



Impact Of Using Guided Discovery Method According To Jigsaw Strategy In Cognitive Acquisition And Learning Artistic Performance Of Maskatiside Throw From Above (Side Snatch) With Far Arm Grab And Far Ankle Lift From Sitting In The Student Wrestling

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Abstract

Objectives. This study aimed to identify the impact of using the guided discovery method based on the Jigsaw strategy in developing cognitive achievement and improving the technical performance of selected wrestling grips specifically the side snatch grip, far arm grip, and far ankle lift from a sitting position among third-year students at the College of Physical Education and Sports Sciences, University of Maysan, during the academic year 2022/2023.

Materials and Methods. The researcher employed an experimental approach on a sample of (44) third-year students from the second semester. The sample was divided equally into two groups: experimental and control, with (22) students in each. The experimental group received instruction through (6) educational units based on the guided discovery method using the Jigsaw strategy, over a period of (6) weeks at a frequency of (3) sessions per week. The control group was taught using traditional methods.

Results. The findings indicated a positive impact of using the Jigsaw strategy within the guided discovery method on both the technical performance of the wrestling grips and the cognitive achievement of the students in the experimental group. The experimental group outperformed the control group in post-test measures of both skill execution and cognitive understanding.

Conclusion. The use of the guided discovery method in accordance with the Jigsaw strategy significantly enhanced the students' learning of wrestling grips and their cognitive achievement in the subject. The researcher recommends the adoption of this teaching method in wrestling instruction for its effective role in the educational process and student learning outcomes.

Keywords: Guided Discovery Method, Jigsaw Strategy, Cognitive Acquisition, Wrestling Techniques.

Introduction

Education is considered one of the most important fields that plays a major role in the progress of peoples because of its positive impact on its outcomes and the proper preparation of learners. Education has become, in our time, a measure of the progress of many countries, as it measures the extent of development of the cognitive field among those concerned with the field of education and



their knowledge of modern teaching methods and strategies, as it is known that education is The process of mutual interaction between the teacher and the learner in order to provide the learner with the desired knowledge and information in specific time periods. The educator's choice of the appropriate teaching method and strategy is considered an important pillar upon which the success of the teaching and learning process depends, asThe role, effectiveness and success of any approach is measured.for and strategyThe method of guided discovery is considered a method in which the learner is engaged in discovery processes through successive questions that the teacher sets and directs to the learners to arrive at correct responses to each question through training and practice, and the learners are engaged in mental processes that lead to discovery through practical practice by finding the correct response that the learner discovered to the stimulus (performance) that the teacher set, and thus the learner's ability to develop successive and consecutive discovery skills is developed through knowing how to find the correct performance.HFor the parts of the movement that ultimately lead to the discovery of the movement as a whole, and to bring the learner to a good and high level of mastery of the grips in the wrestling game in the shortest possible time, therefore we used the Jigsaw strategy in the learning process, which is consideredOne of the forms of cooperative learning that depends onLearners work together in a group..As a teamJigsaw strategy is considered one of the types of learning active Which Requires from learner Doing By practicing Types From the tasks educational Different in The position One educational and interaction With him With all Its elements And it must that realizes Self-taught Ideas existing and that overcome on problems that facing him on road Participation and interaction In the hall and the group, so the researcher thought Use of guided discovery method according to strategy Jigsaw for him effect positive in development Collection Cognitive skills of learners and learning wrestling grips for students, as wrestling grips require the use of effective teaching methods and strategies that arouse the learner's interest and focus due to the specificity of wrestling grips and their technical performance from the ground or standing position, as the performance of grips contains a technique that may be complex and unfamiliar to the learner, as the teacher must choose learners who are distinguished and have great abilities and are qualified for optimal performance to benefit from them as leaders of cooperative groups and in order for the performance to be with a degree of security and safety for the members of each group, and thus the importance of research in presenting The role of guided discovery method according to strategy Jesco that maybe Apply it when education Some wrestling game grips for students, and the researcher hopes to provide In this Search tool Calendar It is represented by in a test Academic For the sides cognitive For some educational content in wrestling for students.



As wrestling game one of the sports that performance contains a set of skills and grips. Whether from the ground conflict situation or standing which It is performed according to a specific law, so it is to request from teacher The material Find The most appropriate teaching methods and strategies To teach and improve performance Educators Skills according to the best educational strategies and methods that focus on on Making the learner the focus of the educational process and discovering the parts of the grip and creativity in performing it for me Make it easy for learners to access information. cognitive Different The law, skills and grips of the game through the Positions the competitive Among the cooperative groups that You are to request Effort learner Intellectual, physical and skill-based, and achievement The specific goal, and since wrestling holds constitute a difficulty for the learner in technical performance despite their importance in experimental wrestling matches to obtain grades in the final exams of the semester and in order to performance improvement Technical healthy For the two grips under study, the researcher therefore studied two grips allocated for the second semester and developed appropriate solutions for the difficulties facing students while performing the grips, especially the standing grips with a complex performance and familiarity with information and knowledge about the wrestling game in this semester. And This is the starting point The researcher relied in defining his problem on Trying to take advantage of the strategy (Jigsaw supported by the guided discovery method) and through the following question: Is it possible to use The guided discovery method according to the Jigsaw strategy in cognitive acquisition and learning the artistic performance of Maskati Side throw from above (side snatch) with far arm grab and far ankle lift from sitting In the student wrestling game Impact?

Research objectives: The research aims to:

- 1- Constructing a cognitive test for some of the second semester vocabulary and my grip The throw Side from The highest (kidnapping Side) and Musk arm Far away And raise ankle Far away from sitting in game wrestling Free For students.
- 2- Number of educational units using the Jigsaw strategy using the guided discovery method To touch me Side throw from above (side snatch) with far arm grab and far ankle lift from sitting In the student wrestling game
- 3- Recognizing the impact Use style Discovery The wave on according to strategy Jigsaw in Collection Cognitive And learn performance Technical To touch me The throw Side from The highest (kidnapping Side) and Musk arm Far away And raise ankle Far away from sitting in game wrestling Free For third-year students in the College of Physical Education and Sports Sciences / University of Maysan for the academic year 2022/2023.

Research hypothesis: The researcher assumes



- 1- There are significant differences between the pre-tests and post-tests of the experimental and control research groups. In cognitive acquisition and learning the artistic performance of my musicSide throw from above (side snatch) with far arm grab and far ankle lift from seated positionIn the student wrestling game.
- 2- There are significant differences between the post-tests of the experimental and control research groups. In cognitive acquisition and learning the artistic performance of my musicSide throw from above (side snatch) with far arm grab and far ankle lift from seated positionIn the student wrestling game.

Research Methodology:

The nature of the research imposes on the researcher to choose the appropriate method. and With the research process, And the appropriate methodology is one of the most important steps that the research methodology entails.,The approach depends on the nature of the problem and the goal to be achieved.¹⁾Because this approach is characterized by the accuracy of its results, I dependThe researcher used the experimental method, with a design of two equivalent groups with a pre-test and a post-test..

Include Research community third-year students in the second semester of the College of Physical Education and Sports Sciences / University of Maysan and University of Basra For the academic year (2022-2023) and their number is(198) A student, third-year students in the College of Physical Education and Sports Sciences, University of Maysan (78) student, The research sample was selected randomly.After I statistically excludestudentsexploratory experimentAdults (24) student,And it was excluded (10) Students with frequent absences and injuriesThus, the number of the main sample of the study reached (44)studentFrom the original community, in fact (22)studentAn experimental group and22)studentcontrol group, and were randomly selected (100A third-year student from the College of Physical Education and Sports Sciences, University of Basra, was a sample for the cognitive test. Thus, it formed...rateSample from the original community(73%).

To complete the requirements Search then The researcher is verifying equivalent Research sample individuals in tests(The overhand grip (side snatch), the far arm grab, and the seated far ankle raise. And testCognitive achievement) andIn order for the researcher to attribute the differences to the factorAFor my trial runequivalenceBetween the two research groups in the testsTribalismBefore starting implementationthe studyexperimentalAndBy adopting the test (t-test) for independent samplesThe AIt appeared in itResultsSignificance level value (sig) is greater than (0.05) for all



tests..Which confirms the equivalence of the two groups. To research, the appropriate statistical method was used.,As shown in the table (1) .

Table 1.

It shows the equivalence of the research sample in the pre-tests of the experimental and control groups.

Test name	Measur ement Unit	Groups				value (t) calculated	Sig. value	Sig. level
		Experimental		Control				
		St.d	M.	St.d	M.			
Side snatch grip	degree	2.55	0.596	2.41	0.503	0.820	0.417	Insig.
Grip hold the far arm and lift the far ankle from sitting	degree	3.00	0.617	2.86	0.560	0.767	0.447	Insig.
Cognitive achievement test	degree	7.14	2.077	6.77	1.631	0.646	0.522	Insig.

Defining research variables:

Look Researcher on vocabulary Wrestling material For school students Third In the College of Physical Education and Sports Sciences University of Maysan, It became clear That among Muscat The schedule for the second semester is: (Side snatch grip and grab grip Hold the far arm and lift the far ankle from sitting (khak), and so depend They are Researcher in research procedures, Regarding a test Cognitive achievement He deliberately built a test. To gain knowledge of the educational content for the second semester and the two subjects under investigation.

Steps for constructing a cognitive achievement test For educational content and wrestling game hacks For students

The researcher identified the objectives of the test.cognitive behavioral For the research sample at levels memory (Understanding and application) sample they Non-player students and building. on that The researcher was satisfied with the three levels.

Content Selection Educational material for wrestling for the second semester:

From A Steps to build the test Cognitive It is a definition Educational content It will depend at researcher In defining paragraphs For cognitive testing Later, And with this After the researcher reviewed the vocabulary Wrestling subject in the second semester of the academic year (2022-2023) It was found from my teaching of the subject that (footwork During the struggle standing, Side snatch grip, grip Hold the far arm and lift the far ankle from sitting (khak),Some paragraphs of the law regarding the legal dimensions of the mat and wrestlers' clothing.).

Specification Table - Preparing the Test Map For educational content in wrestling:



The researcher distributed the percentages. Centenary per Educational content vocabulary In the test the Cognitive as well as behavioral goal patterns, so The researcher prepared a map. Experimental With the educational content of the wrestling game Depending. On relative importance For the game According to the method. The importance of educational content, Depending On teaching hours For the selected educational content, The researcher also identified the appropriate cognitive levels for the test, which are (remembering, understanding, application), and determined the percentage of each level in light of the relative weight of the behavioral objectives prepared by the researcher. in Cognitive achievement test for some Educational content in wrestling for the second semester For students Stage 3, where the total number of test questions is equal Collection Cognitive with total number of questions, And as Clear for Table (2).

Table 2. Shows the specifications of the cognitive achievement test for some educational content in wrestling for students

No.	Educational content in wrestling	Number of teaching hours	relative importance of content	Knowledge levels			Number of questions
				memory 30%	understanding 30%	Application 40%	
1	Foot movement during a standing fight	1.5	12.5%	1	1	1	3
2	Side snatch grip	4.5	37.5%	2	2	3	7
3	Distal arm grip and distal ankle raise from sitting (khak)	4.5	37.5%	2	2	3	7
4	Legal wrestling mat dimensions wrestlers' clothing (equipment)	1.5	12.5%	1	1	1	3
Total		12 hours	100%	6	6	8	20

Paragraph writing style Cognitive test (Paragraph questions):

The researcher relied on preparing the paragraphs of the test Cognitive style in wrestling for the third stage Formulating multiple-choice questions, Because it is from The way fit Objectivity Approved In formulating questions, some consider it the best type of questions. He pointed out (Ahmed Mohammed) The basis for writing multiple-choice questions or choosing the correct alternative from a set of alternatives is to use words that have a clear meaning for the student so that there is no verbal obstacle when answering and the alternatives are attractive and disguised for the student who does not know the correct answer.

The researcher has put three And Choices for each question and does The student The lab is marked with a (O) On the choice that he sees as correct, that is, to adhere to the options presented to him in the test form Cognitive Without more Or leave.

Determine the validity of paragraphs Cognitive achievement in wrestling:

In order to determine the validity of paragraphs Cognitive test At the researcher Be ready to apply to the building sample. After completing the preparation of paragraphs Cognitive achievement The number of which is (20) Paragraph, done Show it on (12) competent from Experienced and



specialized in (wrestling, teaching methods, testing and measurement), to show the extent of suitability of paragraphs for what they were prepared for, and after collecting the data obtained from the researcher during the questionnaire and after transcribing it, the researcher noted the acceptance of all paragraphs with some notes, and after the researcher took into account the special notes about re-arranging the sequence of some paragraphs and modifying the wording of others, and after calculating the value of (K_a^2) The calculated value was clear for Table (3).

Table 3.

It shows the validity of cognitive test items in wrestling

Paragraph	Agreeing Number	Disagreements Number	Chi ² calculated value	Sig.	The result
1	11	1	8,333	0.004	Acceptable
2	10	2	5,333	0.021	Acceptable
3	10	2	5,333	0.021	Acceptable
4	10	2	5,333	0.021	Acceptable
5	10	2	5,333	0.021	Acceptable
6	10	2	5,333	0.021	Acceptable
7	11	1	8,333	0.004	Acceptable
8	11	1	8,333	0.004	Acceptable
9	11	1	8,333	0.004	Acceptable
10	11	1	8,333	0.004	Acceptable
11	11	1	8,333	0.004	Acceptable
12	11	1	8,333	0.004	Acceptable
13	11	1	8,333	0.004	Acceptable
14	11	1	8,333	0.004	Acceptable
15	11	1	8,333	0.004	Acceptable
16	11	1	8,333	0.004	Acceptable
17	11	1	8,333	0.004	Acceptable
18	11	1	8,333	0.004	Acceptable
19	11	1	8,333	0.004	Acceptable
20	11	1	8,333	0.004	Acceptable

Writing Instructions for the Cognitive Achievement Test in wrestling:

For clarity of the test for the tester, in proportion to the degree of understanding of the students, the researcher's position group instructions before starting to answer the test paragraphs in an easy way and clear. After reviewing some sources and previous studies, in order to keep variables unaffected by other influences, the test was conducted as well as a valid form for the procedure means statistics after the instructions were as follows: the next:

- 1- The laboratory must mention its name. And his educational stage.
- 2- The tester should not leave a paragraph free from answer.
- 3- Each paragraph has three choices, one of which represents the correct answer.
- 4- The tester should put a mark (O) on the choice he who sees fit.
- 5- The laboratory shall not be used to the colleague for the answer.
- 6- For each correct answer, one point is given. The answer incorrect is given zero.

Conducting a pilot study to test cognitive achievement in wrestling:

The researcher applied exploratory experiment for the cognitive test in wrestling on Monday 2/20/2023, on a sample of students from the Faculty of Physical Education and Sports Sciences



University of Maysan Within the research community Stage 3, and their number is (24) student Yes, When they were chosen Randomly, and from the experiment exploratory:

- 1- Adding the test time. The researcher relied on applying the equation (test completion time for the first learner + test completion time for the last learner $\div 2$), and the result was $10+16 = 26 \div 2 = 13$ minutes.
- 2- Identify the environmental conditions that are suitable for conducting the test. Cognitive.

Cognitive Achievement Test Application In wrestling On the building sample:

after that the researcher With the necessary amendments to Paragraphs Test Cognitive and determine the response times. The researcher applied the test to the building sample in Faculty of Physical Education and Sports Sciences University of Basra, stage Third Their number is (100) student Yes, On Wednesday 2/22/2023 By providing an atmosphere identical to that in which the pilot experiment was conducted, After collecting and reviewing the test forms, Ensure that all forms are complete and all sections have been answered. Then the researcher entered the data into special tables as a prelude For processors By statistical means.

Analysis Statistician of test items Cognitive in wrestling:

After completing the data entry, the researcher By extracting The total scores of the examinees, and By adopting One point for each correct answer and zero for an incorrect answer. The statistical analysis was conducted through: Extract the ease, difficulty and discrimination coefficients for the paragraphs as follows::

Factors at Ease and Difficulty and discrimination For test paragraphs Cognitive In wrestling:

The researcher did YJad Maamel Ease and Difficulty and discrimination for each A paragraph of cognitive acquisition, to determine the extent of the and The test items were selected for the research sample, as “the discriminating power of the item is one of the important characteristics that can be relied upon in evaluating the efficiency of the item in measuring the trait to be measured, because it distinguishes between individuals who obtain high scores from individuals who obtain low scores, and this distinction is based on the total score in the test” As shown in the table (4).

Table 4. Shows the ease, difficulty and discrimination coefficients for the cognitive achievement test items in wrestling.

The question	M. Ease	M. Difficulty	M. Discrimination	The question	M. Ease	M. Difficulty	M. Discrimination
1	0.65	0.35	0.43	11	0.63	0.37	0.57
2	0.67	0.33	0.45	12	0.62	0.38	0.48
3	0.62	0.38	0.39	13	0.55	0.45	0.62
4	0.67	0.33	0.40	14	0.56	0.44	0.57
5	0.63	0.37	0.41	15	0.59	0.41	0.45
6	0.63	0.37	0.40	16	0.62	0.38	0.48
7	0.65	0.35	0.44	17	0.65	0.35	0.46
8	0.56	0.44	0.52	18	0.56	0.44	0.44
9	0.63	0.37	0.46	19	0.62	0.38	0.52
10	0.54	0.46	0.55	20	0.57	0.43	0.45

And After correcting the answers TM calculation coefficient Ease and Difficulty It was found to range between (0.65,0.35) Accordingly, the items of the cognitive achievement test prepared by the



researcher are neither very difficult nor very easy, as (Bloom) believes that “a good test is one in which the difficulty factor ranges between (0.20, 0.80).

In light of the values of difficulty, ease and discrimination, no paragraph of the cognitive achievement test was excluded. In wrestling This is because it has acceptable values. When compared And Abel discrimination coefficient scores (Eble) All are distinctive and scheduled (5 The following explains this standard.

Table 5. Shows Apple standards

Discrimination coefficient	Paragraph evaluation
0.40 or more	Very good paragraph
0.30 - 0.39	Fairly good
0.20 – 0.20	Borderline paragraph subject to improvement
below 0.20	Weak paragraph deleted or improved

Validity of the cognitive test in wrestling:

Content Authenticity:

The researcher has verified the validity of Content When the test was presented to a group of experts and specialists in (teaching methods, testing and measurement and wrestling game) To confirm the validity of its paragraphs in measuring what they were designed for and measuring the components of behavior that they measure. Their number was (12) Specialist A They agreed in their opinions on the validity of all items of the cognitive test.

Hypothetical construction validity:

The validity of the hypothetical construction was achieved by finding the ease, difficulty and discrimination coefficient for each paragraph. Cognitive Test in Wrestling, to determine the extent of the and What are the test items for the research sample?

Reliability of the cognitive test in wrestling:

Test The constant is "testing" Which gives similar or the same results if applied more than once under similar conditions.", To verify the reliability of the cognitive test In wrestling Use the researcher Statistical methods The occasion is Cronbach's alpha and split-half method, so Cronbach's alpha coefficient is concerned with the degree of consistency and internal coherence of the paragraphs in identifying the answers of the research sample. so Mahmoud Ahmed and others state that “Cronbach’s alpha equation is suitable for use with self-assessment scales that allow the examinee to choose an answer from among several possibilities that clarify the extent to which a certain behavior occurs in



him. In other words, the idea of Cronbach's alpha is based on calculating the correlations between the relationships among the stability group for all the items included in the test." And so Cronbach's alpha coefficient for cognitive achievement was In wrestling (0.819). It is worth noting that The split-half method is one of the most widely used reliability methods, due to its saving of effort and time. The researcher divided the test items into odd and even paragraphs, and with it the two halves will be well-matched, and the researcher used a correlation coefficient. (person) Simple to ensure the homogeneity of the two halves, the researcher relied on the construction community individuals' forms, which amounted to (100) Students calculate the reliability coefficient in this way. The correlation coefficient between these two halves was extracted and the amount of the half-split was (0.855). This value indicates the stability of the test. Cognitive in wrestling, which is a good indicator of test reliability. and As shown in the table (6)

Table 6.

Calculating the reliability coefficient for the cognitive achievement test In wrestling Cronbach's alpha and split-half methods

Test	Correlation coefficient (R)		Significance level	Significance
	Elva Cronbach	Half-split		
Cognitive achievement in wrestling	0.819**	0.855**	0.000	Moral

Objectivity of the cognitive test in wrestling:

Objectivity means freedom from bias or prejudice and not including personal factors in what is issued. researcher From the rules Objectivity is related to the correction method more than it is related to the test itself. Each test is accompanied by a correction method that includes correct and incorrect answers and is called a mistake correction guide. The marking of tests that include multiple-choice items, true or false items, etc., is usually objective because their marking and the extraction of their results are not affected by the subjectivity of the examiners, who use marking keys specific to each test.

Applying the pre-test of the cognitive achievement test to the research sample:

After the researcher completed the procedures for constructing the cognitive test in its final form, the researcher conducted, on Monday, corresponding to 2/27/2023 at ten o'clock A.M. By applying the cognitive test to the main research sample. The number of which is (44) Secondary school students Trust in the College of Physical Education and Sports Sciences, University of Maysan, with the presence of a team Auxiliary work.



Nomination of skill (technical) tests for the two positions under investigation:

Test of the overhand throw grip (side snatch)

Objective of the test:Evaluating the skill level of students in performing the side snatch grip.

Tools used: wrestling mat-whistle.

Performance description: Once a Give the starting signal with the whistleIt tends tocompetitor
EForward The m doesTestThe attacker with his right arm tiedwith his opponent's left armFrom
outsideHis left arm is under his opponent's right armpit.Takes a big step and putsHis legBehind
theCompetitor andthrows the mTesttheattackerhimself stronglyETo the right bhel His legleftOn the
carpet exhibitionbackCompetitor to the mat .

Test conditions:

- 1- The weight of the test subjects must be the same.
- 2- Only one attempt is given to the tester.

How to register:

- 1- Skill level assessment by qualified evaluators.
- 2- Give (10) Grades for performance (preparatory part)3) Degrees and the main part (4) Grades and the final part (3) grades.

Distal arm grip test and distal ankle raise from sitting.

Objective of the test:Evaluating students' performance of the distal arm grip and distal ankle raise from a seated position.

Tools used:wrestling mat-whistle

Performance description:From the ground wrestling position (khak), the attacking tester sits cross-legged with the defending tester. The attacker holds his opponent's right arm above the elbow with his left hand and holds his opponent's right ankle above the ankle joint with his right hand. The attacking tester then pulls his opponent forcefully by his right hand in the same direction, raising his right ankle up and forward, breaking his opponent's support on the far side, applying strong pressure and pushing him towards the mat on his back.

Test conditions:

- 1- The weight of the test subjects must be the same.
- 2- Only one attempt is given to the tester.

How to register:

- 1- Skill level assessment by qualified evaluators.



2- Give (10) Grades for performance (preparatory part)3) Degrees and the main part (4) Grades and the final part (3) grades.

Conducting a pilot test YI caught Y Wrestling game:

The researcher conducted experience exploratory On Wednesday 1/3/2023on sample from community Search And the adult Number(24)Student It was completed Their choice In the way randomness simple, And that from Okay adjust Variables Search And knowledge bezel need actual For the staff assistant, And effectiveness Tools and devices used, To know capacity Sample in Use it knowledge Difficulties and problems potential before Use it in experience President, And knowledge time Required and method Evaluation And a seating area Residents And taking Under their guidance.

Scientific basis for testing the two muskets:

Test validity:Test validity is a conditionAOne of the conditions for effective measuring tools in measuring the phenomenon being measured is the validity of the test. "The test measures what it was designed to measure, in other words, it is meant to be true."TestValidity periodTestTo measure a specific objective and aspect, this authority appears in multiple forms. Here, the researcher relied on self-honesty (experimental) by using the root of the stability coefficient, as shown in the table (7) As for the stability of the test: by nature, a stable test is one that measures a phenomenon and gives the same or similar results if it is repeated again.Thus, a stable test is one that gives the same results if repeated under the same conditions over a period of time.CertainDo not allow learningFor learners and thusThe researcher verified the reliability of the test.To perform wrestling game gripsBy testing methodAnd re-Test On the survey sample of (24) students On Wednesday, It happened to come across 1/3/2023 and the same test was repeated after Seven days, on Wednesday 8/3/2023 And it was doneUsesimple correlation coefficient(person) For both testsTo find the reliability of the test, the results showed that the test Y It is characterized by a high degree of stability, as shown in the table (7)As for the objectivity of the test, it hasThe researcher relied on an application to testFor the two poor women in questionon (24) TALbaSpecifics for the pilot study and approval of grades the Brain arbitrators T China two From the technical performance evaluation experts of the two hospitals under studyThe students' grades were processed.The objective value of the test was extracted using:simple correlation coefficient(person)As shown in the table (7).

Table 7.

Shows the scientific basis for the two wrestling grip skill performance tests

Test name	Objectivity factor		stability coefficient		Self-honesty (experimental)
	Factors (person)	degree (Sig)	Factor (person)	degree (Sig)	
snatch gripSide	0.817**	0.000	0.804**	0.000	0.896
Distal arm grip and distal ankle raise from sitting	0.884**	0.000	0.910**	0.000	0.953



Pre-tests:

It was completed Conducting pre-tests on sample Search in wrestling hall in college Education Physical and sciences Sports/university Maysan, in day Monday Coincidence 13/3/2023, so Deliberately researcher to numbers form collection degrees Private Evaluating the technical performance of the two students under investigation so It was completed evaluation performance Technical per student from For Committee Directly from the specialists stabilizing conditions This is amazing Tests from time And place In order to Return it itself in Tests Dimensionality.

Implementing the strategy Jigsaw using guided discovery method:

It started application Units educational With strategy Jigsaw using guided discovery method in day Monday Coincidence

20/3/2023And it's over day Monday Coincidence15/5/2023, so I continue this Application (6) weeks It included on(6)Units Educational In fact lonliness Educational in all week apply day Monday The researcher took into account the holidays that he encountered during the days of applying the strategy's components, including Eid al-Fitr, as It was completed Customize (3) Instructional units for the side snatch grip and (3) Educational units for holdingHold the far arm and lift the far ankle from sittingAnd the group had Search empiricism Its approach private Or The group The officer I applied number Units itself And its time In style and method Followers from For teacher And he was satisfied researcher Under supervision on progress Application For my group Search.

Post-tests:

after that finish researcher application strategy Jigsaw using the guided discovery method according to its steps, Deliberately to Tests Dimensionality For my group Search In the two cases under investigation And test Collection Cognitive in wrestling in daily Wednesday and Thursday Coincidentally17-18/5/2023For my group Research, And it was done in conditions Tests Tribalism itself from place And time.

Statistical methods:

The researcher used the social statistical bag system (SPSS) Version(V24):

(arithmetic mean, standard deviation, a test (t) for correlated samples, a test (t) for samples Other than inter connected, square χ^2 , relative importance, percentage, Ease and difficulty factor, discrimination coefficient Cronbach's alpha, split-half

Results and Discussion

After thatComplete researcherThe main experiment and for the purpose of verifying the hypothesesA searchdeliberatelyresearcherTo process the test results statistically, to display them in tables and then analyze and discuss themSupportedWith scientific sources and studiesAnd as follows:

Displaying the results of the pre- and post-tests for the experimental and control research groups inCognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the student wrestling game.

The researcher displays the results of the tests.Cognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the



student wrestling game The pre- and post-tests for the experimental and control research groups, as shown in the tables (8) the next :

Table 8.

Shows test results(t-test) for the correlated samples in the pre- and post-tests for the experimental and control research groups in Cognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the student wrestling game

Tests	Groups	Unit of measurement	Pre-test		Post-test		So	A F	value (t) The calculated	degree (Sig)	Significance
			St.d	M	St.d	M					
gripSide snatch	Experimental	degree	2.55	0.596	7.36	0.727	4,818	0.200	24,048	0.000	moral
	Officer	degree	2.41	0.503	5.50	0.913	3,091	0.222	13,908	0.000	
gripHold the far arm and lift the far ankle from sitting	Experimental	degree	3.00	0.617	8.45	0.510	5.455	0.171	31,963	0.000	moral
	Officer	degree	2.86	0.560	5.77	0.528	2,909	0.164	17,718	0.000	
Cognitive achievement	Experimental	degree	7.14	2,077	15.50	1.535	8,364	0.551	15,188	0.000	moral
	Officer	degree	6.77	1.631	13.00	0.873	6.227	0.394	15,789	0.000	

Displaying the results of the post-tests for the experimental and control research groups inCognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the student wrestling game.

in order to Recognizing the differences between resultsTests Dimensionality in cognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the student wrestling game Between the two research groupsExperimental and controlThe researcher proceeded to process it statistically using the test (t-test) for samplesnotInterconnected as shown in the table (9)the next:

Table 9.

Shows test results(t-test) for unrelated samples in the post-tests of the experimental and control research groups inCognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the student wrestling game

Tests	Unit of measurement	experimental group		control group		value(t) The calculate d	degree (Sig)	Significance
		St.d	M	St.d	M			
Side snatch grip	Degree	7.36	0.727	5.50	0.913	7,491	0.000	Moral
Distal arm grip and distal ankle raise from sitting	Degree	8.45	0.510	5.77	0.528	17,134	0.000	Moral
Cognitive achievement	Degree	15.50	1.535	13.00	0.873	6,640	0.000	Moral

Discussion Pre- and post-test results Post-tests For the experimental and control research groupsIn cognitive achievementLearn the technical performance of my maskSide Snatch, Distal Arm Grab, and Distal Ankle Raise from SeatIn the student wrestling game:



It is clear from table(8) That the results a test Lateral snatch, far arm grab, seated far ankle raise, and cognitive achievement test in freestyle wrestling for students of the group Experimental and control groups in both tests tribal And the distant one so There were statistically significant differences between the pre- and post-tests in the two grips and the cognitive achievement test in the wrestling game for third-year students of the Faculty of Physical Education and Sports Sciences in favor of the post-test. This difference between the two tests for the experimental group in learning the two grips and the improvement in cognitive achievement is due to the researcher's use of the directed discovery method that the researcher used according to the steps of the Jigsaw strategy, and that applying the educational unit using the directed discovery method according to the steps of the Jigsaw strategy increased students' motivation towards learning because motivation has effect big In operation learning, and that learners who They miss to Motivation in learning He is Learn them limited This what Confirmed by (Wajih) blocked)who sees "That of the important that He is individuals impulsive To learn Tasks Kinetics For the purpose of Get on maximum to learn, So consideration learner to Mission on that it It is not Same meaning or not Favorite Van learning on Skill It will be Specifically. On the other hand, the use of the guided discovery method according to the Jigsaw strategy played a role in the difference between the post-test and the pre-test for the experimental group, which confirmed(Ahmed Saad)The advantage of using the guided discovery method is that it sees "that learning By discovery The wave increases from Motivation learner about learning when Provides it from suspense And excitement feel With it learner during Discover it For information By himself.

As for the control group, there was a significant difference. The difference between the post-test and the pre-test is due to the subject teacher, as he is a specialist and has his own style and method that achieved superiority between the two tests and in favor of the post-test.

Note the table (9) which showed clear significant differences between the two post-tests of the experimental group and the control group, and the superiority of the experimental group over the control group. The researcher attributes this difference and superiority to the use of the Jigsaw strategy supported by the guided discovery method. and use optimum strategy Jigsaw In style guided discovery Which save cooperation Effective between Experimental group members To accomplish (Holding performance) gesticulate It contained attic Educational unit of an offer Content Educational and cooperation Effective between individuals Groups Between them And between Groups Other in transfer Experiences educational While Between them gesticulate It includes The lesson from Knowledge and information and concepts Related With the artistic performance of each grip, The order that led to formation image mentality For the grip And its ease Their absorption led to stir Motivation students about Learning as well as in the same context that learning By discovery The wave Used In it learner Its operations mentality on according to verb latent And the verb The kinetic represented in Perception Skill then Please apply it on Use Nutrition The return Continuous To improve performance Van For nutrition The return role big To learn whether She was Nutrition The return that given In the picture General during practical learning or Doing By contacting with all learner on sharpness And that Being axis necessary per practical to learn As Jigsaw strategy Encourage learners on Creativity during the job Research and participation And thinking, and dialogue and exchange of views and information between learners as that it Help in Make changes Positive in performance learners And contribute in development The skillful performance of the studied grips, as (Khaled Al-Sir and others) see that the Jigsaw strategy has importance in use for learners as it "encourages creativity through research and thinking, develops higher thinking skills,



develops positive attitudes towards learning and teaching, contributes to the development of skills, and reduces the introversion of some learners through learners practicing cooperative behavior.”

It is worth noting that the cooperative jigsaw strategy reduces intellectual conflict between learners, encourages better learning, motivates students towards learning, increases their enjoyment of the learning process, and enables each student to become an expert in a specific task assigned to him by the subject teacher, i.e. a part of the grip to be learned, and through communication and discussion with other students who have been assigned other tasks for the technical performance of the grip under study, so that the group members cooperate in understanding the parts or sections of the grip, and through each learner explaining to the members of his group the section or part that he was assigned to master according to the steps of the main strategy (planning, implementation, evaluation), and thus all sections of the grip become clear to the students. On the other hand, the use of style Discovery The wave in to learn The two who are in wrestling because nature procedure style Discovery The wave gesticulate Includes it this style to It deals with parts The handle all In a way Detailed any that to learn Technical performance of the grip Using this style He depends on to divide The handle to series interconnected from Questions On how to perform and therefore include practical discovery The answer For question The proposed To learn that Part from The handle And in a way sequential part He depends on A complementary part until It is done Perception all part from parts The handle and privacy guided discovery method Depends on excitement Operations mentality I have learners from during what Includes it Questions The proposed Private Performing the grips What is meant Learn it to motive pays learner on Use group from Operations mentality Therefore transfer learner from role snob For the model to role Product For movement And that from during coupling practical learning(Performance grip application)In operation thinking Coming from Perception complete per part from parts The handle a result To think The student during practical Discovery With all details The grip to be learned Thus, the grasp was fully realized, and this method was integrated and consistent with the application of the steps of the Jigsaw strategy, and this is what gave the learners the possibility of relying on it. on Their abilities And their skills Subjectivity, The performance was sequential. She was as a Able standard learners from During it evaluation themselves And knowledge power Their performance Which led to progress Group students Experimental in Collection Cognitive For the handles Research and educational content in wrestling for the second semester.

Conclusions

Based on the presentation and discussion of the results, the researcher concluded the following:

- 1- Use strategy Jigsaw In style Directed discovery has an impact. positive On learning performance The technical performance of the side snatch, far arm grab and far ankle raise from a seat in freestyle wrestling for students was evaluated. The experimental group students outperformed the control group students.
- 2- Using the guided discovery method according to the jigsaw strategy was more effective in learning the side snatch grip, the far arm grip, and the far ankle raise from the seat. In the student wrestling game The students in the experimental group outperformed the students in the control group.



- 3- The use of the guided discovery method according to the Jigsaw strategy had a positive impact on improving the level of cognitive achievement in wrestling in the second semester for students in the experimental group and their superiority over students in the control group.

Recommendations

- 1- Emphasizing the use of the guided discovery method according to the Jigsaw strategy for its positive impact on learning wrestling grips for third-year students in the College of Physical Education and Sports Sciences.
- 2- The necessity of using the Jigsaw strategy supported by the guided discovery method, as it has a positive impact on the educational process and its impact on the level of cognitive achievement and learning the technical performance of wrestling holds for students.
- 3- Emphasizing the need to conduct more studies that use indirect teaching methods and other educational strategies, given their importance in the learning process and in activating students' roles during the learning process.

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Appendix (1)

Behavioral objectives and cognitive test items in some wrestling content for students

No.	Behavioral objectives	Cognitive domain levels	Cognitive achievement test paragraphs on some wrestling content for students
1	To mention how to move the	to	Remember the movement of your feet during a standing struggle. It



	feet while wrestling while standing	remember	would be... A- One foot in front of the other B- Two feet parallel with a shoulder-width gap between them C- Two feet crossed
2	To list the stages of performing the side snatch grip.	to remember	As you know, the side snatch grip goes through a number of stages... A-Three stages B-Four stages C-Five stages
3	To state the appropriate distance to perform the side snatch grip.	to remember	The most appropriate distance between the performer and the person being performed for a successful side snatch is.... A- Approximately 30 cm B- Approximately 50 cm C- No distance between the opponents
4	To know how to perform the far arm grip while sitting	to remember	The far arm hold and ankle hold are performed from the grappling position.... A- Standing B- Ground (khak) C- Low
5	To mention the areas of holding by performing the holding of the arm far from sitting	to remember	The far arm grip and ankle grip are performed by holding from.... A-Breast and ankle B-Wrist and foot C-Elbow and knee
6	To know the dimensions of the legal wrestling mat	to remember	Knowing the dimensions of a wrestling mat, it has the dimensions of A-10m x 10m B- 12m x 12m C- 15m x 15m
7	To demonstrate the bending of the feet while standing	to understand	When fighting, stand up so that your feet are more supported. You should.... A- Fully extended B- Slightly bent at the knees C- Bend more than 90 degrees
8	To distinguish the correct performance of the side snatch grip	to understand	The side snatch hold from a standing grapple is performed by A- Grab the opponent's arm and put the other hand under his armpit B- Grab the opponent's neck and the other hand on his leg C- Grab the opponent's thigh and the other hand on the opponent's arm
9	To discuss the main part of the side snatch grip.	to understand	When performing the side snatch hold after the grapple and when executing the hold the attacker reaches A- Lifting the opponent's feet and dropping him to the mat B- Lifting the opponent off the mat and throwing him aside C- Pulling the opponent and removing him from the conflict area
10	To compare the performance of the snatch grip and the far arm grip.	to understand	The side snatch and the far arm grab are performed with hands that are.... A- Snatch and far arm from a seated position B- Snatch and far arm from a standing position C- Snatch from a standing position and far arm from a seated position
11	To discuss the main part of performing the far arm grip from sitting.	to understand	The distal arm grip and distal ankle raise are performed by... A- Grab the opponent's arm and neck B- Grab the opponent's far arm and with the other hand lift the ankle of his far leg C- Grab the opponent's thigh and his near hand
12	To distinguish the dimensions of the conflict area on the carpet	to understand	The area circled in red is called the conflict zone and has dimensions of A-8 m B- 7 m C- 9 m
13	To apply the footwork movement while standing	application	Foot movement during a fight should be in different directions and in a position that is... A- Feet apart B- Feet crossed C- Feet fully extended
14	To demonstrate how to perform the side snatch grip.	application	The side snatch hold is performed when the opponent is A- Close to the zone circle B- In the safety zone outside the zone C- In the ground conflict situation (khak)
15	To discover the opportunity to perform the side snatch hold.	application	Performing the side snatch often involves harassing the opponent as they approach... A- Protection and safety zone B- Negative zone (zone) C- Central circle
16	Use your arms to perform the side snatch hold.	application	The side snatch hold is performed by grabbing the opponent with A- Place hands in the required place B- Interlock legs C- Grab the opponent's legs and lift him up
17	To apply the far arm grip from sitting	application	The far arm grab and far ankle lift is performed when the opponent is in a position.



			A- Standing in the conflict zone B- Ground conflict (khak) in the conflict zone C- Ground conflict (khak) in the safety zone outside the zone
18	To discover the compatibility in performing the far arm grip while sitting	application	When performing the far arm hold and far ankle raise, the performer is required to... A- Pull the distal hand and raise the ankle at the same time B- Tie the neck and pull the ankle C- Pull the proximal hand and raise the distal ankle
19	To use force by pressing the opponent in performing the far arm hold from sitting	application	To perform the far arm hold and far ankle raise the performer must... A- Pulls the near hand and raises the ankle of the near foot B- Presses hard and pulls the far hand and raises the far ankle C- Pulls the opponent's neck and raises the man's ankle calmly
20	To clarify the legal dress for wrestlers	application	During legal matches, wrestlers wear special clothes, which are... A- Shoes and gloves B- Shoes and swimsuit C- Shoes and shorts

Appendix (2)

Model of an educational unit

Day and date: Monday 20/3/2023

Group: Experimental Model of an educational unit using the Jigsaw strategy using the guided discovery method Number of students: (22)

Time:90 / minute

Educational objective: Students learn wrestling grips.

Behavioral objective: Students will perform the side snatch hold at a good level.

No.	Unit sections	time	the details	Formations	Notes
1	Preparatory Section	15/d	Preparing the tools, students standing in line, inspecting clothes and jewelry, taking attendance, performing the starting shout (sports - activity).		Emphasize the quiet in the hall
	Introduction part	3/d			
	General warm-up	5/d	Regular walk, walk on the insteps, walk on the heels, jog around the field, from the jog rotate the arms forward, from the jog rotate the arms backward, from the jog twist the trunk to the sides, from the jog at the whistle jump high, from the jog raise the knees high, from the jog hit the heels with the hip.		Emphasize adherence to the specified time for general and special warm-ups and conduct the warm-up correctly.
	Special warm-up	7/d	Various exercises for the muscles involved in the performance, preparing the arm muscles, rotating the elbows, arms and knees, rotating the torso right and left, preparing the back and abdominal muscles.		
2	Main Section	60/d	The teacher prepares the learners' minds, engages them, and excites them for the lesson by demonstrating the technical performance of the wrestling side snatch. This helps direct learners' thoughts toward the correct and optimal performance and arouses their interest. Then, the teacher forms working groups at the beginning of the jigsaw strategy. The teacher forms small groups, each comprising a specific number of students. This promotes cooperative learning and allows each student the opportunity to perform an individual role within the team..		Emphasize attention to the teacher
	Educational activity is the first step of the strategy.	20/d 10/d			



	The second step of the strategy	10/d	In this step, tasks are divided: divided tasks are distributed among the members of each group. Each student is assigned to perform a part of the task under study in order to become an “expert” in it, which encourages the division of labor and supports the development of mutual dependence among the students..		
	Practical activity The third step of the strategy	40/d 10/d	In this step: each student performs the assigned task in depth, which enhances personal understanding and prepares the student to share what he has learned with his colleagues. It is an essential part of developing group skills. The grip is applied after the students have discovered the correct performance technique themselves through presentation and their answers to the task assigned to them by the teacher through guided discovery..		
	The fourth step of the strategy	10/d	In this step, and according to the exercises set by the teacher, students who have applied the same part of the grip from different groups gather to exchange information and ideas. This step supports encouraging the exchange of knowledge, consolidating concepts, and linking the parts of the grip to be fully applied..		Emphasis on effective participation by all students.
	The fifth step of the strategy	20/d	In this step, depending on the performance of the side grab and sharing of experiences within groups: The students (the expert) return to their original groups to share what they learned from the performance. This helps in forming a comprehensive understanding of the performance as a whole, and supports cooperation and group participation..		
3	Final section	15/d	In this final step of the strategy, the teacher evaluates students' performance and provides feedback. This step is an important part of assessment methods and helps foster team development and collective understanding.		Emphasize the need to leave quietly after performing the sportsman's salute.
	The fifth step of the strategy	10/d 5/d	Then a mini game related to performance.Side snatch gripThen end the lesson and leave.		