



RESEARCH ARTICLE

The Effect of Using Yaker Strategy (CLM) on Some Coordination Abilities and Learning Basic Skills in Freestyle Swimming for Beginners Aged (8-12) Years

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Abstract

The research aimed to identify the effect of the Yaker strategy on some coordination abilities and learning the basic skills of freestyle swimming for beginners. As for the problem of the research, the researcher noticed that there is a weakness in the use of modern strategies in teaching the basic skills of freestyle swimming and a weakness in taking into account scientific, cognitive and technological progress in all games in general. In the field of swimming in particular, the researcher assumed that there were statistically significant differences in the results of the post-tests between the control and experimental groups in the variables under study. The researcher prepared educational units for the Yaker strategy and applied them to members of the experimental group, while members of the control group underwent the educational units prepared by the specialized trainer, and the ready-made statistical package SPSS was used to draw the results, as the results of the research showed an improvement in the group's basic freestyle swimming skills tests. Experimentation and development of combinatorial capabilities. The Yaker strategy (CLM) also affected the experimental group's combinatorial abilities to learn free swimming. Based on what emerged from the research results, the researcher recommended adopting the Yaker strategy in learning the basic skills of free swimming and acquiring the combinatorial abilities of beginners, in addition to the necessity of children learning to swim properly. Academic and interest in cognitive and motor abilities in teaching swimming.

Keywords

Yaker Strategy (CLM), Coordination Abilities, Freestyle Swimming

INTRODUCTION

The scientific, cognitive and educational development taking place in all fields, especially in the educational process in particular, aims to advance it to the furthest limits and fields, moving away from old educational strategies and methods, making the learner a part of the educational process and having a shared role in the educational process (Abbas & Malih, 2021). We notice today that some fields suffer from there is a great stagnation in the use of modern educational strategies and methods that have proven effective in various cognitive, motor and physical fields and fields, and that most teachers and teachers are still

far from keeping pace with the development and progress achieved by educational thought recently. Since learners differ in their abilities and aptitudes, it is clear that some of them learn and respond more quickly, and some may delay or be slow in absorbing them. All of this cannot be achieved in a traditional educational environment, as they cannot be taught in an educational environment without addressing their minds and concepts and renewing and updating the concepts (Hatem & Abdul Hussein, 2024).

Old school, eliminating misconceptions, and establishing correct cognitive structures are a class in which the teacher's goal is to complete the subject to be taught without addressing the

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students' minds. All of this is done through the use of modern strategies and methods that contribute to creating an educational environment that works to immerse the learner in being a part of it. Sport attracts because of the characteristics it carries of practitioners and lovers. It is an outlet for many individuals in general and swimming in particular. It is also considered one of the things that brings learners together the most, and this competition takes place in a sporting manner and within the sporting scope that is framed within the framework of the sporting spirit that refines the soul and elevates the practitioners. To the top level, and one of these sports that attracts the largest portion of learners is swimming. It is a beautiful game with wonderful requirements for a beautiful figure and smooth performance of skills (Ügüten & Ersöz, 2024).

Despite the difficulty of performing it, it is worth the effort and effort, and this game is due to its fast and powerful movement. Educational programs for swimming are an indispensable basis for moving from the education stage to the training stage in swimming and reaching advanced levels. It is also a basis for practicing various areas of swimming (Ackley, 2013). Furthermore, swimming is just one of the many water sports that it is utilized for. The person moves around the aquatic environment using his body, which seems a little odd to him because it's a totally different medium from the one he's used to moving on land. The subject matter he covers in the water is entirely distinct from that on land, and the swimmer's body may experience physiological changes as a result of the water's pressure. Apart from the emotional strain brought on by the unfamiliar surroundings and exposure to a wide spectrum of emotions (Rateb, 1999).

Freestyle swimming is considered one of the easiest types of swimming because learners tend to do it and it is loved by children. Therefore, it must be learned at an early age using the best strategies, methods and educational methods that increase the speed of children's learning and the will to put in more effort towards learning these basic skills of freestyle swimming. The freestyle is (one of the important methods that a beginner must learn and master, as it is the foundation of the four swimmers, and this method is preferred by all swimmers because of the speed and fun (Zaki & Ratib: 1980). Swimming movements of various types are considered among those skills or movements whose

performance requires the acquisition of good coordination ability by the learner or beginner so that he can perform parts or all of the movements of that skill with high coordination, which can be achieved with the help of these various exercises, especially the use of coordination exercises and the development of the learner's ability to perform. More than one movement or skill for different parts of the body at the same time, "Performing any of the four types of swimming skills (freestyle, breaststroke, back, butterfly) requires the learner or beginner to move all of the head, arms, and legs together at the same time and in different directions or movement paths depending on the type of swimming, which requires a good level of motor coordination (nervous). - Muscular) which can be acquired and developed by focusing on the use of general and specific auxiliary exercises as an important part of educational means, which is expressed as "means of direct communication that help learners acquire knowledge, skills, attitudes and methods (Al-Dulaimi, 2008).

Since this age stage is considered one of the most important stages in teaching swimming because it is considered the first nucleus for learners, the psychological factor and fear are at a lower level at these ages than at older ages, as well as to create an educated, athletic generation free of diseases, so attention must be given to this age stage on the academic, sports and health levels.

The researcher discovered that the authorized educational programs fall short of the goals that educators and trainers have set for themselves through his experience and his evaluation of earlier research and studies, due to the difficulty of teaching swimming skills because they are practiced in a water environment that is different from the normal environment like other activities, and the lack of consideration of strategies for modern and appropriate educational methods, and that Some teachers and trainers still rely on the traditional learning method. Which is not compatible with the method of modern education, especially for young age levels, as well as the presence of weakness among some children in motor coordination and in performing harmonic exercises when learning and practicing swimming because of the difficulty they suffer in performing harmonic exercises and linking movements because the sport of swimming requires motor abilities and linking movements, and here lies the problem of the

research. The extent to which the application of strategies, methods and educational methods affects the acquisition of combinatorial abilities for the basic skills of freestyle swimming for beginners. Creating combinatorial workouts to improve beginners' motor skills in free swimming. Putting together instructional materials using Yackir (CLM). Identifying the effect of the Yacker Strategy (CLM) on some coordination abilities and learning the basic skills of freestyle swimming for beginners aged (8-12) years.

There are statistically significant differences in the results of the pre- and post-tests for the control and experimental groups in the variables under study. There are significant differences in the results of the post-tests for the control and experimental groups in the variables under study.

MATERIALS AND METHODS

Research Methodology

In order to accommodate the nature of the problem that needed to be solved, the researcher

employed the experimental technique in the study methods, using two groups: the experimental group and the control group.

The research community and its sample: The research community was identified with a group of beginners whose names were registered in educational swimming courses in the Suli Sport Hubs pool for the year (2024). They numbered (35) beginners, and they were divided into two groups. The experimental group included (12) beginners, and the educational units of the Yaker strategy were applied. On them, and the control group, which includes (12) beginners, the strategy used by the swimming teacher was applied to them, and (5) beginners were chosen as a reconnaissance sample, and (6) learners were excluded due to their lack of commitment to the educational units and their absence for more than three educational units, and the percentage reached The research sample is from the original population (68,571), which is a good proportion of the research sample. The researcher conducted homogeneity coefficients to ensure the homogeneity of the sample, as shown in Table (1).

Table 1. Displays the arithmetic means, standard deviations, and skewness coefficient for the experimental and control groups' anthropometric data

Variables	Measurement Unit	Mean	Std. Deviation	Skew ness
Age	Year	10.566	0.380	0.901
Length	Cm	142.833	4.593	0.808
Weight	Kg	44.083	3.549	0.942

The value of the skewness coefficient is less than (-+1), which indicates the homogeneity of the research sample. In order to achieve the equality of the two groups (experimental and control) in the research variables: coordination abilities and basic skills in free swimming, the researcher conducted skill tests for equality for the two groups: the experimental group and the control group on two

days (Saturday-Sunday) corresponding to 1-2/1/2024, the first day at 10 am, The second day at 4 pm includes:

The first day: coordination tests under discussion (jumping, balance, crawling)

The second day: free swimming skill tests (buoyancy, forward glide, forward glide, regular breathing). As shown in Table (2).

Table 2. Displays the t-test value, standard deviations, and arithmetic means for the fundamentals of freestyle swimming

Variables	Experimental group		Control group		t valuen	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Floats	13.11	0.69	12.67	0.81	1.42	1.02	Sig
Flow	2.41	0.51	2.79	2.58	0.79	1.00	Sig
Regular breathing 10/s	5.33	1.23	5.41	1.24	0.16	0.88	Sig

Table 3. Shows the equivalence tests for the experimental and control groups for combinatorial abilities

Variables	Experimental group		Control group		t valuen	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Balance	8.666	0.887	9.333	0.984	1.742	0.564	Non Sig
Jumping	14.083	2.392	13.583	2.065	0.548	0.589	Non Sig
Crawling	51.916	3.579	48.083	5.884	1.928	0.090	Non Sig

Tests and Measurements Used

The tests and measurements were chosen based on sources and references related to swimming (Alawi & Radwan, 2008; Rateb, 1990) and (Khater & Al-Beik, 1984). These tests were presented to a group of experts and specialists in the field of swimming, and the tests were selected. Which obtained an agreement rate of (75%) or more. Tests were also chosen for combinatorial abilities (Hasanein, 2004) and (Khoshnaw, 2010). These tests were presented to a group of experts and specialists in the field of swimming, tests, measurements and motor learning, which obtained an agreement rate of (75%) and more than the experts and specialists whom the researcher sought. As for the skill tests, the tests that achieved an agreement rate of (75%) or higher were approved based on the opinions of experts and specialists.

Specifications of Freestyle Skill Tests (Rateb, 1998)

Regular breathing test for 10 seconds. Horizontal forward buoyancy test. Flow test (front glide). Freestyle swimming test for a distance of 25 meters. Freestyle technical performance evaluation card: The researcher intended to use a form to evaluate the technical performance of learners prepared by (Yawar, 2016).

The freestyle swimming skills were divided into (body position, leg strikes, arm movements, breathing, and coordination), and grades were given according to the importance and difficulty of each part of the skills, as follows:

- 1- (16) degrees for body position skill.
- 2- (16) marks for the skill of striking the legs.
- 3- (24) degrees for the skill of arm movements.
- 4- (20) marks for breathing skill.
- 5- (24) degrees for the matching skill

Tests for Coordination Abilities

Moving balance test for a distance of (2) meters

- Rope jumping test-2
- Crawling test

The researcher conducted statistical transactions to extract the scientific basis for the tests, as follows:

Validity Tests

The researcher verified this validity when the test items were presented to a group of experts and specialists in the fields of (teaching methods, tests, measurement, and swimming) to confirm the validity of the test items in measuring what they were designed to do and measuring the behavior components that they measure. Their number was (15) specialists, and they unanimously agreed on Their opinions on the validity of all items of the skill tests for free swimming and coordination abilities.

Reliability of Tests

Reliability in its general concept is that the test performed by the researcher gives the same results if the test is repeated on the same group and under the same conditions at a later time. To verify the stability of the test, the researcher used the retest method, where the tests were repeated after (7) days on the same group that was tested, and the reliability coefficient reached (0.84).

Exploratory experience

The exploratory experiment was to be carried out by the researcher in order to test the experimental and control groups on Saturday, June 1, 2021, in the Soli Sport swimming pool on the survey sample, which numbered (5) learners, in order to determine the time period that the tests take in general and to know the ability of the assistant work team. In terms of numbers, the extent of the research sample's response, their interaction with the tests, and the efficiency of the devices and tools used and the imaging of the relevant tests under study.

Yackir Strategy Educational Units

The researcher intended to prepare educational units for the Yaker Strategy (CLM) according to the steps of the strategy by informing the researcher of the sources related to teaching and learning the subject of swimming, as well as his experience in the field of the game, and in

accordance with the requirements and requirements of the educational process. The number of units reached (12) educational units by (3) educational units per week for days (Saturday - Monday - Wednesday) for a period of (4) weeks, with a time of (90) minutes for each educational unit, as the application of the program began on Saturday, corresponding to 8/6/2024, until Wednesday, corresponding to 3/7/2024. The stages of Yaker strategy were applied as mentioned by (Adel & Amer, 2014) in the main section of the lesson in the educational and applied aspects, as follows:

The Invitation Stage

In this stage, the attention of the learners is drawn to the lesson and they are invited through several means, including asking some questions or contradictory events that require thinking about a solution to them. The largest and primary role of the teacher is through inviting them, provoking them, and motivating them in order to identify the problem and find appropriate solutions to it, whenever the problem is. The proposed question has roots in the learners and their responses and interaction with it were quicker by performing the required activities using the means and methods that they deem appropriate for the lesson. However, the role of the student at this stage is almost limited compared to the roles assigned to him in the subsequent stages.

Exploration Stage

In this stage, the learner researches and explores the problem or questions that need to be answered, and he has a fundamental and participating role in building knowledge himself and interacting with the rest of the group to solve the problem and with direct experiences, which are represented by many activities that raise for them questions that are difficult to answer, which makes them in a state of imbalance, this stage is also called the stage of cooperative activities, where the work of the learners begins with the activities and questions posed in the previous stage by working in heterogeneous cooperative groups to conduct experiments or through research and exploration. When each group finishes the work and arrives at appropriate solutions and ideas for the questions or problems, their ideas are compared to each other to be collected. The necessary information and data. The role of the teacher is to be prepared for all the activities and experiments required, encourage the students as they work, guide and assist them in

developing their thinking, and guide the sources of knowledge related to the subject.

The Stage of Proposing Solutions and Explanations (Explanation)

In this stage, suggestions and solutions to the problem or question presented are presented and alternatives to the solutions are presented through the learners going through new experiences. The role of the learners in this stage is to reach the required concepts by interpreting the results and solutions and comparing them through discussion under supervision. The teacher makes adjustments to their concepts and perceptions if they are wrong or need to be modified. The teacher's role is to manage and organize the discussion, help the learners to communicate their ideas and suggestions to the rest of the group members, and participate with the learners in evaluating their proposed ideas and solutions to solve the problem.

The Stage of Taking Action (Application)

In this stage, the learner applies the solutions and experiences he has arrived at to solve new problems or other similar situations and benefit from them in new teaching and learning situations. The role of the teacher is to give the learners sufficient time to apply what they have reached and to help and guide them in applying it. What they have learned on their own in new situations related to the topic. This stage is one of the most important stages of the strategy because at this stage the learners have finished building their knowledge on their own and now have the ability and ability to apply and generalize what they have learned in new situations. The duration of the educational unit was ninety minutes, and the educational units for the two research groups were similar in their preparatory and final sections, and differed only in their main section.

Posttests

The researcher conducted post-tests for the two research groups, the control group and the experimental group, at the same time, conditions and procedures for both groups to ensure that no group was biased. Post-tests were conducted to test the coordination abilities of the control and experimental groups. Then the researcher conducted tests of the basic skills of free swimming. The tests were conducted on Saturday, 6/7/ 2024 at ten in the morning.

Statistical Methods

The researcher used the ready-made statistical package (SPSS) to analyze the data statistically and extract the results. Descriptive statistics of the data obtained from this study were performed using mean and standard deviation for numerical variables and frequency and percentage analysis for categorical variables. Independent Samples t-Test

was used for categorical variables involving two groups. $P < 0.05$ was accepted as the significance level.

RESULTS

Presenting the findings of the pre- and post-tests to evaluate the experimental and control groups' coordination skills.

Table 4. Displays the post-test arithmetic means and standard deviations as well as the computed T-value for the coordination abilities tests for the experimental and control groups

Variables	Experimental group		Control group		t valuen	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Balance	4.456	0.698	7.566	0.957	3.193	0.000	Sig
Jumping	21.133	2.1320	16.583	1.956	7.460	0.000	Sig
Crawling	32.445	5.357	38.000	3.340	5.923	0.000	Sig

Table 5. Displays the computed T-value for the free swimming skill performance as well as the values of the arithmetic means and standard deviations for the post-test.

Variables	Experimental group		Control group		t valuen	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Body position	13.00	0.95	8.66	0.49	13.00	0.00	Sig
Leg strikes	12.41	0.66	8.66	0.49	13.45	0.00	Sig
Arm strikes	17.00	1.12	11.58	0.51	17.31	0.00	Sig
Breathing	14.50	0.90	10.83	0.57	14.31	0.00	Sig
Coordination	19.08	0.99	11.91	0.66	20.80	0.00	Sig

DISCUSSION

It is clear from Table 4 that there are significant differences in the combinatorial abilities, and this is evident through a difference in the arithmetic means and standard deviations of the tests, which indicates the effect of the exercises and units prepared by the researcher in developing the combinatorial abilities and developing (moving balance, harmony, crawling) for the group. experimental research, the researcher attributes this progress to the varying proportions of the educational units used by the teacher and the repetition of exercises that were developed in a precise scientific manner and avoiding randomness, in addition to the use of feedback that he gives to his students while teaching them to perform the skills, and this is what (Abboud, 2013) indicates that diversity in exercise It renews activity and motivation for continuity of performance and avoiding confusion and randomness, giving him a greater opportunity to achieve high results and face

the changing playing situations that occur in competition.

The researcher also believes that the reason for this development is that learners at this stage prefer motor coordination when performing skills, and this is what Abdel Hamid Sharaf confirms: "At this stage, neuromuscular coordination begins to improve, so there is nothing preventing the child from giving the child some difficult movements that require coordination between nerves and muscles." (Sharaf, 2005), the researcher attributes the reason for this development in the experimental group to the educational units prepared by the researcher according to Yaker strategy and the exercises prepared by the researcher. This is what led to the superiority of the experimental group, and the beginners also mastered the skills and skill movements, as (Abbas Ahmed Saleh) stressed that "good curricula for physical education It includes a broad framework that provides almost all learners with the opportunity to learn and participate in various sports, whether individual or selected group sports" (Saleh, 2000).

Table (5) shows us the results of the research that were presented for the post-tests of the experimental and control research groups, as the researcher believes that these skills give confidence to the learner during the process of teaching swimming, remove fear from him, and adapt to the new environment, which is water, as they were well influenced by Sample members, one of the most important exercises that led to the development of the technique is placing the body extended parallel to the surface of the water, with the process of holding and repeating breathing, which leads to the development of the technique (Yauer & Alfarage, 2021).

The researcher attributes that the reason for the development is the experimental group's use of Yaker CLM strategy, which contributes to helping learners acquire proper conversational language through dialogue and discussion between learners and the teacher and reduces wasted effort and difficulties facing the teacher, and this is what it indicates (Ibrahim, 2018). The stages of this strategy make the learners interact with each other on the one hand and with their teacher on the other hand while discussing the steps to detail the skill to be learned, increasing and accumulating their information, and reaching the advancement of the skill aspect. In addition, the nature of mathematical work requires continuous interaction between learners and their cooperation together, and gives clarity about the extent of their awareness and awareness in implementing what is required of them (Zaid & Neamah, 2021)

The researcher also believes that learning how to swim for beginners is a very important matter, and it is necessary to make learning it fun, teach them how to feel comfortable in the water, and improve abilities in general and coordination abilities in particular, that is, the gradual acquisition of motor coordination for free swimming, as the acquisition of motor coordination for free swimming can We attribute it to the similarity between the movements and exercises presented to learners in terms of body parts moving in different directions at the same time (Aziz, 2010).

Salama (2014) points out that the use of educational programs and well-prepared combinatorial exercises contributes positive effects reflected in the improvement and development of skill performance acquisition. The educational units of the Yaker strategy also contributed to improving the movement of the body as a whole in the water

environment, or what is called positive total body coordination, which made a significant contribution to the teaching and development of breathing, leg strikes, and arm strikes. This is especially true because the exercises' unique qualities and diversity give students the chance to express their inclinations and desires while also enjoying the experience of performing the exercises and putting themselves into the game. This was demonstrated through the process of analyzing the results, which resulted in this development in coordination abilities and an improvement in basic skills in freestyle swimming.

Conclusions

The results of the research showed a development in the coordination abilities and basic skills of free swimming for the experimental group. The effectiveness of the exercises prepared by the researcher in improving the coordination abilities and basic free swimming skills of the experimental group. The effectiveness of Yaker educational strategy in improving some coordination abilities and teaching the basic skills of free swimming.

Recommendations

Adopting the Yaker strategy in learning the basic skills of freestyle swimming and improving the harmonic abilities of freestyle swimming for beginners. The necessity of children learning to swim academically and paying attention to the motor abilities of beginners. Conduct studies and research similar to Yaker strategy in other swimming events (breaststroke, backstroke, butterfly).

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Conflict of Interest

There is no personal or financial conflict of interest within the scope of the study.

Ethics Statement

The study was conducted in accordance with the principles of the declaration of helsinki and was found ethically appropriate. approval from the mustansiriyah university social sciences ethics committee

Author Contributions

Conception and design of the study: F.A.Y & A.S.A; Data collection: F.A.Y & A.S.A; Data

analysis and interpretation: F.A.Y & A.S.A; Drafting the article and/or its critical revision: F.A.Y & A.S.A; Final approval of the version to be published: All authors have read and approved the published version of the manuscript.

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