

The Effect of PDEODE Strategy On learning Some Of The Gymnastic Skills For Men

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Abstract

The aim of the research is to identify the effect of an educational approach to the PDEODE strategy and the traditional method in learning some of the skills of artistic gymnastics for men and to identify the differences between the members of the experimental group that used an educational approach to the strategy of PDEODE and the members of the control group that used the traditional method in the post-test in learning some of the technical gymnastic skills for men. The research community was represented by the second stage students in the College of Physical Education and Sports Sciences - Basra University for the academic for the academic year 2016-2017, they are (100) students distributed among (6) branches. A sample of 36 students was selected in a simple random manner, divided into two experimental and controlled groups for each group (18) students. The Implementation of the PDEODE Strategy Curriculum was introduced in 24/2/2019 With an average of two educational units per week, I have finished applying the educational curriculum in 13 / 4 / 2019, after processing the results of pre and post tests using appropriate statistical methods and researcher concluded follows:

- 1- The use of both a strategic of PDEODE traditional method has shown a positive impact in learning the technical skills of gymnastics under study.*
- 2- The PDEODE strategy is better than the traditional method of learning the skills of the technical gymnastics under study.*

PDEODE's strategy influenced the level of creative thinking of students who outperformed the control group students who studied in the usual way.

The most important recommendations:

- 1- The introduction of teaching staff from male and female teachers training courses for the purpose of training them and informing them of how to use modern teaching strategies and methods, including the PDEODE strategy.*
- 2- Including curriculum taught in colleges of education with modern teaching strategies, including the PDEODE strategy.*
- 3- Conducting research on impact Teaching of (PDEODE) strategy to learn other skills in gymnastics.*

Keyword: Pdeode strategy ; Gymnastic skills.

Introduction& The importance of research:-

One of strategies that lead to effective teaching (**strategy PDEODE**) as proposed PDEODE this strategy and presented by (Claire and Sunvader 2003) was used for the first time by (Kolora 2005), quoting Yusuf Quttami (2013) "It is an important education strategy as it provides an atmosphere supported by competition and diverse perspectives and a way to help students understand everyday events." (Youssef Quttami, 2013) this strategy is based on structural theory because it helps students to cope with real situations or problems trying to solve them through the discussion , observation, interpretation and research, The role of the learner in this model is discovered and seeking knowledge and responsible for learning it.. The importance of this research comes from the use of PDEODE strategy that belongs to the structural theory through which the learner's thinking is built before performance as the learner forms his cognitive environment depending On his previous acquaintances Because of the importance of

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this and the fact that the educational curricula used in teaching gymnastic matter do not carry those important strategies, which made the researcher resort to better educational alternatives through appropriate educational curricula in order to raise the level of basic skills of the gymnastic game and give a clear picture of the effectiveness of the constructive strategy (PDEODE) in thinking and good understanding and the role of the teacher in it is directed and organized for the learning process, and that The importance of this strategy is very important, which allows learners to have an educational atmosphere that encourages competition and multiple views and tends to help them to understand all learning situations and also for the use of visual stimuli that help clarify ideas and explain learning situations and this is a way to help learners in understanding these attitudes to be learned in the learning units It also creates an opportunity for learners to discover new knowledge in order to generate their own ideas by linking previous knowledge with current knowledge. It also creates new ideas and increases the learner's ability to think creatively

research problem

We have noticed a fluctuation among students in the performance of basic skills and this may be due to poor information use because the game of gymnastic needs to develop scientific thinking and mental abilities, which are based on the ingredients for the success of the educational process (teacher and student). Therefore, the researcher sought to engage in the study of this problem and adopt a strategy of PDEODE, which may have a positive impact in learning some skills through the development of thinking and providing opportunities for interaction and participation are working in contrast to these teaching methods and newly implemented in 2005 in educational materials to match and twin them to sport as it is suitable for the development of skills through the development of the mental thinking of the learner.

Research Objectives

- 1- Preparing an educational curriculum according to PDEODE's strategy in teaching some basic gymnastic skills for students.
- 2- Knowing the effect of the educational curriculum prepared according to PDEODE's strategy in teaching some basic gymnastic skills.
- 3- Identify the statistical differences between the pre and post tests for the control and experimental groups.
- 4- Identify the statistical differences between the post tests for the two experimental and control groups.

Research assignments:

- 1- There are statistically significant differences between the pre and post-tests of the two control and experimental groups and in favor of the post test.
- 2- There are statistically significant differences between the post-tests for the control and experimental groups and in favor of the experimental group.

Research fields:

1-5-1 The human field: Second-level students at the college of Physical Education and Sports Sciences - Basra University.

1-5-2 Spatial field: gymnastic Indoor Hall at the college of Physical Education and Sports Sciences / Basra University

1-5-3 Time field: for the duration of the period from 10/12/2018 to 24/4/2019.

- Research methodology and field procedures

Research Methodology

The nature of the problem to be studied in each subject define research methodology, and so, the researcher adopted the One experimental approach using the two equal groups.

the research sample and society

The research community is determined by the students of the second stage in the college of Physical Education and Sports Sciences / Basra University for the academic year 2018-2019 and they are (100) students (because that the course of the gymnastic is a methodological material planned for this stage, A sample of that community was selected 36 students in a simple random way, with a percentage of which (10.66) divided the sample into two experimental and control groups for each group (18) students, where the experimental group studies in PDEODE's strategy, while the control group used the traditional method and did not conduct homogenization of the research sample members in terms of (length, weight, age, because they're from the same stage.

sample homogeneity and equivalence

The researchers did not need to perform the homogenization process as the research sample was not from the players of the game (raw sample) after the players were excluded from the sample and because they are from one stage of study and of the same sex so the conditions of homogeneity were met, as the researcher conducted the process of parity between the two groups (control and experimental) in Basic skills researched (shoulder stand, Arab jump, small rear circle).

Table (1) Shows The equivalence of the experimental and control groups in the research variables

Seq	Variables	measuring unit	Experimental group		Control group		Calculated value of t	level Significant
			Arithmetic mean	standard deviation	Arithmetic mean	standard deviation		
1	Stand on the shoulders	Degree	2.222	0.732	1.888	0.631	1.463	0.153
2	Small rear circuit	Degree	2,500	0.597	2.812	0.593	1.049	0.2 31
3	Diving	Degree	2,000	0.480	2.111	0.676	0.566	0.575

Table (2) that the statistical significance is greater than the significance level (0.05), which indicates that the differences are not significant and this indicates the equivalence of the experimental and control groups.

the means collecting data: -

- ❖ Survey and Registration For
- ❖ Tests and measurements
- ❖ Statistical means
- ❖ Arab and foreign sources
- ❖ scientific observation

Each skill has been evaluated from (10) degrees by visualization and stored on disk (CD) By the evaluators, the researcher used five arbitrators accredited to the Iraqi Federation of Gymnastics, as the evaluation process is carried out by writing off the highest and lowest degrees, the three points are summated and divided by (3) to extract the final degree for each student.

devices and tools used:

- Rugs of variety in thickness and size.
- A video camera with its accessories Sony
- Laptop type HP
- Parallel bar
- High bar

tests used in the research:

The researcher conducted skill tests for the members of the research sample, as it included tests on the performance of the members of the research sample:

- Stand on shoulders .
- The small posterior circle on the high bar
- diving

Pre-test

After the researchers completed necessary procedures for the application of the main experiment of the two research groups and confirmed that the sample is going according to a single start line began to apply pre-tests for the two groups where the two groups were preceded by warm-up and giving observations and instructions by the teacher of the subject and the assistant team, on 12/12/2018 at 10:00 a.m., this test was for the experimental group and on the second day on 13/12/2018 at the same time, the skill tests for the control group were conducted.

formulation and implementation of the curriculum according to the strategy PDEODE

After completing all the practical and technical procedures for applying the main experiment, the work of the two groups was determined. The teacher's curriculum for the central vocabulary of the control group was applied and the same approach was

applied to the experimental group, but according to the strategic stages of PDEODE Appendix (1) Which represents the educational units according to the strategic stages of PDEODE, where the curriculum has been applied for a period of (6 weeks) and by two educational units for each group and at the time of the educational unit (90 minutes) distributed according to the work of each group, the opinions of experts and specialists in the division of the educational unit of the strategy according to its stages were taken. And after interviewing the specialist in teaching methods and gymnastics, it was agreed that the educational unit should be in the following manner, especially with regard to the main experience in the main section of the educational unit, where the six stages were divided as follows: The educational part contained (prediction, discussion, interpretation) stages, but in the applied part it contained (observation, application, discussion, and interpretation) stages at a rate of ten minutes for each stage of the strategy, while the final part contained a comparison of the results reached Students through the implementation of the vocabulary of the educational unit with the first answers that were answered during the prediction stage. Where the vocabulary of the curriculum was applied on Wednesday 14/12/2018.

Post-test:

The researchers conducted a post-test to sample individuals on 14/4/2019 as the researcher provided similar conditions and

Variables	measuring unit	Pre-test		Post-test		Standard error	Values (t)	Significance level
		Mean	Std. Deviation	Mean	Std. Deviation			
Stand on the shoulders	Degree	2.222	0.732	8.416	0.658	0.230	26.823	0.000
Small back circle	Degree	2,500	0.597	6.875	0.790	0.245	17.821	0.000
Diving	Degree	2,000	0.485	8.180	0.628	0.211	29.823	0.000

requirements that have been in the pre-tests.

Table (2)

The mean, standard deviation, standard error and (t) Calculated for the results of the pre and post technical skills (under study) of the experimental group

statistical methods:

The researchers used statistic bag Spss Version 16 in data processing

Presenting, analyzing and discussing the results:

display the results of gymnastics technical skills (under study) pre & post experimental group and analysis:

It appears from the results presented in Table (3) that the values of (t) Paired Samples Test In (standing on the shoulders, small back circle, diving), respectively (29.823, 17.821, 26.823) also appeared, the attached statistical indication is smaller than (0.05), which indicates that there are significant differences between the results of these pre and post tests for the benefit of the post tests.

display the results of the technical skills of gymnastics (under study) pre and post control group and analysis:

Table (3)

the mean, standard deviation, standard error, and Calculated value of (t) the results of the artistic gymnastics skills (under study) a pre and post- tests of the control group

Variables	measuring unit	Pre-test		Post-test		Std. Error Mean	(t)Values	Significance level
		Mean	Std. Deviation	Mean	Std. Deviation			
Stand on the shoulders	Degree	1.888	0.631	6.569	0.736	0.158	29.457	0.000
Small back circle	Degree	2.812	0.593	5.437	0.417	0.323	8.104	0.000
Diving	Degree	2.111	0.676	6.861	0.550	0.192	24.636	0.000

From the results presented in Table (4), it appears that the values of (t) Paired Samples Test In (Standing on the shoulders, small back circle, diving) respectively (24.636 , 8.104 , 29.457) also appeared, the accompanying statistical indication is smaller than (0.05), which indicates that there are significant differences between the results of these pre and post tests and in favor of the post-tests.

display the results of tests of research variables and the level of technical performance posteriori experimental and control groups

Table (4)

shows the mean, standard deviation and Calculated value of (t) for the results of the post –test to the technical gymnastic skills (under study) for experimental and control groups

Variables	measuring unit	Experimental		Control		(t)Values	Significance level
		Mean	Std. Deviation	Mean	Std. Deviation		
Stand on the shoulders	Degree	8.416	0.658	6.569	0.736	7.931	0.000
Small back circle	Degree	6.875	0.790	5.437	0.417	4.548	0.000
Diving	Degree	8.180	0.628	6.861	0.550	6.697	0.000

It appears from the results presented in Table (5) that the values of (t) independent Samples Test In (Standing on the shoulders, small back circle, diving) respectively (7.931 , 4.548 , 6.697) it was also shown that the value of the attached statistical significance is smaller than the significance level (0.05), which indicates the presence of significant differences between the two groups (experimental and control) and in favor of the Experimental group.

Discussing the results of pre and post tests for the control and experimental groups:

This positive superiority was explained to the positive impact played by the Strategy of PDEODE according to its stages, which was implemented with high accuracy by the teacher of the subject, as it is characterized by several privileges, as this hexagonal strategy is based on the structural theory of education., and contributes to facilitating and simplifying the education and awareness of learners of the learned materials “that PDEODE strategy Important in teaching because they provide an atmosphere suitable and appropriate for dialogue, debate and plurality of opinions, which helps students understand the educational attitudes and detect

them” (Youssef Quttami, 2013) .Also, PDEODE’s strategy has an effective impact in developing thinking skills as well as in improving students' attitudes and helping students to understand daily events. Ahmed Mohamed Abdullah (2015) confirms that " the link of strategic of PDEODE to the skills beyond knowledge in being dependent on forecasting as a first step during its use, as it is believed that forecasting the desired or expected results is one of the most important sub-skills for planning skill, as well as the strategy depends on the discussion between students on the one hand and between students and their teacher on the other hand and thus this discussion helps in revealing the moment of their thinking and understanding of cognitive and want to know Saad Mohsen,1996 confirms that " They have never been so well educated, which has increased the possibility of learning skills. “

The curriculum inevitably leads to the development of the level if it is based on a scientific basis in the organization of the educational process, the choice of graduated exercises with difficulty takes into account the individual differences being beginners and the use of educational means under the supervision of a specialized teacher under good educational conditions in terms of space, time and tools Used” (Saad Mohsen Ismail, 1996) the thoughtful Planning on which the curriculum based on will inevitably lead to the development of learning and this Consistent with what had mentioned by (Mahmoud Abdel-Fattah, 1995) that “The main objective of the curriculum is to acquire new skills, mastering and develop them in advance because learning is the way information, skills or abilities are acquired, whether as a result of experience, practice or training.” (Mahmoud Abdel-Fattah, 1983) The researchers also believe that this result can be explained by the characteristics of the teaching strategy of PDEODE, through which the topics were presented in the form of problems stemming from the reality experienced by students, which led to their interest to increase their motivation to seek appropriate solutions for them, d to apply what they learned in other life situations, the teaching strategy of PDEODE It made students more lively and energetic and facilitated the process of their acquisition of educational material and made them continue to learn by linking them to new knowledge with their previous knowledge in order to find meaningful relationships between problems and a plan to solve them when building those plans that have formed a network of understanding linking the content parts meaningfully, and these connections enabled them to think about the material and recall and use it easily. The experimental group students' superiority over the control group students in maintaining mathematical concepts can be explained by the fact that the PDEODE teaching strategy provides learners with a schematic summary of what they have learned. this requires them to search for similarities and differences between concepts, so the learner is a listener, organizer, classifier, and organizer of concepts, Using the PDEODE constructivist teaching strategy through discussion helps to provide a collective learning environment that requires the involvement of learners in designing relationships between concepts. Its use also helps in separating important information, marginal information, and selecting appropriate examples to clarify the concept. This strategy also belongs to the structural theory that considers the process of education as a dynamic social process through which students build the activity of ideas based on their experiences and link them to previous concepts, as well as there is an interactive relationship between the teacher and the learners. (Mazen Ali, 2018) emphasizes that “the hexagonal dimensions of the strategy that have been effective role in understanding the content of the educational unit and its awareness and application correctly, the researcher believes that the atmosphere of discussion and trying to think about solving the predictive question that is going on among the members of the groups in the stage of interpretation as well as discussion The interpretation that is made after observation with the entire class and then the solution between the initial interpretation stage and the final stage of interpretation helped learners to raise the level of learning while in the control group it was interested in memorizing and indoctrination and relying on the teacher's explanation and presentation of the educational material to it The experimental group outperformed the control group in the search variables”. And this was confirmed by (Samah Khader Nghamash, 2016) in his study, "It is considered a strategy for PDEODE with its procedural steps according to which students are divided into cooperative groups that allow them to interact with the predictive question or the problem posed individually or collectively, and this strengthened the students' motivation to participate in addition to that. The superiority of the students of the experimental group over the students of the control group can be explained to the characteristics of the teaching strategy PDEODE and its special role in the development of thinking. The occasion for her after he has developed the proposed plans which helps and gives him the opportunity to follow the behaviour of scientists in the research and reach the information himself, so he innovates and brings new things. PDEODE also focused on students' activity and allowed them to research, explore and explore themselves, interact deeply and express their opinions freely and share what they know of information and learn how to rely on each other so that they can successfully solve problems and may be due to the superiority of opportunities that PDEODE teaching strategy provides students to arrange the steps of the solution according to their regions and evaluate the information and confirm its credibility and objectivity

It can also be explained by the superiority of the experimental group students over the control group students to the advantage of the teaching strategy PDEODE And its special role in developing thinking and teaching strategy PDEODE Through which the topics of the lessons were presented in the form of problems that arouse the interest of the student and motivate him to search for finding appropriate solutions to it after he puts forward the proposed plans, which helps and gives him the opportunity to behave the behavior of scientists in the research and access to the information himself, so he innovates and brings new things

Conclusions and Recommendations

Conclusions

1. The use of PDEODE's strategy has enriched and made a better learning than the traditional method of learning the skills of gymnastics (under study).
2. The of PDEODE's strategy influenced in the level of creative thinking for students who excelled on the control group students who have studied in the usual way.

Recommendations

The main recommendations were as follows: -

1. The introduction of teaching staff from male and female teachers training courses for the purpose of training them and informing them of how to use modern teaching strategies and methods, including the PDEODE's strategy.
2. Including curricula taught in colleges of education with modern teaching strategies, including the PDEODE's strategy.
3. Conducting researches on the impact of Teaching by the PDEODE's strategy to learn other skills in gymnastics.

Ethical clearance:

the general interest from researchs for completing the requirements for scientific promotion ,the university has no interest in that .

Conflicts of Interest

The authors declares no conflicts of interest regarding the publication of this pa- per.

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References

1. Al-Zoubi T, Salamat M, Khair,. *The effect of using a strategy based on the Marzano model for the dimensions of learning, "for students of the upper basic stage in the Salt region in their achievement of physical concepts and the development of critical thinking skills and their attitudes"*:2011. (pp. 126-58), Kuwait University, the educational journal, the Scientific Publishing Council.
2. Al-Zoubi T, *Using Vee maps to teach practical physics for first year students at the university in "developing the skills of scientific thinking and achievement and changing their scientific directions"* : 2004, (pp. 388-408), University of Jordan, Journal of Educational Sciences Studies,vol (2).
3. Costu, B, B, Costu, *Learning Science through the PDEODE Teaching Strategy, "Helping Students Make Sense of Everyday Situations "*:2008, (pp. 3-9). Eurasis of Mathematics. Science & Technology Education.
4. Kolari S., & Viskari E., & Ranne C., *Improving Student Learning in an Environmental Engineering Program With a Research Study Project.*, 2005, (pp. 702-711.). International Journal of Engineering Education vol (4).
5. Mahmoud, *Building a cognitive test in swimming competitions for students of "the Faculty of Physical Education"*:1983 ,(pp. 479 ,part2), Cairo, Fourth Scientific Conference.
6. Mazen A, ,*" The Impact of Budodi's Strategy on Learning Some Basic Football Skills for Students"*: 2018, (p. 54). University of Basra, Master Thesis.

7. Saad M, I, *the effect of teaching methods to develop the explosive power of the "two men and arms in the accuracy of long-range shooting by jumping high in handball":1996, (p. 98),University of Baghdad, College of Physical Education, doctoral thesis.*
8. Samah Khr, *"The Impact of Using the PDEODE Strategy on Achievement and Creative Thinking among Second Intermediate Students in Chemistry":2011 ,(P.24), University of Babylon, Master Thesis.*
9. Sawafta ,A *The effect of teaching in two methods of solving problems and conceptual maps on acquiring scientific concepts and developing creative thinking skills and scientific trends among students""2005,.:Jordan: Unpublished PhD thesis, Amman Arab University.*
10. Youssef Q.,*"Cognitive Learning and Education Strategies":2013 (p. 383). Jordan, Dar Al-Masirah for Publishing and Distribution.*