The effect of cognitive stimulant strategy on my method (included, separate) and the performance of some basic football skills for students

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Abstract

The educational process has witnessed a remarkable development from its traditional formulas to several patterns in the development of learners and the development of their mental abilities. More advanced teaching strategies have emerged than they were previously, and this in turn has helped the teacher and learners in bringing about a wide change in all scientific fields. As for the research problem, the researcher believes that the remarkable scientific progress in the accelerated educational system is intended to be matched and pursued by the teacher and learners together and through the use of stimulants of cognitive strategy and modern educational techniques compatible with this tremendous scientific progress.

One of the objectives of the research

1. *Knowing the effect of using cognitive stimulants strategy on the basis of my method included, separate and the strategy followed by the teacher in the College of Physical Education and Sports Science - the first stage - football*
2. *Knowing the effect of using cognitive stimulants strategy on the basis of my method included, separate, and the strategy followed by the teacher in performing some basic football skills for students.*
3. *Understanding the preference of influencing the use of cognitive stimulants strategy according to my method (included, separate) and the strategy followed by the teacher and performance of some basic skills of football for students.*

The research hypotheses were

1. *There is a positive effect of the use of cognitive stimulants strategy on the basis of the included method and the separate method and the strategies followed by the teacher in improving the motivation of learning for students of the Faculty of Physical Education and Sports Science - the first stage by studying football.*
2. *There is a positive effect of the use of cognitive stimulants strategy, according to the method included, separate, and the method followed by the teacher in the performance of some basic football skills for students - Department of Physical Education and Sports Science.*
3. *There is an advantage in influencing the use of the cognitive stimulant strategy, according to the method involved and the separate method and the strategy followed by the teacher in performing some basic football skills for students.*

The researcher used the experimental approach to identify the effect of cognitive stimulant strategies in developing basic skills in football. The same sample was identified by Al-Mustansiriyah University students - College of Basic Education - Department of Physical Education and Sports Science and from the first stage for students and the curriculum lasted (10) weeks and the rate of educational unit for each week For three classs

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(ABC), the time of the educational unit was (90) minutes, and the researcher used a set of statistical methods to process the research data

The researcher concluded the most important results

1. *The review of the student's cognitive stimulants by the teacher at the beginning of the main section of the educational unit had a significant and distinctive impact on the process of meditation, thinking, linking, deduction, and application of skills.*

2. *In the light of the results of the research, the researcher concluded that the use of cognitive strategy stimulants in teaching sports science and including them in their academic priorities has a profound impact on raising the level of students.*

Keywords: cognitive, stimulant strategy and performance.

Introduction

Scientific excellence and the enormous development of knowledge and its applications is a distinctive feature of this era, and the progress of nations and their development in various areas of life has become closely linked to the extent of technological development, so more advanced educational strategies have emerged than they were previously, and this in turn has helped teachers and learners in making a wide change in the fields All scientific, which called these scientific strategies and qualitative changes in the evolution of the relationship between the teacher and the learner in finding various educational strategies and multi-purpose in creating an incentive towards education, and here lies the importance of research (to the researcher) and through education strategies and through its different methods in the method and method and through those with specialization In the sport issue, as they found their scientific misinformation in the aforementioned cognitive stimulants to stimulate and stimulate the memory of learners by preparing educational programs commensurate with the nature of the desired goals in building a base for the student mentally instead of leaning towards the traditional trends in learning.

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Cognition strategy is an organized cognitive process that enables individuals to understand and adapt to the outside world surrounding them. Either the cognitive stimulants strategy involved is an educational system that relies on the teacher or the curriculum developer or educational design and has the responsibility to help the learner to use cognitive stimulants, the separate cognitive stimulants strategy is A system that relies on the learner and avoids responsibility for achieving educational goals.[2]

There is no doubt that the movement of science is increasing steadily without stopping and of its various directions, which suit the nature of the requirements of the modern era. Therefore, workers in the educational field must find a diversity of learning methods and advanced teaching methods consistent with the changes in the educational system, hence the problem of the lack of use of modern methods and methods in teaching And its repercussions in education, and that there are deficiencies in the use of cognitive processes and their development are limited to the preservation and collection of information, which led to obstruction of thinking among learners.

Research fields

- The human field: Students of the first stage, Department of Physical Education and Sports Science - College of Basic Education - Al-Mustansiriyah University.
- Time: From Tuesday 17/1/2019 to Tuesday 17/3/2020.
- Spatial field: Football stadium in the Department of Physical Education and Sports Science - College of Basic Education - Al-Mustansiriyah University.

Research methodology and field procedures

Research Methodology

The experimental method was used to design equivalents with pre and posttests to suit the nature of the problem and the objectives of the research.

Society and the research sample

The selection of the research sample should be compatible with the goals set by the researcher in the subject of his study of the research, and it should be well representative of the study community (1) The research community was determined by the first stage students to the Department of Physical Education and Sports Science / College of Basic Education / University Al-Mustansiriyah for the academic year 2018-2019, whose number is (90) students. After students who failed and deferred students were excluded, the research sample was chosen from the research community with a strength of (50) students, representing (56.55%) of the research community, and table (1) shows details Society and research sample.

Table 1. Shows the research population and sample

Class	Research community	Research sample	Pilot sample
Class A	32	17	15
Class B	30	17	——
Class C	28	16	——
Total	90	50	15

Sample it as the main experience

It included students from the first stage / Department of Physical Education and Sports Science - College of Basic Education - Al-Mustansiriyah University and from the same community a sample was identified for the second exploratory experience of the research skills consisting of (15) students who were chosen by lottery method from Class (A) . In addition to That was the specimen for applying the cognitive stimulants strategy, as the sample was chosen in a simple random manner with a strength of (30) students with a percentage (33.33%) of the total community origin, as they were chosen from the three class. By lot, Class (A) was chosen to be the first experimental group. The cognitive stimulant strategy was used - in a manner included in the development of learning and performance of some basic football skills for students and Class B - the second experimental group used the cognitive stimulant strategy - in a separate manner in developing and performing some basic soccer skills for students. And the (C) Class of the Control Group used the strategy followed by the subject teacher to develop learning and perform some basic football skills.

Table 2. Shows the community and research samples for the second exploratory experiment of strategies to be used in the search

Groups	Research community	Pilot sample	The main sample
Class A	32	15	10
Class B	30	————	10
Class C	28	————	10
Total	90	15	30

Research facilities, devices and tools

- Arab and foreign sources.
- The Internet.
- Personal interview.
- The questionnaire.
- Note.
- Testing and measurement.
- 10 footballs.
- Whistle (3).
- Chinese-made stopwatch, count (3).

- Camcorder number (1).
- CD (DVD).
- Topless calculator (1).
- Leather tape measure length (5) meters, count (1).
- Chalk colored.
- Burke bag (2) to plan the stadium.
- Pens and pencils.
- White papers (A4).
- Optical signs (phosphorescence).

Field research procedures

Identifying cognitive stimulants

After studying the total cognitive stimulants, cognitive stimulants were identified that are appropriate to the level of students and the skills in question, which number (12) cognitive stimuli, which the researcher intends to study on the research sample that is compatible with the level of students and the skills under consideration. The researcher used a (Chi square) test as the table shows the number of approved and non-approved experts and the calculated and tabulated (Chi square) value as shown in Table (3).

Table 3. Shows the types of doping cognition strategy and the number of approvers and approvers value (KA) and statistical significance

S	Cognitive strategies stimulants	Number of experts agree	Number of experts disagree	(Chi square) Value Calculated	(Chi square) Value Tabulated	Statistical significance
1-	Educational questions	15	0	15		Sig.
2-	paraphrasing	15	0	15		Sig.
3-	Educational stories	9	6	0.06		
4-	Summaries	7	8	0.05		
5-	Reviews	9	6	0.06		
6-	Means of strengthening memory	8	7	0.05		
7-	Educational goals	15	0	15	3.62	Sig.
8-	Similes	15	0	15		Sig.
9-	Instructions	11	4	3.22		
10-	Physical sensory images	15	0	15		
11-	Introductions	7	8	0.05		
12-	Mental images (fantasies)	7	8	0.05		

In light of this, cognitive stimulants were chosen according to the content and goals of the stimulator and the nature of educational methods used in the research. There are:

1. A cognitive stimulant given at the beginning of the lesson (the educational section) such as (educational goals, educational questions).
2. A cognitive stimulant given during the lesson in the applied section such as (physical sensory images, comparison, paraphrasing).
3. Cognitive stimulant given at the end of the lesson, such as (summary).

Field search procedures

Define basic football skills and tests

Some basic skills (rolling, scoring) in the football game were identified from the specific methodology for first stage students in the Department of Physical Education and Sports Science / College of Basic Education / Al-Mustansiriyah University

Skill tests

Three tests were identified for each of the chosen skills and Table (4) shows that:

Table 4. Show the expert agreement ratio shows the three skills

Skill	The	Mastery ratio	The name of the test

	excelling		
Put down	9	100%	• Put down the ball inside a square of 2 x 2 m and from a distance of 6 m
	0	00.000%	• Put down the rolling ball to the ground
	0	0%	• Put down the rebound from the ground
	1	1.111%	• Put down the ball inside the foot while it is in the air
Rolling	0	0%	• Rolling from the target line to the 18 yard line and back
	9	100%	• Rolling the ball between the five arrows back and forth for a distance of (15 m)
	0	0%	• Spin the ball around the figures drawn in the form of (8)
Scoring	1	1,11%	• Aiming towards a regular goal divided into (5) sections from a distance of (12 m)
	8	80%	• Shooting on three overlapping rectangles on a wall
	0	0%	• Shooting on concentric circles drawn on the wall from the target line (12 m)

The researcher has relied on the performance evaluation form for the rolling skill for the same test by registering the sample tests in a video and presenting them to the subject teacher for the purpose of evaluating the performance of the testers separately and thus each skill has become a measurement for skill performance according to the skill sections according to its evaluation form.[3]

The second pilot study for skill tests

The researcher conducted the exploratory experiment on 13/2/2019, corresponding to Thursday, ten o'clock in the morning, for the skill tests on a sample of (15) students from the Department of Physical Education and Sports Science - College of Basic Education - Al-Mustansiriyah University and from outside the research sample.

Research tests

First / winding roll test among the five (1)

- The purpose of the test: the axes and the measurement of the rolling speed:
- Method of performance: The laboratory starts running with rolling the ball when hearing the beep (starting signal) among the signs (5)
- The first person is 3m away from the starting line.
- Distance between 1 person (1m).
- Return the same way to the starting line in the least time possible.
- Two attempts are given to each student.
- The score is calculated using time (the minimum time for correct performance correctly).

Test tools

- Regular soccer balls, count (5).
- Number (5).
- Measuring tapes.
- Stopwatch.
- Whistle.
- Score scoring.

Second / Scoring test on overlapping rectangles [4]

- The purpose of the test: To measure the accuracy of scoring
- Test tools
1. Regular balls
2. A tape measure
3. Whistle
4. Smooth wall with divided target (3 × 2 m) drawn by three overlapping rectangles of different sizes.
5. The smooth wall dividing the target from the scoring point is 10 meters away.
- Method of performance: The laboratory performs the test (kicking the soccer ball) upon hearing the starting signal from behind the scoring line towards the target drawn on the smooth wall and from a distance of (10 m), and each laboratory has three consecutive attempts in which he tries to hit the target goal and the scores are calculated as follows:
- Select of the first smaller rectangle (1 x 140 m), and one degree is counted

- Select of the second rectangle (150 x 220 m), for which two degrees are calculated
- Select of the larger rectangle (2 x 3 m), to which three degrees are counted
- Zero counts for failed attempt.

The researcher has relied on the performance evaluation form for scoring skill for the same test by registering the sample tests by video and displaying them for the purpose of evaluating the performance of the two testers separately and thus each test has become one to know the performance of the skill according to the attached test according to the skill sections according to its evaluation form.[5]

Pretests (homogeneity, parity)

The researcher conducted the pretests on the research sample on Sunday 17/2/2019 at nine o'clock in the morning. The tests were documented and recorded in video so that the researcher can rely on them when facing a specific problem, as shown in Table (5 and 6).

Table 5. Show the homogeneity of the sample is shown in the variables of length, mass and age

Group	Variables	Units	Mean	SD	Median	Skewness
The first experimental group included	Length	Cm	167.71	69.1	167.43	0.656
	Mass	Kg	69.38	3.04	68.57	0.799
	Age	Month	216.79	2.18	216.11	0.935
The second separate experimental group	Length	Cm	170.06	1.75	173	0.665
	Mass	Kg	70	4.02	71	0.821
	Age	Month	216.85	2.95	216.15	0.935
Third experimental control group	Length	Cm	195.16	1.55	170	0.688
	Mass	Kg	67.11	2.88	65.03	0.745
	Age	Month	204.15	2.03	215.85	0.911

For the purpose of making sure of the parity of the sample, research in variables (age, height, weight,) and basic skills in football - under research. The researcher performed the parity using a t-test.

Table 6. Show equivalence of the three groups to the three skills (rolling, scoring)

Skills	Variables	Source of variation	Sum of squares	df	Average squares	Calculated (F) value	Statistical significance
Rolling	Performance	Between groups	32.067	2	16.033	17.111	Sig.
		Within groups	25.3	27	0937		
Scoring	Performance	Between groups	26.6	2	13.3	17.432	Sig.
		Within groups	20.6	27	0763		

Educational programs

It is all experiences (activities or practices) planned to help learners achieve the desired scientific outcomes .[6]

The researchers completed the exploratory experiment and pretests in order to achieve the goals of the research that he set in advance and the researcher prepared an educational program based on the principle of (the effect of cognitive stimulants strategy according to my method (included and separate) and the performance of some basic football skills for students). The researcher worked to establish all conditions Related to the exercises, such as place, time, and method of implementation, each of its location in order to work as much as possible to create the same conditions for conducting the exercises.[7]The educational program included (10) educational units. Where the educational program started on Sunday 24-2-2019 until Sunday 5-5-2019 and on the playgrounds of the Department of Physical Education - College of Basic Education - Al-Mustansiriyah University and as distributed in the table below (7).

Table 7. Shows the time class of the educational units

Sections of the training unit	Description of the training unit sections	Time per minute	Time during (10) educational units	Percentage
Preparatory section	Introduction	5	50 Min.	8%
	Warm up	10	100 Min.	11%

The main section	The educational part	20	120 Min.	22%
	The practical part	50	500 Min.	51%
The final section		5	50 Min.	8%
Total		90	900 Min.	100%

Steps to implement the educational program

The researcher followed the three experimental groups (the included, separate, and controlled style) in the technical performance assessment tests for my skills (rolling, scoring) the following steps:

1. Cognitive stimulants were used (educational questions, educational goals, physical sensory images, comparison, summary, paraphrasing) in learning my skills (rolling, scoring)
2. To explain my skills (rolling, scoring) and how to employ perceptual stimulants for the method involved by the course teacher at the beginning of the group's educational part.
3. To explain my skills (rolling, scoring) and how to use cognitive stimulants by the teacher and the student (the teacher) in a separate style.
4. For each skill (rolling, scoring) three exercises are performed in the applied part and with a time of 48 minutes in a manner in which learners alternate for each exercise, as well as a gradual selection of cognitive stimulants (displaying sensory images, comparison) and left 2 minutes to return educational questions or re-Formulated by the learners as follows: [8]

For the first group, Style included

The students were divided into miniature groups, provided that the performance of the skill exercises is different from each other and with a time ranging for each exercise (16) minutes provided that these groups alternate to perform the three forms of suppression skill, and the remainder of the specified time (50 minutes) for the applied part and the adult (2 minutes) In it, the area is given to learners by inquiring and reformulating the method of performing the skill, and this mechanism is done in the order, organization and sequence of the subject teacher.

The second group, separate style

In this group, students are also divided into small groups and the same skills and exercises related to them are presented, leaving students with the freedom to choose the appropriate cognitive stimulants in a sequence and types that differ from one student to another provided that students take all the steroids

Third group

In this group, work was done with the students of the class as the subject teacher deems necessary by giving an initial picture of the skill by presenting and explaining the skill by the subject teacher and re-applying it several times and then forming marital groups of students so that the skill exercises are applied according to the organization and sequence approved by the teacher.

Post-test

The researcher conducted the post-test on Sunday 5/5/2019 for the three experimental research groups (included, discrete, and controlling) and for the basic skills of football (rolling, scoring).

Statistical means

The researcher used the statistical methods and the statistical bag (SPSS) to process the data he obtained, including:

- Percentage, mean, standard deviation, Pearson simple correlation coefficient, T-test for correlated samples, F test, one-way analysis, Tukey Ba test.

Results and discussions

S	Variables	Units	Pretest		Posttest		Calculated (t) value	Significance level test	Type of significance
			Mean	SD	Mean	SD			
1	Rolling	Second	6.8	1.135	3.8	0.918	5.379	0.000	Sig.
2	Scoring	Degree	4	1.05	6.8	1.032	5.250	0.001	Sig.

Through the results presented in Table (8), which shows us the values   of the mean, the standard deviation, and the test values   (T) for the results of the (pre-dimensional) tests for evaluating the technical performance of the first group (the included method).

 For the skill of rolling for pretests for the first group, the included method, which is measured in the second, was its mean (6.8) and its standard deviation (135, 1). In the post-test, the mean (3.8) and its standard deviation (0.918) and after calculating the value (t) Calculated using the law (t) of the correlated samples, which were (5.379), which is a function compared to the value of (sig) at the level of significance (0.05) and degree of freedom (9) of (0.05) which is less than (0.05) and this It means that there is a statistically significant difference between the pre and posttests for the roll skill test and for the posttest's for the scoring skill, measured in degree for the first group, the method included, its mean (4) and its standard deviation (1.05) for the pre-test. As for the dimensional tests, it became its mean (6.8) and the standard deviation (1.032) after calculating the value of (t) using the law (t) for correlated samples, which were indicating (5.250), which is a function compared to the value of (sig) at the level of significance (0.05) and the amount (0.001) which is less than (0.05) and this means that there are significant differences between the pre and posttest For scoring skill and for post-test.

By noting the results of Table (8) and for the pre-dimensional tests to evaluate the technical performance of the skills (rolling, scoring) the researcher noted that the superiority of the dimensional tests to evaluate the technical performance clearly and the researcher attributes this to the role of the teacher in this method in how to employ the perceptual stimulants appropriate to the raw research sample in Its first performance and by correcting motor performance errors early by receiving feedback, being any feedback or performance is nothing but information related to performance or output of performance and it is also information related to the form and style of performance movements and is specific and clear.[9]

Table 9. Shows the mean values, standard deviation, and (t) test values for pre- and posttest tests for performance evaluation of the research variables of the second (separate) experimental group

S	Variables	Units	Pretest		Posttest		Calculated (t) value	Significance level test	Type of significance
			Mean	SD	Mean	SD			
1	Rolling	Second	4.3	0.823	3.6	1.17	3.28	0.010	Sig.
2	Scoring	Degree	4.2	0.632	4.5	0.707	1.96	0.081	No sig.

By observing Table (9) for dimensional tests and for assessing the technical performance of the skills (rolling, scoring), the researcher noted that the reason for the lack of superiority of the second group - a separate method in scoring skill in finding a significant statistical difference D that this method did not take into account individual differences between students and could not The student (the teacher) to contain the group's students and involve them in the requirements of the lesson, leading each student the kinetic performance of the skill according to his abilities, which led the matter to not correct the errors caused by applying the performance of the movement and thus absent feedback here.[10]

Table 10. Shows the mean values, standard deviation, and (t) test values for pre- and posttest tests for performance evaluation of the research variables of the third group (control)

S	Variables	Units	Pretest		Posttest		Calculated (t) value	Significance level test	Type of significance
			Mean	SD	Mean	SD			
1	Rolling	Second	6.2	1.31	4.3	0.948	4.67	0.001	Sig.
2	Scoring	Degree	4.1	0.994	5.5	0.849	3.28	0.010	Sig.

Through the results presented in Table (10) for the tests (pre-dimensional) to evaluate the technical performance of the skills of (rolling, scoring) and for the third group - control: The researchers noted that she achieved her goal in the moral influence in the (pre-dimensional) tests in learning my skills (rolling, scoring). The researcher attributes that the control group relied mainly on the educational contexts approved by the teacher, that is, the educational methods used, and that the student's role according to this context has only to implement the required motor performance within the special educational directives and instructions by the teacher.[12]

Table 11. Show the analysis of variance, the calculated value of (F) and the significance of the differences in the dimensional tests of the skills of (rolling, scoring) in the performance evaluation of all the variables under study are shown

Skills	Variables	Source of variation	Sum of squares	df	Average squares	Calculated (F) value	Significance level test	Statistical significance
Rolling	Performance	Between groups	32.067	2	16.033	17.111	0.000	Sig.
		Within groups	25.300	27	0.937			
Scoring	Performance	Between groups	26.600	2	13.300	17.432	0.000	Sig.
		Within groups	20.600	27	0.763			

Table (11) shows that the calculated value of (P) for the skill of rolling and measured in seconds, the calculated value of (F) (17.111) was statistically significant with the value of (sig) at the level of significance (0.05) and degree of freedom (2-27) which It reached (0.001) which is smaller than (0.05), which means that there is a significant statistical difference. As for the scoring skill and measured by degree, the calculated value of (F) was (17.432) was statistically significant with the value of (Sig.) at the level of significance (0.05) and degree of freedom (2-27) which reached (0.000) which is smaller than (0.05) This means that there is a significant statistical difference.[12]

Conclusions

1. The researcher concluded that the teacher was familiar with cognitive stimulants and their nature, whenever he was able to use them in the appropriate way for them.
2. The researcher concluded that the review of the student's cognitive stimulants by the teacher at the beginning of the main section of the educational unit had a great and distinctive impact on the process of meditation, thinking, linking, deduction and application of skills.
3. The researcher concluded that the more the awareness stimulus (reformulation) of the materials studied by the student, the greater his understanding, memorization and linkage of information with each other, especially the weak students.
4. In the light of the research results, the researcher concluded that the use of cognitive strategy stimulants in teaching sport sciences and including them in the priorities of the curriculum ladder has a profound impact on raising the level of the learner among students.

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