THE EFFECT OF DATA IMAGING TECHNOLOGY IN TEACHING PERFORMANCE ART FOR SOME BASIC FOOTBALL SKILLS FOR INTERMEDIATE SCHOOL STUDENTS

Assist .Prof. Dr. Ziyad Salem Abed
Tikrit University - College of Physical Education and Sports Sciences
ziyadsport@tu.edu.iq

Dr. Kahlan Ramadan Saleh
Tikrit University - College of Physical Education and Sports Sciences
kahlan.ram@tu.edu.iq

Assist .Prof. Dr. Salwan Khaled Mahmoud
Tikrit University - College of Physical Education and Sports Sciences

Introduction

The 3rd millennium is experiencing a technological revolution in communications and information. As a result, the diverse features of these revolutions resulted in changes in numerous parts of life, such as the economic, social, and educational domains. We must pay attention to the fundamentals of knowledge, such as ideas, principles, laws, theories, and sciences, including sports, as part of these domains, in light of these data, the demands of reality, and the future problems. Thus, its significance, which is not simply isolated intuitive processes or talents, but rather tight structures that are associated to one another, whose problem emerges as an integrated structure from the underlying structures of this architecture, which are mathematical ideas and knowledge. Sport principles, generalizations, and skills depend heavily on concepts for their formation, assimilation, and acquisition. Therefore, the second step was imposed on us of the necessary changes that have affected and continue to affect the educational process, which restore educational institutions and look at them anew in their teaching methods, educational means, and new assessment methods, and their scientific activities within a comprehensive, integrated and continuous framework that qualifies for a new and developed confrontation in this changing world. Education is a part of these changes since it keeps up with them on one hand while also investing in them on the other. The new educational language has evolved to be a match between the visual language that occurs while watching and the verbal language that occurs when speaking. This is due to the fact that the picture has the potential

to steer the instructional message and organize the knowledge network. Within the educational area, learning and teaching become active. Perhaps this is consistent with what has been confirmed by recent scientific studies that the greater the impact on the student's senses, the greater the success of the method in achieving the objectives set for the lesson. (Alattar, 2011).

As a result, the physical education teacher is a vital part of the educational process, with his role as a major player in communicating information to students through a variety of sources and modern teaching techniques, as well as his effective contribution to getting students to the highest levels through the use of modern teaching methods that deliver information to students in less time and cost. "Therefore, the technology of imaging data by various designs attempts to give a new visual form for gathering data or transferring data in attractive images to the learner. These designs are very important, because they help those in charge of the educational process in presenting the curricula in an interesting and new way. Thus, a new way of applying this technology in the service of the educational process should be investigated by integrating it into the new units of study. (Shaltout, 2016)

In light of the visual information flow and its significance in presenting and explaining knowledge, those in charge of the educational process were interested in employing a visual intelligence-based approach to learning. The learner engages in learning processes such as observation and comparison, clarifying relationships, interpreting, eliciting, and deducing visual information, and applying it to the invention and production of a variety of concepts, as well as in innovative and unique educational circumstances." (Jamal, 2013).

Thus, the football game is one of the team games, which has received great attention in its attractive skills and distinct goals like all other sports goals, because the stadium was designed on the basis of increasing the fun during practice for players and watching. This interesting sport develops team spirit, cooperation and cohesion in individuals as a team. Hence, the importance of research in the use of data imaging technology for learners in basic football skills became apparent. It makes it easy for the learner to learn it easily and interestingly. Physical education teachers must use such modern and new educational means in teaching football skills in schools, to advance their work in achieving educational goals for the educational process.

Keywords: imaging techniques, teaching methods, education, educational models

Materials and Methods

Participants

Through the growth of technical processes, means of communication, and the Internet to display all types of pictures, data imaging technology has become one of the most essential elements of our day. Because the researchers are physical education teachers, they found that the investment of the visual image is very little in teaching methods of teaching and teaching basic football skills. Therefore, they decided to invest the visual image through the use of data imaging technology and its motivational features in displaying the image, which work to achieve the desired goals in the educational program dedicated to teaching basic football skills through this technology, and answer the following question:

- What is the effect of using data imaging technology in teaching performance art for some basic football skills for middle school students?

Research Objectives

The research aims at:

- Designing data imaging technology to teach some basic football skills.
- Identifying the impact of data imaging technology and the method used in teaching performance art for some basic football skills for middle school students.
- Recognizing the priority of imaging information and the method used in teaching basic football skills to intermediate school students.

Research Hypotheses

- There are statistically significant differences between the results of the pre and post-test for students of the experimental group and the control group in teaching some basic football skills.
- There are statistically significant differences between the results of the post-tests for students of the experimental and control groups in teaching some basic football skills.

Research Areas

- The human field: the fifth preparatory grade students / of the Al-Alm School affiliated to the Salah al-Din Education Directorate (Tikrit).

- Spatial domain: the outer courtyards and the study hall of the Al-Alm School affiliated to the Salah al-Din Education Directorate (Tikrit).
- Time range: for the period from 27/2/2021 to 21/4/2021.

Research Methodology and Field Procedures
Research Methodology
The researchers used the experimental method to suit the nature and problem of it.

Research Community and Sample
The research community was determined in a deliberate manner, represented by the students of the fifth preparatory class in Al-Alm Secondary School for Boys, one of the schools of the General Directorate of Education of Salah al-Din / Department of Science Education for the academic year 2020/2021, who are (40) students. As for the research sample, it was chosen randomly to be a control group and an experimental group, numbered (24) students and (12) students for each group. The first group (experimental) will learn in the light of data imaging technology. As for the second group (the control group), they learned in the method followed by the teacher and according to the curriculum of the physical education lesson established by the Iraqi Ministry of Education. So, the number of the experimental and control sample became (24) students at a rate of (60%) of the research community of the fifth grade of middle school after excluding each of the following:
- The number of students who have failed is (6).
- The number of absent students is (4).
- – Students of the exploratory experiment numbered (6), as shown in Table (1).

Table (1) shows the two research groups and the sample size

No	Research community	exploratory experiment	Failed	Absentee	Research sample	
1	40	6	6	4	Experimental	12
2					Controlling	12
Total					24	

Homogeneity and Equivalence of the Research Sample

Homogeneity: Homogeneity was carried out for some variables, namely (height measured in centimeters, mass measured in kilograms, and age measured in years), and the table shows that:

Table (2) shows the homogeneity in the variables of age, mass and height of the research sample members

No	Variables	Measuring unit	Arithmetic mean	Standard deviation	Mode	Skewedness
1	Age	Year	17.33	0.482	17	0.684
2	Weight	Kg	58.473	3.233	57	0.455
3	Length	Cm	171.58	4.106	170	0.384

Table (2) shows that the values of the skewness coefficient for the research variables (age, length, and mass) for the research sample are numbers between (±1). This indicates the homogeneity of the research sample in the above variables.

Equivalence of the Two Research Groups

To achieve equivalence between the two research groups, the researchers conducted equivalence tests in the research variables, which were conducted on Tuesday, February 16, 2021 at 10:30 am at Al-Alam Secondary School for Boys in Salah El-Din Governorate, with the help of the assistant work team. The assistant team consist of Alaa Najah / physical education teacher, Muhammad Raad Daoud / master's student and Abdullah Othman / student of physical education, a photographer and Photoshop designer. The purpose of equivalence is to ensure that the two groups follow the same starting line in the research variables. It was found that all (sig) values of the research variables are greater than (0.05) at the degree of freedom (22). This means that there are no significant differences between the two research groups (experimental and control). This indicates their equivalence in the variables used in the research.

Experimental Design

The researchers used the experimental design which is called the design of equal groups with well-controlled tribal and dimensional observations as shown in Figure (1) (Van Dalin et al. 1984)
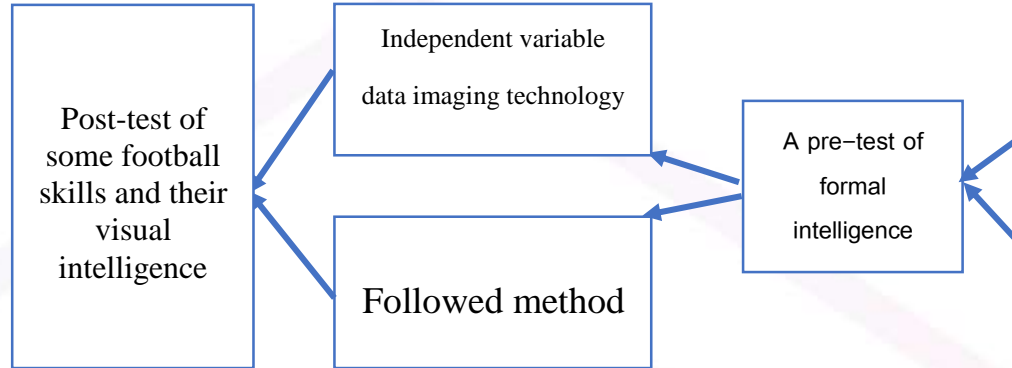
1-	Experimental group:

2-	The control group:

Figure (1) shows the experimental design, devices, tools, and means of collecting data:

Equipment: (1) Sony camera Japanese-made, (1) Dell laptop, (1) medical device for measuring weight and length, and (2) electronic stopwatchs.

- Tools: "(10 footballs), (5 signs), (2 measuring tapes), (2 adhesive tapes), (2 whistles), and (4 colored chalks).

Identifying Some Football Skills

Some of the skills in football which are the subject of the research were identified by the researchers according to the curriculum vocabulary for the skills in the curriculum scheduled by the Ministry of Education from the academic year 2020/2021 for the first semester. The selected football skills are (dribbling, handling, and scoring).

Identifying the Tests Under Study

The researchers reviewed and analyzed the content of the sources, previous studies and personal interviews with the experts. The researchers adopted the tests that were unanimously used in the previous studies, which are:

Rolling skill Test: (Jabbar, 2011)

- Name of the test: Rolling the ball back and forth between (10) signs.

- Objective of the test: Roll measurement.
- Tools used: A line is set at a distance of (1m) from the first post, and the distance between each figure is (1m), a football, a stopwatch.
- Performing the test: The player with the ball stands behind the starting line when the signal is given to start. He runs back and forth between the signs and can use the right or left foot.
- Number of attempts: (3) attempts are given to each testee.
- Calculating: Calculates the time taken back and forth, and calculate the time closest to 1/100 of a second.
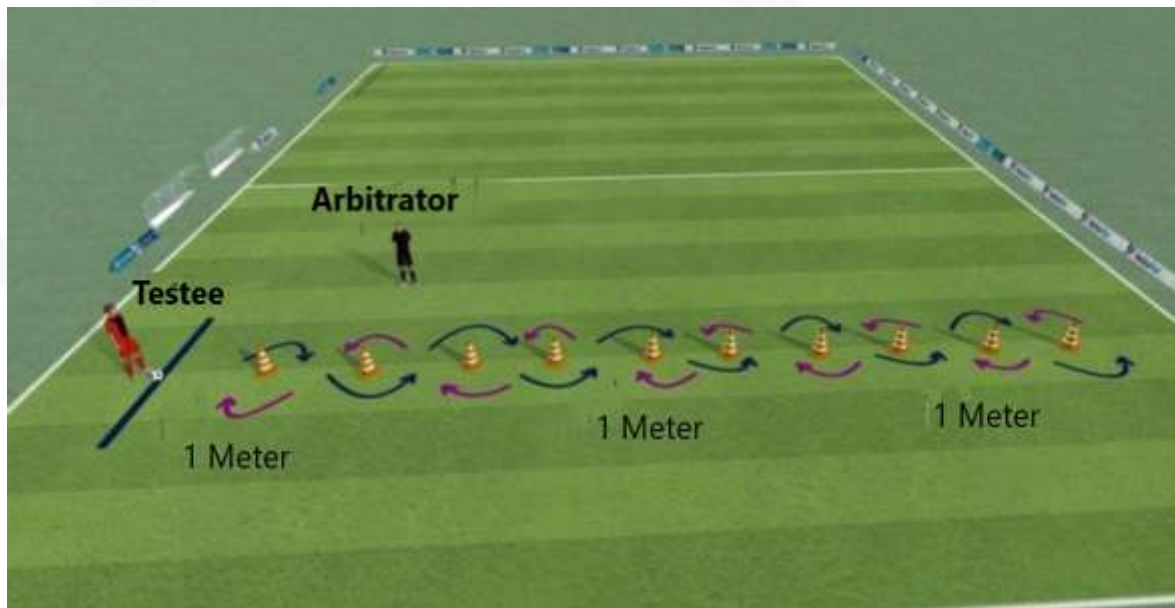

Figure (2) shows the ball rolling test between (10) signs back and forth

Handling skill test (Al-Mumin, 2002)
- Test name: bouncing handling on the wall for (20) seconds.
- The objective of the test: measuring the performance of wall handling for a period of (20) seconds.
- Tools used: a smooth wall with a rectangle drawn on it, its length (2.20 m) and width (1.5 m) away from the starting line (5 m), a soccer ball, a stopwatch.
- Performing the test: After hearing the start signal, the player behind the starting line hits the ball against the wall consecutively within (20 seconds) until the end of the specified test period.
- Number of attempts: each testee is given (3) attempts.
- Calculation: calculating the number of correct ball hits towards the wall within (20) seconds.
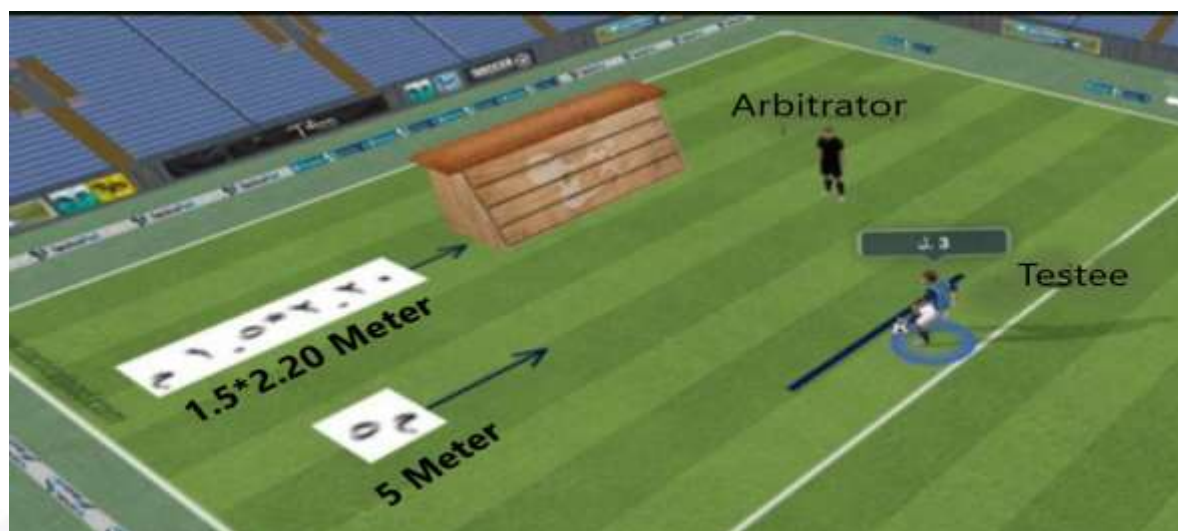
Figure 3 shows the feedback test on the wall for (20) seconds

Scoring skill test: (Hasaneen, 1987)

- Name of the test: Scoring at three overlapping targets on the wall.
- Objective of the test: To measure the accuracy of scoring.
- Tools used: (5) soccer ball, a wall in front of a paved ground, three overlapping rectangles of overlapping dimensions are drawn on the wall, adhesive tape.
- Performing the test: The tester stands behind the line and then shoots the five balls (consecutively) on the rectangles, trying to hit the small rectangle.
- Calculation: (3) degrees of the inner rectangle are given (2) degrees of the second rectangle

(1)   The degrees of the third rectangle are given.

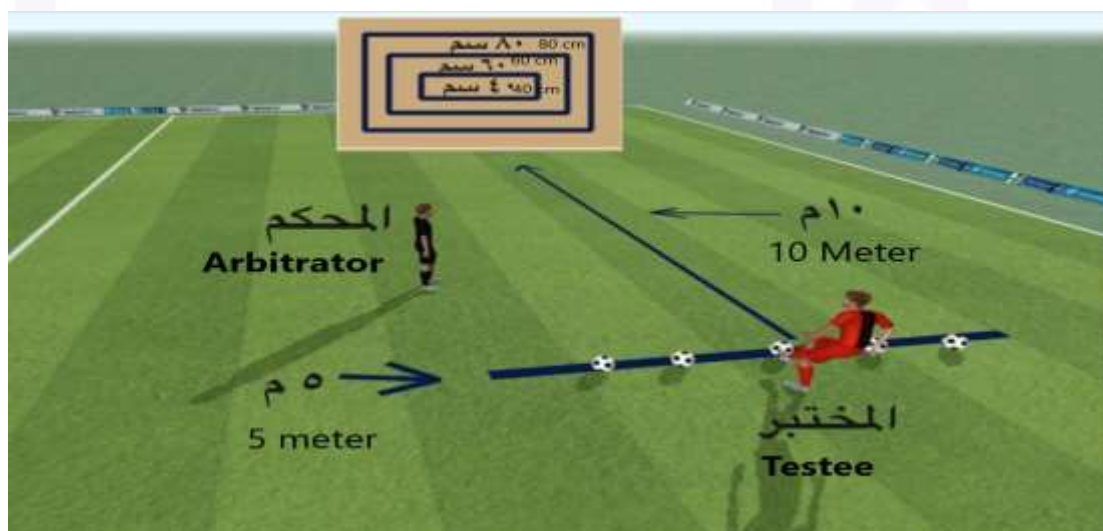The final score is calculated for the sum of the five balls that the student's shoots

Figure (4) shows the scoring test about three overlapping rectangles on the wall

Formal Intelligence Test (John Raven Scale)

The researchers prepared a visual intelligence test form, which is colored successive matrices (John Raven Scale). It was presented to a group of experts to achieve the objectives of the research and for the purpose of measuring formal intelligence.

Test name: Colored Progressive Matrices Test (Salih, 2014).

Measurement components: This test consists of (3) groups, namely:

• Group (A) contains (12) paragraphs.

• Group (AB) contains (12) paragraphs.

• Group (B) contains (12) paragraphs.

The total of the paragraphs is (36) and the calculation of the lowest score is (zero). The highest of (36) items in the classroom of Al-Mughira intermediate school for the second grade intermediate, taking into account the following:

- Explanation of the test accurately to students and how to answer the paragraphs, matrices and colored shapes.

- Emphasis on the participation of all tested students.

- Commitment to the specified time given to students.

- Handing over all students a form to answer the test and visual intelligence.

- Withdrawing the form after completing the test.

Data Imaging Technology Design

The researchers relied to design data imaging technology on the scientific information contained in a number of references and sources to choose skills images within the special program for the second grade intermediate. The researchers hired Abdullah Othman who is a photographer and Photoshop expert to take modern pictures and shapes in football skills and then re-design them in a professional and interesting way in the form of posters. The length of the image is (80 cm) and its width is (1 meter), with the inclusion of its scientific information as shown in Figure (5).

Figure (5) shows data imaging technology model

The researchers prepared a questionnaire that includes data imaging technology and presented it to the experts to demonstrate its validity in achieving the objectives of the research in terms of the shape of the image and the accuracy of the information contained therein.

Means of Collecting Data

Personal Interviews: The researchers conducted personal interviews with a number of specialists in the field of physical education in the field of football and teaching methods to benefit from their opinions regarding the information related to the subject of the study.

Questionnaire Forms

A form for evaluating the technical performance of football skills: after the skills used in research (rolling, handling, and scoring) have been determined. The researchers prepared a questionnaire form to determine the degree of performance from how many degrees and how to divide the degree, provided that the degree is from (100) to the skill sections in question. The researchers prepared a questionnaire form for educational situations to evaluate the technical performance of each of the selected skills. This form, which contains educational situations, was presented to a group of experts and specialists in the field of football. Questionnaire form on determining the validity of the educational program used: The researchers prepared a questionnaire form. It was presented to the experts and specialists about the validity of the program used. The educational program was prepared according to the data imaging technology, after reviewing the scientific sources and previous studies related to the research. The experts asked to ensure the validity of these educational units and they were distributed to gentlemen and specialists. After the questionnaire was retrieved from them, the opinions of the experts were unified and the educational units were put in their final form.

Scientific Observation

Scientific observation was conducted to evaluate the phenomenology of the skills under study. The researchers used video imaging for educational situations and for the pre and post-tests. The imaging was converted to DVD and distributed with evaluation forms prepared for this purpose to three assessors in the specialty of football in the post-tests of the research sample. Each component

gives a score of (100) for the three sections. The arithmetic mean is extracted between the scores of the three assessments for each student for each skill to show the degree of the final assessment of the skill.

Preparing the Educational Program

After reviewing the scientific references and previous studies in the field of study by the researchers, taking the opinions of experts and specialists in the field of study, educational plans were prepared and put into the curricula set by the Ministry of Education by using data imaging technology. After preparing the educational plans, they were presented to a number of experts and specialists in the field of (teaching methods) through a questionnaire prepared for this purpose, with the aim of demonstrating the validity of the educational plans in learning the skills under study. After collecting and unpacking the forms and expressing their observations and scientific proposals on them, the researchers noted those observations down, took them and made adjustments to them. After collecting and unpacking the forms, an agreement was obtained of more than (75%) on the validity of the educational plans. It was agreed on a period of (6) weeks and at a rate of (12) educational units, and an average of two educational units per week for the experimental and control groups, according to the schedule set by the school administration schedule. The time of the educational unit is (40) minutes, and Figure (3) shows the parts of the educational plan.

The two search groups were as follows:

- The experimental and control groups are similar in the preparatory part and the final part, and different in the main part. The data imaging technology was introduced for the experimental group to learn a number of skills to be learned in the educational plan, by (12) educational plans, and with a total time of (480) minutes taught by the instructor of the subject. The subject teacher of the experimental group used data imaging technology in teaching a number of football skills in light of the skills used in the research. As for the control group, they learn the technical performance of a number of soccer skills, using the method followed by (12) educational plans, and with a total time of (480) minutes taught by the same teacher. The researchers gave an introductory and explanatory lecture to the subject teacher and the assistant work team, which included an explanation of the concept of data imaging technology and how to work with the experimental and control group.

The educational plans were divided as follows:

* Preparatory section: its total time is (10) minutes. It consists of:
Introduction: The teacher notes down attendance and prepares the necessary tools, with a duration of (2) minutes.
General warm-up: the general warm-up is a general preparation for all parts of the body. The private warm-up is a special preparation to serve the parts of the lesson. Its duration is (3) minutes.
- Special warm-up: the teacher gives physical exercises to the parts of the body that are related to the main part, with a duration of (5) minutes.
* The main section: its duration is (25) minutes and it consists of:

The Educational Activity
Its duration is (5 min). This activity includes the experimental and control groups. For the experimental group, the teacher explains and presents some football skills, using data imaging technology, to present the skill to the students and the participation of students in correcting errors. The educational activity of the control group includes an explanation and presentation of the skills by the subject teacher without using auxiliary tools.

Applied Activity
Its duration is (20 minutes) and includes this activity for the experimental and control groups. For the experimental group, the students were divided into (10) groups who apply some offensive skills in football according to the data imaging technology. The practical activity of the control group includes applying the performance of the skills that were explained and presented by the subject teacher in the educational activity of the educational plan.
* The concluding section: Its duration is (5) minutes, in which a recreational game was played, then depart.
Experimental experiments: The researchers conducted two exploratory experiments:

The First Exploratory Experiment
The first exploratory experiment to test the formal intelligence (Raven scale) was conducted on a sample of (10) students who were excluded from the main experiment. The experiment was conducted on 2/6/2021. The aim of the visual test (Raven scale):

- Checking the efficiency of the assistant team and identifying errors and how to avoid them.
- Knowing the difficulties and problems that the researchers and the assistant team face when carrying out the tests.
- Explaining the test accurately to students and how to answer the paragraphs, matrices and colored shapes.
- Committing to the specified time given to students as required by the teacher.
- Emphasizing on the participation of all tested students.
- Handing over to all students a form to answer the test and visual intelligence.
- Withdrawing the form after completing the test.

The Second Exploratory Experiment

The second exploratory experiment was about the educational curriculum used with data imaging technology and its impact on learning the art of performing some football skills. With the help of the assistant work team, the researchers conducted a survey of the performance of the skills in question and educational attitudes on a sample of (10) students who were excluded from the main research experiment. The exploratory experiment was conducted on 7/2/2021. The aim was to:

- Verify the appropriateness of the place to perform the learning plans.
- Verify the suitability of the educational plans and the method of their performance to the level of the research sample members.
- Identify errors and obstacles that may occur and try to develop solutions before starting the performance of the educational program.

The result of the first exploratory experiment and the second exploratory experiment was that they formed clear images for the researchers and the assistant work team about the nature and procedures of the research with its pre-tests, main experience, post-tests, and overcoming the obstacles and difficulties they might face.

Pre-Tests

The pre-tests of the experimental and control groups in the imaging intelligence tests (Raven scale) were conducted in the science secondary school hall under the supervision of the subject teacher on February 16, 2021 at 10 am. In addition, the researchers, with the help of the assistant team, explained those tests and colored

matrices and how to answer them and the time taken according to what the teacher sees.

The Main Experience

The subject teacher performed the educational program on 2/27/2021 according to the weekly lesson schedule until 4/21/2021. In holidays and occasions during the performance period of the educational program, the educational plans were compensated on other days by increasing a week to work on completing the performance of the educational program. Tutorial plans. Educational plans were applied to the research sample, and the experimental group was given the educational material using data imaging technology. As for the control group, they were given the educational material in the manner followed by the subject teacher.

Post-Tests

The post tests were conducted for the experimental and control groups after the completion of the educational program in the visual intelligence variables (Raven scale) and some football skills in two days. The first day of the visual intelligence tests on 2/5/2021. It was conducted in classrooms at Al-Mughira intermediate School under the supervision of the subject teacher to measure their intelligence. The second day, football skills tests, where the students' performance of the skills under study was photographed through their performance of educational situations, in terms of place, devices, tools, and method of performance on 5/3/2021 at 9 am.

- Fixing the camera in the appropriate place that allows seeing the skill clearly.
- Arrange the students according to the numbers from (1) to (20).
- Before the student starts performing the skill, he is photographed holding his identification number.

Videoing the Performance

After photographing all the sample members, the researchers collected the photographed films and stored them on CDs for use in the subsequent research procedures. The same approach was adopted for the other group in the same order. The purpose of this arrangement is to ensure that there is no mistake in arranging the files for each skill when filming the post-test and sending it to the specialized experts to evaluate performance.

Statistical Means

The researchers used the statistical program (Version 26 SPSS) in order to process the data for the research, which included the statistical requirements of the research.

Presentation, Analysis and Discussions

Presentation of the results of the differences (T) between the pre-test and the post-test for the control group in the visual intelligence test:

Table (3) shows the arithmetic means, standard deviations, calculated t-values and the level of statistical significance between the pre and post-tests in the visual intelligence test for the control group.

Statistical variables Tests	Measuring unit	Calculate T-value	Post-test		Pre-test		Level of sig.	Significance
			St.dv	Arth.m	St.dv	Arth. M		
Visual intelligence test	Score	4.819	3.166	27.650	5.323	24.350	0.000	Sig.

(*) Significant if the significance level is less than or equal to (0.05).

Table (3) shows that there are significant differences between the results of the pre- and post-tests in favor of the post-test for the experimental group.

Table (4) shows the arithmetic means, standard deviations, computed t-values and the level of statistical significance between the pre and post-tests in the visual intelligence test for the experimental group.

Statistical variables Tests	Measuring unit	Calculate T-value	Post-test		Pre-test		Level of sig.	Significance
			St.dv	Arth.m	St.dv	Arth. M		
Visual intelligence test	Score	3.449	2.973	31	3.373	26.700	0.000	Sig.

(*) Significant if the significance level is less than or equal to (0.05).

Table (4) shows that there are significant differences between the results of the pre- and post-tests in favor of the post-test for the experimental group.

Presenting the results of the differences (T) between the post-test of the experimental and control groups in evaluating the performance of a number of soccer skills:

Table (5) shows the arithmetic means, standard deviations, computed t-values, and the level of statistical significance between the two post-tests of the control and experimental groups in performance evaluation.

Processing Statistical variables	Measuring unit	T-Value	Post-test (experimental)		Post-test (controlling)		Sig. value	Level of sig.
			st.dv	arth. m	st.dv	arth.m		
Rolling	Per second.	11.69	0.96	16.46	1.14	17.52	0.000	Sig.
handling	Score	9.75	0.98	7.33	1.16	5.58	0.000	Sig.
Scoring	Score	8.20	0.93	8.16	1.24	6.58	0.000	Sig.

(*) Significant if the significance level is less than or equal to (0.05).

Table (5) shows that there are significant differences between the results of the post test for the control and experimental groups in favor of the post test for the experimental group using data imaging technology for the skills used in the research.

Presentation of the results of the differences (T) between the two post-tests of the control group and the experimental group in the visual intelligence test:

Table (6) Arithmetic means, standard deviations, computed t-values and the level of statistical significance between the two post-tests in the visual intelligence test for the control and experimental group

Statistical variables / Tests	Measuring unit	Calculate T-value	Post-test (experimental)		Pre-test (controlling)		Level of sig.	Significance
			St.dv	Arth.m	St.dv	Arth. m		
Visual intelligence test	Score	3.449	2.973	31	3.116	27.650	0.001	Sig.

(*) Significant if the significance level is less than or equal to (0.05).

Table (6) shows that there are significant differences between the results of the two post tests and in favor of the experimental group in the post test.

Discussion:

Table (3) shows that there are significant differences between the results of the pre and post-tests of the control group in the imaging intelligence test, which indicates a significant development in the research sample. The researchers attribute this to the effectiveness of the teacher's method in explaining the skills by presenting the model during the learning process and observing the student's

performance and storing in his memory in the form of pictures, which led to a remarkable development in the visual intelligence test. Table (4) shows that there are significant differences between the results of the pre and post-tests of the experimental group in the visual intelligence test, which indicates a clear development in the research sample in the visual intelligence test.

The researchers attribute this to the importance of using the data imaging technology presented to students during lectures, which includes pictures of the researcher in teaching some football skills. Abdul-Basit believes that "the processing of information inside the brain received by sight is less complicated in explaining the results of that processing of raw texts" (Abdul-Basit, 2015). This is supported by Otten that "research and studies at the American Massachusetts Institute of Technology have confirmed that vision crosses the bulk of the processing of physiological information in the brain" (Otten, 2015).

Table (5) of the post-test for the control and experimental groups for some basic football skills in evaluating technical performance shows that there are significant differences in favor of the experimental group that used data imaging technology in teaching some basic football skills. The researchers attribute this to investing in the possibilities of photographing technical information in presenting skills and presenting them in a colorful and interesting way, as well as adequate and simple theoretical information for students, which led to:

• Increasing students' motivation, suspense and attracting their attention.

• Adding theoretical information with the image, thus stimulating students to interact with the teacher and perform skills.

• Investing in the importance of image and colors in the student's mind which works to link information and cannot be forgotten.

• Linking the image with the complex data around it and transforming it into an understandable and attractive image that helped the learner to understand that information.

• The use of modern educational means reduces the time and effort to achieve the goals to be achieved.

• Keeping the technology in the school yard during the practical application to be as a continuous feedback during the performance. The opposite is the information remaining in the learner's mind obtaining better learning.

• Explanation, continuous presentation, and skill exercises help students to reach effective and effective learning, which led to learning the technical performance of some football skills.

Table (6) shows that there are significant differences in favor of the experimental group in the two post tests for the experimental and control groups. This indicates the superiority of the experimental group that used the data imaging technology in the formal intelligence. The researchers attribute this to the role of data imaging technology in shaping the image in the right hemisphere of the brain, which is concerned with consistency, colors, drawing and dimensions. This technology is a visual and graphic embodiment of the amount of information reaching the student in a way that makes it easy for them to understand and assimilate quickly and clearly. This agrees with what was mentioned by Toth and Smiciklas that the type of image that mixes with information helps individuals form information in a way that enables them to understand and assimilate it quickly, which led to high scores of students in the formal intelligence test (Smiciklas, 2013 and Toth, 2014).

Conclusions
• Data imaging technology has had an effective effect on learning, particularly in learning the technical performance of basic football skills.
• The experimental group outperformed the control group, which used data imaging technology in acquiring basic football skills in question

Recommendations
• The necessity of applying data imaging technology in physical education lessons.
• Conducting training courses and workshops on data imaging technology and its importance in the educational process for students.
• Conducting similar research in the field of sports concerned with other skills according to data imaging technology, as well as interest in the cognitive aspect of sports.

References
1. Abdel Basit, H. (2015) The main pillars of activating infographics in the teaching and learning process. (E-Learning Journal).
2. Al-Attar, A. (2011) The effect of displaying educational pictures in educational software on the achievement of university college students at Umm Al-Qura University - Learning Technology: (Egypt, Series of Refereed Studies and Research, Volume 21, Volume 1).

3. Al-Mumin, H. S. (2002) A proposed approach to developing some physical abilities and basic skills for pentathlon players (unpublished master's thesis, University of Baghdad, College of Physical Education).

4. Hassanein, M. S. (1987) Evaluation and Measurement in Physical Education, Volume 1, 2nd Edition: (Egypt, Dar Al-Fikr Al-Arabi).

5. Jabbar, F. (2011) Cognitive and mental training for soccer players: (Baghdad, Dar Dijla Publishers and Distributors).

6. Jamal, R. (2013) The effectiveness of a multimedia program for developing visual spatial intelligence and its impact on the performance of art college students: (Egypt, unpublished master's thesis).

7. Otten, j, Cheng, k, & Drewwski, A. (2015) Info-graphics and public policy: (Using data visualization to convey complex information, Health Affairs, 34 (11) 1901)

8. Salih, M. M. (2014) Accuracy of shooting and its relationship to visual intelligence according to the levels of intelligence for young players in handball: (Baghdad, unpublished master's thesis, 2014).

9. Shaltout, S. (2016) Infographic from planning to production, 1st floor: (Egypt, King Fahd National Library).

10. Smiciklas. (2014) The Power of infographics. (Using Pictures to Communicate and Connect with Your Audiences (lst ed) , United States of America.

11. Toth, C. (2013) Revisiting a Genre: (Teaching info graphics in business and professional commination courses, Business communication Quarterly, 76 (4)

12. Van Dalin et al. (1984) Research Methods in Education and Psychology, translated by Muhammad Nabil Nofal and et al. (Egypt, Anglo-Egyptian Library).