The effect of special exercises in the cooperative style in learning some basic skills in tennis for students

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Abstract

The purpose of this paper isto identify the effect of the exercises of the cooperative method in learning some basic skills in tennis for students. The researchers used the experimental method by designing (the two equal groups with a pre-and post-test) due to its relevance to the nature of the research problem. The research community was determined by the third-stage students in the Department of Physical Education and Sports Sciences - Al Safwa University College, who numbered 96 students divided into 3 divisions. The research sample was chosen randomly, represented by Division A, with 31 students and a percentage of 32.291% of the research community.They were divided into two groups, control and experimental.One of the most important results reached by the researcher is that: The exercises in the cooperative learning method showed a positive effect on the development of basic tennis skills for students, It is possible to use the cooperative learning method to learn basic tennis skills for students, and the exercises in the cooperative learning style have a great role in increasing the students' desire to learn and reach the best possible improvement in skill.One of the most important recommendations recommended by the researchers is that: Necessity of using the exercises of the cooperative learning method in learning the basic skills of students in universities or in other specialized centers, need to pay attention to various teaching methods while learning basic skills, and conducting similar studies and research in a cooperative learning style in developing basic skills on games and other skills.

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Introduction:

The rapid change and technical development that the world is witnessing today is reflected in learning in general and physical education in particular. Success in the teaching process and its mastery, and then achieving the desired goals, requires the adoption of organized and elaborate planning, as educators (teachers,) musthave Extensive knowledge of all its different aspects. General education is a system, the curriculum is a system, exams are a system, and the classroom situation is a system. Therefore, the school is section of the educational system established by the community to work on socially adapting students and making them useful members of society. Teaching methods and learning methods have developed rapidly as a result of great scientific progress. , and the countries of the world began to race among themselves to reach what is new and developed and serve the educational process quickly. In line with the requirements of the times and civilized progress, scientific development has added many new and effective methods that contribute to how to benefit from them in preparing the various fields for the development of the teacher and student alike.

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Since the teacher is one of the basic pillars upon which the education process is based and constitutes the cornerstone of the educational process, the successful teacher is the one who tries to find new methods that suit the abilities and perceptions of the students that contribute to the development of the activities to be applied within the plans and methods and realize that there is an interaction between the method and the method And the means, and that this interaction depends on multiple variables such as clarity of objectives, content, levels of students, resources, capabilities and student tendencies.

The game of tennis is one of the sports that has witnessed a remarkable development using the correct scientific application, especially in the learning process and for learning the basic skills, which are the serve, the forehand, and the backhand, which is the backbone of the game. The serve is very important in the game of tennis, the kick-off and is considered the first offensive kick, where the dispatcher can put the opponent under pressure and give the dispatcher the reins of leadership of the match, so we find that all players choose to serve if they win the lottery.

Hence the importance of the research in finding educational alternatives through the application of cooperative learning, which the researcher believes that it helps to learn some basic tennis skills for students.

Research problem:

The research problem centered, and through observation and follow-up by researchers, there was a lack of interest in group cooperative learning, and the learning process lacked diversification to increase control, control and management of play in line with its basic skills on which the game of tennis depends. In addition, for this we need the best educational method in acquiring, mastering and developing skills in line with the surroundings of that game, its skills, laws and objectives.

By informing the researchers about the methods, methods, conditions, duties, uses, and their effects on learning, it was found that there is a need to teach the basic skills of tennis in a collective cooperation to implement its requirements as well as individual learning, as well as the need for diversification in the methods of organizing and scheduling its exercises to reach a situation similar to the state of real play. This is what the teacher aims for and the researchers believed in scientific research as the scientific method for solving problems; they prepared special exercises in the cooperative method in learning some basic skills of the game of tennis for students.

Research objective:

- Identify the effect of the exercises of the cooperative method in learning some basic skills in tennis for students.

Research hypotheses:

- There is a positive effect of the exercises of the cooperative method in learning some basic skills in tennis for students.

Research fields:

- Human field: Third stage students in the Department of Physical Education and Sports Sciences - Al Safwa University College for the 2021-2022 school season.
- Time field: (1/11/2021) to (1/1/2022)
- Spatial field: Tennis court in the Department of Physical Education and Sports Sciences - Al Safwa University College

Research methodology and field procedures:

Research Methodology:

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The researchers used the experimental method by designing (the two equal groups with a pre-and post-test) due to its relevance to the nature of the research problem.

Community and sample research:

The third-stage students in the Department of Physical Education determined the research community and Sports Sciences - Al Safwa University College, who numbered 96 students divided into 3 divisions. The research sample was chosen randomly, represented by Division A, with 31 students and a percentage of 32.291% of the research community.They were divided into two groups, control and experimental, with 12 students per group, and 7 students were excluded due to injury and irregular attendance.

Homogeneity and equivalence of the research samples:

Homogeneity of the research samples:

The researchers conducted homogeneity and equivalence for the studied research variables to ensure that the work occurs from one starting line, as shown in the two tables (1) (2)

Table(1)shows the homogeneity of the research sample

Variables	Measuring unit	Mean	Median	Std. Deviations	Skewness
Length	Cm	167,95	167,5	7,92	0,170
Mass	Kg	63,4	61	7,24	0,994
Age	Year	21.986	21	4.997	0,714 -

It can be seen from Table (1) that the values of the skew coefficient were limited between (0.170-0.994), which are zero values, which confirms the homogeneity.

Equality of the research samples:

The equivalence process was conducted between the two experimental control groups if the calculated (t) value was collected as smaller than the tabular (t) value of (2.10) at the significance level (0.05) and the degree of freedom (20), which indicates the equivalence of the research samples and the table (2)) explains it.

Table (2) shows the equivalence of the research sample

No.	Skills	Experimental		Control		T value calculated	T value tabular	Type sig
		Mean	Standard deviation	Mean	Standard deviation			
1	Serve	15.88	3.58	13.8	2.87	1.18	2.10	Non sig
2	Forehand	19.23	4.91	20.0	2.56	0.07		Non sig
3	Backhand	15.85	3.43	14.8	3.16	1.14		Non sig

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Means of collecting information, devices and research tools:-

Means of collecting information:

- Observation.
- Interview.
- Test and measurement.

Devices and tools used in the research:

- An electronic watch type (Casio) made in Japan. number (1)
- A device for measuring weight, type (Person), made in Germany, pcs. (1)
- Tennis Court .
- Various training ropes. number (12)
- Tennis balls (24)
- Tennis rackets (24)
- Adhesive tape.
- One (1) length measuring tape.

Determining the search tests:

The researchers made a questionnaire form and distributed it to a number of experts in order to determine the appropriate tests for the skills studied under research, and by (3) tests for each skill to determine one test for each skill, and accordingly, an agreement was taken of 75% of the experts' opinions for each test, as show in the table (3).

Table (3)shows the selection of the search tests and the percentage of each test.

No.	Skills	Candidate tests	Percentages
1	Serve	Jones 1987 Serving accuracy	%0
		Atenza 1998 technical performance calendar for the Serving	%0
		White Modified 1966 Serving Skill Test (Skilled Ability)	%100
No.	Forehand		Percentages
2	Forehand	Hans Lee Accuracy Forehand & Backhand Strike 1998	%0
		Hans Lee rate calendar 1995	%0
		Modified White Skill Forehand & Backhand Strike 1966	%100
		Diyer measure the speed and force of the blow to the wall	%0
No.	Backhand		Percentages
3	Backhand	Hans Lee Accuracy Forehand & Backhand Strike 1998	%0
		Hans Lee rate calendar 1995	%0
		Modified White Skill Forehand & Backhand Strike 1966	%100
		Diyer measure the speed and force of the blow to the wall	%0

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Exploration experience:

The researchers conducted the exploratory experiment on 1/11/2021 on a sample of students, which numbered (5) students from outside the research sample. The purpose of the exploratory experiment was:

1- The suitability of the tests to the research sample.

2- The time taken to perform the tests.

3- The efficiency of the assistant staff.

4- Appropriateness of the proposed exercises with the research sample.

Description of the tests:

First test: Choosing the skill of serving (Al-Kazemi. 2000).

- The objective of the test: To measure the accuracy of serving in tennis.
- Performance method: A rope with a diameter of (4,1) inches from its two ends is fixed to the two legs of the net from above, so that the distance between it and the net is (4) feet, and the distance between it and the ground is (7) feet.After the preparation period, the tester stands behind the base line assigned to the Serving performance for individual play, then gives five trial attempts and after their implementation, each player is assigned ten serving attempts at which the ball must fall within the limits of the Serving area and with specific calendar degrees (1-6) degrees and as in the numbers (1-2-3-4-5-6) which represent values that refer to the Serving area.
    - The number (1) refers to a rectangle (15 × 13.5) feet.
    - The number (2) refers to a rectangle (6 x 10.6) feet.
    - The numbers (3-4-5-6) refer to rectangles, each of which measures 5.1 x 3 feet.
    - The same numbers (1-2-3-4-5-6) indicate the scores assigned to each of the areas on which the ball falls, provided that it passes between the net and the rope.
- Registration:
    - Balls that touch the rope or the net are not counted as an attempt and are replayed
    - A ball that passes over the rope is considered an attempt and awarded a score of zero even if it falls on any correct position.
    - The score is calculated in the correct area on which the ball falls.
    - Players score is the sum of points earned from 10 attempts.

The second test: The front and back ground strikes:

Test name: Measurement of the accuracy of the front and background strokes:

- This test is conducted on a regular tennis court with the preparation of rackets, (30) tennis balls, a registration form, a rope fastening the parking areas of the laboratory, and how to conduct the test and evaluation marks (Al-Kazemi. 2000).
- A rope shall be fixed on two poles in the posts of the net and parallel to it, at a height of (7) feet from the ground and (4) feet from the net three parallel lines are drawn between the Serving line and the base line so that the distance between the lines is (4.5) feet.
- The player stands on the center mark, which is located in the middle of the base line and gives five trial attempts to know the performance of the test after providing instructions by the teacher, provided that the ball is thrown directly behind the Serving line by the ball thrower, if found, or by the competent teacher, and the player

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begins to try to return the ball with his racket Using the forehand or backhand, each player is assigned ten attempts for the forehand and ten attempts for the backhand. The player's grades are the sum of the points he obtains by adding his ten attempts, and the ball must cross the net and down the rope and the student obtains ascending grades from (1-5) Scores and if the ball passes over the rope, it gives half of the calendar mark for the correct area on which it falls.

Pre-tests:

The researchers conducted tribal tests on the experimental and control sample with the studied skills on 5/11/2021 and on the tennis court of Al-Safwa University College. The extent of the place took into account the control of variables in terms of time, place and the auxiliary work team in order to fit them in the post-tests.

Field research procedures:

Suggested educational exercises

The researchers, relying on scientific sources and studies, prepared educational exercises. The following are some clarifications on the exercises used in the study:

1. The duration of the educational exercises in weeks (10 weeks)
2. Number of educational units during the curriculum (10 units)
3. Duration of the educational unit (90 minutes)

Post-tests:

The researchers applied the post-tests to his research sample on Friday and Saturday, 1/1/2022, and took into account, as much as possible, the variables that he worked to avoid in the pre-tests.

Statistical methods: The search data was processed through the Statistical Package for the Social Sciences (SPSS).

Results and discussion:

Presentation and analysis of the results of the pre- and post-test for the two research groups:

Table(4) shows the arithmetic mean, standard deviation, the calculated (t) value and the level of significance in the pre and post-tests of the experimental group with the skills under study

No.	Skills	Pre-test		Post-test		T value calculated	Level sig	Type sig
		Mean	Standard deviation	Mean	Standard deviation			
1	Serve	15.88	3.58	19.748	3.883	7.921	0.000	sig
2	Forehand	19.23	4.91	23.861	4.865	11.654	0.000	sig
3	Backhand	15.85	3.43	19.421	3.111	9.772	0.000	sig

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Table(5) shows the arithmetic mean, standard deviation, the calculated (t) value and the level of significance in the pre- and post-tests of the control group with the skills under study

No.	Skills	Pre-test		Post-test		T value calculated	Level sig	Type sig
		Mean	Standard deviation	Mean	Standard deviation			
1	Serve	13.8	2.87	18.321	5.882	5.972	0.000	sig
2	Forehand	20.0	2.56	22.854	3.913	7.342	0.000	sig
3	Backhand	14.8	3.16	18.421	3.462	11.432	0.000	sig

Table(6)shows the arithmetic mean, standard deviation, the calculated (t) value, and the level of significance of the post-test for the experimental and control group with the skills studied

No.	Skills	Experimental		Control		T value calculated	Level sig	Type sig
		Mean	Standard deviation	Mean	Standard deviation			
1	Serve	13.8	2.87	18.321	5.882	5.972	0.000	sig
2	Forehand	20.0	2.56	22.854	3.913	7.342	0.000	sig
3	Backhand	14.8	3.16	18.421	3.462	11.432	0.000	sig

Discuss the results:

It is clear to us from the results of tables (4-5-6) that there is a development taking place in learning the basic skills of the control and experimental groups. It becomes clear to us that the experimental group is superior to the control group in the skills investigated. Cooperative learning was followed by the experimental group. The researcher agrees with the findings (Khalil Al-Hadithi 2003) that

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the cooperative learning method is a new method in teaching physical education, which leads to an increase in the learners' acceptance of it with great enthusiasm and enthusiasm, and increases the learner's motivation more than the method is. Traditional, because it provides fun during the learning process as well as raises the psychological barriers between the learner and the subject teacher(Al-Hadithi. 2003).This result agreed with what was confirmed by that "cooperative learning is an educational strategy for small cooperative groups of heterogeneous students working together to maximize their learning as a group or as individuals through positive interaction that leads to the growth of their personal and social skills."(Robert 1997).asserts, saying that cooperative learning has the student's main role in the learning process and does not depend on the teacher, but the role of the teacher, in this case, is to give him feedback. And that students here learn the best that they care about themselves and connect them in their daily lives." (Louis Schmier).The result agrees with (Laura Marti) who asserts that "cooperative learning helps to motivate students to a greater degree than (traditional) learning and gives them a kind of pleasure at work and a more confident and capable of achievement for support and encouragement from the members of the group.". In addition, asserts that "cooperative learning, if applied at the beginning of the new stages of the school, is more effective than any other educational method." (Sharan 1980).Many specialists, including Spencer, believe that "cooperative learning is a collective action that has emerged in the last two decades. Students at certain levels of study, including the university stage, enjoy the interaction obtained through cooperative learning and prefer it over other types of learning. It also confirms values such as Negotiation, Sectionicipation and Collective Responsibility (Kagan 1993).In addition,indicates "one of the advantages of cooperative learning is the positive correlation of the student's achievement and learning with the rest of the members of his group to which he belongs, in contrast to the traditional method whose principle is solitary or competitive performance among students of one class."(Sheikh 1993) , This is what was indicated by that cooperative learning strategies "are built on the synergy between members, that synergy directed by well-planned goals and in which individuals and groups sectionicipate in work to perform the tasks assigned to them, while this synergy or interdependence is not available among students in traditional learning groups (Al-Hila. 1999).

Conclusions and Recommendations:

Conclusions:

- The exercises in the cooperative learning method showed a positive effect on the development of basic tennis skills for students.
- It is possible to use the cooperative learning method to learn basic tennis skills for students.
- The exercises in the cooperative learning style have a great role in increasing the students' desire to learn and reach the best possible improvement in skill.

Recommendations:

- Necessity of using the exercises of the cooperative learning method in learning the basic skills of students in universities or in other specialized centers.
- Need to pay attention to various teaching methods while learning basic skills
- Conducting similar studies and research in a cooperative learning style in developing basic skills on games and other skills.

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Appendix (1)

Shows the exercises used in the research

1. Learn the grip for the flying strike, which is the same grip for the Serving strike, as well as the forehand and backhand.
2. The stand-by for the serve and the movement of the feet and arms while performing Serving, and the movement mechanism for performing Serving without a racket.
3. The same exercise as before, using the racket
4. Serving over the network.
5. Sending and returning the ball
6. The player stands in the usual Serving place and then performs Serving so that he focuses on shooting the ball towards the far fence instead of the Serving area.
7. Serving and receiving from both areas so that four players stand in the same court and as in the figure, then the first and second players send the ball and inspect each other, then the third and fourth players receive Serving and respond to it, and after (5) minutes the players switch their four places.
8. Drop the ball and hit it at the colleague through the net.
9. Hitting the ball that the colleague throws from the movement.
10. Hitting the ball that the colleague throws from the stationary.
11. Hitting the ball that the colleague throws from the movement.
12. Exchanging blows over the network with a colleague
13. Hitting the ball that the teammate throws through the net.
14. Hitting the ball that the teammate throws through the net and from the movement.
15. The exchange of back ground kicks with a colleague over the network.

Appendix (2)

Shows the model of an educational unit in a collaborative manner

Thirdstage
First unit
Number of students: 12 students
Time: 90 minutes.

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Sections of the educational unit	Time	Effectiveness or basic skill	organized	Nots
Preparatory section Introduction	20min 5min	Take Absence, supply Tools	× × × × × Student Δteacher	Emphasis on correct standing
General warm-up	8min	General preparation of all parts of the body	×××××× × × ×Δ×	Emphasizing the unification of student movement
Special warm-up	7min	A special preparation that serves the main section with giving some exercises with the racquet and the ball aimed at feeling it		
main section educational section	60min 10min	Explanation of the skill of serving in tennis A model from the teacher Advance performance feedback	××××××××× × × ×Δ×	Confirmation of the correct (legal) performance of a grip and the correct performance of a skill
Application section	50min	Divide the class into three groups of five (5) students Perform the following exercises: 1. Pause of preparation for the serve and the movement of the feet and arms while performing the serve and the mechanism of movement to perform the serve without a racket. 2. Same as the previous exercise using the racket 3. Transmission over the network. 4. Send and return the ball 5. The player stands in the place of the normal service and then performs the service so that he focuses on shooting the ball towards the far fence instead of the service area.	2m × × × × Δ 2m × × × Δ × × × ×Δ ×Δ × × × × × ×	Emphasis on the correct technical performance of the skill
concluding section	10min	Recreational game and educational instructions + feedback Say hello to leave online to class	×××××Δ	confirmation On the system

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