THE EFFECT OF THE EFFECTIVENESS OF PEER EDUCATION FOR COOPERATIVE LEARNING IN LEARNING SOME BASIC SKILLS IN THE ACCURACY OF TENNIS FOR YOUNG PEOPLE

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Abstract

Cooperative learning is a form of social interaction that makes players productive and interact with the event on the one hand and with their colleagues on the other hand in a fruitful and influential interaction. It is also a model for the coach in which the players perform the learned skills with each other and participate in understanding, dialogue and information related to the learned skills. The researcher indicated that the cooperative learning method increases the self-esteem of the players and develops the positive attitudes of the players towards themselves and towards their colleagues. When information overlaps between two or more groups, some basic skills in the accuracy of the game of tennis are learned for the better. The research aims to establish the effectiveness of peer education for cooperative learning in learning Some basic skills in the game of accuracy of ground tennis for youth. The researcher used the experimental method with pre- and post-test for the experimental and control groups to suit the nature of the research. The research population was identified as ground tennis players from the Al-Ajyal Tennis Academy / Baghdad Governorate for the 2021 sports season, and they numbered (12 players), as they were chosen. The research sample was conducted using a comprehensive inventory method. The sample was divided into two groups: the experimental group and the control group, with (6 players) for each group. The effectiveness of teaching the peer method for cooperative learning was applied for a period of eight weeks, with three educational units per week. The researcher used the statistical package (SPSS) to process the data, and the researcher reached the most important findings. Conclusions: There is a positive effect of the effectiveness of peer education for cooperative learning in learning some basic skills in the game of tennis accuracy for youth.

Keywords: Peer education , cooperative learning and accuracy.

Introduction

The effectiveness of cooperative learning is not a new method, but rather it is as old as the human race, as people have been carrying out cooperative work throughout human history. History has carried within it a great reference to the origins of social relations between individuals that are evident in education, as cooperative learning is a form of social interaction. Which makes the players productive and interact with the event on the one hand and with their colleagues on the other hand in a fruitful and influential interaction. It is also a model for the coach in which the players perform the learned skills with each other and participate in understanding, dialogue and information related to the learned skills, and help each other in the learning process and during this performance. Through effective interaction,

positive personal and social competencies develop in them, and from here the importance of research is evident on the effectiveness of teaching the peer method for cooperative learning to facilitate dialogue and the use of cooperative skills, as well as creating an environment that encourages players to use these skills to learn some basic skills in the game of precision tennis for youth.[1]

Research problem

The nature of cooperative learning reduces the burden and responsibility placed on the trainer in managing the educational unit, so dealing with the small groups that make up the class occurs instead of dealing with each player individually, which leads to helping him interact with a larger number of players, in addition to allowing the trainer to diagnose Difficulties among the players, as the role of the teacher in cooperative learning is that he is a control of the sub-group and appointed to the player when needed, provides him with feedback, and monitors the process of collective participation in small groups. Hence, the research concluded that the cooperative learning method increases the players' self-esteem and develops the players' positive attitudes toward themselves. And towards their colleagues, when information overlaps between two or more groups, some basic skills in the game of tennis accuracy are learned for the better.

Research objectives

1. Preparing the effectiveness of peer education for cooperative learning in learning some basic skills in the game of precision tennis for youth
2. Identifying the effectiveness of peer education for cooperative learning in learning some basic skills in the game of precision tennis for youth.

Research hypotheses

- There is a positive effect of the effectiveness of peer education for cooperative learning in learning some basic skills in the game of precision tennis for youth.

Research field

- **Human field:** Ground tennis players, Al-Ajyal Tennis Academy / Baghdad Governorate for the 2021 sports season.
- **Time range:** Period 3/6/2021 to 5/18/2021.
- **Spatial field:** Playgrounds of the College of Physical Education and Sports Sciences/University of Baghdad.

Research methodology

The researcher used the experimental method with an experimental design with a pre- and post-test for two equal groups (experimental and control) to suit the nature of the research.

Research population and sample

The research population was identified as ground tennis players from the Al-Ajyal Tennis Academy / Baghdad Governorate for the 2021 sports season, and their number is (12 players). The research sample was selected using a comprehensive enumeration method and the sample was divided into two groups (experimental and control) with (six players) for each group.

Homogeneity and evenness of the sample

Table 1. Shows the homogeneity of the research sample members

Variables	Units	mean	median	STDEV	Skewness
Height	Meter	163.155	153.000	1.476	0.136
Weight	Kg	62.333	60.000	1.652	0.152
Age	Year	17.431	17.000	0.974	0.064

The value of the skewness coefficient is limited to ± 3, which indicates a moderate distribution of the population.

Table 2. Shows the results of the post-tests in the skill tests under study for the control and experimental groups

Variables	Experimental group		Control group		(t) value*	Error level	Statistical significance
	mean	STDEV	mean	STDEV			
Accuracy of serves in tennis from multiple areas	14.213	3.125	12.101	3.274	0.382	0.765	Non sig.
Accuracy of performing the tennis forehand from multiple areas	6.432	4.358	5.231	6.423	0.356	0.781	Non sig.
Accuracy of performance Accuracy of performance of the tennis backhand from multiple areas	6.121	2.866	5.043	4.958	0.344	0.743	Non sig.

* Significant below a significance level of ≤ 0.05 and below a degree of freedom of 10.

Methods of collecting information: (observation, tests and measurements).

Devices Tools used in the research

- 3 legal tennis courts.
- 20 tennis rackets and balls.
- 4 electronic stopwatches.
- Measuring tape.
- Markers and chalk.
- 5 - Sony XR 550 video cameras.
- 1 Dell laptop.

Tests used in the research

1. **Testing the accuracy of tennis serve performance**[2]

- Test name: Accuracy of serves in tennis from multiple areas.
- The aim of the test: to measure the accuracy of the serve in tennis.
- Tools used: legal tennis racket, legal tennis balls, colored tape.
- Performance specifications: The area opposite the serving player is divided into three areas, and according to the measurements fixed on the court, the serving player stands in the designated serving area and performs (6) serves to each side (3).
- Scoring method: Accuracy scores are calculated based on the ball falling in the specified areas, as follows:
    1) If the ball falls in area (A), the tested player gets (3) marks.

2) If the ball falls in area (B), the tested player gets (2) points.
3) If the ball falls in area (C), the tested player gets (1) score.
4) If the ball falls outside the field, the tested player gets a (zero).
5) If the ball falls on the dividing line between the two zones, the tested player gets the higher zone score.
6) The total score for the test is (18) points.

2. Testing the accuracy of performing the tennis forehand.[3]

- Test name: Accuracy of performing the tennis forehand from multiple areas.
- The aim of the test: to measure the accuracy of the tennis forehand.
- Tools used: Legal tennis racket, legal tennis balls, colored tape.
- Performance specifications: The area opposite the serving player is divided into six areas, and according to the measurements fixed on the court, the player stands on the opposite side of the court and performs (3) forehand shots.
- Scoring method: Accuracy scores are calculated based on the ball falling in the specified areas, as follows:
    1) If the ball falls in area (A), the tested player gets (3) marks.
    2) If the ball falls in area (B), the tested player gets two (2) marks.
    3) If the ball falls in area (C), the tested player gets (1) score.
    4) If the ball falls outside the field, the tested player gets a (zero).
    5) If the ball falls on the dividing line between the two areas, the tested student will receive the higher area score.
    6) The total score for the test is (9) points.

3. Testing the accuracy of performing the backhand shot in tennis[4]

- Test name: Accuracy of performance Accuracy of performing the tennis backhand from multiple areas.
- The aim of the test: to measure the accuracy of the tennis backhand shot.
- Tools used: Legal tennis racket, legal tennis balls, colored tape.
- Performance specifications: The area opposite the serving player is divided into six areas, and according to the measurements fixed on the court, the player stands on the opposite side of the court and performs (3) backhand kicks.
- Scoring method: Accuracy scores are calculated based on the ball falling in the specified areas, as follows:
    1) If the ball falls in area (A), the tested student gets (3) marks.
    2) If the ball falls in area (B), the tested student will receive two (2) marks.
    3) If the ball falls in area (C), the tested student gets (1) point.
    4) If the ball falls outside the field, the tested student gets a (zero).
    5) If the ball falls on the dividing line between the two zones, the tested player gets the higher zone score.
    6) The total score for the test is (9) points.

Exploratory experiment

The researcher conducted a reconnaissance experiment on (4) players on 3/6/2021 at the stadiums of the College of Physical Education and Sports Sciences/University of Baghdad. The researcher's exploratory experiment helped in identifying:

1. The suitability of the devices and tools used in the research.
2. The time it takes to conduct the tests.
3. Identifying the difficulties that the researcher may encounter when conducting the main tests.

Pretests

The researcher conducted the pretests on 3/9/2021 at the stadiums of the College of Physical Education and Sports Sciences/University of Baghdad.

Educational programs

- Implementation of the educational units began on 3/13/2021 and ended on 5/15/2021.
- The duration of the educational curriculum is (8 weeks). Each week has three educational units, each on Sunday, Tuesday, and Thursday.
- The time of the educational unit was (85) minutes.
- The preparatory section, which is (15) minutes long, and the following section:
- The main section, which is (60) minutes long
- The concluding section and its duration (10).

Post-tests

The post-tests were conducted on 5/18/2021 in the stadiums of the College of Physical Education and Sports Sciences / University of Baghdad. The researcher took into account providing conditions similar to the pre-tests in terms of (time, place, tools used, and method of conducting the tests).

Results

- **Presenting the results of the differences between the pre- and post-tests of the control group in the investigated variables and analyzing them**

Table 3. Shows the results of the significance of the differences between the pre- and post-tests of the experimental group in the skill tests under study

Variables	Pretest		Posttest		STDEV diff.	(t) value*	Error level	Statistical significance
	mean	STDEV	mean	STDEV				
Accuracy of serves in tennis from multiple areas	14.213	3.123	15.675	3.814	3.233	9.563	0.001	Sig.
Accuracy of performing the tennis forehand from multiple areas	6.432	4.357	7.874	6.838	9.354	7.732	0.000	Sig.
Accuracy of performance Accuracy of performance of the tennis backhand from multiple areas	6.121	2.863	7.443	4.053	3.467	6.976	0.000	Sig.

*Significant below a significance level ≤ 0.05 and below 5 degrees of freedom.

- **Presenting, analyzing and discussing the results of the pre- and post-tests in the skill tests of the control group**

Table 4. Shows the results of the significance of the differences between the pre- and post-tests for the control group in the skill tests under study

Variables	Pretest		Posttest		STDEV diff.	(t) value*	Error level	Statistical significance
	mean	STDEV	mean	STDEV				
Accuracy of serves in tennis from multiple areas	12.101	2.274	13.876	5.436	5.573	10.192	0.000	Sig.
Accuracy of performing the tennis forehand from multiple areas	5.231	5.427	6.456	3.689	8.217	4.541	0.000	Sig.
Accuracy of performance Accuracy of performance of the tennis backhand from multiple areas	5.043	1.959	6.234	3.783	4.873	8.376	0.000	Sig.

*Significant below a significance level ≤ 0.05 and below 5 degrees of freedom.

- **Presenting, analyzing and discussing the results of the post-tests in the skill tests under study for the control and experimental groups**

Table 5. Shows the results of the post-tests in the skill tests under study for the control and experimental groups

Variables	Experimental group		Control group		(t) value*	Error level	Statistical significance
	mean	STDEV	mean	STDEV			
Accuracy of serves in tennis from multiple areas	16.125	3.8197	14.785	3.436	6.963	0.001	Sig.
Accuracy of performing the tennis forehand from multiple areas	8.721	6.835	7.568	7.684	7.184	0.004	Sig.
Accuracy of performance Accuracy of performance of the tennis backhand from multiple areas	8.011	4.054	7.011	1.786	3.0622	0.003	Non Sig.

*Significant below a significance level of ≤ 0.05 and below a degree of freedom of 10

Discussions

Showing the results of tables (3, 4, 5), we find that learning occurred in the test results of the experimental group in the post-measurement, which indicates that the educational program that was prepared by the researcher has a positive impact on the skills of the game of tennis (forehand and backhand). , and sending) for the research sample, and the researcher attributes the reasons for these differences to the fact that the effectiveness of peer teaching for cooperative learning has affected the players' skill improvement compared to the effect of the traditional method. The reason for this may be attributed to the optimal investment of time to perform the skill performed by each player, receiving immediate feedback. Direct

from the group leader at times, and from the trainer at other times, in addition to assistance between the students themselves, which helped the learner gain additional experiences from the group leader on the one hand and from the teacher on the other hand. Each of them has a movement form for artistic performance and movement that serves the learner according to different circumstances, as the Providing nutrition is repeated in the early stages of learning due to the need for attempts to improve performance. This repetition is at its best when there are small cooperative groups.[5] The use of cooperative learning works towards effective participation among players and demonstrates constructive cooperation. Through it, the abilities of the players of one group are benefited from, as it leads to the merging of these abilities into a single outcome that comes together to benefit the members of the same group, and they feel that they are responsible for the achievement of each individual in achieving a collective goal or common goals,[6] that the principle of learning through play can enhance the teaching of skills and bring them closer to their optimal use by linking fixed repetitions of the skill with field performance during play (Rink, E, 1999, P401), that overlap and diversification in the educational environment, which aims to Increasing the ability to adapt and meet learning requirements and participating in accelerating the learning process by investing time and effort. We obtain the effect of interference in the learning environment through various exercises and in different locations and situations, which creates a situation similar to the game situation and thus has a better effect on .[7]

Conclusions

1. The results showed a noticeable superiority between the pre- and post-measurements using the effectiveness of peer teaching for cooperative learning in learning some basic skills in the game of tennis for the experimental group, in favor of the post-measurement.

2. There is a positive effect using the effectiveness of peer education for cooperative learning in learning some basic skills in the game of tennis, in favor of the post-measurement.

Recommendations

1. Adopting the effectiveness of peer education for cooperative learning in learning some basic skills in the game of tennis.

2. Conducting other similar research using the effectiveness of peer teaching for cooperative learning in other group or individual games.

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