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An educational curriculum by using computers to develop the level of and cognitive performance skill of football matches referees

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Abstract
The use of modern scientific technologies (computer) is one of the educational means that have a direct impact on the learning process, as this technology adds a lot to the educational process through its highly efficient capabilities in providing the best as well as saving effort and time and being a factor of fun and excitement. By following the researcher in the football game, he found that there is a weakness in the skill and cognitive performance of the arbitration skills in this game as a result of the coaches' reliance on the use of means of presentation (live model), explanation and clarification, which may not allow the learner or the novice referee to understand, comprehend and perceive the minute details of performance. Technical and cognitive skills, which led the researcher to introduce a computer to learn the skills of soccer referees after preparing an educational curriculum that includes learning the technical and cognitive performance of refereeing skills.
Key words: *educational curriculum, computers, skill, cognitive, performance, football, referees*

Introduction

The use of modern scientific techniques (computer) of teaching aids that have a direct impact on learning as it is this technology for fun and excitement, as well as it adds a lot to the educational process , as if this technology capability with high efficiency in providing the best as well as providing effort and time and material. And that the game of football games sports with mass wide numerous and varied and skills it needs to many of the modern information that contribute to the development of the skill level of the rulers and increase their expertise and speed of learning them and through the close relationship between the process of learning skills and the process of obtaining information through the computer can any individual To obtain what he wants from knowledge and information on the subject, and on this basis , learning has become required in our time because of the many goals it achieves within a specific time and effort, as well as obtaining modern information related to events and multiple sports, including arbitration in the football game (**Iftikhar, 1984**) . And for the progress of scientific influential and direct role in the learning process to support many of the devices and methods that help the coach and the learner to activate and accelerate the learning process m not , and is a computer one of these devices that the teacher seeks to use her in the learning process in all areas including our field of sports and special game Football, and the researcher was following up on football matches and arbitration cases that occur during matches, as he noticed the lack of use of this technology in the process of learning arbitration skills, as educators and coaches relied on means of displaying the (live) model in learning arbitration skills in an atmosphere of technical and cognitive alert in football All (**Muhammad, 2005**) . He felt the researcher to experience the introduction of a computer in the learning process refereeing skills in football after the preparation of an educational curriculum that includes learning of performance technical skills of arbitration as well as the cognitive aspect of the law of football football in general and the skills of arbitration, in particular by the introduction of this device as a learning medium - tech high (**Maher, 1997**).

Research goal:

- Identify the impact of computer use in learning skills arbitration J of football
- Identify the best group in learning performance Maha irrigation and for the cognitive skills of the arbitration yeh reel foot.

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Research hypotheses:

- There are hypotheses of statistical significance between the pre and posttests of the two research groups, the experimental and the control, in learning football arbitration skills in favor of the post.
- There are hypotheses with moral in posteriori between the two groups of tests of experimental and control group in the learning of Herat refereeing football and for the benefit of the experimental group

Research areas:

Field of human: the rulers of football stairs second and third of the province of Najaf.

Field Temporal: Length 23/2/201 9 to 23 / 5/ 2019**.**

Spatial domain : Najaf International Stadium

Similar studies

- **(Study Dalia Ahmed Samir al - Ani, 2004, the impact of computer use in the teaching performance of the transmission and the skills of the ball received the plane),** the aim of this study: to identify the following computer use in learning the performance of the transmission and the skills of the ball greeted the plane**.**

The **researcher assumed** that there are statistically significant differences between the control and experimental groups in the performance of the skills of transmission and reception of transmission in the post-tests and in favor of the experimental group.

The research sample consisted of (24) students from the sixth grade of elementary school, and the sample was divided into two groups, one of which is experimental, I used the computer in the process of learning basic skills in volleyball, and the other group , which is the control, used the standard method prepared by the subject teacher and the two groups were subjected Experimental and control for one learning period , and the difference between them was the method of learning the skill, as the control group implemented (16) educational units at a rate of (3) units per week, and all work was done according to the method used by the teacher. As for the experimental group, it has also implemented (16) educational units , at the rate of (3) units per week, and the work is by demonstrating the skill using the computer-illustrated model accompanying the skill explanation . The results showed that the computer-based educational curriculum gave the student the possibility to visualize the performance of the two skills of transmission and reception better than the traditional model used in schools.

The researcher recommended the use of modern educational aids such as computers in learning other basic skills in volleyball ,as well as the possibility of using computers to learn basic skills in other games ,for different age groups.

Methodology

Method and tools: The researcher used the experimental method (with equal groups) because it is considered one of the most important means for reaching reliable knowledge (**Muhammad, 2005**)

Research sample: The researcher chose his research sample by random method from the research community represented by second and third class rulers in Najaf governorate, whose number is (50) rulers. The research sample was chosen randomly from this community and with (28) judgments, and by the method of lottery, the research sample was divided into two groups, the first is control and its number is (14) judgments, and the second is experimental and its number is (14) judgments. Thus, the sample represented a percentage of (56%), which is an appropriate percentage to represent the research community A true and sincere representation.

Homogeneity of the sample

Table (1) it shows the homogeneity of the research sample in the morphological measures (age, height, weight)

Variables	Arithmetic mean	standard deviation	Vein	Coefficient of torsion
Age	32,45	0.86	13	- 0.79
Length	1 7 2.44	0.65	152	0.67
the weight	78,45	0. 79	143	- 0.46

Table (1) shows that the values of the torsion coefficient were less than (1), and this indicates the homogeneity of the research sample's individuality in these measurements.

The two research groups are equivalent: The researcher resorts to equivalence between these two groups, as "every researcher should form groups that are at least equivalent in relation to the variables that are relevant to the research" (**Van Dallen, 1985**)

Table (2) Equivalence of the research sample to the pre-tests of the skills in question

T	Statistical parameters	Control		Experimental		Values T Calculated	Indication type
		O -	P	O -	P		
2	**Skill and cognitive performance**	3. 23	0.3 8	3. 34	0.4 1	0.56	random
Tabular score = 2.08 at the level of significance (0.05) and below the degree of freedom (26)							

Table (2) shows that the values of (tThe calculated for testing the technical performance of arbitration skills is smaller than its tabular value of (2.06) at a level of significance (0.05) and below the degree of freedom (26), which indicates the achievement of the principle of parity in the test of arbitration skills.

Search tools

Skill and cognitive performance test: Referees' performance is evaluated using a special and modern form approved by the International Federation since 2006 and for all referees in the world during international matches, and the Iraqi Central Football Association this year (201 7 - 201 8) has adopted this form to evaluate the performance of referees in all Iraq In local matches, the Iraqi Federation depends on the judges 'evaluation by a person called (Referees Resident) He performs the task of evaluating referees and has long experience in the field of arbitration, in addition to some of them are Asian lecturers accredited to the AFC. The researcher was keen to make the evaluation by (5) evaluators in order to take the arithmetic mean of the five degrees and approve one score for each referee during the performance test for referees (Sample subjects)

Exploratory experience: The researcher conducted a mini reconnaissance experiment on a sample of the original research community of (10) players who did not participate in the main experiment .

Field research procedures:

Tests tribal: it was conducted tribal tests of the sample individuals on (24 /2 /201 9) after the implementation of the educational unit induction skills arbitration as these skills are explained and illustrated using drawings and illustrations of this skill with a display model (neighborhood) of these skills and then by members The research sample applies this skill after giving them iterations of the ability to perform these skills. At the end of each of these units, which lasted for (6 0) minutes, pre-tests were conducted to evaluate the technical performance of the arbitration skills **.**

Educational curriculum : The researcher used two different methods of learning methods, namely the educational method used, which was implemented by the control group, and the educational method by means of a computer in learning arbitration skills, and the experimental group implemented it .

- **As for the vocabulary of the educational curriculum:**
- Duration of the curriculum took the college (1 4) weeks.
- The number of teaching units per week is 3 units.
- The total number of units of the curriculum is (42) units.
- The time of one educational unit is (90) minutes.

The researcher applied the vocabulary of the educational curriculum according to the two standard used learning methods and the computer curriculum on the two research groups as follows :

1. The control group, which consisted of (14) referees, this group applied the learning exercises used in learning the arbitration skills of football according to the usual educational curriculum followed for the second and third degree referees over a period of (24) units.
2. The experimental group also consisted of (14) referees. They were divided into five groups. The first four groups included (3) referees, and the fifth group included (2) referees, and they were distributed on the five computers in the Computing Lab at the Open Education College. The researcher inserted a filmed film into these computers with the technical performance under investigation by photographing a judgment from the rulers of the holy city of Najaf, who performed the technical performance of the arbitration skills in an integrated manner. This filming was entered into the computer in cooperation with Al-Samir Computers Office and it was cut into parts and images to be integrated display of skills in all technical aspects and in all its stages. In addition, the researcher made several adjustments, information and clarifications, especially in the stages of technical performance of arbitration skills and in a way that serves the educational process because viewing or seeing the pictorial skills with the presence of information and explanations for them allows the learner to understand and assimilate the skill required to learn and to achieve The desired benefit of the educational process from its skill and knowledge side.

After presenting these skills and seeing them by members of this group, they implement and apply the skill according to the frequency specified for this purpose and according to the educational units Objectivity within the educational curriculum.

Tests posteriori : After the educational curriculum finishes, which amounted to (42) educational unit conducted posteriori tests the skills of arbitration and in the same circumstances, the conduct of the tests tribal were conducted test posttest to measure performance skills and knowledge your research topic on Monday, 27/ 6 /201 9 where the data collection Of the cognitive test and sorted by key of correct answers.

Statistical means : The researcher used the following statistical methods:

(Center arithmetic, deviation standard, torsion coefficient, the ratio percentage, the law (t (For symmetric samples, law) t) for independent samples, the simple correlation law (Pearson), the mode, the subjective validity, the law of the amount of evolution)

Results

Display test results (T. test) to test the technical performance of the football arbitration skills and the control research group.

Table (3)

	The pretest		Post- test		Values (t) Calculated	Indication type
Statistical parameters	**s-**	**+ -P**	**s-**	**+ -P**		
Technical performance	3.1 12	0.39	6,45	0.76	6.11	**moral**
Values (t) Tabulated = (2.14) at the level of significance (0.05) and under a critical degree (13)						

Values (t(The calculated value is (6.11) which is greater than the value of)t) Grandpa Mechanism amounting to (2.14) below the level of significance (0.05) and critically (13) This indicates that there is a significant difference between the two tests in favor of the test taught by

Table (4)

Shows circles calculation and the amount of development and percentages between his pre and post tests to test the performance of the technical skills of refereeing football and the research group control.

Milestones Statistic	Tribal	Further	Amount of evolution	percentage%
	s-	s-		
Technical performance	3.1 2	6. 45	3.13	49.84%

Table (4) shows the arithmetic mean for the pre and post tests, the amount of development and its percentages in the technical performance test for soccer arbitration skills and for the control research group, as the results showed that the group achieved an amount of development in arbitration skills which is (3.13) and by a percentage (49.84%)

Display test results (t.test) to test the technical performance of the football arbitration skills and for the experimental research group.

Table (5)

Shows the arithmetic mean, standard deviations, and test results (t) Between the pre and posttests to test the technical performance of football arbitration skills and the experimental research group

Statistical parameters	The pretest		Post -test		Values (t) Calculated	Indication type
	s-	- +P	s-	- +P		
Technical performance	3.25	0.45	7.37	0.86	9.33	**moral**
Values (t) Grandpa Maly = (2.14) at the level (0.05) and under the degree of freedom (13)						

The results showed that the arithmetic mean of the pre - test is 3.25 with a standard deviation of $ (0.45) arithmetic and center in the test taught by the same skill is (7:37) and a standard deviation of (0.86). With a degree of freedom (13), this indicates that there is a significant difference between the two tests and in favor of the post test.

Measuring the amount and percentage of development for the technical performance tests of football arbitration skills and for the experimental research group.

Table (6)

It shows the arithmetic mean, the amount of development and its percentages between the pre and posttests to test the technical performance of football arbitration skills and for the experimental research group

Statistical parameters	Tribal	Further	Introduction of t evolution	percentage%
	O-	O-		
Technical performance	3.2 7	8.07	4.8 1	59.58%

Table (6) shows the arithmetic mean for the pre and posttests, the amount of development and its percentages in the technical performance test of the arbitration skills and the experimental research group. The results showed that the group achieved an amount of improvement in technical performance that is (4.83) and by (59.85 %).

Presenting the results of the post tests of the technical performance of the football arbitration skills between the control and experimental groups.

Table (7) shows circles calculations and deviations of standard tests dimensionless values (t) the calculated and tabular between the control and experimental groups of football arbitration skills.

Statistical parameters	Control		Experimental		Values (t) Calculated	Indication type
	s-	P	s-	- +P		
Technical performance	6.2 4	0.7 7	8.0 8	0.5 1	7.1 1	**moral**
Values (t) Grandpa Maly = (2.08) at the level (0.05) and under the degree of freedom (26)						

Values (t The computed is (7.10) and it is greater than its tabular value of (2.08) at the level of significance (0.05) and below the degree of freedom (26), which indicates the existence of a significant difference between the two groups and in favor of the experimental group .

Presentation of the cognitive test results in the posttest between the control and experimental groups.

Table (8)

Shows the arithmetic means, standard deviations of the post test, and my value (calculated and tabular between the control and experimental groups in the cognitive test)

Statistical parameters the test	Control		Experimental		Values (t) Calculated	Indication type
	O-	P	O-	P		
Cognitive	21.5 5	3. 1 6	29.5 3	3.5 2	11. 20	**moral**
Values (t) Grandpa Maly = (2.08) at the level (0.05) and under the degree of freedom (26)						

Values (t(The calculated one is (11. 20), which is greater than its tabular value of (2.08) at the level of significance (0.05) and under the degree of freedom (26), which indicates the significance of the difference and in favor of the experimental group .

Discussion of the results

Through the results presented in tables (3, 4, 5, 6, 7, 8), it was found that the amount of learning was clear and tangible for both the experimental and control groups, especially the experimental group, as it achieved clear moral development rates in its learning of the technical and cognitive performance of the arbitration skills despite of the two groups had Khaddata the curriculum one except for the introduction of a single computer on the experimental group in the learning process of arbitration in terms of skills , performance and technical side of knowledge and because of this technique to Yazd , the researcher how much learning and percentages developed remarkable since the computer has facilitated the process of understanding and awareness of the parts of the detailed skills of arbitration And that is through the clear progression in presenting and explaining the skills and its three sections (preparatory, main and final) and this was confirmed by the scientific sources from the use of illustrative pictures in the parts of the skill that were descended in the paragraphs of the educational curriculum and by means of the computer that provided the learner with an understanding, awareness and comprehension of the nature of the skill as well as its fragmentation (Adel, 2000) , in addition to this, the creation of all conditions and atmosphere appropriate educational with the introduction of modern technology and employing them in the learning process of arbitration as skills It has a large and positive impact on the development of the experimental group members . And the use of an appropriate educational method in learning football arbitration skills at an early age, i.e. the appropriate age to learn these skills, helps the learner understand the precise parts of the skills that help to discover the technical errors that he may commit during his learning, especially in the initial stages of learning because the error of the technical performance of the skill as a whole remains . On the one hand, and on the other hand , the difficulty of some of the skills required to be learned and mastered requires the trainer in the educational process to use and introduce an auxiliary means (computer) in his work in a manner that saves time and effort expended by the learner and the trainer as well as that this technique is based on the involvement of some of the senses In the learning process, which leads to its consolidation and deepening, and thus it helps to create strong and well-established relationships between what the ruling has learned and the consequence of it from the survival of the impact of his learning (**Maher, 1998**) . Upon observing the results of Table (8), it becomes evident that there is a significant difference between the two groups in the cognitive test and in favor of the experimental group, and the researcher attributes the reason for this difference to the effect of using the computer through the presence of written explanations about the arbitration skills from the historical summary and the stages of their technical performance and the availability of other information about arbitration In football matches and the development of scientific drawings and explanations from this field, all of these things were provided by the computer from performance to the superiority of the experimental group over the control group in this test. As the control group has shown a slight development also in this test and the fact that the source of the information was based on information these experiences coach of the group that may be in some cases exposed to forget side or several aspects not mentioned to members of this group unlike the computer , which is evident repetition and repetition in the presentation of information and clarifications about the referees ' skills to add that he did not conduct tests tribal which is in place of cognitive tests , but that this explained to us that the lack of standards represent such tests will cannot give accurate results on this subject , it is best to use knowledge of the criteria to compare the tests to the final results to give Better picture of work.

Conclusions

1. The use of the computer helped in understanding and grasping the detailed parts of arbitration skills (technical performance) better than not using it during learning.
2. Show technical performance of skills through the devices used helped in the development of the potential of referees.

3. The emergence of evolution in the performance of the skill of the two groups in question, but the pilot was ABG better.
4. The emergence of a remarkable development in the control group in the skill performance of arbitration skills.
5. The computer use has contributed to the development of the cognitive side of members of the experimental group through re - information skills , refereeing and displayed several times better not to use.

Recommendations

1. The need for the use of computer programs in the process of learning skills which h Kemah and sports and various stages of age.
2. The necessity of making use of computer programs in training centers to learn soccer arbitration skills and the various skills of games and other sporting events at the country level in order to save time and effort.
3. Paying attention to the cognitive side of the rulers by entering its information into the computer that gives them the opportunity to repeat and repeat and then develop their cognitive capabilities.
4. Conducting other studies on other age groups and for both sexes in football refereeing in its technical and knowledge aspects, as well as for the rest of the other games.

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