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The effect of an educational curriculum based on imagination and the strategy of random arousal in teaching the skill of arm movement with breathing in free swimming for young

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Abstract

The purpose of this paper is to prepare an educational curriculum according to the imagination and the strategy of random stimulation, the movement of the arms with breathing in the free swimming for young people, in addition to identifying the effect of the educational curriculum according to the imagination and the strategy of random stimulation in learning the movement of the arms with breathing in the free swimming for young people as well as identifying the preference effect between the educational curriculum according to imagination and the strategy of random arousal and the curriculum prepared by the teachers of the subject in learning the movement of the arms with breathing in the free swimming for young people. The researchers used the experimental approach to solve the research problem. As for the research community and sample, the research community was identified with young people, the first stage of the College of Physical Education and Sports Sciences / University of Sulaimani, whose number is (154) players. The sample was selected by a simple random method (lottery) from the research community with a strength of (16) players, "where it represented (5.19%) of the research community, and they were divided into two groups (control, experimental) equally in the random way. The most important conclusions: The imagination curriculum based on random excitation had a positive effect on learning and developing the free-swimming skill. The most important recommendations: The researchers recommend relying on the use of random stimulation strategy in teaching various swimming skills.

Keywords: educational curriculum, random arousal strategy, teaching the skill of arm movement with breathing, free swimming.

Introduction:

The field of kinesthetic learning witnessed a great development like the rest of the scientific and educational fields, as it kept pace with it, and it is one of the important basic pillars on which the educational process is based in all sports fields, which seeks to develop the young person and the individual with a correct upbringing, and thus he introduced important scientific tools in the learning process, including Imagination, imagination is a process of thinking processes and through it arranges previous experiences to create new perceptions. Imagination is the accompaniment of creativity and its base on which it stands mentions that (Aristotle) “Man does not think except by using imaginary images.” (Al-Zubaidi and Al-Abaiji. 2019).

Imagination depends on remembering previous facts and experiences, whether they were painful or pleasant, and arranging them in a new model. In addition, the sport of swimming is one of the fields practiced by millions of people daily, as it provides pleasure on the one hand, and on the other hand, it requires a relatively large effort compared to the rest of the activities. Every Olympic tournament, world championship, or continental championship, the educational process requires choosing the capabilities, devices, and means that make the technical performance commensurate with the effort made by the swimmer, while maintaining the level of aesthetic performance, and this prompted the specialists to search by following modern educational methods that contain Use a lot of aids and in different stages of learning [10][11].

Studying the capabilities of each learner and what the educational process requires, determining the location of the defect and searching for solutions to it. Thus, the methods began to emerge as an ideal solution to bring about a qualitative leap in the level of the swimmer's performance, so that various strategies, methods and models were developed, especially for each stage of learning [12][13].

Studying the capabilities of each learner and what the educational process requires, determining the location of the defect and searching for solutions to it. Thus, the methods began to emerge as an ideal solution to bring about a qualitative leap in the level of the swimmer's performance, so that various strategies, methods and models were developed, especially for each stage of learning, and this In turn, it led to the elimination of many cases of negativity suffered by swimmers during the various stages of the race, as well as research and development in the level of performance of swimmers by providing greater opportunities for learning through stimulation to generate creative ideas that were not known before in the United States of America that originated and developed in The bosom of the American industry, then it was adapted in the field of education and teaching, and then it was used by several countries, led by (Japan), but unfortunately it is still relatively foreign to our psychological and educational thinking, as it represents a mechanism of creative thinking by finding relationships between concepts that were not originally known between them. Therefore, the presented stimuli were called random stimuli for each stage and for each part of the body according to the requirements required by the technical performance of that stage, which thus leads to a quantum leap in the level of the swimmer's performance and the achievement of the desired goal [14][15].

From here, the importance of the research is evident, preparing an educational curriculum according to imagination and the strategy of random stimulation, which will teach the movement of the arms with breathing, free swimming for young people [16][17].

Research problem:

All researchers are trying in various ways to find solutions to the problems facing sports games and events, including the effectiveness and sport of swimming, and it may be difficult treatments because of the fear barrier, which is water and the difficulty of learning, and although the educational programs for swimmers do not differ much from the surrounding swimmers from Arab countries, the differences In the levels of learning and may be in the educational environment and through the researchers noted the lack of optimal use of educational curricula according to the imagination and the strategy of arousal, which requires aspects of thinking according to the development taking place in the use of these educational means, which are

practiced in countries of the world in the field of age group education, and as a result, it has It negatively affected the performance of swimmers and was an element that led to a decrease in the level of swimmers, and then they moved away from the goals for which these aids were set.

This also led teachers to turn away from using these modern educational methods, so the researchers decided to put these methods within the educational programs for swimmers and apply the aspects of imagination and altruism through them and accurately so that they serve the stages of motor learning and study the effects resulting from the use of these strategies for what What can happen at this stage of development greatly affects the next educational stages [18][19].

Research objective:

- Preparing an educational curriculum according to the imagination and the strategy of random stimulation on the movement of the arms with breathing in the free swimming for young people.
- Identifying the preference and effect between the educational curriculum according to imagination and the strategy of random stimulation and the curriculum prepared by the subject teachers on the movement of the arms with breathing in the free swimming for young people.
- Identifying the preference and effect of the educational curriculum in the pre and post-tests of the control and experimental groups on the movement of the arms with breathing in the free swimming for young people [20].

Research hypotheses:

- There is a positive effect of the educational curriculum prepared by the researchers.
- There is a positive effect of the educational curriculum according to the imagination and the strategy of random stimulation in learning the movement of the arms with breathing in the free swimming for young people [21].

Research fields:

- Human field: Youth College of Physical Education and Sports Sciences, University of Sulaimani for the academic year (2022-2023).
- Time field: (20/9/2022) to (23/5/2023)
- Spatial field: Swimming pool of the College of Physical Education and Sports Sciences / University of Sulaimani

Research methodology and field procedures:

Research Methodology:

The researchers used the experimental approach to solve the research problem.

Community and sample research:

The researchers used the research community to be identified with the youth of the first stage of the College of Physical Education and Sports Sciences / University of Sulaimani, whose number is (154) players, "and the sample was chosen by a simple random method (lottery) from the research community with a strength of (16) players." It represented (5.19%) of the research community, and they were divided into two groups (control and experimental) equally in a random manner

Test used in the research

Arm movement test with breathing:

- Test objective: to measure the distance traveled by the tester when performing the movement of the arms with breathing.
- Testing equipment: swimming pool, deluge board, tape measure.
- Description of the test: The tester stands inside the basin with his back facing the edge of the basin, fixing the float board between the thighs. Upon hearing the start signal, the tester pushes the wall with one of his legs, flows over the surface of the water, and performs the two arms skills with breathing.
- Test recording: The test is recorded by calculating the distance traveled from the edge of the basin until the tester stands on his feet, and the results are posted in the registration form, Appendix (1), as show in the figure (1):

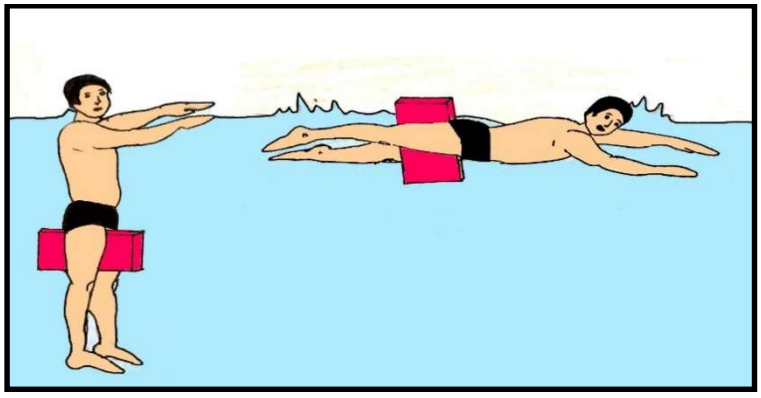

Fig.1 shows the Arm movement test with breathing

Exploratory experience:

The exploratory experiment was conducted on (11/17/2022) and before conducting the tribal tests on a sample of young people in the first stage at the College of Physical Education, University of Sulaimani. The research sample consisted of (8) young people, who were randomly selected in order to obtain the following information and observations:

- The suitability of the swimming pool in the college and the validity of the devices used for field research procedures.
- Organizing the work for the educational unit procedures represented in the timing of the educational unit and its sections.
- Identify the factors and obstacles that may appear when implementing tests and the educational curriculum and work to find solutions to them.
- Knowing the appropriateness of the tests for the research sample individuals.
- Ensure that the place is suitable for carrying out the tests.
- Knowing the time taken to conduct the skill tests in question.
- Note the location of the lighting to ensure that young people see the data show clearly.
- Determine the number and roles of the work team assisting in the implementation of the experiment.

Scientific basis for the tests:

Although the tests that the researchers used to measure the extent of learning in the research were used by other researchers and standardized, the researchers added a performance evaluation test to them and conducted the scientific basis for the tests, which are stability, validity and objectivity.

validity of the test: The valid test is "the one that measures with sufficient accuracy the phenomenon it was designed to measure and does not measure anything in place of it or in addition to it."(Allawi, and Radwan. 1987) to ensure the validity of the test battery, the researchers used the content validity method, as shown in Table 1.

Stability of the test:

It means, “If the test was repeated more than once on the same sample, it gave close results" (Al-Khouli. 1998) In order to find the stability of the test, the researchers used the re-test method. After completing the exploratory experiment, the test was re-tested after four days and on the same sample of eight young people, the researchers used the simple correlation coefficient (Pearson) to see if there was a correlation between the first and second tests, as the results showed a high correlation coefficient

Objectivity of the test:

The objectivity of the test was verified by preparing a special form for the content of the battery and presenting that form to experts and specialists in order to reach their opinions about the possibility of using the tests and the extent of their objectivity to measure the level of learning the free swimming skill, and all the tests got a high percentage, which indicates their objectivity. The tests used are clear and easy to understand by the sample, and they depend on clear units of measurement as well (time/second), (distance/cm) and (degree), which indicates that the test battery used in the research is objective.

Table (1) shows the coefficient of validity, Stability and objectivity of the tests (exploratory experiment)

Test	Measuring unit	Stability coefficient	Objectivity
arm movement skills with breathing	Meter	0‹85	0‹92

Field research procedures:

In order to start preparing the educational program that the researchers will apply by using the computer as an aid in learning the skill of free swimming, the researchers looked at the educational curricula for teaching swimming for the first stage - College of Physical Education - University of Sulaimani and to get acquainted with the skill to be taught and the curriculum used in the college. It was found that the curriculum used to teach swimming is divided into two phases, the first phase in which the initial principles of swimming are taught, and the second phase in which the free-swimming skill is learned, on which the researchers

applied the research method. The researchers prepared a set of pictures and explanatory films to learn the basic freestyle swimming skill. The curriculum was finally inserted into the computer.

The curriculum included learning the free-swimming skill, which is:

- Teaching the movement of the two legs (the carol)
- Teaching the movement of breathing.
- Teaching the movement of the two legs (the carol) and linking it with the breathing movement.
- Teaching the movement of the arms.
- Teaching the movement of the arms and slowing them down with the breathing movement.
- The general compatibility between each of the movements (legs - arms - breathing).

Pre-tests:

After completing the educational stage and the learners reaching the stage of floating, the pre-tests were conducted on Thursday corresponding to (11/12/2022) in the swimming pool of the College of Physical Education and Sports Sciences - University of Sulaimani, under the supervision of the researchers and with the assistance of the assistant work team, and the requirements for each test were provided and confirmation was confirmed. Circumstances related to the tests in terms of time, place, tools used, and the method of implementing the test, and the assisting staff in order to ensure their availability in the post-tests.

Sample Equivalence:

In order to ensure the equivalence of the sample, the researchers used the law (T-test) for asymmetric samples to find out the significant differences between the experimental and control groups in the pre-tests, and it appeared through Table (2) that there were no significant differences between the experimental and control groups in the pre-tests, which indicates their equivalence in Skillful performance.

Table (2) shows the equivalence of the experimental and control groups in the pre-tests

Variable	Measuring unit	Control		Experimental		T value calculated	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Test of arm movement with breathing	Meter	2,33	0,78	1,90	0,94	0,18	0,25	Non sig

At a significance level (0.05) and a degree of freedom (14).

Through Table (2), the calculated t-value for all pre-tests and for the experimental and control groups appeared to be less than the tabular t-value, and this indicates the equivalence of the two groups in skill performance tests.

Course application period:

The application of the educational curriculum for the experimental and control groups continued (9) weeks for each of them, starting from Sunday 12/14/2022 until Thursday 2/13/2023 at the rate of two educational units during the week (the experimental group on Sunday and Thursday), (the group control on Tuesday and Thursday).

Method of preparing and applying the educational curriculum and the mechanism of the random stimulation strategy:

Random stimulation connects two different topics to produce ideas on these topics according to the learner's vision and the limits of his capabilities, as it goes through processes during its implementation mechanism, which is that random stimulation is a strategy for producing new ideas, and therefore we can use it as teachers in various teaching processes such as teaching concepts, values, and trends. Explanation and clarification of ideas, in the process of analysis, synthesis, issuance of judgments, in the process of application, training and evaluation

In preparing the educational curriculum, see Appendix (1), the researchers relied on the basic axes and steps of the educational curriculum used in the College of Physical Education and Sports Sciences, University of Sulaimani, and on the basis of this, the computer was used as an aid in the process of teaching the skill of free swimming.

Table (3) shows the method of preparing and applying the educational curriculum and the mechanism of the random stimulation strategy

No.	units	The number of exercises in each unit	unit time	Time for the educational part	Weeks	Total time for learning units
1	first	4	90minutes	60minutes	First	1,440minutes for all educational units
2	second	4	90minutes	60minutes		
3	Third	4	90minutes	60minutes	Second	
4	fourth	4	90minutes	60minutes		
5	Fifth	4	90minutes	60minutes	Third	
6	sixth	4	90minutes	60minutes		
7	seventh	4	90minutes	60minutes	Fourth	
8	eighth	4	90minutes	60minutes		
9	ninth	4	90minutes	60minutes	Fifth	
10	tenth	4	90minutes	60minutes		

11	eleventh	4	90minutes	60minutes	Sixth	
12	Twelfth	4	90minutes	60minutes		
13	Thirteenth	4	90minutes	60minutes	Seventh	
14	fourteenth	4	90minutes	60minutes		
15	Fifteenth	4	90minutes	60minutes	Eighth	
16	sixteen	4	90minutes	60minutes		
Total	16	64	1440	960 minutes	8 weeks	

The researchers followed the following steps:

- The educational unit begins with (the preparatory section) and in it the emphasis is on the administrative aspects to achieve the system in addition to preparing the youth and the means of assistance, and starting with the general warm-up and then the special warm-up, by giving exercises
- It serves the skill that will be taught in the main section. The same exercises are given in the preparatory section for the two groups (experimental and control).
- After performing the preparatory section, the experimental group goes to the place designated for education inside the swimming pool building. The youth sits in a way that allows them to apply the steps of the strategy of imagination and excitement clearly and listens to the teacher well. The teacher explains and comments during the presentation process. The exercises that will be taught during the educational unit are presented in the sequence is one after the other, slowly at the beginning and stopping at each part of the exercise. The subject teacher explains the exercises presented and repeats them when needed to help the learner build an initial perception of the skill to be learned. The exercises learned on land are repeated in a simplified manner.
- After completing the educational part, the youth go to the swimming pool and go down one after the other into the pool and stand in the place designated for application (the shallow place from the pool and facing), the teacher follows the strategic steps in the education process, asks the youth to carry out the exercises that have been learned on a regular basis And sequentially, the subject teacher gives the appropriate repetitions of the exercise and gives feedback in case it is needed and corrects errors and tries to get rid of them if they exist.
- After completing the main section, the youth go to perform the closing section, which includes giving recreational games that work to return them to their normal position, such as collecting some toys from the bottom of the basin, a game to pass between the legs of colleagues, and others.
- The two groups (experimental and control) were subjected to one teaching period, and the difference between them was how to implement the educational unit for both of them, as the experimental group implemented (16) educational units over a period of (8) weeks, with two educational units during the week, and one unit takes (90) minutes It is implemented on the basis of learning according to the steps of the strategy in skill learning exercises through pictures and explanatory films. The emphasis is on the slow presentation of the skill from several directions and in each of its steps, and its

fragmentation to clarify it in detail, because of its importance in the speed of learning. As for the control group, it also implemented (16) educational units over a period of (8) weeks, with two educational units during the week, and one unit takes (90) minutes to be worked on on the basis of learning according to the method used (presenting the live model).

- The total educational program time was (24) hours, which is equivalent to (1440) minutes. The educational unit was divided into:
- Preparatory Section: Its total time was (5.30) hours, which is equivalent to (320) minutes, at a rate of (20) minutes per educational unit.
- The main section: its total time was (16) hours, which is equivalent to (960) minutes, at a rate of (60) minutes per educational unit.
- The final section: its total time was (2.66) hours, which is equivalent to (160) minutes, at an average of (10) minutes per educational unit.

Table (4) shows the time of the sections of the educational unit

Section of the educational unit		Time per unit	Time through (16)units	Percentage
Preparatory section	General warm-up	5minutes	80minutes	5.55%
	Private warm up	5minutes	80 minutes	5.55%
Main section	Educational part	15 minutes	240 minutes	16.66%
	Applied part	60 minutes	960 minutes	66.67%
Concluding section		5 minutes	80 minutes	5.55%
Total		90minutes	1440minutes	%99.98

Post-tests:

After completing the duration of implementing the educational units for the two groups (experimental and control), post-tests were conducted on Sunday corresponding to (16/2/2023) in the swimming pool of the College of Physical Education, University of Sulaimani, to measure the extent to which young people learned the basic skill under study, and using the same tests that were used in Pre-tests under the same conditions, under the supervision of the researchers and the assistant work team.

Results and discussion:

Presenting and analyzing the results of the pre and post-tests of the control and experimental groups for the variables under study.

Presenting and analyzing the results of the pre and post-tests of the control group for the variables under study.

Table (5) shows the arithmetic means, standard deviations, the value of (t) calculated for correlated samples, the level of test significance, and the significance of the difference for the pre and post-tests of the control group for the variables under study

Variable	Measuring unit	Pre-test		Post-test		T value calculated	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Test of arm movement with breathing	Meter	1,91	0,94	5	1,00	7,88	0,00	Sig

Presenting and analyzing the results of the pre and post-tests of the experimental group for the variables under study.

Table (6) shows the arithmetic means, standard deviations, the value of (t) calculated for correlated samples, the level of test significance, and the significance of the difference for the pre and post-tests of the experimental group for the variables under study

Variable	Measuring unit	Pre-test		Post-test		T value calculated	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Test of arm movement with breathing	Meter	2,33	0،78	3,08	1,24	2,14	0,056	Sig

Presenting and analyzing the results of the post-tests for the control and experimental groups for the variables under study.

Table (7) shows the value of (t) calculated for independent samples, the level of test significance, and the significance of the differences between the results of the posttests for the control and experimental groups for the variables under study

Variable	Measuring unit	Control		Experimental		T value calculated	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Test of arm movement with breathing	Meter	5,000	1,00	3,08	1,24	4,56	0,001	Sig

Discussing the results of pre and post-tests in learning the skill of free swimming

Tables (5-7) indicate that there is a development in the results of the experimental group in the free swimming skill learning test, while there is a noticeable development among the control group members to a lesser extent. The researchers attribute this development to the influence of the vocabulary of the curriculum prepared by the researchers, which was applied to the members of the experimental group This is due to the impact of the program's vocabulary, which had a clear impact on the experimental group's learning of the free swimming skill, which was achieved through a decrease in the level of psychological tension and an increase in the level of self-confidence among young people, as well as the development of the spirit of will and challenge, which led to breaking the barrier of fear and insistence on learning the swimming skill. Free This is consistent with the study of (Arak. 2003) Which appeared through its application of the experimental approach using the steps of the strategy of excitement and imagination, and this is what was applied by the researchers when preparing the exercises for the educational units, which was achieved by reducing the psychological tension of the members of the research sample, which had a direct impact on enhancing confidence and maintaining a kind of calmness and reassurance under pressure Fear of water and entering the swimming pool, and the researchers believe that watching the performance of the movement or skill repeatedly will produce the most accurate vision of the path of the specific movement, because this will stimulate the physical and mental changes that appear through watching and competition that accompany the display of the skill, and therefore when the education includes movements and exercises In which the mental and physical capabilities are avoided and interpreted successfully, this helps to prepare them to be used effectively during the pressure of the learner in the swimming pool. In other words, the implementation of educational units through mental visualization (imagining movement) of the mechanism of movement will increase the learner's ability to reduce psychological tension and thus learn the skill of free swimming.

The existence of a significant difference between the pre and post-tests of the learners of both the experimental and control groups in the results of evaluating the skillful performance of free swimming, which is considered one of the basic swimming learning stage skills, meaning that both groups achieved a development in the swimming basic learning skill tests. The experimental group underwent it to achieve one goal, which is to teach the learners the swimming skill that is included in their curriculum.

The presence of the learners in an educational environment suitable for teaching swimming from the availability of the swimming pool at an appropriate temperature and depth commensurate with the level of the learners and under the supervision of some specialized teachers means the entry of more than one teaching in the swimming lesson, which gives a kind of safety to the learners in applying the new skill and this in itself leads to a development in the level Learning with emphasis that the learners in both groups have passed the stage of learning the basics of swimming.

The researchers see the significant differences between the post-tests free swimming and we find that they are statistically significant differences. The reason for the superiority of the experimental group learners over the control group learners is attributed to the educational units that the researchers reformulated and organized their content using the excitement and imagination strategy had a significant impact on presenting the skill in an organized manner in A visual image more than relying on verbal language, and this is consistent with what said: "The human mind can remember what it sees faster than remembering what it hears" (Hilal . 2007). This means that recalling visual memory is easier for learners than recalling verbal memory, especially when learners are involved in reorganizing the content in the form of excitement and imagination for the learners themselves, which is what the learners did for the experimental group. Learning that takes into account individual differences in a gradual form that evaluates one another and clarifies his point of view, his feeling and his own understanding of the skill, and this exchange of experiences leads the members of the same group to a close level of understanding and performance.

The researchers attribute the reason for these differences in favor of the learners in the experimental group to the fact that the skill is new to learn, and the benefit was from re-teaching, explaining and drawing it in forms, images and fantasies that require organizing ideas and linking them to previous experiences, then discussing them with the learners and viewing them, which provides a lot of information that every learner may find What motivates in part, because this strategy helps the teacher to stimulate the learners' motivation towards learning and raise their level of remembering and concentration by summarizing the content of the learned material, organizing the information, and sequencing it in an easy and concise manner. (Attia. 2007). Excitement and imagination motivates the learner at his different level to focus and memorize to retrieve the information upon request and to provide feedback to the learners and compare it in which the learners perform the learned skill with each other while participating in understanding, dialogue and information related to the learned skill. Effective people develop positive personal and social competencies.

The learner's performance can be improved, and this is an important thing for any skill learned, and this happens by actually repeating the performance process of the skill or skill, and confirming the motor compatibility of the preparatory movements, the flow within the water, and controlling the depth and path of the body (Jaafar. 2002).

And that the commitment of the research sample to the educational units and the implementation of its vocabulary on a regular and continuous basis gave the youth a sufficient amount of repetitions, as "learning the skill is not achieved by the presence of motivation only or by watching a model or by explaining and presenting the skill from the teacher unless learning and training is done on it continuously, so training and practice are necessary For learning, the interaction of the individual with the skill increases, he can control it, and he can

organize and coordinate movements through the process of learning and training, so it is an important and necessary factor for learning by following the correct and simple educational steps (Mahmoud. 2007).

And that one of the main reasons for learning the skill in question is the overlapping of the aspects of imagination and excitement with the visual aspects with the internal perceptions of the learners, which led to adaptation, control and control of performance, which helped to exclude wrong movements and promote successful responses, as "the new skill needs to be presented and then explained with the presentation And clarifying it with pictures and other means, whether audio or visual, or both together, leads to a good perception of it, just as good visualization accompanied by correct renderings leads to better results (Samie. 2015).

In order for the beginning of learning to be sound, the explanation, presentation, and rehearsal should be clarified on the correct performance and focus on it until the performance is consolidated and stable. Providing the learner with pictures and shapes draws the correct fantasies, increases the learner's motivation, and urges him to perform correctly with desire and impulsiveness (Ismail. 2002).

Conclusions and Recommendations:

Conclusions:

- Use of imagination and random effects as an aid in the process of learning the skill of free swimming achieved better results than the method used in the College of Physical Education and Sports Sciences, clearly through the differences between the two groups.
- Giving aspects of imagination and linking it with excitement according to the steps outside and inside the swimming pool after performing the exercises helped to correct the errors in the event that they occurred immediately.
- The strategy, in the light of its steps in learning the movement of the arms with breathing in free swimming, was able to show the skill and its parts in a clear and detailed way inside the water and from all directions better than the live model.
- Presentation and repetition of the skills and the delivery of the educational material in an interesting and simplified way for the learners and the abundance of time and effort during the performance of the educational unit.

Recommendations:

- Start learning freestyle swimming with all three age groups, ranging in age from (6-under 9) years, (9-under 12) years, and (12-under 15) years, provided that the first age stage is the best to start with before arriving to the undergraduate level.
- Giving the learner freedom to choose the type of swimming that he wants to start learning, provided that it is in accordance with the scientific foundations for learning the skill in free swimming.
- Carrying out similar research and studies on other different age stages that the research did not address.
- Carrying out similar research and studies on females and the same selected age groups.

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Appendix (1)
Shows a model of educational units to learn the skill of arm movement

<table>
<tr><td colspan="3">* Teaching unit time: (90) minutes</td><td colspan="2">* Number of young people: (16) students</td></tr>
<tr><td colspan="3">* Educational goals :-</td><td colspan="2">Educational goals:</td></tr>
<tr><td colspan="3">Arm stroke skill.</td><td colspan="2">Developing self-confidence among learners</td></tr>
<tr><td colspan="3">- Standing at the level of the participants and getting used to and trusting the water, warming up outside the water.</td><td colspan="2">Developing a spirit of cooperation among learners</td></tr>
<tr><td colspan="5">*Rest between one exercise and another: one minute</td></tr>
<tr><td colspan="2">Section of the educational unit</td><td>Time</td><td>content of the educational unit</td><td>Notes</td></tr>
<tr><td rowspan="2">Preparatory section (10 minute)</td><td>General warm-up</td><td>5 minutes</td><td>Attendance and greeting lesson, normal walk, and jog with hands moving around the pool</td><td>Emphasis on standing organized and adjusting the distances between young people.</td></tr>
<tr><td>Private warm up</td><td>5 minutes</td><td>A special preparation that serves the main section with giving some exercises that aim to feel the performance in learning the skill of arm strokes</td><td>Emphasis on preparing all the muscle groups that will participate in the work</td></tr>
<tr><td rowspan="3">Main section (75)minutes</td><td>Educational part</td><td>(15) minutes</td><td>The use of a video presentation and images related to the skill of the arm strokes, showing the physical condition of the swimmers during the performance of the arm strokes.</td><td>-1Emphasizing the attention and understanding of students while explaining the skill that the teacher explains and international law.
-2Focusing on the important technical aspects of arm stroke skill</td></tr>
<tr><td rowspan="2">Applied part 60minutes</td><td>first exercise (15) minutes</td><td>- Standing open, leaning the torso forward with the face remaining out of the water, performing arm strokes.</td><td></td></tr>
<tr><td>second exercise (15) minutes</td><td>Horizontal floating on the abdomen, the colleague holding the two legs from the thigh, performing the arms strokes.</td><td></td></tr>
</table>

		Third exercise (15) minutes	Pushing the wall with the two legs to reach the horizontal floating position and sliding forward on the abdomen, performing the arms strokes.	
		Fourth exercise (15) minutes	Putting the raft between the thighs, inclining the torso forward to reach the horizontal floating position, performing the arms strokes.	
Concluding section		(5) minutes	Youth testing to ensure that young people are ready to move. End the lesson with a sports deal.	