

## The effect of using an educational program with aids in learning the effectiveness of free swimming for student

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### Abstract

The research aims to identify the effect of using an educational program with tools to help learn the effectiveness of free swimming. For students, and to identify the effect of the educational program with tools in learning the effectiveness of free swimming for students, as for the research hypotheses, there is an effect in the use of the educational program with tools to learn the effectiveness of free swimming for students. The researcher used the experimental method by designing the two equal groups (experimental and control) with a pre and post-test as it fits with the nature of the research problem. The research community included the students of the first stage - Department of Physical Education and Sports Sciences - College of the Future University, which numbered (200) students, and students were also excluded those who can swim, numbering (140) students, as well as students absent from taking tests and measurements and their number (30), as well as the exclusion of the students participating in the two exploratory experiments and their number (10) students, bringing the number of the sample to (20) students, and thus the sample constitutes (45%) ) from the original community, and they were divided equally into two groups, and for each group (10) students, they were divided into two control and experimental groups using a lottery. The educational program was applied on (2/3/2022) for a period of six weeks with two educational units per week on (Saturdays and Wednesdays). The educational units included (4) skills that are among the basic skills in learning the effectiveness of free swimming, which are (flow with the movement of the legs, breathing, flow with the movement of the arms, free swimming in full). After completing the educational units, the data was processed using the (SPSS) system. The effect of using an educational program with auxiliary tools in reducing psychological stress is better than the program followed by the teaching staff. Positive effect in reducing the level of psychological stress, and one of the most important recommendations is the need to learn the effectiveness of free swimming for its contribution to reducing the level of psychological stress, the need to use auxiliary tools continuously and according to the stage of learning the effectiveness of free swimming, not to allow the learner to practice swimming while he is in a poor psychological state.

**Keywords:** Educational program, swimming, learner, psychological.

## **1- Introduction to Research**

### **1-1 Introduction and Research importance**

Swimming is one of the individual games practiced by peoples of different genders, males and females and of different ages (young, young, old and both sexes). Swimming through the ages, and after its entry into the first Olympic Games that was held in Athens in 1896 AD, the interest of most countries in preparing and training their teams in order to represent them in international forums and Olympic courses to win gold medals in this event.

Swimming is one of the common sporting activities and perhaps the oldest of the activities practiced by man, and it attracts the attention of many researchers in the sports field, as it depends on several variables, and it also requires great neuromuscular coordination during the complex skill performance and repeatedly to reach the best technical performance.

The swimming activity is one of the Olympic events that has gained wide spread in the world. The swimming activity has developed from an activity that includes fun, joy, pleasure and leisure time. The scientific development witnessed in our present era is a result of numerous research and studies in all areas of life, especially the field of physical education and high-level sports and all its games. This led to the interest of developed countries in the field of sports to find the best ways to develop sports achievement and integrate the training curriculum, so they invented a number of devices and auxiliary tools that lead to raising the level of the swimmer in terms of physical and technical terms.

One of the things that must be taken into account in the process of education and training and the introduction of modern media and auxiliary devices and the means and tools accompanying this task, is that the contribution to the development of Olympic swimming depends on planning and continuous scientific research and openness to what is happening of modernization and change at the level of the globe.

Hence, the importance of the research lies in the effect of using an educational program with auxiliary tools in reducing psychological stress and learning the effectiveness of free swimming for students.

### **1-2 research problem**

Swimming is one of the important lessons in the faculties of physical education and sports sciences, and graduates of physical education and sports sciences are the mainstay for the implementation of programs and the application of school curricula. Physical and sports sciences noticed that there is a weakness in the speed of learning and mastery of free swimming among students, and from here came the researcher the idea of teaching freestyle swimming to students using auxiliary tools and the educational program, that the good use of auxiliary tools contributes greatly to the student's ability to learn speed and master swimming skills.

### **1-3 Research Objectives**

1- Recognizing the effect of using an educational program with auxiliary tools in learning the effectiveness of free swimming for students.

2-Recognizing the impact of the educational program with tools to help learn the effectiveness of free swimming for students.

### 1- 4 Research hypotheses

1-There is an effect on the use of the educational program with tools to help learn the effectiveness of free swimming for students

### 1-5 Research Areas

1-5-1 The human field: first-stage students, College of the Future, University, Department of Physical Education and Ratio Sciences, for the academic year 2021-2022.

2-5-1 Time range: for the period from 11/30/2021 to 4/1/2022.

3-5-1 The spatial domain: the closed Marina swimming pool in Babil Governorate.

## 2- Research methodology and field procedures

### 2.1 Research Methodology

The nature of the problem to be studied is what determines the nature of the curriculum, so the researcher used the experimental method by designing two equal groups (experimental and control) with a pre and post test as it fits with the nature of the research problem

### 2-2 Research community and sample

Determining the research community is one of the important steps and stages in the process of conducting the research, and the research community is "all individuals, events or things who are the subject of the research problem." Their number is (200) students, and students who can swim and their number are (80) students, as well as students who were absent from taking tests and measurements and their number (20), were also excluded from the students who participated in the two reconnaissance experiments numbering (01) students, bringing the number of the sample to (90) students, and thus the sample constitutes (45%) of the original population, and they were divided equally into two groups, and for each group (22) students, and as shown in Table No. (1), they were divided into two groups, control and experimental using the lottery, as the group ( 1) an experimental group and (2) a control group. As in Table. (1).

**Table (1) It shows the number of research sample members and the number of those excluded.**

Division	two search groups	the total number	excluded from the sample			Sample number
			They know how to swim	absent	Exploration experience	
A	experimental group	200	140	30	10	10
B	control group					10

## **2-3 Tools and devices used in the research**

The researcher will use the following devices and tools.

### **2-3-1 Means used**

- Arab and foreign sources and references.
- Psychological stress scale.
- Forms distributed to experts.
- Floating board.

### **2-3-2 Tools and equipment**

- Marina swimming pool.
- One (1) Sony camera.
- One (1) computer (ACER).

Metric tape for measuring length.

## **2-4 Tutorial**

The educational program was implemented on (2/3/2022) for a period of six weeks, with two educational units per week on (Saturdays and Wednesdays). The educational units included (4) skills that are among the basic skills in learning the skill of free swimming, which are (flow with the movement of the legs, breathing, flow with the movement of the arms, complete free swimming).

The educational unit time is (90) minutes, divided as follows:

A - Preparatory section: (15) minutes: It includes changing the normal clothes and taking attendance and then starting the general and private warm-up, then going to the bathrooms to clean the body of sweat and so on before entering the swimming pool, for security and safety factors.

B- The main section: (60) minutes that included an explanation and presentation of how to apply the concerned skill (the unit objective) for the experimental group, while the control group included the explanation, presentation and application of the skill.

C- The closing section: (15) minutes (recreational game, relaxation, calm down, then leave).

## **2-5 Post-test**

The post-test was applied to the experimental and control groups in the test (psychological stress, free swimming) after completing the application of (12) units on (4/9/2022).

## 2-6 Statistical means

To extract the results of the research, the researcher used the statistical bag for social sciences SPSS.

### 3- Presentation, analysis and discussion of the results

3-1 Presenting and analysing the results of the research variables for the control and experimental groups:

3-1-1 Presenting the results of the tests (flow, arm movement test, legs movement test, breathing test) for swimming for the control group and their analysis

**Table (2). It shows the arithmetic means and standard deviations between the pre and post-tests (flow tests, arms movement test, legs movement test, breathing test) for swimming for the control group.**

Statistical parameters	Measuring unit	pretest		post test		Calculated t value	sig	Type indication
		x	y	x	y			
flow	The meter and its parts	3.68	1.10	5.53	1.12	8.75	0.000	moral
arm movement	The meter and its parts	4.20	1.31	5.80	1.03	7.24	0.000	moral
legs movement	The meter and its parts	2.60	0.51	5.50	0.70	16.16	0.000	moral
breathing	the second	42.90	7.10	36.60	8.24	9.68	0.000	moral

\*Value (t) at significance level (0.05) and degree of freedom (9)

Table (2) shows the presence of variances and differences in the values of the arithmetic means of the flow tests, the movement of the arms test, the movement of the legs test, the breathing test) before and after the control group, as well as the presence of variances and differences in the values of the standard deviations of the tests before and after, while the values of (sig) between the tribal and remote tests for all variables is smaller than the level of significance (0.05) and the degree of freedom (9), which indicates the existence of significant differences between the tribal and remote tests in favor of the post, and for the tests of all research variables.

3-1-2 Presentation and analysis of the results of the tests (flow, arm movement test, legs movement test, breathing test) for the experimental group:

**Table (3). It shows the arithmetic means and standard deviations between the pre and post tests (flow, arm movement test, legs movement test, breathing test) for the experimental group.**

Statistical parameters	Measuring unit	pretest		post test		Calculated t value	sig	Type indication
		x	y	x	y			
flow	The meter and its parts	3.00	0.66	6.60	0.51	8.74	0.00	moral
arm movement	The meter and its parts	3.30	1.56	7.40	0.96	7.23	0.00	moral
legs movement	The meter and its parts	2.50	0.52	7.50	0.70	16.15	0.00	moral
breathing	the second	44.60	7.08	28.4	4.08	9.68	0.00	moral

\*At the significance level (0.05) and the degree of freedom (9).

Table (3) shows that there are variances and differences in the values of the arithmetic circles and the post-tests of (flow, arms movement test, legs movement test, breathing test) for the experimental group, before and after, as well as the presence of variation and differences in the values of standard deviations of the tribal and post tests, while the The values of (sig) between the tribal and post tests for all variables are less than the significance level (0.05) and the degree of freedom (9), which indicates the existence of significant differences between the tribal and post tests in favor of the post, and for the tests of all research variables.

3-1-3 Presenting the results of the dimensional differences between the control and experimental groups in the tests (flow, arm movement test, legs movement test, breathing test) for the control and experimental groups and their analysis:

**Table (4). It shows the arithmetic means and standard deviations between the pre and post-tests (flow, arm movement test, leg movement test, breathing test) for the control and experimental groups.**

Statistical parameters Variables	Measuring unit	Control group		experimental group		Calculated t value	sig	Type indication
		x	y	x	y			
flow	The meter and its parts	5.53	1.12	6.60	0.51	2.72	0.014	moral
arm movement	The meter and its parts	5.80	1.03	7.40	0.96	3.75	0.002	moral
legs movement	The meter and its parts	5.50	0.70	7.50	0.70	6.32	0.000	moral
breathing	the second	36.6	8.24	28.4	4.08	2.81	0.011	moral

\*At the significance level (0.05) and the degree of freedom (18)

Table (4) shows that there are variances and differences in the values of the arithmetic means after the tests (flow, the movement of the arms test, the movement of the legs test, the breathing test) between the control and experimental groups, as well as the presence of variations and differences in the values of the standard deviations of the dimensional tests, while the values of ( $\text{sig}$ ) between the control and experimental groups in the post tests for all variables less than the value of (0.05) and the degree of freedom (18), which indicates that there are significant differences between the control and experimental groups in the post tests in favor of the experimental group, and for the tests of all research variables.

### 3-2 Discussing the results

There is a development in the results of the control group in the examined tests and in favor of the post tests, which the researcher attributes to the fact that this development that occurred with the student was the result of the use of educational units that helped him to perform the swimming skill in a positive manner<sup>(1)</sup>. As the educational units had an impact on the members of the control group, this is due to the effect of the vocabulary of the educational curriculum followed by a teacher. The material that had a clear impact on teaching the members of the control group the skill of swimming, which was achieved through learning different levels of freestyle swimming. This requires the swimmer to master the skill well in order to overcome the difficulties he faces during the performance. It is known that many students know about swimming because of the lack of swimming pools or the danger of rivers, so they find it difficult to learn in the advanced stages of life and this is what the teacher faces during the learning process<sup>(2)</sup>. As well as the lack of tools and aids that help the teacher to shorten the time and effort during the performance of the educational duty<sup>(3)</sup>. Table (4) indicates that there is a development in the results of the experimental group in the tests investigated, and there was also statistical significance in the control group in the mentioned tests, but to a lesser degree than the experimental group, and the matter that the researcher attributes to the fact that this development in the experimental group is the result of using a new educational method with The use of educational units that include exercises with auxiliary tools and the use of modern methods in learning swimming skills helped the learner to perform the free swimming skill in a positive way, as the method used by the researcher was faster for the students' learning process and was more interesting and exciting and removed the state of anxiety or fear and increased the learner's confidence, as well as Reducing psychological stress among members of the group, as mentioned in the study (Huda Galal 2005). About the presence of psychological tension among the players, and this is what the researcher found among students of the first stage in the College of Physical Education and Sports Sciences - University of Kufa, and the researcher attributes this to the lack of learning the skill of swimming while they are in this advanced stage of life. The researcher believes that the reason for the existence of tension among (the research sample students):

The difficulty of free-swimming movements and the new watery ocean that the student has not entered before, as well as the lack of protective and safe equipment, all of which increases the tension among the students.<sup>(1)</sup>

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<sup>(1)</sup>Dienstmann, Ronald, *games for learning, human kinetics, 2008 ,p67.*

<sup>(2)</sup>Mowrer, H: *Learning theory and personality dynamics, New York, Ronald Press Co. 1950 ,p89.*

<sup>(3)</sup>Throp, bunker, and Almond, teaching of games in secondary schools, bulletin of physical education, 1996, p54

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- Fear of drowning and being hurt and anxiety about performance make the student nervous.
- Weakness of students' desire and negative thinking towards swimming.

#### 4- Conclusions and Recommendations

##### 4-1 Conclusions

In light of the results obtained by the researcher through field experiment and his use of the most appropriate statistical methods that were used in analyzing the results, the researcher reached the following conclusions:

- 1- Learning the effectiveness of free swimming for students of the first stage, Al-Mustaqbal University College, Department of Physical Education and Sports Science, has a positive effect.
- 2- The use of auxiliary tools greatly helped them feel safe while learning the effectiveness of free swimming.

##### 4-2 Recommendation

In light of the results that have been reached, the researcher recommends the following:

- 2- It is necessary to use the auxiliary tools on an ongoing basis, because of their contribution to the stage of learning the effectiveness of free swimming.
- 3- Not to allow the learner to swim when he is in a poor psychological state.

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