

# Effect of the Seven-Cycle Learning Strategy (7E'S) in Developing the Cognitive Aspects to Learn Some Complex Skills in Football for Students

Lect. Dr. Hassan Salem Ali

Directorate of Education in Maysan, Iraq

## ABSTRACT

Through the researcher's observation of teaching football and his interest in this game, he noticed that most of the learners are slow in learning compound skills in football because it is one of the skills that need movement compatibility in performance. Where the researcher believes that the failure to introduce modern teaching strategies that suit their capabilities and physical capabilities, The purpose of the study was to determine the impact of employing the seven-course learning technique.cycle ( E's 7) in developing cognitive aspects and learning some complex skills in football for students. Third, the College of Physical Education and Sports Sciences, University of Basra, whose number is (150) students. The research sample was chosen by lottery method (65) students from (6) people who were divided into two groups, control and experimental, with (25) students for each group. The researcher concluded that the curriculum prepared by the researcher worked on increasing the positive interaction to develop the knowledge environment through the educational units. It increased the experiences of the students in making the decisions they face to make their participation effective in the educational process. It was recommended to conduct comparative studies using the seven-cycle learning strategy (7 E'S ) with modern teaching strategies and methods.

**KEYWORDS:** (7E'S) learning, cognitive aspects, compound skills.

## Introduction

that The emergence of different educational methods provides those in charge of them with the opportunity to choose the optimal and appropriate method for the available educational environment to achieve one or more goals that were planned for and to reach the development and development of the learner's abilities. Observing the development taking place in all areas of mathematics and the rest of the educational sciences through the use of modern teaching strategies, methods and methods used in learning. Whatever its nature and the philosophy on which it is based, it must be based on scientific and educational foundations and various teaching methods centred around the learners and activating their roles by recognizing their inclinations and abilities, working on motivating them, engaging them in what they learn, and then applying this, and this makes each one of them an effective element that uses what he has. Methods of thinking about what they learn by interacting with them and finding solutions to the problems they face in educational situations using their intellectual and physical abilities.

The lesson of physical education is like the rest of the lessons in the diversity and modernity of teaching methods and their multiplicity after modern education calls for paying attention to the learner and making him the center of the learning process. The method of instruction is a set of continuous relationships established between the teacher and the student, and these relationships help the learner acquire the skills that he wants to achieve. For the physical education teacher to be able to achieve these relationships, he must identify the factors that contribute to achieving them, the most prominent of which is the identification of

learning methods, and how to activate them successfully during the teaching process. From the aforementioned, the researcher notes that the strategies of the seven-year learning cycle in teaching, which he believes achieve many educational goals by containing and including all students in performance at different levels, taking into account the individual differences among them to raise their physical and cognitive abilities.

The football game is one of the systematic sports in the faculties of physical education and sports sciences, in which the student should learn and master its skills in the correct and planned manner according to the curriculum prepared for this game.

Hence the importance of research in how to benefit from some different learning theories, methods and patterns that are consistent with the student's tendencies and aspirations for the type of learning, that the use of the seven-cycle learning strategy (7E'S) through exploration and sequence of its seven stages to teach and improve the cognitive aspects of the existence of individual differences among students, which calls for to provide such a strategy. Despite the diversity of methods and methods of teaching, educational attitudes are controlled by many variables and developments, including those related to the nature of the educational material (theoretical - scientific), the nature of the learner, and the environment in achieving the goals.

This is consistent with what I mentioned (Nidal Boutros, 2004) in the way in which the scientific material is presented to meet the needs of the learners by connecting the theoretical with practical application, and the clarity with which the learning steps in the learning cycle in its seven stages are laid out. These factors have a direct and positive influence on the growth of thinking. Students' thinking, which aids in improving their cognitive capacity and makes it easier for them to do mental operations, is applied in a practical setting.. (Boutros, 2004) The learning cycle is distinguished from other modalities by its seven stages (preoccupation or exhilaration investigation, interpretation, growth,, extensions, exchange, and evaluation). Through, the seven-stage learning cycle (7E'S) was used to develop cognitive aspects and learn some complex skills in football. Students are the basic building block upon which physical education teachers rely when planning and preparing for a lesson

### **Research problem**

Through the researcher's observation of teaching football and his interest in this game, he noticed that most of the learners are slow in learning compound skills in football because it is one of the skills that need movement compatibility in performance. The researcher believes that the failure to introduce modern teaching strategies that suit their capabilities and physical capabilities, as methods that depend on the teacher and listening from the student are used, as well as the failure to use theoretical material in the implementation of educational units, which led to weakness in the pairing between theoretical and applied aspects. Therefore, the researcher found the need to include the theoretical side in the educational unit and give it the same importance as the applied side, for the student to build a mental perception. (Cognitive theory) He can benefit from it to bring out the applied side in a scientific way. Therefore, the researcher used the study of the seven-cycle learning strategy's impact (E's 7) at developing the cognitive aspects and learning some of the compound skills in football for students. Because of the importance of this strategy in enhancing the skills and knowledge aspects of students

### **Research aims**

1. Identify impact using of seven-cycle strategy of learning (E's 7) in developing cognitive aspects ,learning some of the compound skills in football for students.
2. Preparing an educational curriculum according to the strategy of the seven-year learning cycle ( E's 7) in developing cognitive aspects and learning some complex football skills for students.

- Identifying which of the two curricula is better prepared by the researcher or followed by the teacher (Al-Amri) in the cognitive aspects and learning some compound skills in football for students.

**Search Hypotheses:**

- There are statistically significant differences in the pre and post-tests of the experimental and control research groups in the cognitive aspects and learning some compound skills in football and favour of the post-tests.
- There are statistically significant differences in the post-tests of the experimental and control groups in the cognitive aspects and learning some compound skills in football.

**Research areas:**

- The human field: students of the third stage, College of Physical Education and Sports Sciences - University of Maysan
- Time range: 6/12/2021- 28/1/2022
- Spatial field: the outdoor playground for physical education and sports sciences - Maysan University
- Research methodology and field procedures:

**Research community:**

The researcher followed the experimental approach due to its suitability to the nature of the research.

**Research community and sample:**

The research community was identified from the students of the third stage in the College of Physical Education and Sports Sciences, University of Basra for the academic year (2021/2022), numbering (150) students divided into (6) divisions. The number of (32) students is an experimental sample, to which the curriculum prepared by the researcher is applied, Division (E), and the number is (33) students, a control sample, to which the curriculum prepared by the teacher is applied, and a sample of building the knowledge test from the divisions (A, B, C, and F) And an exploratory sample from Division (and). It consisted of (10) students, and their results were excluded only for the pre and post-test (15) students from both the experimental and control groups for their proficiency in football and playing in clubs table (1) shows the distribution of the research community and sample. Thus, the research sample has become a percentage of (25.42%) of the original community.

**Table (1) It showing the distribution for the study population and sample**

research community	Experimental			control			Exploratory			the total
	Experimental	excluded	%	control	excluded	%	Exploratory	excluded	%	
150	32	7	14.24	33	8	14.24	10	-	5.45	50

**Homogeneity and equivalence of the research sample:**

The coefficient of variation was used for the variables (height - massage) of the research sample to identify homogeneity. The closer the coefficient of variation is to (1%), it is considered high, and if it is more than (30%), the sample is considered heterogeneous. As shown in Table (2)

**Table (2) Table of homogeneity of the control and experimental groups in the variables of the research sample**

Variables	measuring unitS	mean	standard deviation	coefficient of difference
Height	Cm	170.30	4.93	3,045
Mass	kg	70.89	6.34	8,052
Age	year	22.42	1.57	4,542

**Table (3). It demonstrates how the variables in the research sample are equivalent for the control and experimental groups.**

Variables	measurement units	experimental group		Control group		Calculated (T)	Sig.
		M.	St.d	M.	St.d		
Receiving and passing	degree	4,359	1,128	4,667	1,239	0.339	0.528
Receiving and dribbling and scoring	the	6,792	0.098	6,554	0.109	0.389	0.148
Dibbling with changing direction then scoring	the	26,999	1,119	25,992	0.758	1,846	0.059
Cognitive aspect	degree	14,659	2,893	14,458	2,995	0.895	0.398

### Field research procedures:

#### Tests used in the research:

Some sources, previous studies, and interviews with experts and specialists in the field of football were relied upon. A group of tests related to the skills under study were selected and presented to experts in the field of training and teaching football.

Determine the tests for the composite skills used in the research:

First the handling and receiving test

The purpose of the test: is to measure the accuracy of handling and receiving.

Test tools: five players, five small targets of width (1 m) and height (0.5 m), five legal balls, and a measuring tape.

Test procedures: (5) players stand in a straight cross line, and the distance between one player and another is 2m, and the players are away from the five goals at a distance of (30m). The rapid ball within the specified distance of 2m is located in the middle of the distance between the five targets and the transverse line, then handling the ball towards goal No. (1), and so the test continues to complete the five balls Figure No. (1).

Scoring method: No score if the target is not hit, while one score is counted for each hit. (Mahmoud, 2009)

Secondly, the receiving test, then rolling and scoring:

The purpose of the test: measures the ability to control the ball and the accuracy of scoring the goal in the shortest possible time.

Tools used: soccer goal, handball goal (3×2), stopwatch, measuring tapes, soccer balls

Description of the test: The student stands behind the starting line at a distance of (3) meters, and upon hearing the signal, he runs quickly to receive the ball passed to him from the teacher in a circle of diameter (1) meters, then runs with the ball at full speed in a straight line for a distance of (8) meters, then shoots from inside the drawn rectangle It has a length of (1) m and a width of (2) m, which is (2) m away from the penalty line

Scoring method: The time for each attempt is calculated from the line of receiving the ball until it crosses the goal line. The student performs two attempts, which are considered the best. Adding (2) seconds to the time if the ball went outside the two goals and (1) seconds if it entered the small goal. Perform the second attempt after all students have finished. (Hammadi, 2004)

Third, the rolling test, changing direction and scoring:

The purpose of the test: is to measure the ability to control the ball with the speed of change of direction and accuracy of scoring.

Tools used: soccer ball (2), flags, stopwatch, whistle, small goal (2), coloured tape

Conducting the test: After receiving the signal to begin, the tester sprints from the starting line and controls the ball while it is in between the signs. After making a swift direction change in the direction of some of the signs, the tester then takes a shot from ten meters away at one of the two goals.

Method of registration: The laboratory makes two attempts, calculates the arithmetic mean of those times, and then, in the event of an error in scoring, an additional time of 0.3 seconds is added to the total.. (Sattar, 2015)

### **Exploratory experience:**

The researcher conducted an exploratory experiment on Tuesday, corresponding to 7/12/2021 at ten o'clock in the morning, in the outdoor playground of the College of Physical Education and Sports Sciences, University of Maysan. To test the cognitive achievement and complex skills of the original community sample from outside the research sample, which numbered (12) students, to verify their stability of the test through the application of the test and re-application after (5) days of the first test. It is one of the important means that helps the researcher because it gives a detailed description of everything that happens within the main experiment to avoid problems. And to ensure objectivity by placing two arbitrators to record test scores and then finding a high correlation coefficient, which achieves stability and objectivity.

### **The main experience:**

Pre-test: Before starting the tests, the researcher gave an introductory unit, and the work was according to the seven stages of the learning cycle strategy in the main section of the educational unit, to enable students to identify the skill performance, its stages, and how to perform it. The researcher conducted the pre-test for complex skills on 12/14 / 2021 on the football field at the Faculty, of Physical Education and ((Sports Sciences)) - Maysan University

### **Curriculum:**

The researcher prepared the educational curriculum and it was presented to experts and specialists in the field of teaching methods, as the curriculum consists of (12) educational units, two educational units per week, on Thursday from 12/16/2021 until 1/26/2022, and the work was according refers to the stages of the approach as well as the seven-year learning cycle7ES. with its seven stages (excitement, exploration, interpretation, expansion, extension, exchange, and evaluation). The educational intensity time (90/d) is divided as follows:

1. Preparatory Section (15/d)

2. The main section (65/d):

A- Educational activity (15/d): refers to the stages of the approach as well as the seven-year learning cycle. The strategy are given as follows:

A- Excitement stage: This stage is used in the educational activity with a time (7/d).

B- Exploration stage: This stage in the educational activity takes place at a time (8/d). The teacher explains the skill in front of the students by distributing them in the form of a square minus one side and presenting it in an illustrative way for each part of the compound skill of anchoring and illustrative pictures of students' enthusiasm and their involvement in teamwork with students' questions and listening. It is given by the teacher around the question asked and requires each student to focus and think calmly.

C- Interpretation stage: it is used in the application activity with a time (11/d) by presenting and explaining the skills by the teacher in a clear manner in front of the students, then he divides the students into four groups to perform the skilful exercises, and the role of the teacher is to move between the groups to direct and give feedback during the performance. With correcting errors during the exercise, taking into account individual differences.

D- Expansion stage: It is used in the applied activity (10/D). It aims to learn the skill through repetition of skill exercises to acquire and master the correct way. The role of the teacher is to motivate students to learn skills by correcting mistakes in a way that encourages them.

F- The extension stage: it is carried out in the applied activity with a time (10/d). The previous concept of compound skill and the current concept of learning compound skill in a gradual and simplified manner.

D- Exchange stage: This stage is applied with applied activity with a time (12/d) working on exchanging opinions, ideas and concepts between the students and the teacher through cooperation collectively or individually between students to allow knowing the information they reached about learning complex skills and to implement this skill. It needs effort as students are divided into groups and roles are exchanged between students. The teacher links information and experiences about the topics to be learned with other concepts related to complex skills through participation and cooperation in performing the skill and exchanging experiences among them to reach the best results to be achieved.

G- Evaluation stage: This stage is carried out in the applied activity with a time (7/d). It aims to evaluate students' work by learning the complex skills acquired by the teacher. But if the performance is not as required when applying the skill, the teacher will repeat the wrong attempt, and thus the role of the teacher is to guide and correct the performance of the students at this stage.

### **Concluding section (10).**

After finishing the process of implementing the educational curriculum on Monday, post-tests for the research sample were carried out on Tuesday., 1/28/2022, under the same conditions as the pre-tests in terms of (place and time - assistant team - tools).

Statistical means: The researcher used the SPSS statistical bag to extract and process the results.

### **Presentation, analysis and discussion of the results:**

Presenting and analyzing the results of the pre and post-tests in the researched variables of the experimental group:

**Table (4) It shows the arithmetic mean, standard deviation, and the value of (t) calculated between the level of significance of the variables of the experimental group.**

**Presenting the results of the pre and post-tests in the researched variables of the control**

name test	measuring units	Pre-test		Post-test		value (T)	significance level	indication
		M.	St.d	M.	St.d			
Receiving and passing	degree	4,359	1,128	6,899	0.788	6,954	0.000	Sig.
Receiving and dribbling and scoring	Sec.	6,792	0.098	4,087	0.589	4,689	0.000	Sig.
Dibbling with changing direction then scoring	Sec.	26,999	1,119	27.94	0.587	5 8.77_	0.000	Sig.
Cognitive aspect	degree	14,659	2,897	22,709	2,348	12.94	0.000	Sig.

**Table ( 5) It shows the arithmetic mean, standard deviation, and the value of (t) calculated between the level of significance of the variables of the control group.**

test name	measuring unit	Pre-test		Post-test		value (T)	significance level	indication
		M.	St.d	M.	St.d			
Receiving and passing	Class	4,667	1,239	5,498	1,209	1,398	0.000	Sig.
Receiving and dribbling and scoring	the second	6,554	0.109	6,378	0.597	2,236	0.000	Sig.
Dibbling with changing direction then scoring	the second	25,992	0.758	23.30	0.587	9,792	0.000	Sig.
Cognitive aspect	Class	14,458	2,995	18,113	1,346	13,187	0.000	Sig.

**Discussing the results of the pre and post-tests for the control and experimental groups of the research variables:**

Through the results of tables (4-5), the researcher believes that several related reasons worked on the advancement of the two groups because they are studying within an educational institution that aims to prepare educational cadres in the field of physical education under the supervision of a group of specialists and experts in the implementation of curricula and they can deliver theoretical and practical material to reach positive outcomes. Through the foregoing, there must be an improvement in the learner's physical, skill and cognitive capabilities, which is the goal of the learning process.

The teacher's experience is in his field of specialization and working within methods that work to achieve educational goals that work to develop the capabilities of learners and their potential in the required learning through the diversity of methods and strategies used and their differences because he can deliver information (theoretical and practical) to achieve the goal or objectives of the educational unit and manage the educational situation successfully(Salem, 2019)

The researcher notes that the difference between the results from the (pre), (post) tests in learning compound skills at soccer is in favour from the post-tests. He notes that the educational units were sufficient to learn that skill through the teacher's explanation and asking questions to the students in the educational activity to develop their cognitive side. Muhammad Ali confirmed, "The curricula Educational or teaching success is measured by the extent of progress achieved by students in the type of activity practised. (Ali, 1999)

Through the aforementioned, the effect of the seven-stage learning role strategy (7E'S) in learning complex skills in its seven stages and their interaction with the teacher during the educational units that helped students to know the skill to be learned to increase their inquiry and exploration in asking questions and arouse the learners' enthusiasm to exchange opinions and points of view among them to increase their mental awareness to build an environment Knowledge through acquiring experiences that help them in performing the new skills to link them to the previous experiences that they learned. This is confirmed by Aliyah Al-Shatfawi and Al-Obaidi, "The constructive learning strategy gives a better opportunity for the learner to actively participate in the educational process, as the learners show enthusiasm and impulse towards learning. (Al-Shatnawi & Hani Al-Obeidi, 2006)

Presenting and analyzing the results of the post-tests for the control and experimental groups:

**Table (6) It shows the arithmetic mean, standard deviations, the calculated (T) value, and the level of significance**

test name	measuring units	experimental group		Control group		value (T) Calculated	significance level	indication
		M.	St.d	M.	St.d			
Receiving and passing	the second	6,899	0.788	5,498	1,209	4,569	*0.000	Sig.
Receiving and dribbling and scoring	the second	4,087	0.589	6,378	0.597	6,967	*0.000	Sig.
Dibbling with changing direction then scoring	the second	27.94	0.587	23.30	0.587	4.24	*0.000	Sig.
Cognitive aspect	Class	22,709	2,348	18,113	1,346	7.38	*0.000	Sig.

**Discussing the results of the post-tests for the control and experimental research groups for the research variables:**

Table (6) shows that the reasons for the progress of the experimental group that used the seven-stage learning cycle strategy have advantages that can constitute a significant addition in the field of the educational process, which is consistent with the novelty of the curricula in this field and what this strategy contains in its seven stages of presenting sequential questions of knowledge to arouse their enthusiasm And various exercises contributed to increasing the knowledge building to perform complex football skills. He noted, "The skill goals are linked to the cognitive goals because the relationship between them is a close relationship, and the motor performance is the result of the integrated interaction between the cognitive side and the skill side." (Abdo, 2012)

Taking into account the use of this strategy in all its stages and confirming performance on the cognitive side, contributed to achieving the research requirements. Through the use of any motor or skill educational material that is not devoid of the cognitive aspect of this material, the fact that any skill must be understood by the learner by linking it to the previous experiences that he learned about the skill cognitively and

according to sequential stages." The aim of the learning cycle strategy is that it aims to build and develop new knowledge structures and make the learner able to take responsibility and make decisions and make the learner initiative, persistent, thinker and creative and encourage students to explore knowledge in addition to the role of the teacher as the leader, wave and organizer of educational experiences. (Qatami, 2013)

The researcher confirms that working through curricula prepared according to the strategies of the seven-year learning cycle works to encourage students to think creatively to link ideas among themselves to work on retrieving previous experiences and linking them to new information. Our schools do not contribute to the creation of real learning, and repeated calls have appeared to research and develop new methods and methods of teaching that make the learner the centre of the educational process involve him in learning effectively and always put him in a position where he is forced to exert effort and think about what he learns through thinking and the ability to organize what he learns. (Rahman, 1996)

### Conclusions and recommendations:

#### Conclusions:

1. Relying on the seven-cycle learning strategy (7E'S) has a positive effect in improving the performance of compound skills in football.
2. The curriculum prepared by the researcher worked to increase the positive interaction for the development of the knowledge environment through the educational units.

#### Recommendations

1. Conducting research similar to this strategy for activities and skills (individual and group) in the field of physical education
2. Conducting comparative studies using the seven-year learning cycle strategy (7E'S) with modern teaching strategies and methods

#### REFERENCES

1. Abdo, HA-S. (2012). *Modern Trends in Soccer Planning and Training, Alexandria*. Mahi: Mahi for publishing and distribution.
2. Ali, M. (1999). *Functions of the members of the sports training*. cairo: Dar Al-Fikr Al-Arabi.
3. Al-Shatnawi, E., & Hani Al-Obeidi. (2006). The effect of teaching according to two models of constructive learning on the achievement of ninth-grade students in mathematics. *The Jordanian Journal of Educational Sciences, vol 2, no 4*, 215.
4. Boutros, N.M. (2004). *The effect of using the models of the learning cycle and direct presentation on achievement and the development of deductive thinking in mathematics*. Baghdad: College of Physical Education, University.
5. Hammadi, SK (2004). *The effect of a proposed program for tactical aerobic training on some physiological variables and physical attributes of young soccer players*. Tripoli.
6. Mahmoud, MA (2009). *Tests and Tactics in Football*. Amman: Dar Dijla for Publishing and Distribution.
7. Qatami, Y. (2013). *Strategies for Learning and Teaching Knowledge*. Jordan: Dar Al-Mais, Distribution and Printing.
8. Rahman, MA (1996). *the effective teacher and effective teaching*. amman: Darar Al-Fikr.

- 
9. Salem, MS (2019). *The effect of cooperative, competitive, and complementary learning in teaching the skills of crushing and blocking.* Basra.
  10. Sattar, HA (2015). *The effect of two different approaches to the small training circle in developing some physical and functional variables and the complex skill-planning performance of football players.* Basra.