Thi Qar University Journal of Physical Education Vol 2 Issue 2

مجلة جامعة ذي قار لعلوم التربية البدنية

مجلة علمية محكمة تصدرها كلية التربية البدنية وعلوم الرياضة

# *The strategy of the seven-year learning cycle (7E'S) and its impact on teaching the technical performance and accuracy of the football handling skill for second-grade intermediate students*

Ali Khalif Ali
Open Educational College – Thi Qar Center
Alikhalef39@yahoo.com

**Article history:**
**Received:12/ 2/ 2025**
**Received in revised from: 11/ 3 /2025**
**Accepted: 21/ 3/ 2025**
**Published online: 11/4/ 2025**

**Keywords**:
**Seven-way learning cycle strategy, technical performance , handling skill**

**Corresponding Author :**

**00647810950309**

## *ABSTRACT*

The material in the school, as for the experimental group, the educational units were applied according to the seven-year learning cycle strategy (7E'S ) and the curriculum time reached (6) weeks , and by (3) educational units per week for each group, so the number of educational units (18) educational units and the time of the educational unit (45) minutes

**Through the results, Al-Bahah concluded**: The superiority of the experimental group to which the seven-year learning cycle strategy was applied (7E'S) than the control group that applied the curriculum followed by the subject teacher in teaching technical performance and accuracy to the skill of handling football.

**Based on the results of the research, the researcher recommended** the need to activate the use of modern strategies, including the seven-year learning cycle strategy (7E'S) in learning technical performance The strategies, methods and teaching methods used by the physical education teacher are one of the most important aspects of the educational process, and each method has a certain role in the growth of learners in terms of physical, skill and emotional, and the percentage of adoption of A style based on the type of skill, educational attitude and learner.

**The research problem** : it was manifested in the observation of the researcher need to use strategies, methods and modern methods in the lesson of physical education and how to investin accordance with the requirements of the practical material.

**The most important objectives of the research:** to identify the impact of using the seven-year learning cycle strategy (7E'S) in developing the technical performance and accuracy of the skill of handling football for students of the second intermediate grade.

**The research hypotheses are as follows :** There are statistically significant differences between the results of the pre- and post-tests of the experimental and control groups in teaching the technical performance and accuracy of the football handling skill among the members of the research sample.

## 1- Definition of research

### 1.1Introduction and importance of research

The development and progress in all levels of sports and the rest of the sciences is due to the development and progress in the strategies, methods and methods used in teaching, as we note that education takes a large share of attention by those in charge of the educational process, and that these methods and methods have a positive impact on the upbringing of new generations according to advanced and modern scientific foundations, and this progress is measured by the extent of knowledge of those in charge of the educational process strategies, methods, methods and means in modern teaching and teaching methods.

He studied physical education, like the rest of the lessons, in the diversity and multiplicity of teaching methods after modern education called for attention to the student or student.

The game of football is one of the practical lessons that fall within the curriculum of the Ministry of Education, not in Iraq, but around the world, which is characterized by the multiplicity of offensive and defensive skills, including the skill of handling, which requires the use of modern strategies that keep pace with the development in the world. Technical performance and accuracy of the skill of handling football for second-grade students average.

### 1.2 Research problem

Education is largely influenced by the learning strategies followed by the teacher, and since the teacher is primarily responsible for this educational process. He must have a general picture of educational means such as (strategies, methods and methods) and develop appropriate educational or teaching plans and ways to develop them, in line with the capabilities of learners, so that he can achieve the best results with the least effort and the shortest time.

By observing the researcher being a teacher and has experience in the field of teaching, he found weakness in the use of modern teaching strategies, which are used in teaching sports events and skills in general and the game of football in particular, as methods are often used that depend on diction from the teacher and listening from the student, so the researcher studied the application of the seven-year learning cycle strategy (7E's) In teaching technical performance and accuracy of the skill of handling football for second-grade intermediate students.

### 1.3 Research Objectives

1- Preparing educational units according to the seven-year learning cycle strategy (7E's) to teach technical performance and accuracy of the skill of handling football for second-grade intermediate students .

2-To learn about the significance of the differences between the two groups (experimental and control) in the post-tests in teaching technical performance and accuracy of the skill of handling football for second-grade students .

**1.4 Research hypotheses**

**In light of the objectives of the research, the researcher assumes:**

1- There are statistically significant differences between the results of the pre- and post-tests of the experimental and control groups in teaching technical performance and accuracy of the skill of handling football for second-grade intermediate students .

1- The existence of statistically significant differences in the results of the post-test between the experimental and control groups and in favor of the experimental group in teaching technical performance and accuracy of the skill of handling football for students of the second grade average

**1.5 Research areas**

**1-5-1 Human field**: students of the second grade of intermediate generations for boys / Dhi Qar Governorate, Department of Education Nasiriyah for the academic year 2023-2024.

**1.5.2 Time Domain**: The period from 9/2/2024 to 1/5/2024.

**1.5.3 Spatial area:** a medium-generational arena for boys.

**1- 6 Define terminology**

- **Strategy:**

❖The term strategy is a Greek term originally meant general plans and then became one of the terms used in military life and means the art of military leadership in the face of difficult circumstances and the calculation of different possibilities and the choice of appropriate means (1: 183).

❖ **Seven-Cycle Learning Strategy: (7E's)**

❖An educational constructive strategy consisting of seven procedural steps used by the mathematics and science teacher with students in the classroom with the aim of building the student's scientific knowledge himself on the one hand and developing scientific concepts and skills on the other hand.

**2- Research methodology and field procedures :**

**2.1 Research Methodology**

The nature of the problem is the one that determines the appropriate approach that the researcher relies on to achieve his goals by studying the phenomena and evidence of the research problem, so the researcher used the experimental approach in the style of the two equivalent control and experimental groups as

experimentation is one of the most efficient means to reach reliable knowledge and is (( the closest and most honest to solve many scientific problems practically and theoretically))( 2: 217) It fits with the nature of the research problem.

## 2.2 Research community and sample

The researcher has identified the population of his research with students of the second grade of intermediate generations for boys in Dhi Qar Governorate for the academic year (20-23/2024 AD), which numbered (120) students from the people of (A - B - C - D).

The sample is "the model on which the researcher conducts the entirety and focus of his work" (2: 140), and the researcher chose the research sample in a deliberate way, division (a, b), which numbered (70) students for the academic year 2023/2024 AD, constituting (58.33%) of the original community of (120 students), divided by lottery method into two control and experimental groups and by (35) students for each group, and the application was The educational curriculum on the control group according to the style of the subject teacher in the school The experimental group was applied by the researcher according to the use of the seven-year learning cycle strategy (7E'S) in teaching technical performance and accuracy of the football handling skill for second grade intermediate students **2-3 Homogeneity of the sample and equivalence of the two research groups**

### 2.3.1 Sample homogeneity

**Table (1)**

**Shows arithmetic means, standard deviations, torsion coefficient and coefficient of variation in terms of**

**(age, height, mass) of the research sample**

| Coefficient of variation | Torsion coefficient | Standard error | Standard deviation | Arithmetic mean | Unit of measurement | Variables | t |
|---|---|---|---|---|---|---|---|
| 3.20% | 0.696 | 0.374 | 5.76 | 179.87 | poison | Length | 1 |
| 3.415% | 0.649 | 0.374 | 8.661 | 253.60 | month | lifetime | 2 |
| 5.16% | 0.384 | 0.374 | 3.44 | 66.57 | kg | Mass | 3 |

*** All coefficient of variation values were less than 30%, which indicates the homogeneity of the sample in the above variables.**

### 2.3.2 Equivalence of the two research groups

**Table 2**

**Shows the equivalence of the two research groups in some basic skills of football for students**

| Variables | | Control group | | Experimental Group | | Calculated t-value | Sig | Indication Type |
|---|---|---|---|---|---|---|---|---|
| | | ± on | Going to | ± on | Going to | | | |
| Technical performance of handling | Handling | 0.695 | 2.800 | 0.648 | 3.000 | 0.940 | 0.353 | Immoral |
| Precision handling performance | | 0.543 | 2.555 | 0,432 | 2.666 | 0.503 | 0.431 | Immoral |

### 2-3 Devices, tools and means used in research

### 2.3.1 Means of gathering information

**For the purpose of collecting data and information and reaching the truth, the researcher used the following means:**

- Arab and foreign sources and references. - Information network (Internet).
- Tests and measurement. - Questionnaire forms.
- Scientific observation.

### 2.3.2 Tools and devices used in research

- Football field . - Legal footballs number (5).
- Whistle .Manual scientific calculator. - Metric tape measure to measure lengths.Japanese made video camera (SONY) with a frequency capacity of 25 images / s number (2). Korean-made (Printo) CDs.

### 2.4 Research procedures

Test: Handling (3:213).

- Test Name: Test of technical performance and average handling accuracy about three circles drawn on the ground for a distance of (20) m.
- Purpose of the test: Measurement of technical performance and average handling accuracy.
- Necessary tools: specific area to conduct the test, (5) balls, tape measure, burk.
- Procedures: Three overlapping circles, their diameters are drawn respectively (2 m, 4 m, 6 m) and degrees are given respectively (2 , 4, 6) degrees where the center of the circles is the point of distance between the starting line and the three circles, which are at a distance of (20) m and Figure (3) shows that.
- Registration: - The player is given (5) consecutive attempts.
- Calculates the number of scores obtained by the player from the five attempts.
- The highest score obtained by a player is 30 .
- General Guidelines: - In the event that the ball falls on the circle line, the following degree is given according to the sequence of circles (5, 3, 1) degrees.
  - The attempt is considered a failure if the ball falls out of circles.

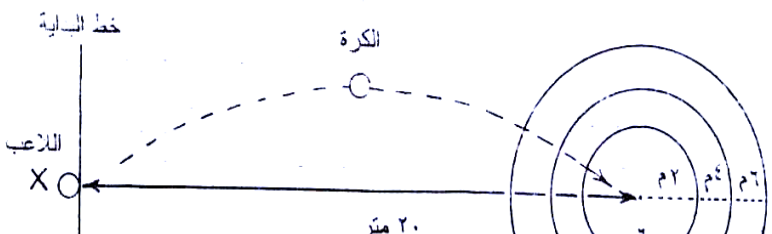

**Figure 1**

**The average handling accuracy test shows about three circles drawn on the ground for a distance of (20) m**

## 2.5 First exploratory experiment

For the purpose of identifying all the obstacles and factors that may stand in the face of the researcher when he carries out his main experiment, the researcher conducted an exploratory experiment on a sample other than the main research sample and from the community of origin, numbering (10) students from the second grade to the middle of the blessed tomorrow in Dhi Qar Governorate, affiliated to the Nasiriyah Education Department , and they were randomly selected and under the supervision of the subject teacher and the researcher, and this exploratory experiment was conducted on Tuesday, 9/2/2024 AD at nine o'clock in the morning, and the purpose of this experiment was what Come:

- Prepare it for the main experiment supplies.
- Identify the obstacles and factors that may face the researcher when implementing tests and work to find solutions to them.
- Identify the validity of the devices and tools used.
- Install the location of the camera.
- Ensure the efficiency of the assistant work team.

## 2.6 Pre-tests

Before starting the tests, the researcher gave an introductory unit to the two research groups in order to enable students to identify the skill performance, its stages and how to perform it, after which the pre-test was conducted on the research sample for the control and experimental groups on Monday, 17/3/2024 AD at ten thirty in the morning in the second grade yard of Al-Ghad Al-Mubarak Intermediate School in Dhi Qar Governorate, affiliated to the Nasiriyah Education Department.And in the presence of the subject teacher and the assistant team and under the direct supervision of the researcher.

**2.7 Formulation and implementation of modules in accordance with the seven-year learning cycle strategy** (7E's)

After reviewing a lot of sources, studies and scientific references and depending on personal interviews and the experience of the researcher and benefiting from the results of the exploratory experiment conducted on a selected educational unit as well as reviewing some studies and research, the researcher developed the educational units for the seven-stage learning cycle strategy for the experimental group and included (seven stages) and in a way that suits the subject and the research sample and distributed on

( 18) Educational Unit Appendix (2) The researcher has benefited a lot from the experience of the supervisor and his opinions and observations in addition to personal interviews with the experts, who gave me many observations on the formulation of educational units and assured me that these units are appropriate for the strategy of the seven-year learning cycle (7E's ), and the researcher took these notes and made some adjustments, especially for the exercises used within the educational units.

**First:** The units have started implementing the seven-year learning cycle strategy (7E's) on Thursday.

( 23/3/2024) at a rate of 3 educational units per week for the experimental group and for the days (Sunday, Tuesday, and Thursday) of each week, and the period of application of the educational units ended on Thursday, (1/ 5/2024) and the units were applied (specialized teacher) in the field of football .

**Second :** The time taken for the educational units as a whole amounted to ( 810 minutes) and the duration of one educational unit

( 45minutes) distributed over the sections of the educational unit as follows:

**1- Preparatory section:** It has a total time of (10 minutes) per educational unit and consists of:

- **Introduction:** It includes standing in one line, recording absence, and performing the beginning of the lesson shout, with a time limit (2 minutes) per educational unit.
- **General warm-up:** It includes exercises and games in their various forms, which aims to raise the basic physical abilities and amounts to ( 4 minutes) per educational unit.
- **Special warm-up:** It includes exercises that are related to the educational unit subject of the lesson, i.e. they are specific to certain muscle groups and the time is ( 3 minutes) per educational unit.

**2- Main section:** It has a time of (30 minutes) per educational unit, and it consists of:

- **Theoretical (educational):** The time is (10 minutes) per educational unit. At the beginning of this section, it includes raising students' tendencies towards learning the skill by asking questions, as well as video presentation, watching

the teacher's performance with the correct performance model, as well as displaying pictures and demonstrating the technical stages of the skill.

- **The practical side:** It has a time of (20 minutes) per educational unit, and includes the application of what students have learned in the educational aspect using various educational exercises that serve the skill learned in that unit.

**3-The closing section:** It has a time of (5 minutes) per educational unit, and includes the recreational aspect, which contains calming exercises for students or a small game to activate students, in addition to evaluating students' performance collectively and assigning students activities and duties for the next lecture.

As the educational unit for each skill begins according to the stages of the seven-year learning cycle strategy, namely:

☒ **Stage (excitement):**

This stage aims to motivate students and arouse their curiosity and interest in the learning topic or concept through questions or a video clip is displayed by a data distortion display screen .

**Exploration Phase:**

This stage aims to satisfy the curiosity and curiosity of students, where the teacher asks the students to sit a rib deficiency box to explain the skill, and then illustrative pictures are displayed for each stage of the skill performance .

☒ **Interpretation stage:**

After the skill has been presented by the teacher and the adequate explanation of the skill, the students are divided into a square minus the rib of the performance exercises, to apply the skill.

☒ **Expansion phase:**

- This stage aims to apply several exercises to teach the skill of handling by linking the stages and giving more repetitions of the exercise.

☒ **Extension Phase:**

This stage aims to clarify the relationship between the concept and other new concepts to clarify the relationship between previous skills such as the skill of handling football .

☒ **Exchange Phase:**

This stage aims to exchange ideas or experiences between the teacher and students, the opportunity is given individually or collectively for the student to publish the outcome of his efforts and the results of the information he has reached about learning this skill and to implement this skill, where students are divided into tripartite or quadruple cooperative groups and roles are exchanged among themselves.

☒ **Testing and examination stage:**

This stage aims to evaluate and test students' understanding of the concept of the skill that has been learned and is evaluated by the teacher in the event of incorrect

performance, the teacher asks the student to retry the wrong attempt, and the teacher's role at this stage is to evaluate the performance of students by observing their performance of the skill completely.

The control group used the curriculum used in the school by the subject teacher.

**3.8 Post-tests**

The post-test was conducted on the control and experimental research groups on Thursday at ten thirty in the morning, corresponding to 30/3/2024 AD, and the researcher was keen to use the same tools, conditions, time and place in which the pre-test was carried out, and also the same assistant work team, and the researcher used the same steps in the pre-test in the method of measuring and evaluating the technical performance achieved by students in the test.

**3.9 Statistical means:**

The results of the research were extracted using the system (SPSS) and the following statistical means:

- Arithmetic mean - standard deviation
- Coefficient of variation - test (t) for independent samples
- Test (t) for correlated samples - simple correlation coefficient (Pearson)
- Torsion coefficient

**3- Presentation, analysis and discussion of the results:**

**3-1 Presentation of the results of tests for the skill of handling football and analysis and discussion:**

**3.1.1 Presentation of the results of pre- and post-tests for the skill of handling football for the control group and analysis:**

**Table (3)**

**Shows the arithmetic means, standard deviations and values (t) calculated between the pre- and post-tests of the football handling skill of the control group and their analysis**

| Indication Type | Sig | T | After me an officer | | tribal officer | | Variables | |
|---|---|---|---|---|---|---|---|---|
| | | | ± | Going to | ± | Going to | | |
| Moral | 0.000 | 10.335 | 0,785 | 4,644 | 0.695 | 2.800 | Technical performance of handling | Handling |
| Moral | 0.000 | 10.009 | 0.971 | 4,777 | 0.543 | 2.555 | Precision handling performance | |

**The tabular value of (T) at the level of significance (0.05) and the degree of freedom (19) is (2.09)**

It appears through Table (3) that the arithmetic mean was (2.800) in the variable **(technical performance of the handling skill)** and the standard deviation (0.695) for the pre-test, while the arithmetic mean of the post-test was (4.644) and the standard deviation was (0.785), and the calculated value of (T) was (10.335), which is greater than the tabular value (T) of (2).09) at the level of significance (0.05) and the degree of freedom (19) and this indicates a significant difference between the two tests.

In the variable **(accuracy skill handling skill )** the arithmetic mean (2,555) and standard deviation (0.543) for the pre-test, while the arithmetic mean of the post-test (4,777) and standard deviation (0.971), and the calculated value of (T) (10.009), which is greater than the tabular value (T) of (2).09) at the level of significance (0.05) and the degree of freedom (19) and this indicates a significant difference between the two tests.

### 3.1.2 Presentation and analysis of the results of pre- and post-tests of football handling skill for the experimental group:

**Table (4)**

**Shows the arithmetic means, standard deviations and values (t) calculated between the pre- and post-tests of the football handling skill of the experimental group and their analysis**

| Indication Type | Sig | T | After experimental | | Before me experimental | | Variables | |
|---|---|---|---|---|---|---|---|---|
| | | | ± | Going to | ± | Going to | | |
| Moral | 0.000 | 14.09 | 0,978 | 6.700 | 0.648 | 3.000 | Technical performance of handling | Handling |
| Moral | 0.000 | 14.231 | 1.023 | 6.111 | 0.432 | 2.666 | Precision handling performance | |

**The tabular value of (T) at the level of significance (0.05) and the degree of freedom (19) is (2.09)**

The arithmetic mean of **the technical performance skill of the handling skill** in the pre-test was (2,800) and a standard deviation of (0.695), and the arithmetic mean in the post-test was (6,700) and a standard deviation of (0.978), while the calculated value of (T) was (14.09), which is greater than the tabular value (T) of (2).09) at the level of significance (0.05) and degree of freedom (19) and this indicates a significant difference between the two tests.

The arithmetic mean of the **skill of accuracy of the performance of the handling skill** in the pre-test was (2,666) and a standard deviation of (0.432), and the arithmetic mean in the post-test was (6,111) and a standard deviation of (1,023), while the calculated value of (T) was (14,231), which is greater than the tabular value (T) of (2).09) at the level of significance (0.05) and degree of freedom (19) and this indicates a significant difference between the two tests.

### 3.1.3 Presentation and analysis of the results of the post-tests of my skills for football handling skill for the control and experimental groups:

**Table (5)**
**Shows the arithmetic means, standard deviations and the value of ( t) calculated for the experimental and control groups In the post-test of the skills under research**

| Indication Type | Sig | T | After experimental | | After me an officer | | Variables | |
|---|---|---|---|---|---|---|---|---|
| | | | ± | Going to | ± | Going to | | |
| Moral | 0.000 | 7,249 | 0.978 | 6,700 | 0.785 | 4.644 | Technical performance of handling | Handling |
| Moral | 0.000 | 6.234 | 1.023 | 6.111 | 0.971 | 4.777 | Precision handling performance | |

**Tabular value (T) at significance level (0.05) and degree of freedom (38) is equal to (2.02)**

As for the skill **(technical performance of handling ), the** arithmetic mean of the control group was (4.644) and the standard deviation (0.780), while the arithmetic mean of the experimental group was (6,700) and the standard deviation was (0.978), while the calculated value of (T) amounted to (7,249), which is greater than the tabular value (T) of (2.02) at the level of significance (0.05) and the degree of freedom (38), and this indicates a significant difference between the two groups and in favor of the experimental group.

As for the skill **(accuracy of handling performance), the** arithmetic mean of the control group was (4.777) and the standard deviation (0.971), while the arithmetic mean of the experimental group was (6,111) and the standard deviation was (1,023), while the calculated value of (T) amounted to (6,234), which is greater than the tabular value (T) of (2.02) at the level of significance (0.05) and the degree of freedom (38), and this indicates a significant difference between the two groups and in favor of the experimental group.

### 4.1.4 Discussion of results

Table (3) shows the results of the technical performance tests for the skills under research, as the results showed a statistically significant difference with the probability of error (0.05) and in favor of the post-test of the control group.

The researcher attributes this development that occurred to the members of the control group in the post-test to the appropriate method practiced by the professor in teaching, as well as the fruitful cooperation shown by the students with the professor of the subject and the commitment of the students and non-absenteeism in addition to the enthusiasm shown by the students in the applied side of the educational unit, in addition to the process of repetition and practice of exercise during the educational units and this is confirmed by (Mosston, 1981) that "the basic rule and condition or basic requirement in learning motor skills, which shows clear progress in learning is the interest in increasing the number and variety of attempts to exercise" (4: 4 ), as pointed out by Essam Amin (1997) that "the greater the repetition of the skill, the more automatic it becomes, the tension decreases and the movement becomes more neat and sufficient" (5: 97 ).

Table (4) shows the results of the technical performance tests of the skills under research, as the results showed a statistically significant significant difference with the probability of error (0.05) and in favor of the post-test of the experimental group, and the researcher attributes this difference to the use of members of this group a modern teaching strategy (seven-year learning cycle strategy) (7E's) and to the safety of educational units and containing scientifically selected exercises and correct and consistent frequencies consistent with the level and ability of the sample members and based on practice "Training and practice on a particular skill within a motor duty leads to increased experience and development in muscular and physical

ability, so practice is the most important variables in the learning process for complex and even simple skills" (6: 56 ).

Table (5) shows that there is a statistically significant difference in the level of significance (0.05) for the two groups in the post-test and in favor of the experimental. The researcher attributes these differences to the application of educational units according to the strategy of the seven-year learning cycle, which had a great impact in making the motor learning process more effective and positive through the stages of the work of the strategy included in each educational unit, which includes the stage (excitement, exploration, interpretation, expansion, exchange, extension, evaluation), where these stages helped to employ many and varied exercises commensurate with each stage of the strategy's work.

And its integration with feedback of the previous information, which in turn helps to grow a new cognitive structure and thus cognitive growth occurs, and that **the expansion phase** helped to increase the understanding of learners and increase their mental perception also through their use of experiences gained in new applications within the relationships and links between the concepts and skills learned, which led to an increase in the rate of development of the experimental group in this skill compared to the control group that learned in the manner used.

## 5. Conclusions and recommendations

### 5.1 Conclusions

1- The seven-year learning course strategy and the curriculum followed by the subject teacher had a clear effectiveness in increasing the students' ability to learn some basic football skills .

2- The experimental group to which the seven-year learning cycle strategy was applied outperforms the control group that applied the curriculum followed by the subject teacher in learning some basic football skills for students .

### 5.2 Recommendations

1- The need to activate the use of modern strategies, including the seven-year learning cycle strategy for the skill of handling because of its positive and effective role.

2-The possibility of benefiting educational institutions in the Ministry of Higher Education and Scientific Research from the results of the current research in building educational programs in accordance with the strategy of the seven-year learning cycle to raise the level of university students to the level of the best.

3- We recommend using them in the theoretical lessons of the curricula of the Faculty of Physical Education and Sports Sciences in (biomechanics - statistics - tests - training)

4- Conducting studies similar to this study that include other games or other variables that were not addressed in this study or with other samples, such as females, and comparing their results with the results of the current research.

**References :**

1- Lamia Hassan Al-Diwan and Hussein Farhan Sheikh Ali : Principles of Teaching Physical Education, 1st Edition, Al-Basaer House and Library for Printing and Publishing, Beirut, 2016.
2- Mohamed Hassan Allawi and Osama Kamel Rateb: Scientific Research in Physical Education and Sports Psychology , Cairo, Dar Al-Fikr Al-Arabi, 1999 .
3- Zuhair Qasim Al-Khashab and others: Football , 2nd floor, Mosul, Dar Al-Kutub for Printing and Publishing.
4- Mosston Muska : Teaching Pysical Education . carles E. Merril , publishing company , Ohio : 1981.
5- Essam Mohamed Amin: Swimming Biology , Cairo, Dar Al-Kutub, 1997.
6- Qasim Lizam Sabr and others: The foundations of learning and teaching and its applications in football , Baghdad, 2005.