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THE IMPACT OF A STRATEGY ACCORDING TO DESIGN THINKING ON THE CREATIVE ABILITIES AND SOME BASIC VOLLEYBALL SKILLS OF MIDDLE SCHOOL STUDENTS

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Abstract:
The importance of the research lies in the use of a strategy according to design thinking to identify its impact on creative abilities and some basic skills in volleyball. Intermediate schools for boys for the first intermediate grade in the Afak District Center affiliated to the Directorate of Education of Diwaniyah for the academic year (2021-2022), whose number is (726) students representing (4) An intermediate school, and the researcher used the experimental method in the manner of the two equal groups for its suitability in applying his field procedures. As for the research sample, it included 30)) students from Maitham Al-Tamar School for the first intermediate grade, which were chosen by lottery and were from the (A, B) divisions, which were selected by lottery method, Division (A) became the experimental group and division (B) the control sample, and the necessary tools and devices were used in the research and the steps for its implementation, which included preparing a strategy according to design thinking, exploratory experience, and the main field experiment Included in the pre-tests and the application of a strategy according to design thinking and then post-tests the researcher concluded that the students need a strategy according to design thinking to help them develop creative abilities and some basic skills in volleyball.

1- Introducing the research:

1-1- Introduction and the importance of research:

Correct scientific planning is the successful means through which progress can be achieved in all specialized fields, including in the sports field, and scientific research continues to provide reality with scientific results in all aspects of life. The educational process in its entirety is the concern of many researchers and those interested in the educational process, as the teacher's task is no longer limited to explanation and clarification and following traditional methods in the educational process, but rather his first and main task is to draw a blueprint for the strategies of the educational unit in which modern educational methods work to achieve specific goals And there are many modern educational methods and methods that work in integrating the success of the educational curriculum and to enrich the educational process and stimulate the mind of the learner, which helps to pay attention to the explanation process and focus on it, as well as comprehension, remembering and retrieval.

Many people involved in finding solutions to a problem related to a human entity face many difficulties, the most important of which is defining the problem accurately and knowing the location of the shortcomings or defects, and the difficulty of offering solutions and applying them on the ground and in the field, as well as the difficulty of ensuring the suitability of those proposed solutions and evaluating their results.The word (design) in the term (design thinking) may be understood to mean graphic design, or the design of the structure and shape of products, but the word design here means that we design solutions to problems through innovative creative thinking centered around the

human being and a deep understanding of the target student and their challenges and needs their culture and way of life. These solutions may be in the form of changing systems, policies and strategies, or in the form of capacity development. And that the need to reveal the creative abilities in the prime of life is the mainstay that appears among school students, and they perform sports movements, and extra-curricular activities during the lesson and participation in sports races, in addition to that they perform new and different motor responses. Hence, we must encourage them, and praise them through guidance, assistance, and constructive criticism, and this leads to moving the educational process forward, which achieves the desired goals with the least effort, the least time, and the least material cost.The game of volleyball is one of the games that is distinguished by its many motor and skill requirements and duties that beginners and students should learn and master and familiarize themselves with the technical and scientific aspects of it. Hence, the importance of research in preparing the strategy according to design thinking is evident due to its role in the development of creative abilities and some basic skills in volleyball, as it is characterized by some volleyball skills.

2-1- Research problem:

By following up the work of many teachers in middle schools and conducting some occasional tests for middle school students in the first grade, the researcher found that there is a weakness in the level of performance of some creative abilities and basic skills in volleyball, and the researcher believes that the reason is due to the teacher's use of the method followed (command) which is In which the teacher is responsible for all the details of the lesson in learning skills and developing creative abilities, and this is not compatible with the development in learning in terms of using some modern methods and methods and modern strategies to improve the learning process at the present time and the needs of today's students are developing rapidly, which may sometimes outweigh the technical developments that They compete to attract them at the same time, so the researcher believes that delving into this problem through the use of a strategy according to design thinking. So, this study came as an attempt to answer the following question? Does the strategy, according to design thinking, have a positive effect on some creative abilities and basic skills in volleyball for middle school students for boys, first grade, in Afak district center?

1-3- Research Objectives:

1- To identify the impact of the teaching strategy according to design thinking on some creative abilities of middle school students for boys, first grade, in the Afak District Center, which is affiliated to the Qadisiyah Education Directorate.

2- To identify the impact of the teaching strategy according to design thinking on some basic volleyball skills for middle school students for boys, first grade, in Afak District Center, which is affiliated to the Qadisiyah Education Directorate.

1-4- Research hypotheses:

1- The strategy of teaching according to design thinking has a positive impact on some creative abilities of middle school students for boys, first grade, in Afak District Center, which is affiliated to the Qadisiyah Education Directorate.

2- The strategy of teaching according to design thinking has a positive impact on some basic skills in volleyball for middle school students for boys, first grade, in the Afak District Center, which is affiliated to the Qadisiyah Education Directorate.

4-1- Research hypotheses:

1- The strategy of teaching according to design thinking has a positive impact on some creative abilities of middle school students for boys, first grade, in Afak District Center, which is affiliated to the Qadisiyah Education Directorate.

2- The strategy of teaching according to design thinking has a positive impact on some basic skills in volleyball for middle school students for boys, first grade, in the Afak District Center, which is affiliated to the Qadisiyah Education Directorate.

1-5- Research areas:

1-5-1- The human field: middle school students for boys, first grade, in the Afak district center, which is affiliated to the Qadisiyah Education Directorate.

1-5-2-The temporal field: for the period from 10/12/2022 to 2/16/2023.

1-5-3- The spatial domain: a yard from Maitham Al-Tamar School in Afak District, Al-Qadisiyah Governorate.

1-6- As for design thinking: - It is a model consisting of five non-linear stages (empathy - defining the problem - creating ideas - preparing a prototype - experiment). It is used when feeling that there is a real problem, whatever that problem is.

2- Research methodology and field procedures:

2-1- Research Methodology:

The researcher used the experimental approach - by designing two equal groups with a pre and post test - due to its suitability to the nature of the problem, its objectives and hypotheses, leading to the solution

.

2-2 Tools, methods and devices used in the research:

2-2-1 Research tools:

The researcher used the following research tools to reach the results and achieve the goals, including:

2-2-1-1 Research community:

The research community included middle school students for boys for the first intermediate grade in the Afak District Center affiliated to the Directorate of Education of Al-Qadisiyah for the academic year (2022-2023), and their number is (752) students representing four intermediate schools. Al-Tamar for the first intermediate grade of divisions (B, D) and when they were chosen by random lottery, Division (B) became the experimental sample and Division (D) the control sample. The percentage of the sample from the community was (3.99).

2-2-1-1-1- The homogeneity and equality of the members of the research community

The researcher conducted the homogeneity and equivalence of the members of the research community in the dependent variables in the research, which are (and as shown in Table (1)

Table (1) It shows the homogeneity and equivalence of the control and experimental groups

Variables		the control group		experimental group		Calculated t	significance level	Levin	significance level
		S	E	S	E				
Creative abilities	originality	4.923	0.658	4.862	0.628	0.239	0.813	0.762	0.394
	fluency	58.615	1.758	58.231	1.641	0.577	0.570	2.117	0.163
	Flexibility	37.358	1.446	37.615	1.261	0.434	0.668	1.160	0.296
basic abilities	preparation	8.308	1.109	8.846	1.281	1.146	0.263	1.569	0.113
	Reception	8.385	0.650	8.615	1.121	0.642	0.527	0.014	0.908
	transmitter from below	7.769	0.832	7.692	1.032	0.209	0.836	0.242	0.628

2-1-2-2- Means of data collection:

This research necessitated many means to collect data, including:

1-Questionnaire:

2- Observation:

2- Testing and measuring:

2-2-2 Devices and auxiliary tools:

The researcher used many devices and auxiliary tools in the process of obtaining the required data, including:

1. Tape measure
2. 10 volleyballs
3. Gypsum
4. Volleyball court.
5. Handy Calculator
6. A personal computer (Lab Tub)
7. Stationery (papers and pens)
8. Test results registration form

2-3- Tests used in the research:

2-3-1- Motor creative abilities:

The researcher chose the tests (Al-Diwan), which are called the motor creative abilities tests

1- The motor fluency test

The first test: the inhibitor test.

The aim of the test: to test the motor fluency.

Age level: from (8-12) years.

The tools used: six barriers of different heights, as follows:

The first hurdle: its length is (1m) and its width is (1.5m).
The second hurdle: its length is (1.5m) and its width is (1m).
The third hurdler: the length of his first stand is (1m), the length of the second is (1.5m), and his width is (3m).
The fourth hurdle: in the form of an equilateral triangle with a side length of (3 m).
The fifth hurdle: its length is (50 cm) and its width is (2 m).
Sixth hurdle: A right-angled triangle whose side is 1.5m long and its third side is 1m.
Performance specifications: We draw a straight line on the ground, the length of which is (14 m), and the obstacles mentioned are placed according to their sequence to the right of the drawn line, and the distance between one barrier and another is (2 m). At the signal, the laboratory moves in different ways (jumping, rolling, walking, crossing, ... etc.). According to his ability, from one obstacle to another, according to the route specified in the performance specifications. And after completing the performance on the last obstacle, the return is to perform from the sixth obstacle, that is: he makes a turn to face the obstacles again, and so on to complete the performance time.
Figure (2) shows the first test

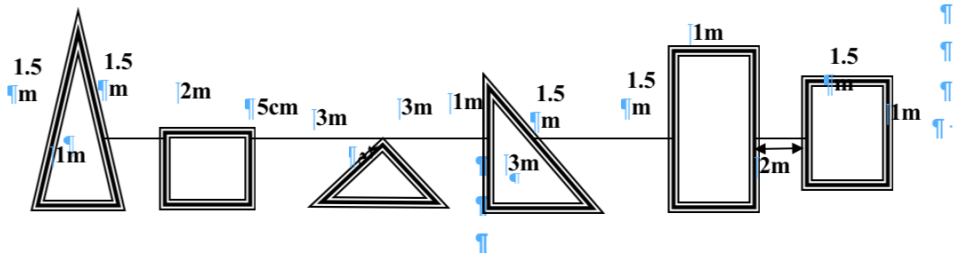

Figure (1)
Demonstrates the motor fluency test

Test instructions: If the test is for more than one person, the place of performance must be far from the tested group, so that no member of the group can see what the tester is doing.
Registration: The number of motor responses is calculated within the time allotted for the test, which is (2) minutes.
Evaluation: The laboratory is given one mark for each response that belongs to one category, regardless of the number of repetitions.
2- Kinetic flexibility test

The second test: the ball test
The aim of the test: to test the kinetic flexibility
Level: ages from (8-12) years
The tools used: Basketball - a box that accommodates (15) basketballs (25) students standing on the perimeter of the circle to be signs for receiving the balls and returning them to the box to prevent the balls from moving away from the perimeter of the circle; In order not to affect the total time scheduled to perform the test by the group of testers.
Performance specifications: We draw a circle on the ground with a radius of 2.5 m. The tester stands in the middle of it and near it is the box of balls. When the whistle is heard, the tester starts throwing the

ball with any part of his body and in different ways according to his ability, provided that the tester receives another ball as soon as he finishes any attempt to throw. the ball .

Test instructions:

1. If the test is for more than one person, the place of performance must be far from the tested group so that no member of the group can see what the tester is doing.
2. Try not to repeat the method of throwing the ball more than once.
3. The researcher addresses the testers, saying: There are several balls in the box. Try to throw the largest number of balls in different ways, using any part of your body to hit the balls within (4) minutes.
4. Registration: The number of motor responses is calculated within the time allotted for the test, which is (4) minutes.

Evaluation: One mark is given for each attempt that the laboratory was able to perform, even if they are similar in classification, that is, they are included in one category. For example, he throws the ball with both hands forward at chest level, or throws the ball with both hands forward at hip level...etc.

Figure (3) shows the second test

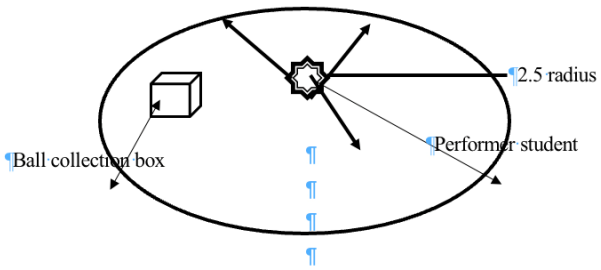

Figure (2)
Demonstrating the kinematic flexibility test

3- Kinetic originality test

The third test: the test of characteristics.

The aim of the test: to test the kinetic originality.

Level: ages from (8-12) years.

Tools used: (6) flags and (4) collars.

Performance specifications: We draw a straight line on the ground, the length of which is (22 m), distributed as follows:

The first two meters are drawn in a contrasting color to the starting line, which is 2m away, and the finish line is drawn in a contrasting color at the last 2m of the distance. The six signs are placed after the starting line, and the distance between each sign is 2m. Then the hoops are placed on the ground as the pillars were placed, and the distance between each one is (2m). At the signal, the tester moves in different ways (jumping, walking, rolling, crossing the monitor, etc.), according to his ability from one monitor to another according to the route specified in the performance specifications. As for the collars, the laboratory must try to rotate the collar around his body. And in any way.

Test instructions

Registration: The number of motor responses is calculated within the time allotted for the test, which is (3) minutes.

Evaluation: The laboratory is given one score for each response that belongs to one category, regardless of the number of repetitions. **Figure (4) shows the third test.**

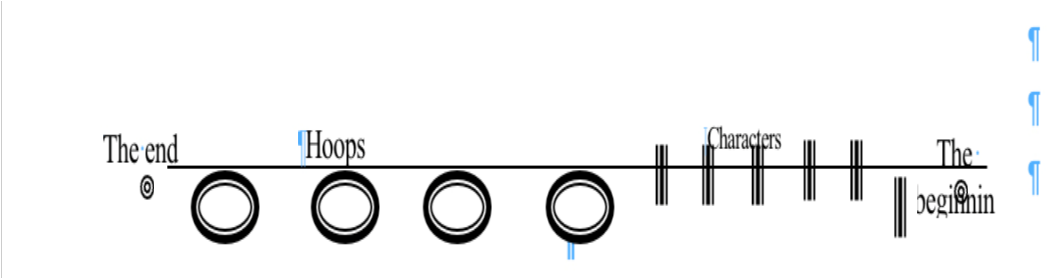

Figure (3)

Demonstrates the kinematic authenticity test

These tests were applied to the Iraqi environment of children, as they amounted to (240 males) distributed over their ages (8-12 years), and there were indications of validity in the test for the age group (10-11 years), amounting to 64.16%, and there were indications of stability Test by re-test method for the age group (10-11) years. The values of the stability coefficient reached (0.91) and the objectivity of a sample of (16) children was measured by two referees, each of whom records the results of his tests separately, then we found the correlation coefficient between the two referees' estimate (0.89). ..

2-3-2- Volleyball tests

1- Testing the accuracy of the volleyball preparation skill ()

The aim of the test: to measure the accuracy of the preparation skill.

Tools used: - The test tool is fixed, (5) legal volleyballs, and the accuracy evaluation form prepared in advance.

Method of performance: - The student stands in the place of the equipment, center No. (3), and the instrument is in center No. (4), at a distance of (60) cm from the side line and (120) cm from the middle line, at a distance of (180 cm) from the test instrument, then hands the teacher The ball is for the student who tries to pass it into the square frame that is at the top. Each student is given (5) attempts.

Register:

- The ball that did not reach the tool and the frame is given zero.
-The ball is close to the upper frame (2) 2 points.
-The ball that touches the upper frame (3) points.
-The ball that enters the upper frame (5) points.
-The total maximum score obtained by the laboratory is (25) points

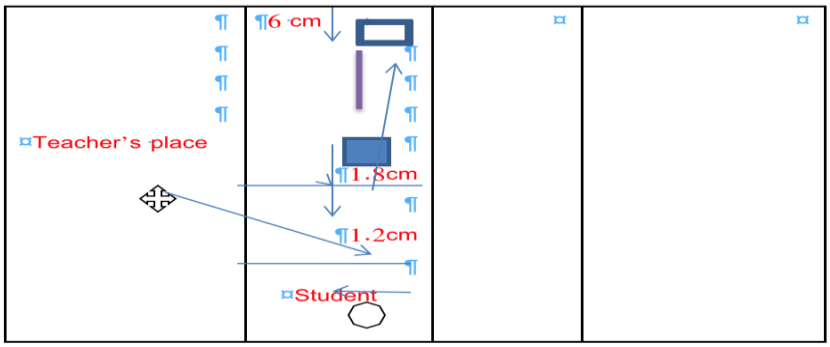

Figure (4) Demonstrates performance accuracy test for volleyball preparation skill

Second: Testing the accuracy of the skill of receiving transmissions from the bottom in volleyball ()
The aim of the test: to measure the accuracy of the skill of receiving transmissions in volleyball.

Used equipments
A legal volleyball court, (10) legal volleyballs, a metal tape measure, and colored chalk to divide the court, as shown in Figure (10) below.
Performance method:
The tested student performs (5) attempts from area (A) to centers (2, 3, 4), as well as performing (5) attempts from area (B) to centers
(2, 3, 4). The tested student must be committed to receiving from the area specified for him and directing the ball to the required center.

Register:
The tested student gets a score for the center in which the ball is located, as follows:
- The ball that falls in the center (4) the tester takes (1) degree.
- The ball that falls in the center (3) takes the tester (2) two degrees.
- The ball that falls in the center (2) the tester takes (3) degrees.
- If the ball lands on the line separating two regions, the score for the higher region is calculated.
The maximum score for the test is (30) marks.

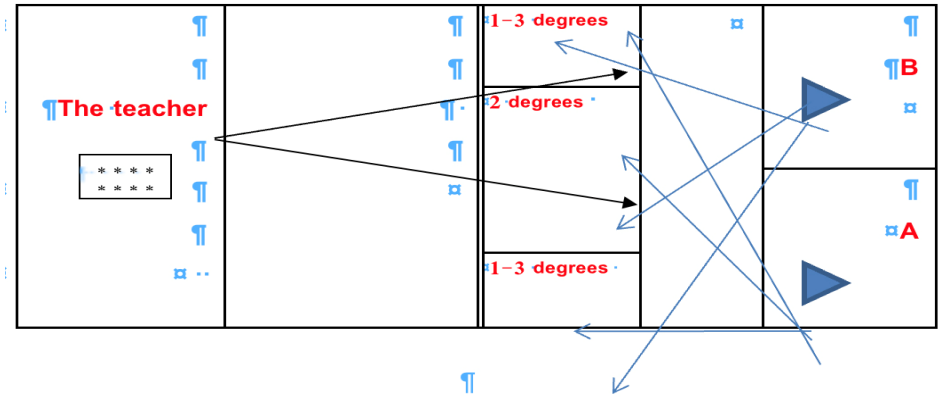

Figure (5) Demonstrates performance accuracy test for the skill of receiving the serve from below in volleyball

Demonstrates performance accuracy test for the skill of receiving the serve from below in volleyball
Third: Testing the accuracy of the transmission skill from the bottom facing the volleyball ()
The aim of the test: to measure the accuracy of the transmission skill from the bottom facing.

The tools used: a legal volleyball court, legal volleyballs number (5), and colored tape to divide the areas of the opposite court, as shown in Figure (33).
Performance specifications: The tested student stands in the middle of the final line of the court at a distance of (9) meters from the net, where the tested student is holding the ball to perform the serve from the bottom so that the ball crosses the net to the planned half of the court.

Performance conditions:
In the event that the ball touches the net and crosses into the planned half of the court or goes outside the boundaries of the court, the attempt of the tested student is counted (among the five attempts) and its grades are not counted.

-Register:
The laboratory student obtains the degree of the area in which the ball falls for each correct serve, and since each laboratory student has (5) attempts, and since the degrees are distributed over areas from (1-5) degrees, the maximum score for this test is (25) degrees, noting that in the case of the ball falling On a line separating two regions, the laboratory student is calculated for the highest region score, **as shown in Figure (33).**

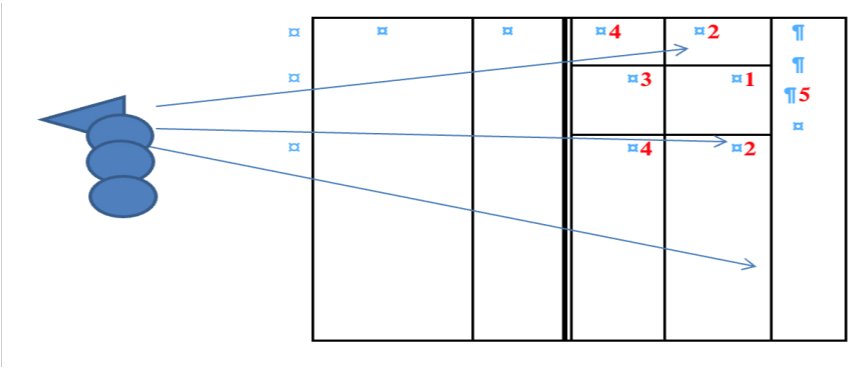

Figure (6) Demonstrates the accuracy of performance test for the skill of serving from the bottom facing the volleyball

3-3-2- Scientific foundations of the tests:
First- Honesty:
The researcher extracted virtual validity, which is based on the extent to which the test represents the phenomenon it measures (creative abilities, some basic skills), through a questionnaire distributed to (5) specialists (), who indicated the validity of the test through the following: The test is valid if it achieves (100%) of the total number of expert opinions to agree that the test represents the phenomenon it measures.

After collecting and unpacking the data, the researcher used the (Ca2) test, and the results showed that the two tests were accepted for achieving values greater than the tabular (Ca2) value of (3.84), at a degree of freedom (1), and a level of significance (0.05). Table (2) shows the validity of the tests used in the research.

Table (2) Shows the validity of creative abilities tests and some basic volleyball skills

Test	number of answers		Chi-square value		Significance difference
	Suitable	Non suitable	Calculated	Tabular	
originality	5	-	5	3.84	Moral
fluency	5	-	5	3.84	Moral
Flexibility	5	-	5	3.84	Moral
preparation	5	-	5	3.84	Moral
Reception	5	-	5	3.84	Moral
transmitter from below	5	-	5	3.84	Moral

Secondly - stability:

The researcher tried to find the stability coefficient for the two tests under study (double thinking and tactical behavior), by finding a correlation between its results and the results of the re-test after a period of time of 12 days.

After calculating the correlation coefficient (Pearson), between the scores of the two tests, it appeared that the correlation was significant, given that the value of the t-test calculated for the significance of the correlation was greater than the tabular value of (2.228), at a degree of freedom (10), and a level of significance (0.05), which This indicates that the test in question has a high degree of stability, see Table (3).

Third: Objectivity:

The tests were conducted under the supervision of two arbitrators () by the assistant work team specialized in physical education and sports sciences, taking into account the fixation of the same conditions and the method of conducting the tests, after the results and data were collected and then treated statistically, where the simple correlation coefficient (Pearson) was calculated between the scores of the neutral arbitrators and it was The values of the correlation coefficient are significant, and after comparing them with the tabular value of (0.63) at a degree of freedom (8) and a level of significance (0.05), this means that all tests have an objective degree because their values are higher than the tabular value, which indicates the objectivity of the tests, as shown in Table (3) .

Table (3) The stability coefficient shows the tests applied to the sample of the pilot experiment

Tests	Stability coefficient	Significance	Objective coefficient	Significance level
originality	0.780	moral	0.879	moral
fluency	0.926	moral	0.901	moral
Flexibility	0.827	moral	0.974	moral
preparation	0.834	moral	0.836	moral
Reception	0.819	moral	0.887	moral
transmitter from below	0.882	moral	0.902	moral

2-4-Field research procedures

2-4-1- Pre-test:

The pre-measurement of the research sample (control and experimental) was conducted on 12/28/2022 corresponding to Tuesday at nine o'clock in the yard of Maitham Al-Tamar School for Boys after subjecting

The conditions related to the tests were fixed in terms of place, time, tools used, method of implementation and the auxiliary work team for the purpose of achieving the same conditions or as close as possible to the conditions of the telemetry.

2-4-2- The educational curriculum based on the strategy according to design thinking:

After reviewing the sources and previous studies, the researcher applied the strategy according to the design thinking on the research sample, after the pre-tests of the research at the rate of two teaching units per week.

1- Empathy. 2- Define the problem. 3- Generate ideas. 4- Preparing a prototype

. 5- Experiment

The researcher took into account the level of the students, the number of approved educational units, and the timing of the lecture, with (16) educational units distributed over (8) weeks. (12) educational curriculum, and the main section is 28.d, the percentage is 70%, and the total times are 336.0d during the educational curriculum, and the final section is 4.0d, the percentage is 10%, and the total times are 48.0% of the total number of the educational curriculum.

2-4-3- Post-test:

The post-test was conducted for the research sample on Monday 1/22/2023 after the completion of the period of application of the strategy according to design thinking, which lasted (8) weeks, and the researcher was keen to provide the pre-test conditions and procedures followed for the test

2-5- Statistical means:

The data obtained were processed using the statistical method that is compatible with the objectives of the study in order to reach knowledge of the results through the use of the statistical bag (SPSS).

3- Presentation, analysis and discussion of the results

1-3 - Presenting the results of differences in creative abilities and some basic skills in Volleyball for the pre and post measurements of the control group, analysis and discussion

table (5) It shows the differences between the pre and post tests of the control group in creative abilities and some basic volleyball skills

	Variables		Pre-test		Post-test		S f	E f	Calculated t value	Significance level
			S	E	S	E				
1	Creative abilities	originality	4.923	0.685	7.708	0.638	2.785	0.919	10.924	0.000
2		fluency	58.615	1.758	68.692	1.932	10.077	2.362	15.385	0.000
3		Flexibility	37.385	1.446	45.231	2.421	7.846	2.734	10.348	0.000
4	basic abilities	preparation	8.308	1.109	10.385	0.650	2.077	1.320	5.671	0.000
5		Reception	8.385	0.650	13.692	0.947	5.308	1.109	17.250	0.000
6		transmitter from below	7.769	0.832	14.154	0.899	6.385	1.387	16.600	0.000

The tabular value of (t) at a degree of freedom (14) and a significance level of 0.05 = 2.145
In light of the data extracted from the research sample, table (5) shows the differences in the values of the variables of creative abilities and some basic skills in volleyball (originality, fluency, flexibility, preparation, reception, and transmission from the bottom) in the pre and post tests of the control group, using the (T) test. For correlated samples to extract differences, the calculated value appeared (10.924, 15.385, 10.348, 5.671, 17.250, 16.600), which is greater than the tabular value of (2.145) at a degree of freedom (14) and a level of significance (0.05), which indicates the significant differences between the pre and post tests of the group control and in favor of the post-test.
3-2 Presenting, analyzing and discussing the results of differences in creative abilities and some basic skills in volleyball for the pre and post measurements of the experimental group.

table (6) It shows the differences between the pre and post tests of the experimental group in creative abilities and some basic skills in volleyball

	Variables		Pre-test		Post-test		S f	E f	Calculated t value	Significance level
			S	E	S	E				
1	Creative abilities	originality	4.862	0.628	9.677	0.388	4.815	0.882	19.683	0.000
2		fluency	58.231	1.641	79.462	2.696	21.231	2.774	27.600	0.000
3		Flexibility	37.615	1.261	49.385	1.446	11.769	1.691	25.097	0.000
4	basic abilities	preparation	8.846	1.281	11.769	1.235	2.923	1.847	5.707	0.000
5		Reception	8.615	1.121	14.923	0.862	6.308	1.251	18.185	0.000
6		transmitter from below	7.692	1.032	16.308	1.377	8.615	1.938	16.027	0.000

The tabular value of (t) at a degree of freedom (14) and a significance level of 0.05 = 2.145
In the light of the data extracted from the research sample, table (6) shows the differences in the values of the variables of creative abilities and some basic skills in volleyball (originality, fluency, flexibility, preparation, reception, and transmission from the bottom) in the pre and post tests of the

experimental group and using the (T) test. For correlated samples to extract differences, the calculated value appeared (19.683, 27.600, 25.097, 5.707, 18.185, 16.027), which is greater than the tabular value of (2.145) at a degree of freedom (14) and a level of significance (0.05), which indicates the significant differences between the pre and post tests of the group control and in favor of the post-test.
3-3 Presenting, analyzing and discussing the results of differences in creative abilities and some basic skills in volleyball for the post-measurement of the control and experimental groups.

Table (7) Shows the differences between the telemetry of the control and experimental groups in creative abilities and some basic skills in volleyball

	Variables		measruing unit	Control group		Experimental group		T value	Significance level
				S	E	S	E		
1	Creative abilities	originality	Degree	7.708	0.638	9.677	0.388	9.508	0.000
2		fluency	Degree	68.692	1.932	79.462	2.696	11.707	0.000
3		Flexibility	Degree	45.231	2.421	49.385	1.446	5.312	0.000
4	basic abilities	preparation	Degree	10.385	0.650	11.769	1.235	3.576	0.000
5		Reception	Degree	13:692	0.974	14.923	0.862	3.464	0.002
6		transmitter from below	Degree	14.154	0.899	16.308	1.377	4.722	0.000

The tabular value of (t) at a degree of freedom (28) and a significance level of 0.05 = 2.048
In light of the data extracted for the research sample individuals, table (7) shows the differences in the post-test of the control and experimental groups of thinking, the values of the variables of creative abilities and some basic skills in volleyball (originality, fluency, flexibility, preparation, reception, transmission from below) and using the (T) test For independent samples to extract differences, the calculated value appeared (9.508, 11.707, 5.312, 3.576, 3.464, 4.722), respectively, which is greater than the tabular value of (2.048) at a degree of freedom (28) and a level of significance (0.05), which indicates significant differences in the post-test between the control and experimental groups and in favor of the experimental group.

Discussion:
Through the results that appeared in tables (5, 6, 7), there is a development in some creative abilities and basic skills in volleyball for first-grade middle school students in Maitham Al-Tamar School in Afak district, Al-Qadisiyah governorate for the academic year 2022-2023, and that this development is due to individuals The control group between the pre and post test and in favor of the post test and its reason is due to the approach followed by the subject teacher. Table 6 refers to the pre and post test of the experimental group members who used the strategy according to design thinking and the results were in favor of the post test while when comparing the control group and the experimental group in the post test the results were In favor of the experimental group, the diversity and difference brought by middle-grade students through the use of the strategy according to design thinking made the motor responses move away from the rigid traditional solutions in the responses, because the training method had a clear contrast through the motor flexibility with the rest of the methods. Maurice Stein points out: "It is possible to increase the creative activities of many individuals, as the environment surrounding them offers, supports and evaluates the creative activities that show individuals a high

degree of flexibility." Here, the teacher in the learning process gives instructions and directions to the students so that he does not restrict them or deprive them of the opportunity to gather ideas about the movement they are required to perform, and then the answer to the questions asked about the shape of the parts of the movement is with motor responses, and the process of repeating questions during the educational units about the shape Movement continuously helped in the speed of learning of the sample, so when they know the parts of the movement, they are able to retrieve the correct responses when any error occurs, and thus they have the ability to diagnose errors and work on them by identifying the minutes and parts of the movement, and the teacher must give feedback during the learning period. Feedback means knowing the results, evaluating them, and benefiting from them through the information received by the learner as a result of his motor behavior. Questions Students should think about the form of movement that they are required to apply in a kinetic way.

4-1-Conclusions

1- The strategy according to design thinking had a positive impact on developing some of the creative abilities of the first intermediate grade students.

2- The strategy, according to design thinking, had a positive impact on learning some basic volleyball skills for first-grade middle school students.

4-2- Recommendations

1- The need for the physical education teacher to know more than one teaching strategy and use the best strategy for appropriate educational situations.

2- The application of a strategy according to design thinking as a scientific strategy in teaching other skills or mental and motor abilities and others.

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