long jump test from running, the arithmetic mean in the pre-test was (5.98), and the standard deviation (0.89), while it reached the post-test (6.89) and a standard deviation (0.75), while the

value of T (calculated) (2.82), and from here it is clear that there are significant differences between the two tests, because the calculated T value is greater than the value of (T). The researcher attributes these differences to the educational program that was applied to the two research samples, where it left a positive impact on raising the level of physical performance and skill in the long jump in both groups.

## CONCLUSIONS

- The use of both methods (implicitly and explicitly) has a positive effect in improving the strength characteristic of speed in the long jump.
- The use of the three methods together (commanding, implicit, and mutual) has a positive effect in improving the strength characteristic of speed in the long jump.
- The strategy of using the diversification of modern teaching methods contributes to improving the strength characterized by speed in the long jump.

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