

The Effect Of Kinetic Exercises Using The Analogous Method To Improve The Performance Of The Motor Chain On The Ground Movement Mat For Fifth Grade Students

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Abstract:*The study aimed to prepare kinetic exercises and their effect on improving the performance of the kinematic chain on the mat of ground movements using the method of learning with analogies, as the null hypothesis was developed that there were no statistically significant differences for the research groups, as the researcher used the experimental method for its suitability to solve the research problem and the design of the two equivalent groups with the test was chosen. The pre- and post-test are randomly selected, and the research sample includes the fifth grade pupils, whose number is 40 students, and they were divided into two control and experimental groups, each group (20) students, and the researcher conducted the pre-test and prepared kinetic exercises bearing the characteristic of sequential performance and the rhythm and compatibility close to the performance of the series, within Learning time to perform the series in the weekly plan and for six units, where the exercises were explained and applied in the second five minutes of warm-up and also in the main section at the beginning of learning with teaching the series because its performance is easier than connecting the vocabulary of the series and after acquiring the nature of the coherent performance that achieved the ease of performing the series and the researcher used devices. And with the appropriate tools, the researcher conducted the post test, and the researcher reached the following conclusions: The performance of the kinesthetic exercises achieved the best performance of the kinetic chain by developing the kinetic rhythm in the process of linking the movements that make up the chain and the accuracy of the kinematic transmission and compatibility, and that the use of the sequential kinematic exercises using the learning method with analogies to learn the performance of the chain reduced the learning time and the preference for using these ages from exercises with separate performance.*

1. INTRODUCTION

The researcher concluded

- 1- The nature of the practice of performing exercises in a sequential manner according to the method of learning by analogies to the development of the process of linking the movements that make up the chain through the development of some movement manifestations
- 2- The importance of using motor exercises for this age group, which are derived from the basic movements

3- The effectiveness of using motor exercises with a better sequential performance than using exercises alone in learning movement chains in gymnastics

He recommends

1- The application of performing kinetic exercises sequentially for the elementary stage in the physical education lessons of the first grades

2- Applying kinematic exercises sequentially according to the learning method with similarities in educational lessons for the kinematic chains and avoiding their fragmentation

3- Conducting similar research for both sexes at the primary stage due to its importance for gymnasium sport.

Introduction and importance of research

The form of kinesthetic practice depends mainly on the basic movements and the process of deriving from them differs according to the goal, as the need determines the goal and the type of practice that is always sought to be developed to reach advanced levels, as plans are drawn up for this. Sport is one of the most diverse daily practices in the form of kinetic performance being It contains multiple types of performance form, each type also carries multiple goals.

The preparation of movement programs is important in the form of acquiring and increasing motor experiences, and the school field is one of the fields that provide an opportunity to learn sports skills and develop physical and motor abilities, the motor growth takes a meaningful form through the development of comprehension of the type of activity and how it is performed and developed and because the school field is characterized by comprehensiveness in the initial stages And that is due to the peculiarity of this stage on the motor side, so the focus is on the programs being characterized by the use of exercises of a kinetic nature and that they take care of the age stage because each stage has its own,

The process of diversity and also the comprehensive characteristic of kinetic learning as it is one of the mathematical sciences that are considered as the basis for the level at which the planning and work is to be reached, and here the nature of the steps that achieve the learning process and which must be characterized by accuracy, that is, be according to correct foundations and take care of the conditions that are achieved, especially The practice, which requires physical construction as well as mental maturity, in order to be able to understand the correct picture of the form of performance, the more the nature of educational methods is appropriate for the educational situation, it gives the best results. With the type of exercises used, it gives the best results and achieves the goal of the practice process, "as it helps to change the wrong understanding of the learners because it works to approximate abstract scientific concepts, and provides a visual perception of it through analogy with the real learner's world" Newton, L 2003 p353-375)

The sport of gymnastics is one of the distinctive sports that you need to pay attention to. Therefore, developed nations seek to pay attention to this type of games by taking care of the appropriate ages to start practicing and the most appropriate ages that fit the practice of gymnastics in childhood, kindergarten and primary, and thus appropriate plans are put in place to help in Accurate motor development, as well as the accuracy of the motor construction. Here, the importance of preparing children at early ages, which enables them to acquire motor experiences, on which the motor learning of skills depends.

The use of exercise during the learning process is important and the nature of the method as well. Thus, the form of the exercise and the appropriate educational style must be taken into account as it facilitates learning and also achieves dealing with the time factor as whenever the exercise is close to the form of performance that was planned to learn it, we can take advantage of time and make use of it as much as possible because the learning time is in The annual plans in schools are limited by time, because the curriculum includes more than one

sport, that is, each time period must move to another type of sport, and to achieve the learning process, the smart teacher puts in his considerations the form of exercises, as the importance of research lies in preparing exercises with sequential performance according to the method of teaching similes to teach The performance of the kinetic chain by Balmnastik on the carpet of ground movements.

Research problem

Through the process of teaching pupils to perform the kinematic chain after learning the skills of gymnastics, the researcher found that pupils find it difficult to connect the movements to perform the kinematic chain and that this leads to an increase in learning time and as a result not achieving the educational goal prepared in the lesson plan, which is to perform a kinematic chain in the allotted time. The researcher studies the problem and develops appropriate solutions

research aims

- 1- Preparing sequential movement exercises to learn the motor chain for fifth grade pupils
- 2- Knowing the effect of exercises using the method of teaching similes in learning and improving the performance of the motor chain for fifth elementary students

Research hypotheses

- 1- There is a significant difference between the pre and post tests of the control and experimental groups in the performance of the kinetic chain.
- 2- There are significant differences between the post tests of the experimental and control groups in the performance of the kinetic chain

Research areas

The human domain

Fifth grade students of Al Tajdid Primary School for Boys

Temporal domain

From 1/10/2018 to 11/15/2018

Spatial domain

Al-Tajdid Primary School for Boys Square

Define terminology

Learning style with similarities: - He knows it (Thouqan Obaidat, Suhaila Abu Al-Samid Al-Fikr, 2007, p. 151) a method used to link between students' previous similar experiences and new experiences. Students have experiences on many topics, and we should use them to introduce them to new topics

Research methodology and field procedures

Research Methodology

The researcher used the experimental method for its relevance to the nature of the study, since "the only method that shows the true test of the hypotheses of relationships related to cause-effect" (Muhammad Sobhi Hassanein, Osama Kamel Ratib, 1999, p. 110)

The research sample

The sample is known (Muhammad Azhar Saeed Al-Sammak and others 1986 p.64) "That part of the community that is chosen according to scientific rules and principles so that the community is properly represented." The pure sample was chosen from the fifth grade students of the elementary school of Al-Tajdid school, which is one of the Baquba Center schools. The sample number reached 40 Students were divided into two control and experimental groups, each group of 20 students, and the experimental group was chosen by lot

Tools and devices used in the research

- The devices

Camera type (sony)

Computer

- Tools

Carpet floor movements

Whistle

Pens and various paper

Pinch sir

- means

Arab and foreign sources

Test and measurement

Statistical means

Registration Form

Determine research skills

The skills that make up the series were selected from the primary school curriculum (Abd al-Razzaq Kazim and others, 2011, pp. 64-65). The series was formed.

The tests

The researcher used the skill performance evaluation of the two groups by evaluating the performance of 10 degrees by 4 referees, where the researcher, by photographing the performance and presenting it to four arbitrators according to the deductions specified in the international law of performance, as the two extreme degrees are removed, the remaining two degrees are combined and the arithmetic mean is extracted to obtain the final score

Exploratory experience

The researcher conducted the pilot experiment on Sunday, 10/9/2018, on three students who were excluded from the main experiment

The main experience

Pre-tests

The researcher conducted the pre-tests on Thursday 11/10/2018, which consisted of evaluating the performance of the skill in question from ten degrees by four referees, by photographing the performance on a master's disk and sending it to the referees in the presence of the assistant working group.

Applications in the field

The researcher applied the exercises prepared on Sunday 10/14/2018, where he used the first (20 d) of the time of the main section in which he clarifies the topic of the lesson prepared in the lesson plan and for six educational units for a period of three weeks every Sunday and Wednesday of the week as the method of similarities is adopted through six steps

1- The teacher gives a simple presentation in which the exercises explain the lesson and the main idea in it

2- The teacher demonstrates the similarities in the nature of performance between the new and the old material

3- Students are asked to explain the similarities and differences

4- Asking students to form new relationships

5- Students apply the exercises during the units

6- Performing the chain after mastering the exercises

And ended on Wednesday, 11/11/2018

Post- tests The researcher conducted the post tests on Thursday, November 22, 2018, by conducting skill performance tests, photographing the performance, and sending it to the referees in order to evaluate the performance.

The statistical means used in the research

The researcher used the statistical bag

Chapter Four Presentation, Analysis and Discussion of Results

Presentation and analysis of results and their analysis

2. VIEW AND ANALYZE RESULTS

The researcher has reached the following results using the appropriate statistical methods and laws to process the data, as he sees (Saleh Hamad Al-Assaf 1995, p. 11): “Analyzing the information means extracting evidence and quantitative and qualitative scientific indicators that prove the answer to the questions and confirm that his hypotheses are accepted or not accepted” and in light of the references. The scientific method that enables the researcher to achieve his research hypotheses and goals according to the applied procedures he has done in the field of work through which he reached these results, and the researcher discussed them in light of these references.

Table (1) shows the value of the arithmetic mean and standard deviations for the pre and post tests of the experimental group

NUM	Skills	Unit Measurement	PRE-TEST		POST-TEST		Calculated value (t)	(T) tabular value	Significant differences
			A	STD	A	STD			
1	The chain is on the carpet of the floor movements	Degree	2,5	0,6	7,2	1,005	17,2	1,73	Sign

Table (2) shows the value of the arithmetic mean and the standard deviations for the pre and post tests of the control group

NUM	Skills	Unit Measurement	Experimental		CONTROL		Calculated value (t)	(T) tabular value	Significant
			A	STD	A	STD			
1	The chain is on the carpet of the floor movements	Degree	2,5	0,6	7,2	1,005	17,2	1,73	Sign

Table (3) shows the value of the arithmetic means, the standard deviations, and (T) the calculated and tabular, and the statistical significance of the post-test for the two groups.

NUM	Skills	Unit Measurement	Experimental		CONTROL		Calculated value (t)	(T) tabular value	Significant
			A	STD	A	STD			
1	The chain	Degree	7.2	1.005	5.9	0.7	4.5	1.96	Sign

	is on the carpet of the floor movements								
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3. DISCUSS THE RESULTS

Through the above results in Table (1) it is evident that there is a development in the control group according to the curriculum prepared by the teacher. It is natural that he obtained the specificity of this age stage through the prepared curricula and the time allocated for their application, and Table No. (2) also shows the development of the members of the experimental group according to the curriculum prepared using the exercises prepared by the researcher, and Table No. (3) shows the dimensional tests for the control and experimental groups, as The calculated value of (T) reached (4.5), which is greater than the tabular value of (T) of (1.96) at the degree of freedom (38) and the level of significance (0.05), which indicates the existence of significant differences between the control and experimental groups and in favor of the group. Experimental as this development is attributed to the nature of the exercises prepared using the method of learning with similarities, as the nature of the sequential performance of these exercises, which bears an analogy between them and the performance of the series on the carpet of ground movements, as well as several characteristics of them are closer to play and in them a kind of competition with their focus on the kinetic side and the sequential transition of Movement to another that distinguishes it with agility, growth of movement capabilities and development of compatibility, its practice achieves accuracy in learning the performance of the chain, since its structure and construction carries the nature of sequential performance and the process of linking the skills that make up the chain. Each of (Schmidt a.richard and crainga.wriberg.2000.p.232) "The amount of time that the learner adds in his exercise of the exercises is not the only influential in the development of learning, but also the quality of the exercise during the specified period, as we find that the learners sometimes They spend a lot of effort and for several hours in an ineffective exercise that causes them failure or frustration, or that the type of skill and its classification does not suit the environment in which it is performed. Therefore, the teacher or trainer must put in his mind to be proficient, persistent and organized to build the structure of the exercise in an effective manner. The development of sequential performance in the practice of exercises, which is similar to the nature of performance, is closer in nature to the performance of the kinetic chain, which achieves the goal of movement in a way that invests the learning process, especially since the physical education lessons are weekly classes and a specific time, the nature of the exercise is a basic factor in the occurrence of the goal and the educational unlike the exercises that Performed alone and with specific repetitions, its performance and practice differs from the motor chain and the process of linking the movements that make up it. The performance of the motor chain includes different situations, meaning that the process of learning the skills is complete and it took enough time for that. The change in educational attitudes takes a second form, the player performs the same skills, but makes them complex in the form of sequential performance and thus new responses to new situations to modify the behavior of any new learning and another form and new experiences as he sees (Wagih Mahjoub, 1989, p. 12) Pan. The concept of learning, "a series of changes that occur during a specific experience to modify human behavior, the process of adapting responses to suit different situations that express his experiences and suit him with the environment." The performance characteristic of the chain, but it is easier than the process of linking skills, that is, it focuses on the sequential

performance and linking of the player for its ease of reversing the skills in which the player takes into account the technique of skills in addition to the connection and the method of sequential performance.

(Schmidt, A. Richard: 1991 P 206) "that ... the sequential exercise is more effective in the early training stage, and the learner is useful in using this method in the first iterations of learning a skill in order to create the building blocks for the skill to be implemented until the development of the movement program that attempts The learner can successfully implement it even once, and this is why this method is the most effective in the early learning stage to learn a skill by the novice learner because it facilitates the performance process.

4. CONCLUSIONS

1- The nature of the practice of performing exercises in a sequential manner according to the method of learning by analogies to the development of the process of linking the movements that make up the chain through the development of some movement aspects

2- The importance of using motor exercises for this age group, which are derived from the basic movements

3- The effectiveness of using motor exercises with a better sequential performance than using exercises alone in learning the motor chains in gymnastics

Recommendations

1- The application of performing the kinetic exercises sequentially for the elementary stage in the physical education lessons of the first grades

2- The application of kinetic exercises sequentially according to the learning method with similarities in the educational lessons of the motor chains and avoiding their fragmentation

3- Conducting similar research for both sexes at the primary stage, due to its importance for gymnastics

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