

COMPARISON OF THREE EDUCATIONAL METHODS IN LEARNING THE SKILLS OF SERVING AND SMASHING VOLLEYBALL FOR SECOND-YEAR INTERMEDIATE STUDENTS

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Introduction

The current century is witnessing great and rapid progress in all knowledge and science, and this is an indication of the great interest of specialists and researchers in developing the educational process on an ongoing basis in order to raise the sporting level and achieve achievement in all sporting fields. The educational process is one of the fields that has witnessed many changes and scientific developments out of belief in the role it can play in building society and solving its problems. Modern educational methods have emerged in which the center of activity in the learning process moves from the teacher to the learner, as he is the focus of the educational process, in addition to the emergence of methods that take into account individual differences between learners, especially in their abilities and personal characteristics, so they interact with the school on the one hand and with their colleagues on the other hand in a deep, continuous and influential interaction. The educational method is the means of transmitting knowledge and knowledge to the learner, and the more it is appropriate to the educational situation and consistent with the learner's age, intelligence, ability, and inclinations, the broader, deeper, and more useful the educational goals achieved through it are. In addition, this development has added new responsibilities and duties to the teacher. His role is no longer limited to delivering information and knowledge to the learners, but rather goes beyond that to be the guide and motivator for learning, in addition to his role in creating the appropriate educational atmosphere, understanding the characteristics of the learners, and meeting their needs. It is also his responsibility to choose the best methods and methods that lead to achieving behavioral goals in the shortest possible time and effort. The cooperative method is one of the learning methods that can be used as a strategy in learning volleyball skills, due to the many and diverse skills in this game. The cooperative method has the ability to create synergy between students in the same class, and this synergy makes them more capable of performing. As for the reciprocal method, the learner is sometimes the performer and the second time the observer. Thus, he works on performing the assignment with the ability to discuss the aspects of this assignment with his colleague, which enables the student to correct his colleague's mistakes. Conversely, it gives the learner a major role in the educational process. Thus, he gives The student has a major role in the educational process. Focusing on one educational method of learning can have a positive impact on some learners and a negative impact on others. Therefore, educational methods must be used that take into account the cognitive styles possessed by the learners so that each learner can achieve his maximum and better understand the skill requirements in all areas. Sports events, and one of these events is the plane, which is one of the sports games that has its own requirements, such as the skill, tactical, intellectual, and



psychological elements. This game contains several basic skills, including defensive skills, which the player relies on by repelling the attack and gaining the right to counterattack to obtain points and then Winning. From the above, the importance of research lies in comparing educational methods and knowing which methods are most effective in learning in order to make the learning process more economical in terms of effort, time and cost. Therefore, the researcher sought, as a scientific attempt, to experiment with methods in learning the skills of serving and hitting the volleyball.

Research problem

The research problem lies in answering the following question

- Is there a difference between the three methods (command - reciprocal - cooperative) in learning the skills of serving and hitting the volleyball?
- If there is a difference in learning the skills of serving and hitting the volleyball as a result of learning between the three methods (imperative - reciprocal - cooperative), who has the advantage?

Research objectives

- Identify the effect of using the three methods (imperative, reciprocal, and cooperative) in learning the skills of serving and hitting the volleyball.
- Identify the superiority of any of the three methods (command - reciprocal - and cooperative) in learning the skills of serving and hitting the volleyball.

Research hypothesis

There are significant differences between the three teaching methods (imperative - reciprocal - and cooperative) in learning the skills of serving and hitting.

Areas Of Research

- Human field: Second-grade intermediate students at Al-Furat Middle School in Basra Governorate, numbering (66) students.
- Time frame: for the period from 9/10/2023 to 10/2/2023
- Spatial area: Middle Euphrates Square in Basra Governorate

Research methodology and field procedures

Research methodology

The process of choosing the method in research is due to the research problem, as it dictates the method that can be used, and therefore the researcher used the experimental method and the matched groups method in order to suit the nature of the problem.

Society and research sample

The researcher identified his research population, which was represented by the students of Al-Furat School in Basra, who numbered (66) students.

As for the research sample, which is part of this community, the students were divided by lot into three groups, and the first group was chosen for the imperative style, the second group for the

reciprocal style, and the third group for the cooperative style, as shown in Table (1)

Table (1) Distribution of the sample among the three groups

Number of students	Style	Groups	No
10	Al-Amri	The first group	1
10	Mutual	the second group	2
10	Cooperative	The third group	3
30	the total		

Tools, methods and devices used in the research:

Search tools

The researcher used the following tools to collect data:

- Observation.
- Testing and measurement.
- Arab and foreign sources.

Methods used in the research:

Volleyball court.

Adhesive tape.

Devices used in the research:

Dell laptop.

Field research procedures:

First - Testing the transmission accuracy from above

- The aim of the test: to measure the accuracy of transmission from above to different areas of the arena.
- Tools:
- Legal volleyball court.
- Adhesive tapes to define areas and indicate the division of test scores on the field.
- Legal balls (6)
- Performance method: The tester stands behind the base line and some trial attempts are given before the original test.
- Registration:
- Attempts are carried out legally and scores are given according to the areas where the ball falls
- Attempts that collide with the network and fall in one of the areas are cancelled.
- As for attempts that are not implemented within the law, they will be given a zero
- The laboratory performs (6) attempts.
- The total test score ranges from (0-30) points.

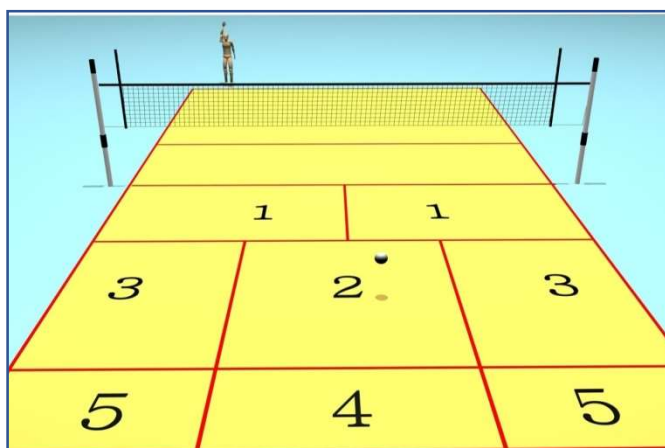


Figure (8)

The distribution of transmission accuracy test scores is shown from above

Secondly, an accuracy test for the skill of hitting a volleyball smash

- The aim of the test: to measure the accuracy of the skill of hitting the volleyball.
- Tools: a legal volleyball court, 5 legal volleyballs, and colored tape to divide the court.
- Test procedures: The defensive zone is divided into two halves (A) and (B), and in each zone a precision square is drawn with an area of 1 x 1 meter.
- Performance specifications: The tested player performs the smashing skill from position (4), while the coach prepares balls for him from position (3) and the tested player performs the skill.

Performance conditions

- Each tested player has (5) consecutive attempts at Area (A)
- Each tested player has (5) consecutive attempts in zone (B)

Registration

- (4) -Points for each smash hit in which the ball lands in area (A) or (B)
- (3) -Points for each smash hit in which the ball lands on the marked area.
- (2) -Points for each smash hit in which the ball lands on areas (A) and (B)
- (Zero) for every ace that lands outside the court.

The total score for each region is (20) degrees, while the maximum score for regions (A) and (B) is (40) degrees.

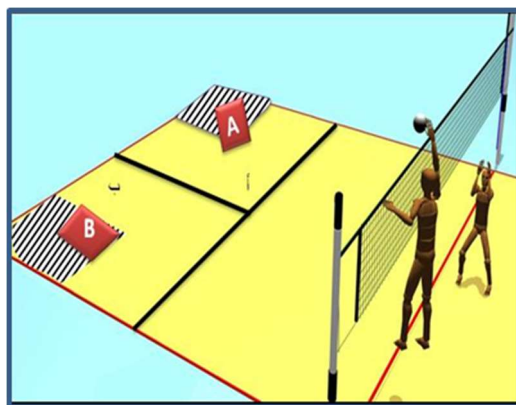


Figure (9)

Demonstrates an accuracy test for the skill of hitting a volleyball smash

Exploratory experience

Scientific research experts recommend conducting exploratory experiments for the tests used in research in order to obtain reliable results and necessary information, to benefit from them when conducting the main experiment. Accordingly, the researcher conducted an exploratory study on (6) students. This experiment was applied in the middle of the Euphrates Square on 3 February. / 9 / 2023, as the goal was to conduct the exploratory experiment on several points, including.

- Identifying the negatives and positives that the researcher faces in the main tests, knowing the safety of the devices and ensuring their validity.
- The adequacy of the assistant team and their understanding of how to apply the test vocabulary and distribute them to know their tasks when conducting tests for the research sample.
- The appropriateness of the time period specified for the test for one student and for the rest of the students.
- Extracting the scientific foundations of the tests (honesty, reliability, objectivity). By repeating the test on the same members of the exploratory experiment sample a week after conducting the exploratory experiment tests.

This experiment achieved its purpose.

Scientific foundations of the test

Test stability

It is a test that gives close results or the same results if applied more than once under identical conditions. The test was repeated on the same members of the exploratory experiment sample under the conditions two days later, i.e. on (Tuesday) 9/5/2023, taking into account an attempt to confirm all the conditions under which the first test was conducted. The tests were conducted on the same students on whom the exploratory experiment was conducted, and the researcher used the reliability coefficient between the two tests using the Pearson correlation coefficient law. The results showed that there is a high correlation between the tests, because ((the closer the reliability value is to (+1)), indicating that the tests have a high degree of reliability as shown in Tables (2)

Validity of the test

It is intended that the test actually measure the ability, trait, attitude, or aptitude that the test was designed to measure. That is, it actually measures what it is intended to measure. Since “the validity coefficient depends on the reliability coefficient, it increases with its increase and decreases with its decrease.” Therefore, the researcher used self-honesty, which is measured by calculating the square root of the reliability coefficient as shown in Tables (2)

Objectivity of the test

Objectivity is one of the task conditions for a good test, which means “the researcher’s subjective judgments are not influenced” (Abdul Karim et al.: 1984: 45) or that objectivity is present without bias and subjective interference on the part of the experimenter. That is, the more subjectivity does not influence the judgments, the more The value of objectivity Therefore, the tests under study were presented to a number of (2) judges to identify the suitability of the test for the sample, as in Table (2)

Table (2) Scientific foundations of tests

Objectivity	Honesty	Consistency	Variables	No
0.982	0.990	0.892	Straight defense	1
0.977	0.925	0.857	Ring defense	2
0.989	0.956	0.914	Semicircular defense	3
0.954	0.964	0.930	Qatari defence	4

Main experience

Pre-test

The researcher began applying pre-tests to the research sample, and the researcher recorded all variables related to time and place. The tests were applied on 9/7/2023

Methods of learning skills

It was agreed with the subject teacher to divide the students into three groups, and each group would be taught in a manner different from the other group

First: The subject teacher explains the skill to each group

Second - For students of the imperative method, the teacher receives information and corrects all conditions, as in Figure (1)

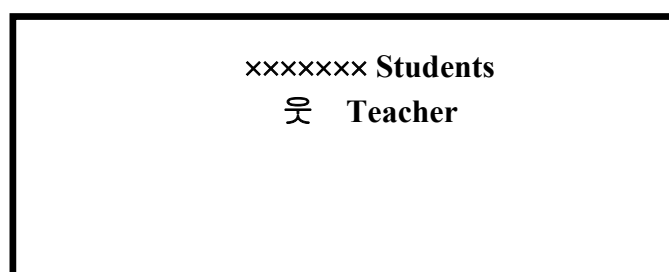


Figure (1) shows the performance of students in the imperative method
 Third - For students of the reciprocal method, the students are divided into pairs and work independently. One student performs the movement, while the other student observes him and gives him feedback, as in Figure (1)

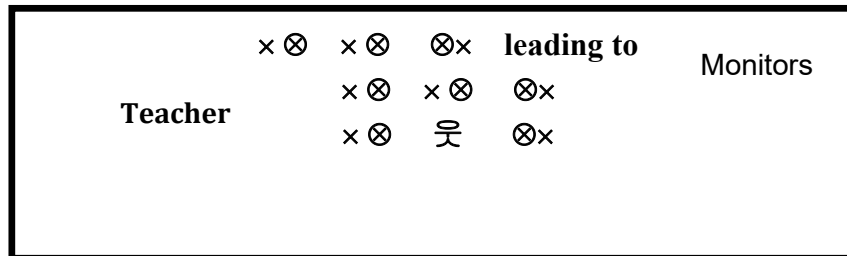


Figure (2) shows the students' performance in the reciprocal method

Fourth - For students of the cooperative method, the students of one group are divided into mini-groups. Each group contains 5 students and they work independently. The students of the group perform the movement, while the fifth student observes and gives feedback to the members of his group, as in Figure (3)

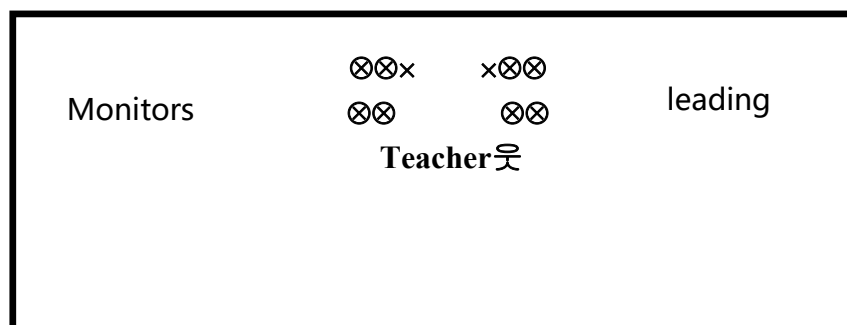


Figure (3) shows the students' performance in the cooperative method

The curriculum was implemented for 6 weeks. One unit per week

Post-test

The researcher began applying the post-tests on the research sample. The researcher took care to provide the same variables related to time and place that were in the post-tests. The tests were applied on 10/19/2023

Statistical methods:

The researcher used the statistical package (SPSS)

1. Pearson correlation coefficient
2. Arithmetic mean
3. Analysis of variance test
4. L.S.D test to determine the differences between the three groups

5. the fourth chapter

Presentation, analysis and discussion of the results:

Presenting and analyzing the results of volleyball skill values for the three research groups:

Table (3) Shows the calculated (F) value for volleyball skill values

							No
indication 0.000	Calculated F value 9.185	Mean squares	Degree of freedom	Sum of squares	Source of variance	Variables Overwhelming beating	1
		13.617	2	27.233	Between groups		
0.000	9.077	1.482	27	84.500	Within groups	Transmitter	2
			29	111.733	the total		
		14.450	2	28.900	Between groups		

Table (3) shows the presence of statistically significant differences in the results of the skill values in volleyball (crushing, serving) between the three groups of methods (imperative - reciprocal - and cooperative), which means the presence of significant differences, and to know the direction of the difference in favor of any group. The researcher intended to use the value of the least significant difference (L.S.D) between the four groups.

Table (4) Shows the value of the (L.S.D) test for comparisons between the three groups (imperative - mutual – cooperative)

Statistical significanc e	Signif icance level	Standa rd error	Media differen ce	Arithmetic circles		Mean tests		Variabl es	No
moral	0.000	0.385	- 6.85	23.95	17.10	reciproc al	My comma nd	Transm itter	1
moral	0.000	0.391	- 8.65	25.75	17.10	cooperat ive	My comma nd		
moral	0.025	0.394	- 1.80	25.75	23.95	cooperat ive	reciproc al		

moral	0.000	0.397	- 6.86	33.70	26.84	reciprocal	My command	Overwhelming beating	2
moral	0.000	0.401	- 9.70	36.55	26.85	cooperative	My command		
moral	0.009	0.395	- 2.85	36.55	33.70	cooperative	reciprocal		

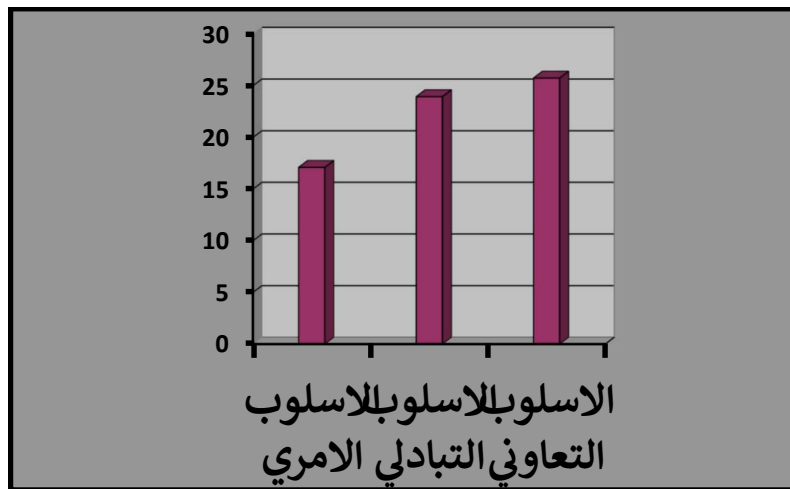


Figure (1) shows the arithmetic means of transmission for the third groups

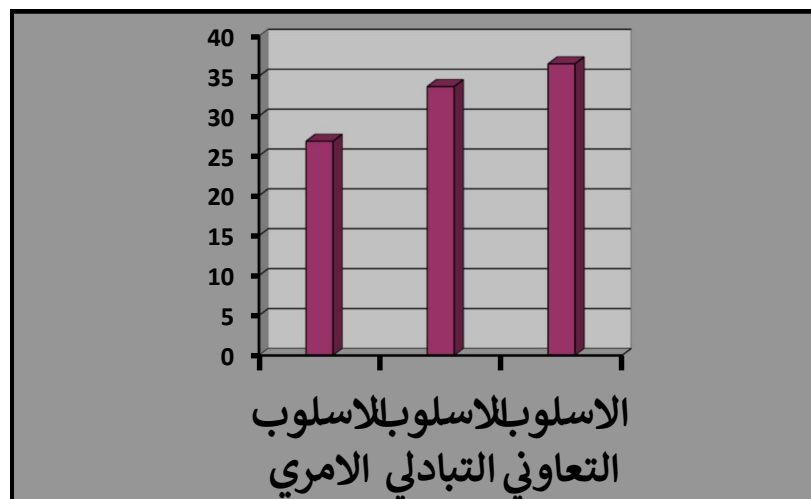


Figure (2) shows the mathematical calculations in the circular defense of the third groups

Discussion of the results

We note from Table (4) that there are significant differences between the three groups of the

research sample with respect to the group that was taught in the imperative method. We note that it is less learned compared to the other groups and therefore little learning occurred in the skill performance of volleyball skills, in which the teacher has a major role in implementing this method, as He has control over the educational situation as well as in making all the lesson decisions related to the preparation and application stage. Thus, the student does not have the opportunity to be creative, cooperate, or participate in making decisions only, The researcher sees the learning that students obtained due to the (imperative) method, which is characterized by controlling students, avoiding choices, and focusing on the skill, which leads to using the largest number of repetitions of the required movement or skill, which led to an improvement in skill performance, which reflected positively on the students' performance in skills. Defending with a sword, and this agrees with (Wajih Mahjoub) that learning "does not come suddenly. Experience, practice, and repetition develop performance, as there is an initial awareness of the movement, and this always comes to motor skills through explanation, clarification, and display of the movement. Then, if this movement is repeated, Cognition takes another form, which is detailed perception, especially if the individual practices exercise, and after that there is complete and precise perception as a result of learning and practicing mathematical skills. As for the students who were taught in the reciprocal method, their rate of development came second, and the researcher attributes this development as a result of learning according to this method, which led to the creation of an appropriate social and psychological atmosphere. "The more feedback is given immediately after achievement, the greater the opportunity to correct errors. Therefore, the highest rate of feedback." It can be achieved by providing one teacher (observer) for each student performer. This was confirmed by Qasim Hassan, "The goal of acquiring motor skills in general and the consistency of the art of motor performance leads to the player acquiring the ability to perform various movements to an acceptable degree of compatibility with the learner's ability to economize." In making an effort." (3) As for the students of the group that was taught in the cooperative method, the students in this group achieved the highest development compared to the other groups. The researcher attributes that the development that occurred in the members of this group is due to the spirit of interaction between the members of this group and support for each other through their personal commitment to each other to achieve the goal. This interaction can be verified by watching the verbal interaction that occurs between members of the group and their exchange of explanation and clarification. "Face-to-face interaction is not an end in itself, but rather a means of achieving important goals such as developing interaction between students, and developing positive interactions that positively affect the skill outcome The researcher believes that the cooperative method has created a teacher (the student-observer) for each learner (the student-performer) and has also helped provide direct and rapid feedback to the learner during the educational situation. There is no doubt that using this method of teaching has many advantages, among which may be that: Learners explaining the skill or skills to each other, as well as providing direct feedback, may be one of the best methods in many educational situations. Likewise, the learner playing the role of a teacher is learning how to teach, and correcting his fellow learner's

mistakes is ultimately a reason for not falling into them. There is also no doubt that it increases... Learners' confidence in themselves and in their social and emotional relationships also contributes to their growth in learning volleyball skills. Muston and Ashurt state that the cooperative method is of great importance in learning and providing the learner with motor skills, as practicing the educational activity under conditions of direct access to feedback from a colleague contributes significantly to the process of learning and acquiring motor skills, as the cooperative method is one of the best methods used in the stage. Primary learning, as learners need to recognize important educational points and obtain feedback after each attempt to help them correct their mistakes and improve their skill performance in volleyball, and this is what the results of the current research showed, as it becomes clear that the cooperative method is better than the other methods that have been taught. With it

Conclusions and recommendations

Conclusions

Through presenting, analyzing and discussing the data, the researcher reached the following conclusions:

1. The teaching methods (imperative, reciprocal, and cooperative) contribute to learning the selected skills in volleyball.
2. The imperative method was the least educational method compared to the (reciprocal and cooperative) methods for students to learn the skills of serving and hitting a smash with a volleyball.
3. The reciprocal method was better in teaching than the imperative method, but less educational than the cooperative method for students in learning the skills of serving and hitting.
4. The cooperative method was the best teaching method for students in learning the skills of serving and hitting the volleyball.

Recommendations and proposals

First: Recommendations

1. The need for teachers or trainers to pay attention to the diversity of educational methods away from traditional methods.
2. The need to improve skill performance according to the diversity of educational methods to take into account individual differences among learners.

Second: Proposals

1. Using other teaching methods to teach volleyball skills.
2. Conduct similar studies to learn according to the methods used in the current research in learning defensive skills in the plane.
3. Conduct similar studies to learn according to the methods used in the current research to effectively learn skills other than flying

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