

THE EFFECT OF A SERIES OF EDUCATIONAL VIDEOS ON THE TECHNICAL PERFORMANCE OF BELLY CRAWL SWIMMING AMONG LEARNERS UNDER 10 YEARS OF AGE

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Abstract

The effect of a series of educational videos on the technical performance of belly-crawl swimming among learners under 10 years of age. The research aimed to design a series of educational videos for learning belly crawl swimming for learners under the age of (10) years, and to identify the effect of a series of videos on learning belly crawl swimming for learners under the age of (10) years. The researcher chose the experimental approach in the style of two equal groups. (Experimental and control), with a pre- and post-test, as the researcher selected learners in the specialized school affiliated with the Central Iraqi Federation for Aquatic Sports with ages under (10) years and randomly from the research community, whose number reached (23) learners, and (3) learners were excluded for the experiment. The number of the sample became (20). After that, the researcher randomly divided the sample into two equal groups, experimental and control, each group consisting of (10) learners. The educational units were prepared for learning belly crawl swimming, and after completing the duration of applying the educational units, the researcher reached several conclusions. These are: The impact of a series of educational videos on the technical performance of belly crawl swimming (for the experimental group), the effect of the curriculum prepared by the coach on the technical performance of belly crawl swimming (for the control group), and the preference of a series of educational videos prepared by the researcher over the curriculum prepared by the coach. In the technical performance of belly crawl swimming.

Keywords: educational videos, belly crawl swimming.

The Introduction

As a result of the great technological development taking place at the present time, the concept of teaching has evolved into being a means of organizing the external conditions that surround the learner in order to change his behavior, which creates an interaction between the learner and the external conditions, and the role of the teacher is to create these conditions so that the learner responds to them and interacts with them, and encourages the learner and enables him to Responding, performing an action, or performing a specific behavior in specific circumstances

and at a specific time to achieve the intended and specific learning goals, as the modern view of teaching methods considers them means of organizing the external field that surrounds the learner in order to activate and change his behavior. (Jamal, A., & Muayed, (2023) Many scholars have agreed that learners do not respond to the education process in one way, as recent research results have shown that the traditional lecture method in which the teacher presents knowledge and information to the learners is the prevailing method, and that this method does not contribute to creating real learning, (Jawad Kadhim, M., & Mousa, 2024) Swimming is one of the sports that has an important position due to the physical, health, psychological and social benefits it gives to its practitioners, in addition to its inclusion in the training curricula in other sports such as (football, basketball, handball, Volleyball, track and field, etc.) (Easa et al., 2022) for the physical, motor, and psychological benefits, in addition to its standing in the field of competition, due to its great effectiveness and the large number of medals allocated to it that exceed the number of medals awarded to any Another sports game (with the exception of athletics), so the interest of researchers and specialists was focused on swimming, through the amount of scientific research that dealt with studying the optimal methods. (Fadel & Kadem, 2021)) (Atef Al-Sayed) indicates that the use of educational methods contributes to It simplifies the learning process and increases the learner's motivation to increase his understanding and insight in addition to enabling him to retain what he has learned for as long as possible (Al-Sayed, 2002). It also helps non-athletic individuals who want to learn a new sport or new activities without a teacher by watching a series of educational videos. It begins by explaining the skill in a gradual manner, from its initial form in parts to the complete form of the movement in a gradual manner. The more these educational videos are sequential and linked and explain the skill in detail, the faster the learning process will be. (Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024), as educational presentations and educational videos play an important role in learning the sport of swimming for clarification and guidance. Educational presentations and educational videos can explain the correct movements of body parts and the connection between these parts in an accurate and clear manner, in addition to written explanations that will provide visual guidance. It is read and read to improve the process of learning freestyle swimming, and it also helps in analyzing performance, as educational presentations and educational videos can provide examples and display them for learners to implement the correct movements. This can inspire beginners and help them make progress and improve their performance. Through educational presentations, beginner swimmers can improve their performance and increase their knowledge. General in the sport of swimming. Hence, the idea of research was manifested in preparing educational units with a series of educational videos that work to explain the movement of the arms, the strikes of the legs, and breathing in a detailed manner, in addition to clarifying the method of performing the exercises for the learners in order to understand the exercises and thus apply them correctly to reach the ideal swimming performance. Crawling on the stomach.

The research aims to

1. Designing a series of educational videos to learn belly crawl swimming for learners under 10 years of age.
2. Identify the effect of a series of educational videos on learning belly crawl swimming for learners under 10 years of age.
3. Identifying the advantage of learning belly crawl swimming between a series of educational videos prepared by the researcher and the educational units prepared by the teacher, the curriculum followed by learners under (10) years old.

The research hypotheses were

1. There are no statistically significant differences between the pre- and post-tests for the experimental and control groups in learning belly crawl swimming.
2. There are no statistically significant differences between the experimental and control groups in the post-tests in learning to swim on the stomach.

Procedures

The researcher chose the experimental method in the style of two equal groups (experimental and control), with a pre- and post-test, as “experimental research is a deliberate and controlled change of the specific conditions of a particular incident and observing the resulting changes in this same incident and interpreting them” (Kandalji, 1993), and it was in the style of the two equal groups, “The two groups are equivalent in all circumstances except the independent variable” (Mahjoub, 1993)

The researcher identified the original community for his research, namely the new learners of belly crawl swimming in the (110) session of the specialized school courses affiliated with the Central Iraqi Aquatics Federation, with ages under (10) years, whose number reached (23) learners, and they fully represent the research community. The researcher selected the learners, and (3) learners were excluded because they did not adhere to the educational units, so that the number of the sample became (20). The researcher resorted to finding homogeneity of the sample by (height, mass, and age). The researcher conducted homogeneity of the research sample to determine whether the research sample was normally distributed using the skewness factor, and according to Table (1)

Table (1) It shows the homogeneity of the research sample in (length and mass)

Torsion coefficient	Mediator	deviation Standard	Arithmetic mean	measruing unit	Measurements	T
0.318	146	7.363	145.3	meter	height	1
0.360	37.5	2.971	38.1	kg	Bloc	2
0.186	9	0.788	9.1	year	the age	3

We notice from Table (1) that the skewness values were limited to (± 3), which indicates homogeneity of the values within the normal curve. After that, the researcher randomly divided the sample into two equal experimental and control groups, each group consisting of (10) learners, for the purpose of ensuring the start By starting the same work between the two groups

and verifying that the results are distributed moderately between the two research groups, the researcher conducted equality in the research variables as shown in Table (2)

Table (2) It shows the equality of the two research groups (experimental and control) in the research variables

Differences	Error level	value(t) Calculated	Control group		Experimental group		the exams	T
			A	s	A	s		
random	0.232	1.236	0.516	1.6	0.567	1.9	Evaluating the technical performance of belly crawl swimming	1

Table (2) above shows that the error level values for the research variables are greater than the significance level (0.05), which indicates that there are no significant differences in the research tests between the experimental and control groups, which indicates the equality of the two research groups, and starting with a single starting line for the two groups. After reviewing a group of scientific sources and references specialized in swimming, and through the researcher's follow-up of the swimming game, and for the purpose of accurately evaluating the motor performance of belly crawl swimming, the technical performance of the members of the research sample was filmed from the top of the pool when they performed full belly crawl swimming, and the videos were shown to five people. Experienced swimming specialists. Thus, each laboratory has five grade values. The final grade value was extracted from adding the five values and dividing it by (5) to represent its arithmetic mean. After the researcher prepared the necessary tools to conduct all the tests, the researcher conducted the pre-test for the research sample, which numbered (20) learners, on Wednesday, 8/9/2023, at exactly (10) am in the closed Al-Shaab Olympic Swimming Pool/Baghdad. It was a series of educational videos that can be shown to learners asynchronously, and learners can watch them everywhere and at any time. It depends on the strength and speed of communication and the extent to which the presentation contains video clips, as this strategy combines theoretical explanation and practical application, both of which work to enhance Understanding and developing experiences among learners, as this strategy was used during the educational units of the sample in the main part of the educational unit, which is divided into the first educational section, educational videos, through the presentation of educational videos, and the second applied section, as the researcher prepared a series of educational videos that were filmed. With professional cameras and an Iraqi model, this series explains the stages of learning belly crawl swimming in detail and each stage separately according to the scientific sequence of learning to swim, in addition to the exercises used in the research. The length of the videos ranged between (5-10) minutes, and was done in Each of the prepared videos included displaying the movement required in the lesson and displaying the exercises, in addition to the video including audio and image in order to be comprehensive, and were uploaded on the Internet on the YouTube program and on a specialized channel for learning

to swim, and these educational videos simulate the Iraqi reality using new tools because Most of the existing videos are difficult to understand and are presented by learners at a high level that is difficult to understand and in the English language. The researcher conducted them in the Iraqi environment, which is consistent with the perceptions of the learners from the research sample. The researcher distributed the link to the learners and their families so that they could enter and watch the videos before the lecture. The researcher uploaded the educational video in parts, that is, the educational video was uploaded before the lecture and questions were asked to the learners so that the researcher ensured that the videos were watched by the learners and displayed during the educational section of the main part. Also, after the explanation, the researcher asked questions to the learners to ensure their attention and understanding of the video. The educational units were prepared according to the strategy of educational presentations with aids for learning belly crawl swimming, and they were applied on Saturday, August 12, 2023, at 10 am on the experimental group, whose time ranged from (50-60) minutes, and which consisted of two sections, the first section. The educational section, whose time ranges between (5-10) minutes, while the applied section, whose time ranges from (50-55) minutes for the experimental group.

The educational units include the following

1. The main experiment began on Saturday, 8/12/2023, and ended on Wednesday, 9/6/2023.
2. The duration of the units is (4) weeks divided into (4) educational units per week, meaning (16) educational units.
3. Days of educational units (Saturday, Sunday, Tuesday, Wednesday)
4. The method using the strategy of electronic educational presentations.
5. The time of the educational units is 10 am according to the time allocated by the Central Iraqi Federation for Swimming and Water Sports.
6. The duration of the educational unit is (50-60) minutes.
7. The main section consists of two sections: the first educational section, which ranges in time between (5-10) minutes, while the applied section, which ranges in time from (50-55) minutes.

The researcher conducted the post-test on Saturday, September 9, 2023, after completing the period for implementing the educational units. The researcher was careful that the conditions in which the post-test would be conducted were similar to the conditions of the pre-test in terms of tools, place, and time for conducting the pre-test and method of implementation. And the sequence of tests, as well as calculating grades, with the help of the same assistant work team in the pre-test. The researcher took care that the sequence of tests was the same as the sequence of tests in the pre-test.

The social statistical package (SPSS) was used to process the results of its research to extract the following laws:

Arithmetic mean, standard deviation, median, skewness coefficient, t-test for symmetrical samples, t-test for asymmetrical samples.

Results

Table (3) It shows the results of the arithmetic means and standard deviations for evaluating the technical performance of belly crawl swimming between the pre- and post-tests of the experimental group.

Posttest		Pre -test		lonliness Measurement	variable
A	s	A	s		
0.483	8.7	0.567	1.9	degree	Evaluating the technical performance of belly crawl swimming

Table (4) It shows the difference of the arithmetic means, its standard deviation, the calculated (t) value, and the significance of the differences to evaluate the technical performance of belly crawl swimming between the pre- and post-tests of the experimental group.

Meaning of differences	Error level	value(t) Calculated	A F	F	measruing unit	variable
moral	0.000	51	0.421	6.8	degree	Evaluating the technical performance of belly crawl swimming

(*)Degree of freedom (10-1=9)

(*)Significant if the error level is smaller than the significance level (0.05)

It is clear from Table (4) that there is a significant difference in favor of the post-tests in evaluating the technical performance of belly crawl swimming. This indicates that the learners have begun to perform belly crawl swimming at a high level. The researcher attributes the reason for this to the effectiveness of the educational videos using the educational presentation strategy, as it is Educational videos are a recent trend and one of the educational means in the field of kinetic learning, which is increasing and spreading, as educational means are “devices, tools and materials used by the teacher to improve the learning and teaching process” (Al-Dulaimi N., 2008). They are the modern trend in kinetic learning. The impact of scientific and technological progress on the educational process, through the development and innovation of many auxiliary methods and devices that helped reduce learning time, so the term educational technology was introduced in the countries of the developed world, and educators in these countries accepted to use it and benefit from it in education and scientific research methods, as well as in planning. And implementing and evaluating educational learning units, to improve the teaching and learning process at various educational levels” (Suleiman, 2003), as it is certain that learning is more effective the more senses used in this process, such as hearing, sight, and touch, and through these senses many aspects of knowledge and skill are acquired (Kazim, M. J., Zughair,

A. L. A. A., & Shihab, 2019), and this is what the researcher took into account during the design of the videos and application of the exercises, as the videos included an audio explanation in addition to detailed pictures and videos of the parts of the movement in addition to an explanation of the exercises, as the educational methods help to “increase the ability The learner is able to observe, contemplate, focus attention, increase the ability to perceive learning topics, bring the reality of movement or skill closer to the learner’s mind, save effort and time spent by the teacher and learner, simplify and clarify ideas and information, which helps the learner to perform the skill as required, and contribute to the acquisition of motor skill quickly. By excluding incorrect movements and supporting the correct ones” (Al-Dulaimi N., 2008), and this is what happened with the experimental group. (Kadhim, M. J., Shihab, G. M., & Zaqair, 2021) Educational methods work to “increase learning in quantity and quality through the feedback that the individual is provided with, help in remembering, reduce forgetfulness, and increase the experience of learners (Al-Zwaid, 1999), in addition to that they” arouse the interest of the learner or player and his eagerness to learn, which increases “Its realism” (Al-Haila, 2001), and Lazam, 2005 confirmed that educational methods “help to communicate information, skill and tactical knowledge and enable players to visualize them, as well as help to expand the range of experiences that the learner goes through and make them more effective” and also work to “create motivations.” It makes the learner feel joy and pleasure, which makes him rush towards the exercise that achieves the thing he wants to achieve” (Allawi, 1998). The Internet is one of the technologies that can be used in public education in general, and it is a huge network of computers linked to each other and spread around the world. This is what the researcher worked on in designing a YouTube channel in which there is a group of videos prepared by him, which ensures that the learner can access and watch these videos at any time to remember the details of the movement or exercises related to free swimming (Majid, S., & Jawad, 2023) (Amin Anwar Al-Khouly and Diao Al-Din Muhammad Al-Azab, 2009) confirmed that “the use of visual educational methods related to the fields of physical education and sports has proven that learners learn more from these means than if they learned through the verbal method, and combining the two methods may enhance the educational situation,” as “ Students tend to think of the film as something fun rather than a means of teaching and guidance. Unfortunately, good educational films in physical education and sports are not usually available, but with the increased interest in educational methods in physical education, this situation may improve in the future with increased interest in scientific research.” (Amin Anwar Al-Khouli and Diao Al-Din Muhammad Al-Azab, 2009), and this is what the researcher took into account in designing a series of educational videos that provide an accurate explanation and presentation of the details of belly crawl swimming, which other videos do not provide, in addition to an explanation of the exercises, what their goals are, and the correct method of performance. (Kzar & Kadhim, 2020)

Table (5) It shows the results of the arithmetic means and standard deviations for evaluating the technical performance of belly crawl swimming between the pre- and post-tests of the control group.

Posttest		Pre -test		lonliness Measurement	variable
A	s	A	s		
0.632	6.2	0.516	1.6	degree	Evaluating the technical performance of belly crawl swimming

Table (6) It shows the difference of the arithmetic means, its standard deviation, the calculated (t) value, and the significance of the differences to evaluate the technical performance of belly crawl swimming between the results of the pre- and post-tests of the control group.

Meaning of differences	Error level	value(t) Calculated	A F	F	measruing unit	variable
moral	0.000	20.804	0.699	4.6	degree	Evaluating the technical performance of belly crawl swimming

(*) Degree of freedom (10-1=9)

(*)Significant if the error level is smaller than the significance level (0.05)

It is clear from Table (6) that there is a significant difference in favor of the post-test in evaluating the technical performance of belly crawl swimming for the control group. The researcher attributes the reason for this to the effectiveness of the exercises prepared by the coach, who has experience in the field of teaching swimming in addition to being a specialist in swimming. His method in teaching swimming was distinguished by giving sequential exercises according to the stages of learning in swimming, in addition to sufficient repetition for the learner and a thorough explanation to the learners of the movements that the learners must perform, and giving feedback to correct their wrong movements, until they learn the movement, and this is what led to learning to swim and we infer from This is through the experts' evaluation of the control group on the technical performance, which indicates learning to swim on the belly. (Mahmood et al., 2023) In addition to the teacher's use of assistive tools to facilitate learning to swim, "there are many tools that the teacher uses in teaching swimming movements, such as buoyancy boards, lifebuoys, and other tools that make the learner more focused in performing the movements, and they also help in overcoming and overcoming the fear factor, as they help To diversify education and increase its excitement, which stimulates the learner's inclinations to improve performance to the best. Auxiliary tools are used as preliminary exercises to facilitate the possibility of learning difficult movements" (Saeed, 2004), and this is what the teacher did to break the barrier of fear among the learners, and to obtain good results in crawl swimming. On the abdomen.(jawad kadhim, M., & Mahmood, 2023) The aquatic environment is a new environment for children, especially when they hear from their social environment cases of

drowning, and they become frightened and terrified when they enter the water with great caution due to social influences. Therefore, the use of assistive tools will increase the learner's confidence in the aquatic environment and make him forget the state of fear, and in this way the learner has overcome Barrier of fear of the new surroundings. (Jawad, M., & Jabbar Shinen, 2016)

Table (7) The arithmetic mean, the standard deviation, the calculated (t) value, the percentage of error, and the significance of the differences show the evaluation of the technical performance of belly crawl swimming between the experimental and control groups in the post-test.

variable	Experimental group		Control group		value(t) Calculate d	Moral	indica tion
	s	A	s	A			
Evaluating the technical performance of belly crawl swimming	8.7	0.483	6.2	0.632	9.933	0.000	moral

(*)Degree of freedom (20-2=18)

(*)Significant if the error level is smaller than the significance level (0.05)

It is clear from Table (7) that there are significant differences between the experimental and control groups in the post-test evaluating the technical performance of belly-crawl swimming in favor of the experimental group. The researcher attributes the reason for this development to the series of educational videos, in addition to the exercises prepared by the researcher, which were organized and sequential according to the educational stage. For free swimming, in addition to the sufficient repetitions that were given to the learners in order to learn the movement and the corrective feedback that was given to the learners in order to evaluate the technical performance, which brought about a change in motor behavior, as (Mahjoub, 2002) emphasized that the learning process is “a group of processes linked to practice and experience.” Which leads to relatively stable changes in precise behavior,” which also means “a steady improvement in performance resulting from training or practice” (Hammad, 1998) This is what the researcher took into account in the educational units by giving sufficient time and sufficient repetitions to teach belly crawl swimming, (Kadhim, 2012) and within the logical sequence of the educational stages, “as specialists recommend the necessity of optimal use of capabilities and devices according to the need of the skill when planning the design of the devices, we must take this into account.” The best use of it and to achieve the optimal goal. Therefore, when learning any activity (motor skill), the learner is required to have an image of the movement that he is using, and sometimes it is necessary to divide the activity when he is unable to perform it correctly once he sees it and recognizes it, and the teacher must strive to help The learner and the formation of the correct and clear idea and perception of the new movement, relying on appropriate educational tools, which we call available means that work to transfer theoretical

information and scientific skills to the learner and clarify them to reach the goal with the least effort and the quickest time” (Al-Samarrai, 1984) and (Jawad Kadhimi, M., & Salman Ahmed, 2016) The researcher used educational videos, which included a display of the movements of body parts through the model, in addition to explaining in detail the movements and exercises that the learner must perform (Mousa, A. M., & Kadhimi, 2023), as many studies and research aimed to determine the effectiveness of using types of There are multiple educational methods for learning motor skills, as the results were exciting and beyond doubt the effectiveness and positivity of this use, as the process of delivering information to the learner (kinesthetic learning) through the teacher or teacher has become completely dependent today on the use of various educational means (audio). – Explanation of movement, visual – Display of movement, Scientific – Movement performance) (Al-Samarrai, 1984), (Moayed, A., Moayed, G., & Jawad, 2019) as the process of delivering information to the learner through the teacher and teacher has become dependent Recently, the use of various educational means instead of the traditional method, which relied primarily on the process of oral explanation and the practical model from the teacher and the teacher, therefore, the importance of using assistive tools must be shown, as (Al-Sheikhly, 2000) and (Ahmed Fadhil Farhan Mohammed Jawad Kadhimi, 2016)

1. It helps raise the skill level and technical performance.
2. It helps the educator to teach the skill in the shortest possible time.
3. An effective and good way of suspense.

Therefore, it has become necessary to use educational means, including educational videos, especially in the field of swimming, because it is one of the activities that is difficult to learn due to the water environment. Its proper use contributes greatly to teaching and developing the learners’ ability to quickly learn and master skills, in addition to helping to shorten the learning time. And make the learning process more effective.

Based on the results achieved by the researcher, he concluded the following:

In light of the results reached by the researcher through presenting, analyzing and discussing the results, the researcher reached several conclusions, which are:

1. A series of videos affected the technical performance of belly crawl swimming (for the experimental group)
2. The educational units prepared by the teacher affected the technical performance of belly crawl swimming (for the control group)
3. The preference of a series of videos prepared by the researcher over the educational units prepared by the teacher in the technical performance of belly crawl swimming.

In light of the conclusions reached by the researcher, the researcher recommends the following:

1. The necessity of using a series of videos to teach belly crawl swimming in schools specialized in teaching swimming.
2. Designing a series of videos teaching other types of swimming (butterfly, backstroke, breaststroke)

3. Conduct similar studies using a series of videos on samples of different ages and in different games.

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