

The effect of the project's pedagogy strategy on mental operations and the performance of some offensive volleyball skills for students.

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Abstract

The purpose of this paper is to preparing exercises according to the project's pedagogy strategy, and identify the impact of the project's pedagogical strategy on mental processes and the performance of some offensive volleyball skills for students. The researchers used the experimental approach with the experimental design of one group. Determined by the students of the second stage in the College of Physical Education and Sports Sciences at the University of Kufa for the academic year 2022-2023, whose number is (61) students, then a sample of (30) students was selected in order to apply the main experiment to them according to the experimental design of one group. One of the most important results reached by the researcher is that: Use of exercises according to the project's pedagogical strategy has a positive impact on mental processes and the performance of some offensive volleyball skills for students, use of exercises according to the strategy of the project's pedagogy is better than the method used, which increased the mental processes and the performance of some offensive volleyball skills for students , and exercises according to the project's pedagogical strategy had an impact on the mental processes and performance of some offensive volleyball skills for the students in the correct manner. One of the most important recommendations recommended by the researchers is that: Adopting an exercise curriculum according to the project's pedagogy strategy in the process of developing mental processes and performing some offensive volleyball skills for students and reliance on exercises according to the project's pedagogy strategy as an essential part of the content of the volleyball educational curriculum for students.

Introduction:

The strategy (project pedagogy) is one of the most important modern methods that rely on intellectual and practical interaction between the teacher and the student by giving a great role to the student in the educational process and the extent to which they benefit from learning basic skills in gymnastics, which is an important basis for progress, as it makes physical education teachers spend most The time in learning to perform volleyball skills and learn them correctly and give them a greater share in the educational curricula, and to learn the

skills of volleyball requires physical education teachers to search for methods and methods that speed up the learning process, especially those that give a "prominent" role to the learner in discovering what he needs. There are many methods and strategies that help to quickly learn and acquire motor skills, and that each sporting activity has its own motor performance that distinguishes it from other activities. On the learning process only, but this effect extends to another process, and that achieving the level of competence in learning helps to easily remember the learned material, as memory in its general concept is the mainstay of mental activity, and that the human mind would not have grown or developed in the absence of memory, as it is the basis of all learning and adaptation processes. It can also be said that the process of learning, remembering and performance are overlapping processes that are difficult to separate. The study of learning is based on how the student acquires information, while remembering is based on how to understand and memorize information, while performance is based on how to use this information. Gymnastics is one of the sporting events that are characterized by their difficult performance. Which depends on the effort of the individual learner in particular, and it is taught within the curricula of the faculties of physical education and sports sciences, both theoretical and practical.

Research problem:

Through the follow-up of the researchers, they found that the educational process should be characterized by diversity in the use of strategies, methods and methods by those in charge of the education process. In addition, the organization. Correspondingly, most of the volleyball lessons that are offered to students according to teaching strategies may not be compatible with modern trends and the development of volleyball and the educational process as well as the mental aspect, and that these strategies take into account the discovery of ideas and concepts of students. Therefore, the researchers decided to use the project's pedagogy strategy in an effort to contribute to supporting the teaching process with effective strategies that also contribute to mental processes in order to overcome many of the weaknesses and enhance the strengths in the educational process, which students may encounter in volleyball in which to reduce the effort expended. And the length of the learning period as well as the accuracy in learning.

Research objective:

- Preparing exercises according to the project's pedagogy strategy.
- Identify the impact of the project's pedagogical strategy on mental processes and the performance of some offensive volleyball skills for students.

Research hypotheses:

- There is an effect of the project's pedagogy strategy on the mental processes and performance of some offensive volleyball skills for students.

Research fields:

- Human field: Second-stage students in the College of Physical Education and Sports Sciences / University of Kufa for the academic year 2022-2023.
- Time field: (15/11/2022) to (30/3/2023)

- Spatial field: Indoor sports hall in the Faculty of Physical Education and Sports Sciences / University of Kufa.

Research methodology and field procedures:

Research Methodology:

The researchers used the experimental approach with the experimental design of one group.

Community and sample research:

Determined by the students of the second stage in the College of Physical Education and Sports Sciences at the University of Kufa for the academic year 2022-2023, whose number is (61) students, then a sample of (30) students was selected in order to apply the main experiment to them according to the experimental design of one group.

Information Gathering:

- The resolution.
- Scientific sources and references.
- Tests.

Devices and tools used:

- Volleyballs (10).
- Volleyball court.
- (1) Dell (5040) calculator.
- Sign.
- Stationery (papers + pens).

Field research procedures:

Choosing the mental operations test:

The researchers relied on the mental operations test that was built by (Al-Jubouri. 2014), as the test consisted of two parts, and in order to apply it to the research sample, the researcher presented it (see Appendix 1) to a group of experts and specialists for the purpose of evaluating it and the player According to it in terms of its validity in what it was set for, and after the experts and specialists were briefed on the test, then the (chi-2) test was used, according to the agreement of experts and specialists, and the nomination of the test in its two parts was accepted, with an agreement of (100%).

Identifying some volleyball skills and their tests:

Some skills were selected (passing, reception and serve), and they were determined according to volleyball skills in the second stage, and their tests were determined after consultation with experts, and they were approved by agreement (100%).

Description of tests of some volleyball skills:

1- Technical performance tests for the passing skill (Al-Dulaimi and et. al., . 2015):

- Aim of the test: Evaluate the technical performance (technique) of the preparation skill through the three sections of the skill (preparatory, main, and final).
- Tools used A legal volleyball court, (3) volleyballs.
- Performance method: The tested student performs the preparation skill in the area specified for preparation, i.e. from center (3), trying to perform the preparation skill correctly and for three attempts, provided that the ball and the tested body do not touch the net, or cross the opponent's court.
- Registration: Three evaluators evaluate the three attempts for each tested student, and three marks are awarded for each evaluator, noting that the final evaluation score for each attempt is (10) degrees, divided into the three skill sections, which are (three) degrees for the preparatory section, and (five) degrees for the main section, and (two degrees) for the final section. After that, the best score for each evaluator is selected, and by extracting the arithmetic mean for the best three scores, the final score is extracted for each tested student, and the test is evaluated by the two judges as shown in Figure (1).

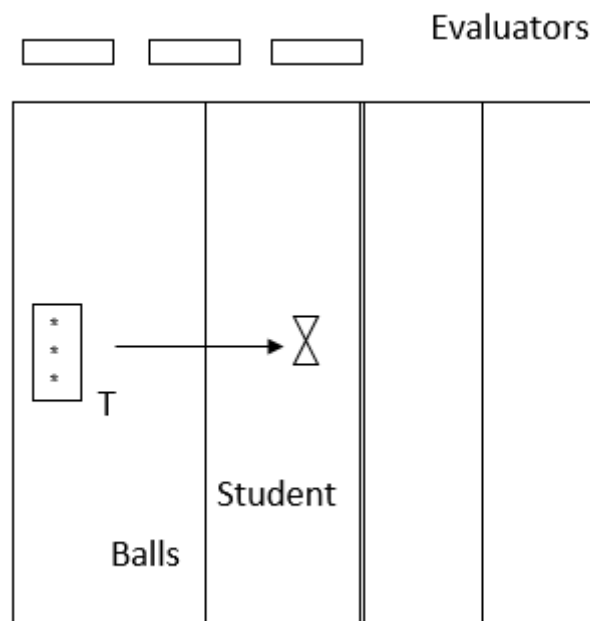


Figure (1) shows the evaluation of the technical performance (technique) of the preparation skill in volleyball

2- Testing the technical performance of the skill of receiving the serve in volleyball: (Al-Dulaimi and et. al., . 2015):

- aim of the test: to evaluate the technical performance (technique) of the skill of receiving serve through the three sections of the skill (preparatory, main, and final).

- Tools used: A legal volleyball court, (3) legal volleyballs.
- Performance method: The tested student performs the skill of receiving the transmission, from the standing position, for three consecutive attempts.
- Registration: Three evaluators evaluate the three attempts for each student tested, and three degrees are awarded for each evaluator, knowing that the final evaluation score for each attempt is (10) degrees divided into the three skill sections, which are (three) for the preparatory section, and (four) degrees for the main section, and (three) grades for the final section, after which the best grade is selected for each evaluator, and by extracting the arithmetic mean for the best three grades, the final grade is extracted for each laboratory, and the test was evaluated by the judges, as shown in Figure (2) .

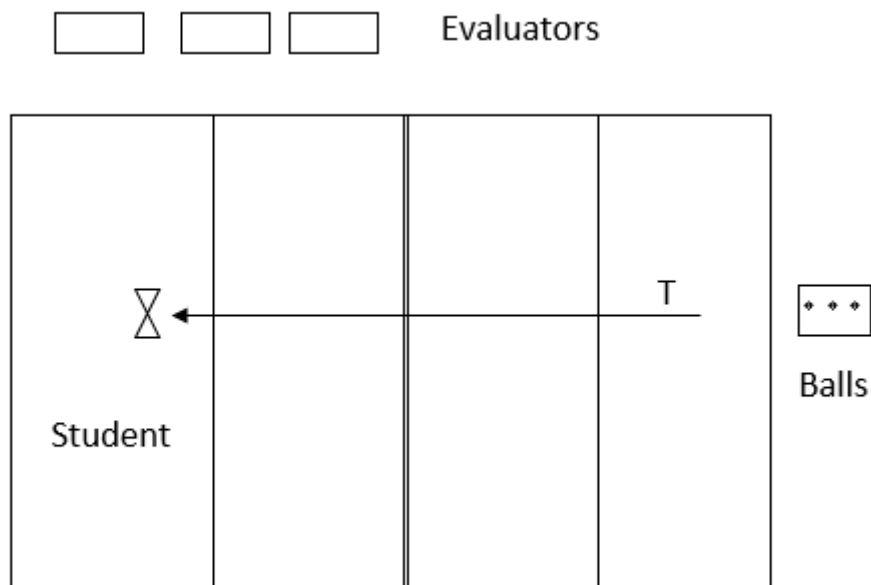


Figure (2) shows the evaluation of technical performance (technique) for the skill of receiving serve in volleyball

3- The test of evaluating the technical performance of the serve from above (tennis) (Al-Dulaimi and et. al., . 2015):

- The aim of the test: - Evaluating the technical performance (technique) of the skill of serving from above (tennis) through the three sections of the skill (preparatory, main, final).
- Tools used: - A legal volleyball court, (3) legal volleyballs.
- Performance specifications: The student performs the skill of serving tennis from the middle of the serving area specified by (9) meters to the opposite court, provided that the ball crosses the net trying to drop it in the opposite half of the court.
- Performance conditions:
 - Each student has (three) consecutive attempts.

- The student gets a (zero) in the event that the ball falls outside the boundaries of the field or in the event that the service is performed in a manner that does not conform to the performance specifications.
- Registration: Three evaluators evaluate the three attempts for each tested student and give them three marks for each evaluator, noting that the final evaluation score for each attempt is (10) degrees, distributed over the three skill sections, which are (three) degrees for the preparatory section, and (six) Grades for the main section, and (one) grade for the final section, after which the best grade is selected for each evaluator, and by extracting the arithmetic mean for the best three grades, the final grade is calculated for each student, and the test is evaluated by the two judges, as shown in Figure (3).

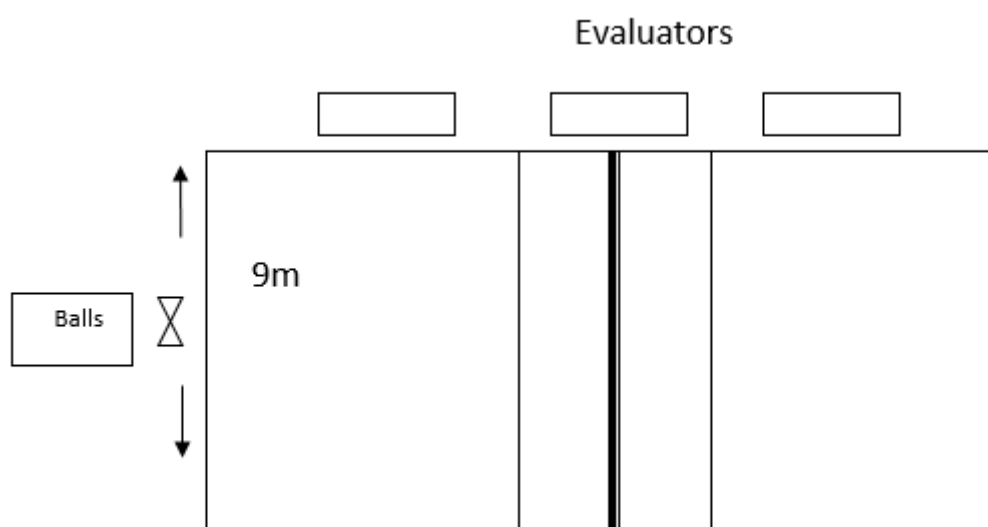


Figure (3) the evaluation of the technical performance (technique) of the serve served from the top shows tennis in volleyball

Exploratory Experience:

The experiment related to the dependent variables was conducted on (10) students, at exactly ten o'clock in the morning on 6/12/2022, and the performance was evaluated by the arbitrators, and after (5) days had passed, the skills were evaluated again by the experts themselves, and the results were confirmed in Evaluation form.

Scientific Foundations:

First: Validity:

Use (content validity) in the research after conducting an interview with experts and specialists (see Appendix 1), as "content validity is one of the most usable types of validity."(Majeed and Al-Samarrai. 1999)

Second: stability:

It is "that the test gives the same results if it is re-applied to the same individuals under the same conditions," and based on that, the test stability coefficient was found by testing and re-testing on the survey sample, as it was conducted on 6/12/2022 and was returned on 11/12/2022 on the same sample and in similar conditions, and the stability coefficient of all tests was.

Third: Objectivity:

The objectivity of the test it is the test in which there is no discrepancy between the opinions of the arbitrators if the tested individual arbitrates more than one judge.(Al-Yasiri and Abdul-Majid. 2002) And the correlation was used between the results of the arbitrators it was found from the results that the test is highly objective.

Pre-tests:

The sample was organized and distributed to unit timings, and their names were recorded on Tuesday 20/12/2022, in cooperation with the subject teacher to explain the test procedures and students' performance thereof.

Implementation of the educational curriculum:

After conducting the pre-tests for the research group, the researchers did the following:

- Total units (10) educational units.
- Number of units (two educational units) per week.
- The educational unit time is (90) minutes.
- The main section time (60 minutes).
- The practical section time is (45) minutes.

Post-tests: The tests were conducted on Tuesday, January 31, 2023.

Statistical means: The researchers used the Statistical Bag for Social Sciences Seventeenth Edition:

- Arithmetic mean.
- Standard deviation.
- (t-test) for correlated samples.
- The simple correlation coefficient (Pearson).

Results and discussion:

1- Presentation of the results of the experimental group:

Table (1) shows the results of the experimental group

Variable	Measuring unit	Pre-test		Post-test		T value calculated	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
Mental operations	Degree	29.18	0.55	38.16	0.66	9,22	0.000	Sig
Technical performance of the passing	Degree	4.18	0.88	7.68	0.59	14.48	0.000	Sig
Technical performance of the serve receiver	Degree	3.55	0.67	7.32	0.55	16.33	0.000	Sig
Technical performance of the serve	Degree	3.34	0.65	7.48	0.63	19.22	0.000	Sig

By displaying the results in Table (1), it was found that there are differences in the arithmetic mean and standard deviations of the results concerned with the tests before and after the experiment, and in order for the researcher to know the truth about these differences and discrepancies between the tests before and after the experiment, he used the t-test, in which the results indicated that all results Significant signs indicating a difference came for all tests.

Discuss the results:

It turns out that there are significant differences for the experimental group in all tests and in favor of the post-tests. The researchers attribute the emergence of such differences to the group's use and follow-up of exercises according to the project's pedagogy strategy in developing mental processes and some volleyball skills for students that affected them, as "exercises are very important in various activities." Sports must be practiced without exception, especially exercises according to the project's pedagogy strategy, in order to overcome effort and reduce it, as well as the presence of elements of suspense and excitement. (Majeed and Al-Samarrai. 1999). The researchers believe that the use of exercises contributes greatly to the development of abilities, because the ability to make decisions and perform properly is based on good vision. When the student practices specific exercises with auxiliary means that help in mental processes and related to various skills, as a result of

repetition of these exercises, they contribute to the acquisition of these abilities (Ali Jalal Al-Din).

The researchers can attribute the reason for the moral differences in due to the exercises, which facilitated and increased the clarification of the required skills, which was positively reflected in the results of understanding and good awareness of the features, characteristics and parts of the skill, and this was not available and available in some volleyball lessons. Modern learning works to create a clear perception of movement because "The learning aid was able to clarify the difficult skills, give those clear explanations and visualizations, enrich them with illustrative images, and alert the learner to errors that may occur in performance." (Ali. 2000)

Conclusions and Recommendations:

Conclusions:

Through the results of the research, the researchers were able to reach:

- The use of exercises according to the project's pedagogical strategy has a positive impact on mental processes and the performance of some offensive volleyball skills for students.
- The use of exercises according to the strategy of the project's pedagogy is better than the method used, which increased the mental processes and the performance of some offensive volleyball skills for students.
- The exercises according to the project's pedagogical strategy had an impact on the mental processes and performance of some offensive volleyball skills for the students in the correct manner.

Recommendations:

According to the findings of the researchers, the following is recommended:

- Adopting an exercise curriculum according to the project's pedagogy strategy in the process of developing mental processes and performing some offensive volleyball skills for students.
- Reliance on exercises according to the project's pedagogy strategy as an essential part of the content of the volleyball educational curriculum for students.
- Emphasis on generalizing the contents of exercises according to the project's pedagogical strategy in mental operations, performing some offensive volleyball skills for students, and benefiting from the experiences they provide in the educational process.
- Conducting further studies on defensive skills in volleyball and other games.

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Nahida Abd Zaid Al-Dulaimi and et. al., . 2015. Modern volleyball and its specialized requirements, 1st edition, Beirut, Dar Al-Kutub Al-Alami, p. 91.

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Appendix 1

Test name: Mental Operations Test

Test objective: to measure mental processes.

Test specification:

- The test is a good indicator of mental processes.
- It consists of two parts (A, B), and the first part is a group of circles inside each of which there is a number (serial numbers) distributed randomly over an area free of obstacles 20 x 20 m.
- The player is required to connect the numbered cones in the middle to the same circle that bears the same number of cones within a time of (5) seconds for each cone, and then the player returns to the starting line to continue completing the rest of the cones and distributing them to the circles.
- While the second part of the test consists of the player running without cones to the circles and in sequence from (1) to (20) until he reaches the last sequence within a time of (30) seconds.

Functions measured by the test:

- Performance on the first part requires visual-spatial examination and numerical sequence, visual attention, focus, motor speed, motor sequence skills, transition in the organizing process, the ability to search and differentiate between numbers and circles, and sequence recognition.
- The second part measures sequence storage, and integrity
- The two parts measure spatial organization, motor speed, number and circle recognition, attention and alertness.
- The test is a means of measuring thinking, sensory-kinesthetic perception, memory, and attention load.

Correction:

- Each part is calculated separately, and the score is the sum of the time spent on the application in seconds.
- The second part is a good indicator because its cognitive requirements include visual inspection and visual-kinetic synergy to move between numbers and circles.

Tools required:

- A yard free of obstacles 20 x 20 m.
- A box containing cones numbered from (1) to (20).
- Cones number (20).
- Stopwatch number (2).

Register:

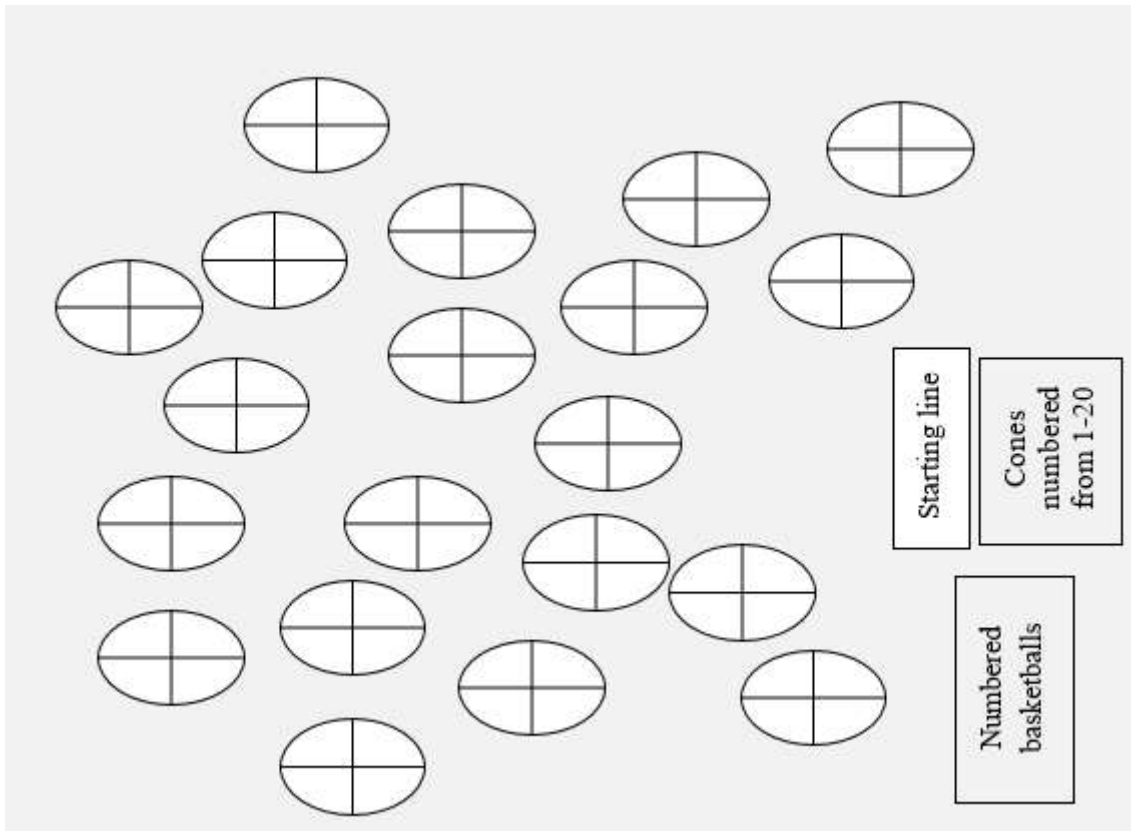
Part One:

- One point is given for each correct attempt (its time is 5 seconds).
- Two (2) marks are given for each attempt of (4) seconds.
- (3) points are given for each attempt whose time is (3) or less.
- Any attempt that does not comply with the instructions will be deleted.
- Any attempt that exceeds (5) seconds in time will be deleted.

Second part:

- If the circles are reached according to their sequence within the specified time, (15) degrees are given directly to him.
- If the laboratory finishes within (25) seconds to (29) seconds, (20) marks are given to it.
- If the laboratory finishes within (20) seconds to (24) seconds, (25) marks are given to it.
- If the laboratory is finished within (19) seconds or less, (30) marks are given to it.
- Any attempt that does not comply with the instructions will be deleted.
- Any attempt that exceeds (30) seconds in time will be deleted.

Note: The highest score obtained by the laboratory is (60).



The following figure shows the test