



The effect of an educational curriculum using Snokel swimming for new learners aged (8-10) years

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Abstract

The research aimed to design an educational curriculum using the Snokel device in learning freestyle swimming for learners aged (8-10) years, and to identify the effect of an educational curriculum using the Snokel device in learning freestyle swimming for learners aged (8-10) years. The researcher chose the experimental curriculum in the style of two equal groups (experimental and control), with a pre- and post-test. The researcher selected learners in the specialized school affiliated with the Central Iraqi Aquatics Federation aged (8-10) years. Randomly from the research population, which numbered (23) learners, (3) learners were excluded for the exploratory experiment, so that the sample number became (20). After that, the researcher randomly divided the sample into two equal experimental and control groups, each group consisting of (10) learners. The educational units were prepared using the Snokel device in learning free swimming. After completing the duration of applying the educational units, the researcher reached several conclusions, which are: An educational curriculum using the Snokel device affected the tests for free swimming (for the experimental group), and the effect of the prepared curriculum. by the coach in the freestyle swimming tests (for the control group), and the preference for an educational curriculum using the Snokel device prepared by the researcher over the curriculum prepared by the coach in the freestyle swimming tests.

Keywords: educational presentation strategy, freestyle swimmer.

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introduction:

Free swimming is one of the four types of swimming that scientists and specialists have paid attention to in studying the movements that the swimmer makes in the water, which consists of the movement of two main parts of the body, namely the arms and legs, in different directions, in addition to the position of the body and breathing and how to connect them, which brought the standard numbers to levels close to the miraculous, as free swimming depends on complex details for all parts of the body, from the entry of the arms into the water, the method of pulling, the backward movement of the arm, and the position of the head and body. The movement of the legs and the method of breathing all require a high level of concentration for the learners, so it has become necessary for the teacher to teach all of these movements individually and then link them together, which takes a relatively long period of time.

Technological development has contributed to the innovation of auxiliary devices and tools in teaching swimming, which have become an urgent necessity for the success of the educational process. Therefore, specialists in motor learning have recommended the necessity of using them in the educational unit to achieve the optimal goal. The teacher must explain and clarify to the learners the benefit of the auxiliary devices and tools used and the method of performing using them in order to have an image of the movement he is performing. (Jawad Kadhim, M., & Salman Ahmed, 2016)

Assistive devices and tools are defined as “a group of physical capabilities that take multiple shapes and different sizes and serve varying goals. The percentage of their contribution to teaching motor skills ranges from simple to complex, and they are included in the parts, subtleties, and details of motor skills in form and content” (Al-Sheikhly, 2000). It is also known as “devices, tools, and materials that are used for the purpose of improving the education and training process” (Al-Dulaimi, 2008), and it is also known as “a group It is one of the means and equipment used to facilitate the learning process, as it increases interest and diversity in the educational process (Al-Sakrana, 2011)

Assistive devices and tools are used to achieve specific goals, and for the purpose of developing, developing and teaching basic skills during the educational process, and this is what was confirmed by (Dia Al-Khayyat and Nofal Al-Hayali, 2001) that “the importance and benefit of assistive devices and tools lies in developing and improving the performance of the individual athlete in terms of physical, motor and skill through their use in education to develop sensory abilities and sense of movement, in addition to the thrill that accompanies the learner through performing with a tool in his possession or moving on it in appearance”. His abilities”.

There is a special importance for auxiliary tools in the sport of swimming, as they help in the process of learning to swim, as these tools are used to strengthen and improve swimming techniques and help learners avoid drowning and maintain their stability in the water. One of these tools is the Snorkel tool, as it works to enable the swimmer to focus on basic swimming techniques without the need for frequent breathing. Thanks to this tool, the swimmer can better

focus on the correct performance of free swimming and improve body orientation and movement of body parts, in addition to overtaking Their fear of choking, helping them learn basic movements easily and build confidence in the water.(Jawad, M., & Jabbar Shinen, 2016)

Hence, the idea of research was manifested in preparing educational units using tools to help learners understand the exercises and thus apply them correctly to achieve the ideal freestyle swimming performance, in addition to using the Snokel tool, which facilitates the breathing process and thus helps the learner to focus on the arm movements and leg strikes.

research aims to:

1. Identifying the effect of an educational curriculum using Snokel on learning freestyle swimming for learners aged (8-10) years.
2. Identifying the advantage of learning freestyle swimming between an educational curriculum using Snokel prepared by the researcher and the educational units prepared by the teacher, the curriculum followed by learners aged (8-10) years.

research hypotheses were:

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

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 and interpreting the resulting changes in this same incident ”(Kandalji, 1993), and it was in the style of two equal groups“ ,as the two groups are equivalent in all circumstances except the independent variable (Mahjoub, 199).

The researcher selected the population of origin for his research, namely the new freestyle swimming learners in the (110) course of the specialized school courses affiliated with the Central Iraqi Aquatics Federation, aged (8-10) years, whose number reached (23) learners, and they fully represent the research community. The researcher selected the learners and (3) learners were excluded for not adhering to the educational units, so that the number of the sample became (20). The researcher resorted to finding the homogeneity of the sample by (height, mass, and age). Homogeneity of the research sample to determine whether the research sample is normally distributed using the skewness factor, according to Table .(1)

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

T	Measurements	Unit of measurement	Arithmetic mean	deviation Standard	The mediator	Torsion coefficient
1	height	m	145.3	7.363	146	0.318
2	Cluster	kg	38.1	2.971	37.5	0.360
3	the age	year	9.1	0.788	9	0.186

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 groups, experimental and control, each group consisting of (10) learners. For the purpose of ensuring that the two groups start with the same line of work and to verify that the results are moderately distributed 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

T	Tests	Experimental group		Control group		value (t) Calculated	Error level	Differences
		Q	A	Q	A			
1	10sec apnea test	3.7	1.059	3.4	1.074	0.628	0.537	random
2	Horizontal float test on the abdomen for 10 seconds	2.1	0.737	1.8	0.788	0.878	0.391	random
3	Flow test	3.03	0.703	2.93	0.644	0.331	0.744	random
4	Freestyle swimming test	3.8	0.918	3.7	0.823	0.256	0.800	random

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 following the swimming game, consulting with the supervisors, and conducting personal interviews with experts and swimming specialists, the research variables were presented to the members of the scientific committee, and the most important basic variables in swimming were identified, which are (breathing, buoyancy, flow, and complete free swimming) and they were agreed upon.

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, August 9, 2023, at 10 am in the closed Al-Shaab Olympic Swimming Pool/Baghdad. The educational units were prepared with aids for learning freestyle swimming, and they were applied on Saturday, August 12, 2023, at 10 am. The experimental group, whose time ranged from (50-60) minutes, consisted of two sections: the first was the educational section, which ranged in time from (5-10) minutes, and the applied section, whose time ranged from (50-55) minutes, was assigned to 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. Educational unit days (Saturday, Sunday, Tuesday, Wednesday).
4. The time for the educational units is 10 a.m. according to the time allocated by the Central Iraqi Federation for Swimming and Water Sports.
5. The duration of the educational unit is (50-60) minutes.
6. The main section consists of two parts: 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 of implementing the educational units. The researcher was careful that the conditions under which the post-test would be conducted were similar to the conditions of the pre-test in terms of tools, place and time of conducting the pre-test, method of implementation and sequence of tests, as well as calculating grades and with the help of the same assistant work team in the pre-test. The researcher took care that the sequence of tests be 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 the free-swimming tests between the pre- and post-tests for the experimental group.

variable	lonliness Measurement	Pre-test		Posttest	
		Q	A	Q	A
10sec apnea test	second	3.7	1.059	9.8	0.421
Horizontal float test on the abdomen for 10 seconds	second	2.1	0.737	9.3	0.823
Flow test	m	3.03	0.703	7.3	0.674
Freestyle swimming test	m	3.8	0.918	45.4	5.910

table(4) It shows the difference of the arithmetic means, its standard deviation, and the value of) t Calculated and significant differences for free swimming tests between the pre- and post-tests for the experimental group

variable	Unit of measurement	F	A F	value) t(Calculated	Error level	Meaning of differences
10sec apnea test	second	6.1	1.286	14.991	0.000	spiritual
Horizontal float test on the abdomen for 10 seconds	second	7.2	0.918	24.776	0.000	spiritual
Flow test	m	4.27	1.029	13.117	0.000	spiritual
Freestyle swimming test	m	41.6	5.796	22.694	0.000	spiritual

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

(*)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 the results of the free-swimming tests between the pre-test and the post-test for the experimental group. This indicates that the learners have begun to perform free swimming at a high level, and the researcher attributes the reason for this. The researcher used the auxiliary tools in the educational exercises, namely the Snokel, which is one of the auxiliary tools that facilitates the breathing process and allows the learner to focus on the movements of the arms and the strikes of the legs, as the auxiliary tools work Developing motor paths for the learner's skill performance and improving the individual's athletic performance, as well as adding an element of excitement and suspense and keeping away boredom, (Mondher et al., 2023) and also enhancing the approach to achieving its goals with the least effort and the shortest time. Any type of tool can be used in any game, provided that it suits the age group of the players and their level of performance, and through the optimal use of the tools and employing them in special skill exercises that serve the game or activity that the athlete practices, as it is defined as "a machine or means to be used". To perform a task "(Abbas Ahmed Al-Samarrai and Abdel Karim Mahmoud, 1991), as assistive tools are "a group of physical capabilities that take multiple shapes and different sizes and serve varying goals. The percentage of their contribution to teaching motor skills ranges from simple to complex, and they enter into the parts, subtleties, and details of motor skills in form and content "(Al-Sheikhly, 2000), as they are "used for the purpose of improving the learning process ".(Al-Dulaimi, 2008), and both (Dia Al-Khayyat and Nofal Al-Hayali) emphasized that "the importance and benefit of assistive devices and tools lies in developing and improving the performance of the individual athlete in terms of movement and skill through their use in education to develop sensory abilities and

sense of movement, as well as the thrill that accompanies the learner through performing with a tool in his possession or moving on it, demonstrating his abilities ”(Al-Hayali, 2001). In the process of motor learning, it“ helps save the effort and time expended by the teacher and the learner, contributes to acquiring various skills and movements and consolidating them quickly, contributes to increasing the learner’s ability to learn the skill or movement, and helps to exclude wrong movements and reinforce the correct ones ”(Al-Sakranah, 2011), and this is what happened with the experimental group as it helped speed up learning and increase the learners ’drive to learn swimming in addition to their acquisition of many movements that require more time and effort from the teacher and learners. To acquire it. (Kadhim, 2023)

Using the snorkel helps the learner not think about breathing and helps increase the learner’s focus on the arm movements and leg strikes, which helps in the correct motor performance of freestyle swimming, as the assistive devices“ have great importance in helping the individual perform the movement over a wide range, and their use requires skill) ”Zahran, 1997).

When choosing the Snokel tool, the researcher took into consideration that it should be age-appropriate and have a factor of durability and ease of use, and this is what was emphasized by (Zakia Ibrahim et al., 2001) that the assistive tool“ helps achieve the goal for which it was developed or designed, suitable for age and gender, has a factor of security and safety, low costs, has a factor of economy and quality, has the durability of the material from which it is made, and ease of use is taken into account”.

“Scientific research has proven that most of the time in learning is spent waiting and giving instructions, which reduces practice time. Therefore, using educational methods works to reduce wasted time and increase the time allocated for practice (Al-Karim, 1989).

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

variable	lonliness Measurement	Pre-test		Posttest	
		Q	A	Q	A
10sec apnea test	second	3.4	1.074	8.1	0.737
Horizontal float test on the abdomen for 10 seconds	second	1.8	0.788	6.6	0.516
Flow test	m	2.93	0.644	5.1	0.737
Freestyle swimming test	m	3.7	0.823	25	4.876

Table (6) It shows the difference of the arithmetic means, its standard deviation, and the value of) t The calculated results and the significance of the differences for the free-swimming tests between the results of the pre- and post-tests for the control group

variable	Unit of measurement	F	A F	value) t(Calculated	Error level	Meaning of differences
10sec apnea test	second	4.7	1.059	14.030	0.000	spiritual
Horizontal float test on the abdomen for 10 seconds	second	4.8	1.032	14.696	0.000	spiritual
Flow test	m	2.17	0.924	7.420	0.000	spiritual
Freestyle swimming test	m	21.3	4.473	15.057	0.000	spiritual

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

(*)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 free 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, and whose approach to teaching swimming is 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 of the movements that the learners must perform, and giving feedback to correct incorrect movements. They had, until they learned to move, and this led to learning to swim. We infer this from the experts' evaluation of the control group on the technical performance, which indicates learning to swim freestyle.

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 floatation boards, lifeguards, and other tools that make the learner more focused on performing the movements. They also help in overcoming and overcoming the fear factor, as they help to diversify learning and increase its excitement, which stimulates the learner's inclinations to improve performance to the best. The assistive tools are used as preliminary exercises to facilitate the possibility of learning difficult movements". (Saeed, 2004), and this is what he stated. The teacher uses it to break the barrier of fear among learners and obtain good results in freestyle swimming.

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. Thus, the learner has overcome the barrier of fear of the new environment. (HalalAtiyah et al., 2024)

table (7) It shows the arithmetic mean, the standard deviation, and the value of t The calculated percentage of errors and the significance of the differences in the free-swimming tests between the experimental and control groups in the post-test .

variable	Experimental group		Control group		value) t(Calculated	Moral	Connotation
	Q	A	Q	A			
10sec apnea test	9.8	0.421	8.1	0.737	6.325	0.000	spiritual
Horizontal float test on the abdomen for 10 seconds	9.3	0.823	6.6	0.516	8.785	0.000	spiritual
Flow test	7.3	0.674	5.1	0.737	6.957	0.000	spiritual
Freestyle swimming test	45.4	5.910	25	4.876	8.419	0.000	spiritual

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

(*)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 free swimming in favor of the experimental group. The researcher attributes the reason for this development to the teacher's use of assistive tools to facilitate learning to swim, "as there are many tools that the teacher uses in teaching swimming movements, such as buoyancy boards, floats, 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 Stimulating it, 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). This is what the teacher did to break the fear barrier among the learners and obtain good results in freestyle swimming. (Kadhim & Mousa, 2024)

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. Thus, the learner has overcome the barrier of fear of the new environment. (Salman et al., 2022)

In addition to using the Snokel, which allows the learner to breathe naturally with his head inside the water to focus on the movement of the arms and legs, as the state of fear of not being able to breathe in the water is one of the most difficult things that the teacher faces, as well as the learner while learning to swim, which gave preference to the experimental group in learning free swimming, as assistive tools are one of the means that help in performing multiple duties. A tool is "a machine or means used to perform a task ".(Abbas Ahmed Saleh Al-Samarrai and Abdul Karim Mahmoud, 1991), as "many educational means are used in the field of learning sports movements and skills, some of which use purely educational means aimed at acquiring and learning different skills in sports, and some of which use safety means that help learners perform difficult and dangerous movements "(Khayoun, 1994), and there is a specificity to the skill, which in turn leads to a difference in the type of method used in teaching it. In teaching swimming skills, the teacher uses educational aids and tools that differ from those used in teaching swimming. Teaching other sports skills, such as wrestling, for example, due to the different requirements and conditions for performing each of these two sports. In general, there are foundations for selecting educational methods that the teacher must take into account when choosing them, which are as follows (Al-Moneim, 1999):

1. It must be appropriate for the age and maturity level of the learners and linked to the curriculum.
2. The user must believe in its usefulness.
3. Selecting useful and advantageous ones, and not exaggerating their abundance, should have a clear purpose for using them.

4. Work to involve all learners in its work and use.
5. It must be free of complexity and details in order to fulfill its role, and it must be characterized by accuracy and clarity.
6. It must be derived from the learner's environment and according to his need for it.

This concept is often linked to the available devices, means, and capabilities that serve the performance of motor duties. Therefore, tools and devices are “a group of physical capabilities that take multiple shapes and different sizes and serve varying goals. The percentage of their contribution to teaching motor skills ranges from simple to complex, and they enter into the parts, subtleties, and details of motor skills in form and content” (Al-Sheikhly, 2000), as the goal of using assistive tools is Serving motor skills and learning them better, and there are several points that must be taken into consideration when choosing or preparing the aid that must be taken into account. (Booth, 1993) confirmed that “the use of aids will give the learner excitement and longing and have a motivating and encouraging function”.

(Arnold, 1981) emphasized “,The learner is required to apply various movements or exercises to implement the skill in different situations, and to practice performing the skill in a situation that is similar or close to the situations of the game's movements or activity as much as possible”, and (Zahran, 1997) stated “,The use of small tools used in games is of great importance in helping the individual perform the movement to the widest extent”.

The use of assistive tools will help achieve the learning goal, and Ibrahim (2000) confirmed that there are conditions that must be met by the assistive tools, which are:

- Be appropriate for age and gender.
- It has a safety and security factor.
- Easy maintenance, low costs, and durability.
- Easy to use.

This is what the researcher was keen on in terms of choosing the type of Snokel that is suitable for young people in terms of age, in addition to using the two types that differ according to the level of learning that the learner has reached, as well as choosing the Snokel from an excellent source for the safety of the learners.

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 based on the strategy of educational presentations with auxiliary tools had an impact on the freestyle swimming tests (for the experimental group).
2. A series of videos according to the strategy of educational presentations with assistive tools influenced the technical performance of free swimming (for the experimental group).

3. The educational units prepared by the teacher influenced the freestyle swimming tests (for the control group).
4. The educational units prepared by the teacher affected the technical performance of free swimming (for the control group).
5. The preference for a series of videos according to the strategy of educational presentations with auxiliary tools prepared by the researcher over educational units prepared by the teacher in freestyle swimming tests.
6. The preference for a series of videos according to the strategy of educational presentations with auxiliary tools prepared by the researcher over educational units prepared by the teacher in the technical performance of freestyle swimming.

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

1. The necessity of using a series of videos according to the educational presentation strategy as tools to help teach freestyle swimming in schools specialized in teaching swimming.
2. Designing a series of videos according to the strategy of educational presentations with tools to help teach other types of swimming (butterfly, backstroke, breaststroke).
3. Conduct similar studies using a series of videos according to the educational presentation strategy on samples of different ages and in different games.
4. The possibility of using other teaching strategies to teach swimming to other samples.

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