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THE IMPACT OF THE "THINK-PAIR-SHARE" STRATEGY ON MOTOR SATISFACTION AND LEARNING THE TENNIS SERVE SKILL AMONG STUDENTS

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Abstract
By closely observing most educational units related to tennis, the researchers noted that many teachers rely on direct methods to deliver educational content, with the predominant approach being the command style. This method often lacks the use of modern strategies and techniques, which may be more effective in learning and acquiring motor skills, especially the tennis serve skill, which could lead to students feeling more satisfied with their performance of this skill. The research aimed to identify the impact of the "Think-Pair-Share" strategy on motor satisfaction and learning the tennis serve skill among students. The research community was identified as third-year students in the Faculty of Physical Education and Sports Sciences at Al Ain University for the academic year 2023-2024, with a total of 141 students. The research sample was randomly selected by lottery, consisting of 28 students from two groups (B and C). They were then divided into two groups: a control group and an experimental group, with 14 students in each group. The control group followed the teacher's method, while the experimental group followed an educational method based on the "Think-Pair-Share" strategy. The researchers found that the "Think-Pair-Share" strategy significantly improved the skill performance level of the tennis serve among the experimental group members.

1- Introduction

The development of human societies has relied on science and the adoption of the educational system as the foundation within which all human capabilities for progress and development are nurtured. Learning plays an influential and effective role in developing and advancing individuals' abilities in all its various aspects—mental, psychological, social, and motor—being a purposeful and directed educational activity with direct impacts on these areas, leading to a high level of accuracy, provided that appropriate opportunities and an encouraging learning environment are available. The educational process is dynamic and evolves with the progression of life and societies, making the use of more effective strategies, methods, and teaching techniques essential. These must be emphasized by educators, depending on the teacher's personality and the time allocated for implementing the educational curriculum. A successful strategy is one that achieves the intended goal in the least amount of time and effort expended by both the teacher and the learner. It should stimulate the learner's interest and motivation, encourage good motor performance, positive work, self-activity, active participation in the educational unit, and promote thinking. Based on the aforementioned, we chose to explore the "Think-Pair-Share" strategy, which is one of the cooperative learning strategies that aims to link learning with active participation by students or learners. It is based on the idea of involving a larger

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number of students in the classroom, responding to scientific advancements by encouraging students or learners to think to achieve learning and apply correct performance. The strategy ensures mutual learning during the pairing step and facilitates the sharing of ideas and information exchange among peers, aiming to create a state of connection between understanding, cognition, and the ability to perform skills. The significance of this strategy in the educational process lies in its ability to engage students or learners in gathering information and scientific data, expressing their results, then analyzing and discussing these results together. The experiences gained by students through activities in scientific subjects are an effective means of fostering a spirit of cooperation and teamwork among students with varying abilities. Satisfaction, whether with a profession or studies, results from the attitudes individuals hold. It is the feeling of psychological contentment with what one has achieved in a particular field of life and what one aims to achieve in the future. Success in performing motor activities is linked to satisfaction and enjoyment, which are motivators for interest in motor activities.

Research Problem:

Many teachers rely on direct methods to deliver educational content, with the dominant method in educational units being the direct command approach. This approach reduces the student to a mere receiver of commands issued by the teacher, without engaging in modern strategies and methods that could be more effective in learning and acquiring motor skills, particularly the basic skills in tennis. These strategies could increase students' satisfaction with their performance of these skills. Consequently, these challenges have prompted the researcher to seriously consider and seek more effective strategies for acquiring these skills that minimize effort and time. This motivated the researcher to delve into the details of this problem to find a successful solution that would help teachers achieve the educational objectives of their lessons by applying the "Think-Pair-Share" strategy to enhance motor satisfaction and learning some basic tennis skills among students.

Research Objectives:

1- Developing a scale for motor satisfaction among students.

2- Identifying the impact of the "Think-Pair-Share" strategy on motor satisfaction and learning some basic tennis skills among students.

3- Determining the significance of differences between the control and experimental groups in motor satisfaction and learning some basic tennis skills among students.

Research Hypothesis:

1- There are statistically significant differences between the pre-tests and post-tests of the control and experimental groups in motor satisfaction and learning some basic tennis skills among students, in favor of the post-tests.

2- There are statistically significant differences between the control and experimental groups in the post-tests in motor satisfaction and learning some basic tennis skills among students, in favor of the experimental group.

2- Previous Studies:

2-1 The "Think-Pair-Share" Strategy

Educational strategies generate patterns of thinking and create a continuous need for students to challenge their cognitive abilities because these strategies require learners to use various mental skills

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to deal with problems and find appropriate solutions. This, in turn, benefits the student in learning the skill, as practical skills result from commands issued by the brain for execution. The more accurate the commands resulting from correct learning and the educational strategies that align with skill acquisition, the better the practical performance of the skill will be.

The "Think-Pair-Share" strategy is one of the modern cooperative learning strategies. It is a small structure for active cooperative learning proposed by Frank Lyman in 1981 and further developed with his colleagues at the University of Maryland in 1985. According to Jay McTighe and Frank Lyman, as cited by Sara Abdul Karim, this strategy has shown numerous benefits over more than 20 years of research and studies. It allows students to engage in silent reflection after a question is posed, providing detailed and thoughtful responses, increasing student participation in classroom discussions, supporting logical reasoning through argumentation, and improving academic achievement. The cooperative learning structure enhances student interaction, improves relationships, and positively impacts students' attitudes and academic performance. Therefore, the "Think-Pair-Share" strategy combines the benefits of "wait time" and cooperative learning.

This strategy is a cooperative discussion method named after its three stages of student activity: thinking, pairing, and sharing, with a focus on what the student does at each stage. Marilyn states that it is an effective strategy for teaching adults, introducing them to other learners, and creating a positive interactive environment through open dialogue. It builds their confidence, making them more comfortable sharing their experiences and gaining input by asking and using open-ended questions. Dalton describes it as one of the derived strategies used in cooperative learning with fixed, sequential steps and clear instructions that start with thinking, followed by pairing, and then sharing. Teachers must adhere to these steps to avoid falling into the trap of group work.

The "Think-Pair-Share" strategy is part of the discussion group model that falls under the structural approach, a method of cooperative learning. The teacher selects the appropriate content, prepares a complete lesson, and formulates cognitive and cooperative objectives, which form the basis for selecting and organizing activities. The principles underlying this strategy are as follows:

1- The Thinking Phase
2- The Pairing Phase
3- The Sharing Phase

The researcher believes that the "Think-Pair-Share" strategy is an active learning strategy that involves a series of steps, starting with the learner's self-thinking, followed by educational discussions with a peer, and then cooperative and interactive discussions with the group, all in a sequential and progressive manner. It relies on student participation and interaction during educational activities and aims to enhance and activate prior knowledge. The steps begin when the teacher poses a question about the material presented, asking students to think according to the three stages to arrive at the correct answer before sharing it with the entire group. This process helps students achieve the desired teaching objectives.

2-1-1 The Advantages of the "Think-Pair-Share" Strategy in Improving Basic Tennis Skills

1- It helps students provide responses and perform motor tasks with cognitive depth and motor precision. It gives students ample time for self-reflection and silent individual thinking after the teacher

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stimulates questions, eliminating the problem of hasty responses and teaching them how to think.
2- It encourages active student participation in the learning process (both cognitive and skill-based) within the classroom, enhancing the retention of motor skills, increasing cognitive achievement in motor skills, and developing higher-order thinking skills. It helps students build their knowledge through individual and group discussions, generating a greater number of ideas.
3- The strategy is clear, easy to use, and quick to implement. It does not require much preparation time from the teacher and follows clear, defined steps, promoting both cognitive and skill development in students.
4- It helps students acquire diverse knowledge about sports skills and reach it independently, think critically, analyze knowledge, and gain a deeper understanding of the motor skills being studied.
5- It corrects students' misconceptions (if their prior experiences were incorrect) during the pairing and discussions and eliminates student isolation by encouraging active, cooperative participation.
6- It fosters personal communication and understanding through constructive, calm dialogue among students.
7- It brings vitality to the classroom by promoting teamwork and pairing among students, increasing overall effectiveness.
8- It enables students to benefit from others' ideas, add to them, and improve or develop them into a new, better idea.
The researchers believe that this strategy involves giving students a task for a set period, allowing them to think and record their answers, discuss these answers with a peer, and then share their responses and information with the rest of the pairs. This method gives them enough time to reduce the fear of providing incorrect answers and encourages collaborative participation.

2-2 Motor Satisfaction

Movement is the fundamental activity and form of life, serving as a basic means of expressing ideas, emotions, and concepts in general. It is a noticeable physical response to a stimulus, whether internal or external. What distinguishes movement is its wide variety of concepts and problem-solving capabilities. Movement is crucial to the overall development of humans. Satisfaction, whether with a profession, studies, or motor activities, results from an individual's attitudes toward their profession, studies, or activities and their multiple influences, including factors related to the individual, such as their level of ambition, personality traits, and inclinations, which manifest as satisfaction with overall performance.
Mahmoud Samir defines motor satisfaction as the emotional feelings an individual experiences toward a particular activity, reflecting the degree of fulfillment in meeting their needs and achieving the goals for which they engage in that activity. It is also the result of work-related factors that make an individual love their work and eagerly approach it at the start of the day. Psychologists believe that satisfaction with performance is linked to the learner's motivation. The more benefits, rewards, and suitable conditions a learner gains from their performance, the more motivated and enthusiastic they will be to exert greater effort in their performance. Hence, many people lack success, happiness, and enjoyment in their lives due to circumstances that hinder them from achieving their set ambitions, leading to a disruption in their self-satisfaction, which directly affects their performance and level.

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Motor satisfaction has been defined in several ways. It is described as "an individual's sense of their ability to perform sports motor skills and their feeling of satisfaction and happiness resulting from this performance." It is also defined as "a high degree of satisfaction an individual feels about their performance, level of ambition, and execution of various motor skills, enhancing self-confidence and promoting independence without relying on others."

Based on the previous definitions, the researcher believes that motor satisfaction is the student's desire to learn skills with a degree of conviction and satisfaction, resulting in a feeling of comfort, energy, vitality, and increased self-confidence, ultimately leading to improved performance.

2-2-1 Factors Influencing Motor Satisfaction

1- The adequacy of direct supervision by the teacher over teaching and the games the student engages in.
2- The student's satisfaction with their performance in class and in games.
3- Compatibility with peers during class and games.
4- Achieving the goals of engaging in sports.
5- The fairness of material and moral rewards given to students.
6- The physical and mental health condition the student experiences.

2-3 Tennis Game

Tennis is a widely popular sport across many countries, with a growing number of participants. This increase is attributed to the fact that tennis is an enjoyable sport suitable for all ages, from eight to seventy or older, depending on individual capabilities and skills. It is a sport that is appropriate for all genders, requiring only two or at most four players, and can be played in a relatively short time.

The rules of tennis and the method of scoring are consistent across all countries where the game is played. Tennis is characterized by a high level of sportsmanship, fairness, and appeal, offering numerous benefits, particularly enjoyment, friendships, and social relationships outside the court. It is a sport that contributes to preparing an individual physically, mentally, psychologically, and socially by enhancing their positive abilities and capacities in service of the community. The development and expansion of tennis reflect its true value.

Tennis is as significant as other competitive sports, requiring a player to possess a high degree of courage, sharp observation, intense focus, and self-control under all circumstances. It is a sport rich in events throughout the eras of modern civilization, with its own set of etiquettes and traditions. Mastering the basic skills of tennis in any sport is crucial for achieving success in that sport, as each game has its unique skills that form the strong foundation on which the sport relies.

The researcher will focus on some of the basic tennis skills, specifically the serve. The serve is the only stroke in tennis matches that offers numerous advantages, control over the play, and many opportunities to score points. Serving provides a psychological advantage by placing the player in an attacking position, while the opponent is in a defensive stance, and it allows the server to score points without expending much energy chasing the ball within the court.

The serve is a key offensive tool in tennis, and the faster and more accurate it is, the more effective it becomes against the opponent. Serving requires continuous attention and sufficient study to be properly understood. It demands great strength, the ability to aim, and maintaining full body balance throughout

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the serving motion to generate maximum power.

The serve has evolved and diversified, becoming an offensive stroke aimed at winning points and, consequently, the game. Mastery of the serve and other strokes is essential for a tennis player. While beginners often find the serve easy, it is a complex skill that requires continuous practice to achieve a high level of performance in terms of control and precision. The serve involves neuromuscular coordination, as well as speed of movement. For a serve to be successful, factors such as direction, speed, and spin of the ball play a significant role.

Types of serves include the flat serve, the topspin serve, the kick serve, and the slice serve. The researcher will focus on the flat serve, which is characterized by its power and speed. Additionally, this type of serve is the easiest and most commonly used, as it often lacks spin, causing the ball to land in the opponent's service box like a powerful shot. Due to these advantages, most players use this serve on their second attempt because it is easy to execute. Serving is one of the most critical skills in tennis, as it is used to put the ball into play at the start of each point in a game.

Figure (1) illustrates the execution of the serve skill.

Previous Studies:

There have been numerous studies that utilized the "Think-Pair-Share" strategy across various disciplines both in our society and in other societies, with some studies being Arab and others foreign. After reviewing the studies that employed this strategy, the researcher identified recent studies that focused on the same strategy in physical education and sports sciences.

Study: (Ghadeh Aboud, 2016)

This study aimed to assess the impact of using the "Think-Pair-Share" strategy on social behavior, cognitive achievement, and the learning of some offensive handball skills among second-year students at the College of Physical Education and Sports Sciences for Women, University of Baghdad, during the academic year 2015-2016. The study sample consisted of two groups: Section A (experimental

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group) and Section B (control group), with a total of 38 female students—20 in the experimental group and 18 in the control group. The study procedures included tests for social behavior, cognitive achievement, and offensive handball skills. The statistical methods used by the researcher included the arithmetic mean, percentages, standard deviation, correlation coefficient, t-test, and the Spearman-Brown formula. The study showed a positive effect on the social behavior test, cognitive achievement test, and offensive handball skills test for the second-year students in the experimental group, indicating that the students in the experimental group who were taught using the "Think-Pair-Share" strategy outperformed those in the control group who were taught using the traditional teaching method.

Study: (Aya Hussein Abdel Ali, 2022)

This study aimed to develop educational units for the strategy of educational stations to enhance cognitive achievement and some basic tennis skills among third-year students at the College of Physical Education and Sports Sciences. The study also sought to determine the impact of the strategy of educational stations on cognitive achievement and the accuracy of some basic tennis skills. The research adopted an experimental design with a control group and an experimental group, involving a sample of 30 third-year students from the College of Physical Education and Sports Sciences at the University of Baghdad for the academic year 2021-2022. The students were randomly divided into two groups, with 15 students in each group. The control group followed the exercises provided by the course instructor, while the experimental group followed the educational units prepared by the researcher. After the experiment, statistical analysis was conducted using the SPSS software to process the results

Significance	Skewness (L)	Standard Error	Standard Deviation X	Mean S	Unit of Measurement	Statistical Treatments / Variables
Homogeneous	- 0.431	0.597	0.854	23.5	Years	**Age**
Homogeneous	0.082	0.597	4.273	74.571	Kg	**Weight**
Homogeneous	0.328	0.597	3.794	169.357	Cm	**Height**

The study concluded with several key findings, including that modern strategies such as the educational stations strategy improved the skill performance of the forehand, backhand, and serve among the experimental group, and that these strategies considered individual differences among students, which helped improve the skill performance in tennis. The variety in the stations in terms of explanation and application contributed to improving and correcting errors, enhancing skill performance, and providing sufficient opportunities within the four stations. This approach improved the understanding of technique and its details among the research sample. The use of the exploration station helped students identify

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their own errors and attempt to correct them, which had a positive impact on the cognitive achievement of the skills.

3. Research Methodology:

The researchers employed the experimental method with equivalent groups (control and experimental) to address the research problem appropriately. The research community consisted of third-year students at Al-Ain University for the academic year 2023-2024, totaling 141 students. A sample of 28 students from two sections (B and C) was randomly selected, with 14 students in each group. The control group followed the teacher's methodology, while the experimental group used an educational approach based on the "Think-Pair-Share" strategy. The researchers ensured homogeneity in the variables of age, weight, and height by using the skewness coefficient, as shown in Table 1. To ensure an equal starting point between the groups, the researchers used the t-test for independent samples to determine equivalence between the groups, as shown in Table 2.

Table 1 shows the homogeneity of the research sample in terms of age, weight, and height.

*All skewness coefficient values were within (+1), indicating homogeneity among the group members.

Table 2 shows the equivalence between the control and experimental groups in the research variables

Significance Level	Sig. Value	t-value	Experimental Group		Control Group		Unit of Measurement	Statistical Treatments / Variables	No
			SD	Means	SD	Means			
Not significant	0,965	0,415	3,315	32,071	3,319	32,642	Degree	**Motor Satisfaction**	**1**
Not significant	0.825	0.223	2.301	15.714	2.758	15.928	Degree	**Serve**	**2**

3.1 Tests Used in the Research:

First: Serve Accuracy Test for Four Equal Areas.

Objective: To measure serve accuracy.

Equipment Used:

A regulation tennis court with the service areas divided into four equal zones, each assigned specific points, as shown in the figure.

A tennis racket, and tennis balls in good condition.

Test Instructions:

1- The tester stands behind the baseline diagonally.

2- The instructor stands in the opposite court to count the valid serves.

3- An assistant student collects the balls and helps the instructor.

4- The tester is given two warm-up attempts to adapt to the test.

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5- The tester is allowed 10 attempts—five from the right side and five from the left side.

Performance Method:

The test subject executes a serve into the designated serving area on the opposite court, aiming to land the balls in the zone with the highest points.

Scoring:

1- Points are awarded for each valid ball as follows:

- A ball landing in Zone 4 earns 4 points.
- A ball landing in Zone 3 earns 3 points.
- A ball landing in Zone 2 earns 2 points.
- A ball landing in Zone 1 earns 1 point.
- A score of zero is given for balls that do not cross the net or fall outside the designated serving area.

2- The subject's score is the total of the points earned from ten attempts.

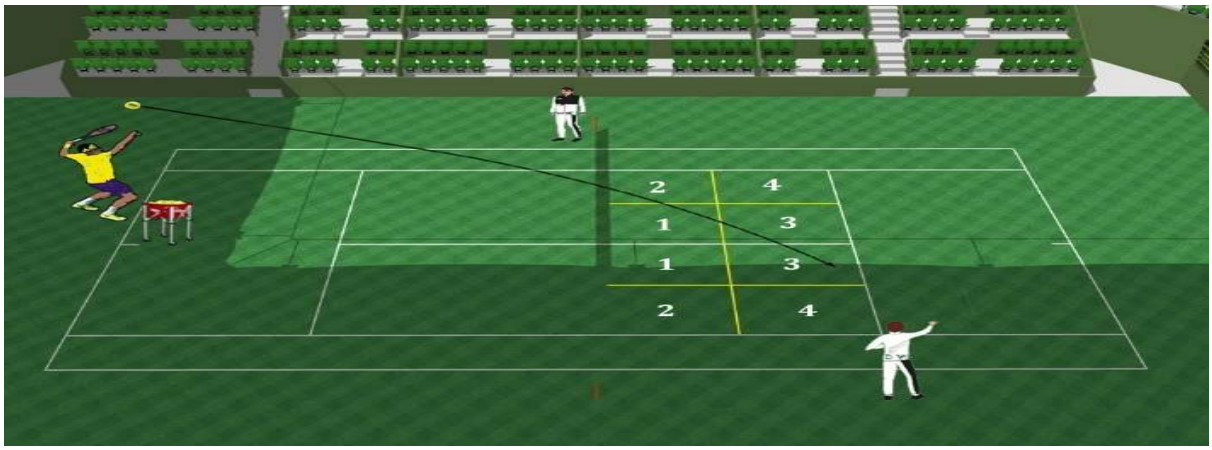

Figure 1: Illustration of the test with four equal zones.

Second: Motor Satisfaction Scale

To understand the clarity of instructions, items, and answer choices from the perspective of the research sample, as well as to determine the time required to answer the scale items and identify any difficulties or obstacles that the researcher might face during the application of the scale (to avoid them in the final version), a pilot test of the scale was conducted on a sample of 10 third-year students from the College of Physical Education and Sports Sciences at Al-Ain University, who were selected randomly. The pilot study revealed the following:

- The instructions were clear to the pilot sample.
- The time taken to apply the scale was between 6 and 10 minutes.
- The answer choices and items were appropriate for the sample's level.

The researcher then proceeded to apply the Motor Satisfaction Scale, consisting of 26 items (see appendix), to the sample of 100 students from the College of Physical Education and Sports Sciences at Al-Ain University. This was done in the college's classrooms, and afterward, the forms were collected and checked for scoring. The researchers conducted another pilot study on Sunday and Monday, 8-

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9/10/2023, on a sample of 8 students from the research population. The researchers and the subject's instructor supervised this study. The purpose of the pilot study was to identify potential obstacles that might arise during the field experiment and to ensure the tools used in the test were valid. They also determined the time allocated for the tests and organized an introductory educational unit for the experimental group according to the "Think-Pair-Share" strategy. Pre-tests were conducted on Wednesday, 11/10/2023, in the presence of the assisting team on the tennis court at Al-Ain University, after obtaining approval from the Dean of the College of Physical Education and Sports Sciences/Al-Ain University to conduct the research on third-year students. The researchers then prepared a special educational curriculum using the "Think-Pair-Share" (TPS) strategy to teach tennis serve skills. The curriculum was implemented over six weeks, starting from Sunday, 15/10/2023, to 23/11/2023. The work for both groups was as follows:

First: Control Group: This group followed its educational curriculum according to the instructor's method, with one educational unit per week, totaling six units. The educational units for this group were conducted according to the weekly schedule set by the college.

Experimental Group: This group applied an educational curriculum based on the "Think-Pair-Share" (TPS) strategy, prepared by the researchers. The subject's instructor implemented the strategy, directly supervised by the researchers, with one educational unit per week, totaling six units. The educational unit lasted 90 minutes, divided as follows:

1- Preparatory Section (15 minutes)

2- Main Section (65 minutes):

A- Educational Activity (20 minutes): The stages of the TPS strategy were applied as follows:

1- Think (1 minute): The instructor asks a question related to the lesson's content, and the students are arranged in a semi-circle, given time to think quietly about the question, and asked to record their thoughts and notes on a sheet to clarify ideas. The instructor should avoid yes/no questions.

2- Pair (5 minutes): Students pair up to share and discuss their ideas, arriving at the most convincing answer. The instructor moves among students to guide and monitor them.

3- Share (7 minutes): Pairs share their ideas with the class, allowing about a quarter to half of them to present their conclusions depending on the available time. The instructor records the students' answers on the board (or another learning tool) for clarity.

4- Evaluation (7 minutes): The instructor evaluates the students using discussions or short tests during or after the activity, assessing their understanding through their responses.

B- Practical Activity (45 minutes): The serve is practiced through exercises assigned by the instructor.

3- Final Section (10 minutes)

After implementing the educational curriculum, post-tests were conducted on the research sample on Sunday, 26/11/2021, on the basketball court under similar conditions as the pre-tests (same location, time, team, and tools) to obtain accurate results. The researchers used the SPSS statistical package to extract and process the results.

4- Results and Discussion:

4-1 Presentation of Pre- and Post-Test Results:

Table (3) shows the arithmetic means, standard deviations, calculated t-value, and significance level for

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the research variables of the control group.

Significance Level	Sig. Value	t-value	Post-test		Pre-test		Unit of Measurement	Statistical Treatments / Variables	No
			SD	Means	**SD**	Means			
Significant	0.014	2.62	2.537	34.142	3.319	32.642	Score	**Motor Satisfaction**	**1**
Significant	0.000	6.45	2.134	17.642	2.758	15.928	Score	**Serve**	**2**

Table (3) shows a difference in the arithmetic means and standard deviations between the pre- and post-tests in motor satisfaction. The arithmetic mean was 32.642, and the standard deviation was 3.319 in the pre-test, while in the post-test, the mean was 34.142, and the standard deviation was 2.537. The calculated t-value was 2.62, with a significance level of 0.014, indicating a significant difference between the pre- and post-tests, favoring the post-test. Regarding tennis serve skills, the table shows a difference between the arithmetic means and standard deviations in the pre- and post-tests for the serve. The pre-test mean was 15.928, and the standard deviation was 2.758, while the post-test mean was 17.642, with a standard deviation of 2.134. The calculated t-value was 6.45, with a significance level of 0.000, indicating a significant difference between the tests, favoring the post-test. Figure 2 illustrates this.

The results of the motor satisfaction test for the sample show improvement in the post-test compared to the pre-test for the control group. The researcher attributes this to the fact that motor satisfaction is a process of self-contentment with performance; any slight or significant improvement gives the student satisfaction with themselves. The observed improvement, though small, may be due to the instructor's method, which emphasized explaining the material, presenting it effectively, and the students' willingness to learn, regular attendance, and participation in classes, which contributed to improved test results. This shows that students gained a level of confidence that positively affected their psychological state during motor skill performance.

Table (4) shows the arithmetic means, standard deviations, calculated t-value, and significance level for the research variables of the experimental group.

Significance Level	Sig. Value	t-value	Post-test		Pre-test		Unit of Measurement	Statistical Treatments / Variables	No
			SD	Means	**SD**	Means			
Significant	0.000	11.259	1.51	38.142	3.315	32.071	Score	**Motor Satisfaction**	**1**

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Significant	0.000	13.27	1.979	19.928	2.301	15.714	Score	**Serve**	**2**

Table (4) shows a difference in the arithmetic means and standard deviations between the pre- and post-tests in motor satisfaction. The pre-test mean was 32.071, and the standard deviation was 3.315, while the post-test mean was 38.142, with a standard deviation of 1.51. The calculated t-value was 11.259, with a significance level of 0.000, indicating a significant difference between the pre- and post-tests, favoring the post-test. The arithmetic means and standard deviations for the serve skill in the experimental group show a pre-test mean of 15.714 and a standard deviation of 2.301, while the post-test mean was 19.928, with a standard deviation of 1.979. The calculated t-value was 13.27, with a significance level of 0.000, indicating a significant difference between the pre- and post-tests, favoring the post-test.

The results of the motor satisfaction test show improvement in the post-test compared to the pre-test for the experimental group. The researcher attributes this improvement to the fact that motor satisfaction is a self-process that occurs due to the individual's contentment with their performance. As the student reaches a more advanced level of skill, this performance is crowned with satisfaction. The development of all physical and skill capabilities has raised the level of satisfaction in the experimental group. The process of education and reaching a good level of skill performance is one of the essential foundations required in physical education and sports science classes. The soundness of the educational curriculum, based on the "Think-Pair-Share" strategy

4-2 Presentation of Post-Test Results for the Control and Experimental Groups

Table 5 shows the mean values, standard deviations, calculated t-values, and significance levels for the post-test results of both the control and experimental groups.

Significance Level	Sig. Value	t-value	**Experimental Group**		**Control Group**		**Unit of Measurement**	**Statistical Treatments / Variables**	No
			SD	Means	**SD**	Means			
Significant	0.000	4.909	1.51	38.142	2.537	34.142	Degree	**Motor Satisfaction**	**1**
Significant	0.007	3.938	1.979	19.928	2.134	17.642	Degree	**Serve**	**2**

Significant at ≤ 0.05 and under a degree of freedom (26).

From Table 5, it is clear that there are differences and variations in the mean values and standard deviations between the post-tests of the control and experimental groups across the research variables. The mean value for the motor satisfaction variable in the post-test for the control group was 34.142, with a standard deviation of 2.537. For the experimental group, the mean value was 38.142, with a standard deviation of 1.51. This indicates a difference between the means, as the calculated t-value was

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4.909, with a significance level of 0.000, showing a significant difference between the post-tests in favor of the experimental group.

The mean value for the serving skill variable in the post-test for the control group was 17.642, with a standard deviation of 2.134. In contrast, the mean value for the experimental group was 19.928, with a standard deviation of 1.979. This also indicates a difference between the means, with a calculated t-value of 3.938 and a significance level of 0.007, confirming that there are significant differences in favor of the experimental group.

5- Conclusion

The curriculum developed by the researchers using the "Think-Pair-Share" (TPS) strategy for the experimental group, as well as the curriculum prepared by the teacher following the standard method for the control group, played a positive role in improving motor satisfaction and the tennis serving skill for both groups. The TPS strategy adopted by the researchers had a significant impact on improving motor satisfaction and the tennis serving skill among the experimental group members. It is crucial to emphasize the use of the TPS strategy for its positive role in enhancing thinking skills required to solve motor tasks, which is considered one of the essential requirements in tennis.

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