



ISSN Print: 2664-7281  
ISSN Online: 2664-729X  
Impact Factor: RJIF 8  
IJSEPE 2024; 6(2): 164-171  
[www.sportsjournals.net](http://www.sportsjournals.net)  
Received: 08-07-2024  
Accepted: 10-08-2024

**Dr. Hasanain Abdul Wahid Shuaila**

Assistant Professor, College of Physical Education and Sport Sciences, Al-Qasim Green University, Al-Qasim District, Babylon, Iraq

## The effectiveness of an educational program using an interconnected multimedia in developing students' learning motivation and freestyle swimming performance

**Dr. Hasanain Abdul Wahid Shuaila**

DOI: <https://doi.org/10.33545/26647281.2024.v6.i2c.121>

### Abstract

The aim of this document is to prepare a multi-stage multimedia educational program in developing students' learning motivation and freestyle swimming performance and to identify the result of a multi-stage multimedia curriculum for education in the creation students' learning motivation and freestyle swimming performance. To fit the needs of the investigation, the scholar employed the trial approach with two groups that were equal. For the academic year, the first-year students at Future University's Faculty Sports Sciences and Physical Education choose the research community. 2023-2024 AD, numbering 179 students. A basic random technique was used to choose the research sample, which consisted of thirty students and sixteen. 75.9% of the scientific community. Each group was then divided into two (control and experimental). Fifteen pupils. One of the researcher's most significant findings is that the electronic program prepared using multi-stage interconnected media technology helped take into account individual differences between students by achieving learning motivation and saving time and effort for the researcher. Its role was positive in correcting errors and guiding and counseling the student during the application of the program. The control group did not do as well as the experimental group in the rates of improvement in learning freestyle swimming, and there was a difference and disparity difference the students' degree of willingness to study and their ability to perform freestyle swimming abilities between the two study teams, with the trial group outperforming the control group. This disparity is because of the effectiveness of the educational program using multi-stage interconnected media, with the contribution of the educational program using multi-stage interconnected media in developing the trait of learning motivation among students.

**Keywords:** Multimedia educational program, learning motivation, freestyle swimming performance, experimental and control groups, interconnected media technology

### Introduction

Advances in science and technology in various fields have resulted in significant lifestyle changes and the creation of contemporary technologies, which have grown to be crucial to the advancement of science overall and physical especially in the field of education, while technological development has become increasingly vital to enhance educational processes. Despite the technological means of communication provided by technology, these educational media in these technologies are still limited. The reason for this is that it is necessary for teachers to understand that this scientific and technological development must be adapted to and effectively integrated into their teaching methods. Therefore, technology must be viewed as an organized approach to planning, designing, implementing and evaluating educational practices, which requires an organized and coherent system for successful application and to keep pace with modern developments in the educational process. Therefore, it was necessary to keep pace with modern developments, especially with the information revolution that the world is experiencing. Academic scientific developments are moving at a very fast pace, and we must adjust our educational situations and adapt them to make the most of the huge amount of information and be selective in what we choose so that our academic ship does not go astray. In addition it greatly enhances the learning process because of the technology's incredibly effective capacity to provide the best, in addition to saving effort, time and material.

### Corresponding Author:

**Dr. Hasanain Abdul Wahid Shuaila**

Assistant Professor, College of Physical Education and Sport Sciences, Al-Qasim Green University, Al-Qasim District, Babylon, Iraq

This applies to swimming, as it is one of the activities characterized by a spirit of competition between swimmers. The tremendous and growing development of applications of using computer technology in education has produced the term multi-stage interconnected media (Hypermedia), which is a new technology within the discipline of teaching and learning. It aims to assist the learner achieve clear goals that have been previously determined and are expected to be accomplished with a high degree of efficiency because of direct interaction between the learner and the program on the computer. Swimming is one of the types of water sports that must be taken into account when planning to teach it, to direct the student's intellectual and motor activity accurately, while clarifying all parts of the swimming method that is targeted to be taught, provided that the teacher organizes, monitors and continuously directs the student's method of performing this swimming effectively, while ensuring the student's positive participation during the educational process. From this standpoint comes the significance of research in developing a curriculum employing multi-stage interconnected media in developing the motivation to learn and the performance of free swimming for students.

### Research problem

By means of the researcher's experience as a swimming teacher and director of Waves Academy for Swimming Education, he saw that learning freestyle swimming in the traditional way (Which is verbal explanation and performing the practical model) does not achieve the desired results with all students. Therefore, the researcher addressed the use of one of the modern educational technology methods, which is learning using multi-stage interconnected media software and employing it in a manner that is compatible with teaching freestyle swimming, the success of which depends on correct knowledge, understanding and technical analysis of performance; This is to save the time allocated to learning this swimming so that the student gets to know the method of performance while correcting technical and skill errors at the same time so that the wrong method of performance is not proven, due to the need for swimming to have a high degree of coherence and motor compatibility between all parts of the body. From this standpoint, the researcher studied this problem by preparing an educational program using multi-stage interconnected media to develop the motivation to learn and the performance of freestyle swimming for students.

### Research objective

- Preparing an educational program using multi-stage interconnected media in developing students' learning motivation and freestyle swimming performance.
- Identifying the effect of an educational program using multi-stage interconnected media in developing students' learning motivation and freestyle swimming performance.

### Research hypotheses

There is an advantage to the educational program using multi-stage interconnected media in developing students' learning motivation and free swimming performance.

### Research fields

- First-stage students in the humanities at The Physical Education and Sports College Al-Mustaqbal

University's science program for the academic year 2023–2024.

- Time column: (3/3/2024) to (2/5/2024)
- Spatial field: Marina Indoor Pool in Babylon Governorate.

### Search terms

#### Multi-stage interconnected media

It is a program for organizing and storing information in a non-sequential manner. It is also a method for providing individual learning in various multi-stage frameworks that help increase the learner's motivation during immediate feedback and increase his ability to control the learning process (Kamal Abdel Hamid Zeitoun. 2020) <sup>[1]</sup>.

### Research methodology and field procedures

#### Research Methodology

The scientific approach selected ought to make sense for the issue under investigation. Given that The method used in the experiment matches the nature of the issue that the researcher seeks to study, and since this method is characterized by the accuracy of the results and is the closest and most suitable scientific research Pre- and post-tests were designed for equivalent groups in order to apply the experimental approach to answer the problem that the researcher will address.

### Community and sample research

The first-year students of Al-Mustaqbal University's The research community for the academic year 2023–2024 AD consisted of 179,000 students from the College of Physical Education and Sports Sciences.

### Research sample

The study's specimen was chosen. with a strength of (30) students and a percentage of (16.759%) after excluding the students who were accepted into the college successively from those who passed the third round and evening admission and parallel admission students, and the two research groups were selected and divided randomly with (15) students for every group.

### Homogeneity and Equivalence of the Sample

#### Homogeneity of the Sample

The following table demonstrates how the researcher homogenized the sample based on the dependent variables (Height, weight, and age) to guarantee that everyone started from the same place.

**Table 1:** Shows the arithmetic mean, median, standard deviation, and skewness value for the skills being examined.

Variables	Measuring unit	Mean	Median	Std. Deviations	Skewness
Length	Cm	162.40	161	4.89	0.86
Weight	Kg	62.27	61	6.03	0.63
Age	Year	17.46	17.50	0.47	-0.26

Table (1) makes it evident that every skewness coefficient value was smaller than (1) an integer, confirming the homogeneity of the research sample.

### Equivalence of the two research groups

The researcher carried out the equivalency of the two study groups to guarantee their equivalency. groups in the

dependent variables (learning motivation, star Floating test, flow test with leg movement, technical performance test for 15m freestyle swimming), as the accompanying table illustrates:

**Table 2:** Comparison of skill performance between experimental and control groups: Statistical analysis and results

Skills	Experimental group		Control group		T value calculated	Level Sig	Type Sig
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Motivation for Learning	117.88	5,04	115.66	5,12	2.022	0.124	Non sig
Floating and Star Position Test	2.707	1.216	2.663	0.993	2.032	0.076	Non sig
Flow Test with Leg Movement	62.717	3.598	63.652	5.983	1.786	0.112	Non sig
Technical Performance Test for Freestyle Swimming (15m)	2.443	1.414	2.531	0.984	1.897	0.075	Non sig

Table (2) makes it evident that all (Sig) values are more than (0.05) and that the computed (t) value is smaller than the tabular (t) value at 28 degrees of freedom, confirming the equivalency of the two groups.

### Tools and devices used in the research

1. Restameter with scale to measure height and weight.
2. Dynamometer to measure leg muscle strength.
3. Tape measure for lengths.
4. Graduated ruler to measure flexibility.
5. Number (15) computers.
6. Number (15) CDs.
7. Data Show device.
8. Stopwatch.
9. Floating boards.
10. Swimming goggles.

### Field research procedures and determination of tests used in the research

#### Learning Motivation Scale

To ascertain the research sample's learning motivation, the researcher used the Raad Ali Hussein Al-Laylah Al-Ubaidi (2021) <sup>[2]</sup> scale. Appendix (1) has forty paragraphs total. The learning motivation scale's scientific underpinnings were investigated by the researcher, as the apparent validity of the scale and stability were extracted using the split-half method. The scale had a very high degree of validity and stability.

#### Floating test and star placement

- The test's objective is to assess the learner's aptitude. To float and in the star position.
- **Test conditions:** The learner starts from the (standing) position in the water to float and in the star position by leaning the body forward and extending the arms forward and raising the legs backward and floating on the stomach so that the body becomes straight with the arms and legs extended to the sides.
- **Tools used:** Swimming pool, stopwatch, registration forms, pens.
- **Test recording:** Test measurement when the learner hears the starting whistle, the learner takes the horizontal front position until the body becomes inclined. The floating time is calculated in seconds and parts thereof.

#### Flow test with leg movement

- The test's objective is to gauge how far the student can go while executing this skill.

For the skills under study, Table (2) displays the arithmetic mean, median, standard deviation, and skewness value.

- **Test Description:** Standing at the edge of the pool with the swimmer's back facing the pool wall, then the swimmer stands on one foot inside the pool and supports the other foot on the wall, then bends his torso forward while extending his arms forward and the head is between the arms, and when he hears the whistle, he pushes the wall and flows forward with the legs moving up and down.
- **Test recording:** The assistant team does the recording from the moment the learner starts performing the test, and the distance is calculated in meters.

#### Freestyle Swimming Technical Performance Test

- **Test Name:** Freestyle Swimming Test for a Distance of (15m).
- **Purpose of the test:** To measure the learner's technical performance level in freestyle swimming and the ability to perform leg strokes, arm movements and breathing.
- **Test Description:** The tester stands inside the pool in the water, while the feet remain on the ground and away from the wall. Upon the signal, the student begins swimming without stopping until the test distance is covered.
- **Test Recording:** Experts do the recording; this is based on the form submitted to them according to the details recorded therein.

#### Exploratory experiment

- An exploratory experiment is "a miniature experiment similar to the real experiment" (Wajih Mahjoub and Ahmed Badri Hussein, 2002) <sup>[3]</sup>. Accordingly, on Sunday, March 3, 2024, the researcher conducted an exploratory experiment on five students who were not part of the main study sample. The exploratory experiment has the following goals:
  - To know the difficulties facing the researcher.
  - To know the validity of the instruments and gadgets employed.
  - To ensure the suitability and ease of the tests used in the research.
  - To make certain the readiness of the work team to apply the tests.

#### Main procedures of the research

##### Pre-measurement

Pre-measurements were conducted for the research sample on Tuesday 5/3/2024 in the Marina Pool - Babylon When the scale was administered to the research sample at precisely ten in the morning, the maximum score was 120, and the lowest score was 40. In order to create as similar of

an environment as feasible for the post-tests, the researcher set up the test settings and the procedure for administering them.

### Educational program

Using multi-stage networked media, the researcher created an instructional program covering the vocabulary of the swimming curriculum as required by Future University's College of Physical Education and Sports Sciences. developed the educational program, appropriate exercises, special assignments, and the method of giving and applying multi-stage interconnected media during the main experiment in line with the students' abilities in free swimming. The program was applied for the period from 6/3/2024 AD to 1/5/2024 AD. The researcher also adopted multi-stage interconnected media during the educational program, which are as follows.

- Displaying a live model via a laptop for the basic skill being applied.
- Illustrations of the skills being researched.
- Providing feedback in the form of written text.

The researcher prepared a colored flex showing the movement sequence of the studied skills to benefit from it in the student's awareness of his errors throughout the maneuver application of the abilities under study, which helps the student to overcome those mistakes at the same time presenting a live model where the teacher performed the studied skills in front of the students to identify the correct model performance.

According to the characteristics of multi-stage interconnected media, the researcher organized the content of multi-stage interconnected media through an advanced electronic program that can be easily used via mobile phone or computer, as this program contains multiple stages, from the introduction, which is the part that is displayed on the screen and without the student's intervention during the presentation, and this part includes (Presentation, preparation, supervision, general objectives, some important notes for the student, displaying the main options list), while the other part includes the educational content, the part that is displayed on the screen and the sequence that the student determines and chooses, meaning that he has complete control over this part in terms of choosing the part to be learned, speed, sequence, and exiting whenever he wants from the electronic program prepared according to multi-stage interconnected media, and this part displays:

**Freestyle swimming:** Freestyle swimming included five axes as follows:

- Horizontal Floating on the stomach.
- Leg strokes.

- Arm movements.
- Breathing.
- Linking and coordination.

**Each part of freestyle swimming was organized into six axes on the educational units as follows:**

- Introduction.
- Method of performance.
- Educational exercises.
- Important notes.
- Movement sequence for performance.
- Test your knowledge (Assessment questions on each part of the skill).

### Main experiment

The practical application of the research variables was used on the study sample throughout the time frame of (5/3/-1/5/2024 AD) after ensuring the safety and validity of all implemented procedures, including scientific transactions for testing the research variables.

### Post-measurements

At precisely ten in the morning on Thursday, February 5, 2024 AD, the researcher took the post-measurements in the Marina Pool and the tests were conducted according to what was conducted in the pre-measurements.

### Statistical methods

After collecting the data and information, the researcher conducted the statistical analyses:

- The mathematical mean.
- Median.
- Variation in standard.
- Pearson's correlation value.
- The law of the t-test for symmetrical and independent samples.

### Results and Discussion

After unloading the data that the researcher had collected, and the data were statistically examined using the proper statistical techniques in order to confirm the validity of the hypothesis and the purpose of the research.

**Presentation and evaluating the outcomes of the skills examined in the two research groups' pre- and post-tests.**

**Presentation and comparing the outcomes of the abilities evaluated between the experimental group's pre- and post-tests**

The statistical characteristics and values (t) between the pre- and post-tests of the skills the experimental group investigated are shown in Table (3)

**Table 3:** Significant differences in pre- and post-test scores for various skills tests

Tests	Pre-test		Post-test		T value calculated	Level Sig	Type Sig
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Learning Motivation	117.87	5,03	153.76	6.892	9.974	0.000	Sig
Floating and Star Position Test	2.707	1.216	5.012	1.054	12.865	0.021	Sig
Flow Test with Leg Movement	62.717	3.598	43.321	7.937	7,895	0.000	Sig
Technical Performance Exam for Swimming Freestyle (15m)	2.443	1.414	5.065	1.998	11.875	0.001	Sig

Table (3) displays the significant statistical differences favoring the post-test are validated by the fact that the value of (sig) was less than (0.05), indicating that the skills tests under consideration show significant differences between the pre- and post-tests.

### Presentation and analysis of the results of the skills studied between the pre- and post-tests of the control group

The statistical features and (t) values comparing the control group's competence pre- and post-test results investigated are shown in Table (4).

**Table 4:** Significant improvements in learning motivation and technical performance: Analysis of pre-test and post-test results

Tests	Pre-test		Post-test		T value calculated	Level Sig	Type Sig
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Motivation for Learning	115.66	5,12	126.983	6.955	6.984	0.012	Sig
Floating and Star Position Test	2.663	0.993	3.832	1.888	8.998	0.000	Sig
Flow Test with Leg Movement	63.652	5.983	59.932	9.043	9.876	0.012	Sig
Technical Performance Test for Freestyle Swimming (15m)	2.531	0.984	3.743	1.094	6.893	0.012	Sig

It is clear from Table 4 that there are significant differences between the pre-test and post-test in the skills tests since the value of (sig) was less than (0.05), which confirms the significant statistical differences in favor of the post-test under consideration.

### Presentation and evaluation of the abilities covered between the research groups' post-tests

The (t) values between the post-test results of the abilities investigated for the control and experimental groups are shown in Table (5).

**Table 5:** Significant differences in skills tests between experimental and control groups

Skills	Experimental group		Control group		T value calculated	Level Sig	Type Sig
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Motivation for Learning	153.77	6.893	126.983	6.955	11.909	0.001	Sig
Floating and Star Position Test	5.012	1.054	3.832	1.888	10.094	0.000	Sig
Flow Test with Leg Movement	43.321	7.937	59.932	9.043	9.874	0.000	Sig
Technical Performance Exam for Swimming Freestyle (15m)	5.065	1.998	3.743	1.094	9.984	0.000	Sig

Table (5) demonstrates that there are significant differences, favoring the post-test, between the pre- and post-tests of the skills tests under investigation. This is because, at a significance level of 0.05 and a degree of freedom of 28, the computed (t) value was more than the tabular value (2.546). All of the (sig) values are less than (0.05), indicating that the differences are statistically significant and favor the experimental group.

### Discussion of the results

The data presented in Tables (3), (4), and (5) indicates a discernible improvement in the skills examined between the experimental and control groups as well as a discernible difference in the post-test results between the two groups, favoring the experimental group.

Using the reference framework, the researcher describes the conclusions he came at based on the research sample data and statistical analyses.

The investigator credits this outcome to the educational program utilizing multi-stage interconnected media, which helps provide the student with a great deal of motivation to learn, which contributed to correcting a large amount of the student's errors, and thus the results of the experimental group's skill performance in free swimming improved well. This is consistent with what was stated by "that "the computer works to provide learners with feedback processes that help improve teaching and learning processes, which leads to optimal performance" (Abdel Hamid Sharaf. 2020) <sup>[1]</sup>. "Explains that the use of multi-stage interconnected media in learning helps the learner to link information elements and gives him greater scope to understand and remember what is included in the information elements (Al-Gharib Zaher Ismail. 2021) <sup>[5]</sup>. quotes David Webbery as

saying that "multimedia computer programs improve the educational process and provide more interactive, coordinated and integrated presentations between its elements of sound, image and animation, which increases the learner's recall of information and brings about development in the learning environment" (Mona Mahmoud Mohamed. 2000) <sup>[6]</sup>. This also agrees with what stated that the functions of human memory related to verbal and logical information can be linked together in the form of a working network, and it can be said that multi-stage interconnected media are a reflection of some functions of human memory, as multi-stage interconnected media are a suitable tool for presenting basic knowledge that enables the learner to build knowledge to make meaningful connections between the ideas that are in his perception, and here the learner can think in a non-linear way and achieve the processes of attention to the composition and integration of information that are not achieved through the traditional methods followed (Muhammad Reda Al-Baghdadi. 2008) <sup>[7]</sup>. This is confirmed indicated, that "multi-stage interconnected media work to attract the attention and arouse the learner's interests and help him acquire experiences and make them lasting, and then his learning goals are achieved (Muhammad Reda Al-Baghdadi. 2008) <sup>[7]</sup>."

The researcher attributes The growth of the test group, which performed better than the group under authority to the educational program designed in accordance with the multi-stage interconnected media increased the student's desire for the learning process because, in addition to the teacher's explanation and clarification, The pupil perceives the finest performance at all times and from all speeds. According to "that using images and graphics for educational purposes save The instructor's time and work in explaining ideas and

information," the combination of the senses of sight and hearing aids the student in remembering the specific information that he previously saw in the skill presentation. (Muhammad Mahmoud Al-Hila. 2000) <sup>[8]</sup>. As "accompanying the movement with some auditory nerve stimuli like cues, applauding, and tapping results in accelerating gaining knowledge, delaying the appearance of exhaustion, eliminating boredom and the potential to concentrate on a specific aspect of the motion," encouraging newcomers and igniting their enthusiasm also played a significant part in the learning procedure and raised the level of rivalry, which led to an increase in The degree and velocity of education. (Hussein, Qasim Hussein and Ahmad, Iftikhar. 2000) <sup>[9]</sup>. "The student at this point must be provided through games and equipment that let him practice large-scale movement, in which he uses all parts of his physique, as the student needs a large, spacious place to practice his motion and activity," is confirmed by the improvement in the educational program that used audio and tactile means. The program's foundation was diversity, excitement, and entertainment, which attracted students to participate and interact with it in a positive way. (Khalil Mikhail Muawad. 2013) <sup>[10]</sup> The method's beneficial effects on education are another reason for this evolution, according to the researcher, as it focused on individual variances in instruction. (Mazen Hamdi, Hossam Muhammad Hamid. 2009) <sup>[11]</sup>, thus the researcher was able to achieve the research hypothesis.

The researcher believes that the reasons for these differences that occurred were due to the educational program's success program using multi-stage interconnected media in developing the motivation to learn and the level of performance among students, as it helps to know the information and deliver it with some excitement and suspense, and the teacher uses it to improve the learning process. The importance of the educational program using multi-stage interconnected media lies in the fact that it plays a major role in stimulating the learner's motivation and moving away from the traditional method that usually generates boredom and unwillingness to perform or learn. As for using the educational program using multi-stage interconnected media, it will create a state of suspense and excitement in the learning process, in addition to developing performance from a technical and planning perspective. The teacher can, through the educational program using multi-stage interconnected media, raise the student's performance level in learning and developing swimming skills and increasing the speed of learning with the possibility of performing more positively, which contributes to showing progress in the level of learning motivation and performing the skill duty represented in performing swimming skills. Feedback also plays a role in increasing the student's drive and encouraging him to execute the task with a desire and enthusiasm, as indicated by (Schmidh Arichord Craig. 2000) <sup>[12]</sup> "Receipts of feedback boost an individual's vitality and drive, improve proper performance and prevent improper performance, and raise the learner's independence in depending on himself to detect and address errors and finally provides the learner with the nature of his errors and suggests corrective methods for that." (Abdul Rahman Al-Aissawi. 2013) <sup>[13]</sup>. Believes that "the stronger the learner's motivation, the stronger the learner's desire for the activity leading to learning will also be." From the above, we can see the efficiency of the instructional scheme that makes use

of multi-stage interconnected media in developing the students' learning motivation and free-swimming performance.

## Conclusions and Recommendations

### Conclusions

1. The conventional approach (Explaining verbally and demonstrating the practical model) contributed positively to learning free swimming for the control group students.
2. The electronic program prepared using multi-stage interconnected media technology helped to take into account the individual differences between students by achieving learning motivation.
3. The electronic program prepared using multi-stage interconnected media technology contributed to saving time and effort for the researcher and its role was positive in correcting errors and guiding and counseling the student during the application of the program.
4. The experimental group did better in the experiment than the control group rates of improvement in learning free swimming.
5. There was a variance and disparity in the students' degree of willingness to learn and their ability to perform free swimming abilities between the two research groups, with the experimental group outperforming the control group. This variance is because of the effectiveness of the educational program using multi-stage interconnected media.
6. The contribution of the educational program using multi-stage interconnected media in developing the learning motivation trait among students.

### Recommendations

1. The necessity of using the educational program using multi-stage interconnected media, as it has an effective effect of acquiring a few fundamental skills of freestyle swimming.
2. Using different types of educational aids to learn the basic skills of freestyle swimming and other types of swimming.
3. Paying attention to preparing and qualifying specialized swimming teachers to teach freestyle swimming.
4. Conducting studies and research for different age groups and other skills in freestyle swimming.
5. Using the educational program using multi-stage interconnected media, as it has an impact on consolidating and fixing information and developing motivation to learn.

### References

1. Zeitoun KA. Educational Technology in the Age of Information and Communications. Cairo: Alam Al-Kutub; c2020.
2. Al-Laylah Al-Ubaidi RA. The effect of an educational field with interactive tools and IRE strategy on learning motivation and performance of passing and scoring skills in indoor soccer for female students. Master's thesis, University of Babylon, College of Physical Education and Sports Sciences; c2021.
3. Mahjoub W, Hussein AB. Scientific Research. Babylon: Higher Education Press; c2002. p. 35.
4. Sharaf AH. Educational Technology in Physical Education. Cairo: Kitab Publishing Center; c2020.

5. Ismail AGZ. Information Technology and Modernization of Education. Cairo: Dar Al-Kitab; c2021.
6. Mohamed MM. The Effectiveness of Multimedia Computer Programs Based on Graphics and Animation in Learning Motor Skills. Unpublished PhD thesis, Faculty of Physical Education, Helwan University; c2000.
7. Al-Baghdadi MR. Education and Learning Technology. Cairo: Dar Al-Fikr Al-Arabi; c2008.
8. Al-Hila MM. Educational Transparency Techniques. 1st ed. Amman: Al-Maysarah Publishing and Distribution House; c2000. p. 29.
9. Hussein Q, Ahmad I. Principles and Foundations of Swimming. 1st ed. Amman: Dar Al-Fikr for Printing, Publishing and Distribution; c2000. p. 131.
10. Muawad KM. Psychology of Growth, Childhood and Adolescence. 2<sup>nd</sup> ed. Cairo: Dar Al-Fikr Al-Arabi; c2013. p. 155.
11. Hamdi M, Hamid H. Teaching and Learning Methods and Technology. Kafr El-Sheikh: Dar Al-Ilm Wal-Iman Publishing and Distribution House; c2009. p. 164.
12. Craig SA. Motor Learning and Performance. 2<sup>nd</sup> ed. Human Kinetics; c2000. p. 282-2.
13. Al-Aissawi AR. Psychology of Learning and Education. Amman: Osama Publishing and Distribution House; c2013. p. 35.

**Appendix (1)**

Shows the learning motivation scale used in the research

No.	Paragraphs	Always	Sometimes	Rarely
1.	I find it difficult to pay attention to the teacher while he is explaining the lesson material			
2.	My cooperation with my colleagues in performing exercises is beneficial to me			
3.	I participate in performing sports activities held by the college			
4.	I prefer to perform skills by myself without help			
5.	I have a desire to inquire about topics related to the lesson			
6.	I prefer to perform exercises within a group of colleagues			
7.	I prefer to pay more attention to my lessons than others			
8.	I prefer not to be assigned any task			
9.	I do everything that the teacher asks of me during the lesson			
10.	I quickly get bored when doing homework with my colleagues at the college			
11.	I enjoy the new ideas that I learn in the lesson			
12.	I face the difficulties and problems that I face while learning the skills			
13.	I feel happy when I discuss with the teacher what I have to do later			
14.	I feel that some of my colleagues are the cause of the problems that occur during the lesson			
15.	I get annoyed by implementing the rules of the lesson in their routine form			
16.	I like easy skills that I am sure I can accomplish			
17.	I attend the lesson because I want to learn new things			
18.	I feel happy when I participate with my colleagues in the exercises			
19.	I prefer Paying attention to lessons at the expense of anything else			
20.	I adhere to the behavior that the teacher wants			
21.	I ask questions during the lesson to ensure that I learn everything new			
22.	I perform exercises and assignments better than my colleagues			
23.	I tend to perform difficult tasks because I find more fun in them			
24.	New assignments are a challenge for me			
25.	I sometimes get bored when I repeat the assignments that I am assigned			
27.	I lose my desire to learn skills when they are repeated in the same way			
28.	I tolerate doing exercises that require a long time to perform			
29.	I prefer the principle of giving rewards to motivate during learning			
30.	Performing skills with colleagues after the lesson enables me to master them			
31.	I prefer participating in performing activities and events organized by the college			
32.	I complete my assigned assignments in the best possible way			
33.	I feel satisfied and psychologically stable when participating in exercises			
34.	My family follows up on the grades that I get in college			
35.	I participate in student competitions organized by the college			
36.	I face the difficult situations that I am exposed to in college			
37.	Following up on the performance of students and the teacher increases the learning process			
38.	I avoid taking the initiative to make quick friends with my colleagues in college			
39.	I tend to ask easy questions that do not require deep thinking			
40.	I avoid difficulties and problems while studying in college			

**Appendix (2)**

Model for the first educational unit (Learning the skill of horizontal Floating on the stomach)

**Day:** Wednesday

**Date:** 6/3/2024

**Number of students:** 15 students

**Lesson time:** 90 minutes

**Suggested educational tools and materials**

- Projector (Data show).
- Computer - advanced electronic program.
- Swimming pool.
- Stopwatch.

**Lesson contents**

- The skill of horizontal Floating on the stomach.
- Introduction.
- Ground warm-up

- Water warm-up.
- Horizontal Floating exercises on the stomach.
- Evaluation.

The student will perform the forward horizontal float skill on the stomach once automatically and correctly.

**General objective of the lesson**

For students to learn the skill of horizontal Floating on the stomach in a correct manner.

**Behavioral objectives of the lesson**

**Cognitive objective**

For the student to learn the skill of horizontal Floating on the stomach in a correct manner.

**Skill objective**

**Emotional objective**

The student will feel happy while performing the forward horizontal float if he attends that session.

**Appendix (2)**

First Educational Unit Model

(Learning the skill of horizontal floating on the stomach)

**Day:** Wednesday

**Date:** 6/3/2024

**Time:** 90 minutes

**Objective:** Students learn the skill of horizontal front floating on the stomach in the correct way.

No.	Unit Components	Time	Performance (Activity)	Formations	Notes
1.	Theoretical section	15	Attracting students' attention and preparing their minds by watching and reading instructions and topics. Watching pictures of exercises for horizontal frontal floating on the abdomen through the Data Show accompanied by sound. -Displaying a live model using multi-stage interconnected media through an advanced electronic program for the basic skill being applied	x x x x x x x x x x x x x •	
2.	Introduction	10	Land warm-up: - Running around the pool. (Standing in front of the wall - putting hands on the wall) Pushing the wall with the arm Standing open - arms to the side - leaning the trunk forward, exchanging rotation of the trunk to the side while touching the combs Water warm-up: - Standing open, washing the face with water. - Jumping up and down in the pool. -Standing in the water, holding the hands together, making a buoyancy circle.	x x x x x x x x x x x x x x x x •	General warm-up during which a general warm-up is given to all parts of the body. During which the focus is on the parts of the body that work in the skill performance of the horizontal floating skill on the abdomen.
3.	Main section	60	The skill of horizontal buoyancy on the abdomen is accomplished through the following pictures and exercises: Showing illustrations of the skills under study. Providing feedback in the form of written text - Performing trunk flexion buoyancy. Horizontal buoyancy on the abdomen with the help of a colleague.	x x x x x x x x • x x x x x x x x x x x x	
4.	Main section		- Floating on the stomach - Standing up from floating on the stomach. These exercises are performed by displaying a colored flex that shows the movement sequence of the floating skill and explains the errors while performing the following exercises and drills: Horizontal floating on the stomach holding the flotation board. - Star floating on the stomach. - Push and slide from the side of the pelvis.	x x x x x x x x • x x x x x x x x x x x x	Students form (3) groups, each group has (5) students.
5.	Final	5	Minutes to relax - Calming exercises - Taking absence - Greetings of departure	x x x x x x x	Students stand in a single, orderly line to finish the lesson.