Effect of using virtual classroom on some learning outcomes in basketball for students of the Faculty of Physical Education

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Introduction and research problem:-

Rapid developments in the technical field Perform to emergence of new patterns of learning and education, To increasing the stabilization of individual or self learning, where the learner follows his learning according to his energy, ability and speed of learning according to his previous experiences and skills, E-learning is considered one of the most advanced computer-based and networked forms of knowledge and skills transfer. Its applications include web learning and virtual classrooms. (2 : 11)

The educators differed in clarifying what it was the virtual reality… Some see it as an industrial environment or real industrial, and some of them see space or technological technology, but the most common concept is virtual reality, which includes a computer system that enables an individual or group of individuals to improve real reality, allowing them the ability to control modification and change, Which is shown to us by the collection of images, films, sounds and sensory stimuli that make up a virtual world similar to the reality, we mean virtual learning environments called virtual universities, Virtual Classroom, virtual teacher, and virtual labs. (24: 4, 5)

Thus, the use of the World Wide Web has influenced the education process, Both in a way the performance of the teacher or learner and their interaction, where he confirmed the joda sada and Adel Sartawi (20017) (8), Mohamed Zin eldin (2007) (28), because of the positive results achieved by the use of information networks in raising the efficiency of the educational process… There are many education applications across networks have been remarkably, The most important of which are

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the Virtual Classroom that began to rely on after achieving good results at the global level, and their positive impact in supporting the educational system and raising its efficiency.

The current and future demands of the work market, including high-quality scientific and technological progress, and the impact of these scientific, technological and educational data on teaching and learning processes, require us to adopt quality education standards through the introduction of e-learning programs, Learn and qualify students to ensure their efficiency. (29: 188, 189)

Basic skills are considered as the backbone in basketball, Is the essence of the performance of this activity, and in the case of attack and defense the team has the opportunity to score points and win the game.

Mentionsed both are Abdul Aziz Ahmed al-nimr, Medhat Saleh Sayed (1998) that the basic skills of basketball are all the fundamentals of mobility with different duties, which are performed in the framework of the law of the game, whether

ball or without. The extent of proficiency of any team for all forms of basic skills are the most important factors that lead To success and excellence, as there is no basic skills between what is important and what is less important because the player is in need of all the skills of the game throughout the matches. (17: 17)

There is also a multiplicity of research on the technology of teaching and learning in basketball, such as study Fatima Bassiouni (2005), 22 Saeed Al-Ramadi (2006), 12 Walid Hussein (2012) 2013), 9 all of which recommended the use of technological methods in the teaching of basketball courses. However, within the limits of the knowledge of the two researchers, the use of virtual classes is still new in the field of teaching courses of the faculties of physical education and sports in general, and basketball in special.

Which led the researchers to the idea of using the virtual classroom in the teaching of basketball course, in order to overcome the increase in the number of female students in lectures and

inappropriate use of the traditional method, which depends on verbal explanation and performance model in the teaching of basketball skills .. This weakens the process of positive communication between students and teaching staff And negatively affects the level of cognitive achievement And the ability of students to learn these skills at the required level. It should also be noted that the environment of the Faculty of Physical Education in Sadat City includes students from centers and cities spaced, which adds importance to the use of virtual classroom in increasing the level of communication between teaching staff and students, So the current search tries to identify the effect of the use of virtual classroom on some learning outcomes (skill - Knowledge) in the basket ball for the second year students at the Faculty of Physical Education, Sadat City University?

Terms used:

Virtual Classroom in research:

Is an environment that enables students and teachers to communicate simultaneously using Interactive written conversations, Which are text-based, audio and video-based, as if they were face-to-face in traditional classrooms, using tools, techniques and web-based software enabling the teacher to publish lessons, aimes, assignments, and contact with students Through these techniques, students are able to read lessons, solve assignments, send tasks, participate in discussion, and learn the steps of the lesson. (40)

Research objectives:-

To identify the effect of the use of virtual classes on some learning outcomes (skill - knowledge) in basketball for second - year students at the Faculty of Physical Education - Sadat City University.

Research Hypotheses:-

1. There is a significant statistical differences between the averages of the two pre measurements from the control and experimental groups in the basketball skills tests under discussion in favor of the experimental group.

2. There is a significant statistical differences between the averages of the two pre measurements from the control and experimental groups in the

result of the knowledge test for the basketball skills under discussion in favor of the experimental group.

3- There are differences in rates of improvement between the averages of the two pre measurements from the control and experimental groups in the basketball skills tests under discussion in favor of the experimental group.

4- There are differences in rates of improvement between the averages of the two pre measurements from the control and experimental groups in the result of the knowledge test for the basketball skills under discussion in favor of the experimental group.

Research procedures:
First, the research methodology:

The **researchers** used the experimental method, using the experimental designs of measure (pre-pre) of two groups, one control and the other experimental, in proportion to the nature of this research.

Second, the research community:

Students of the second year of the Faculty of Physical Education Sadat City University for the academic year 2017/2018, and the number (183) students. **Third: The research sample:**

Was selected the basic research sample (basic, exploratory) in a random way the number of the basic research sample was (60) students from the second group, and they were divided into two groups:

* The first group (experimental): The number (30) students .. Has used the program of virtual classes room in learning the skills of basketball under discussion.

* The second group (control): The number of (30) students .. Has used the traditional way (verbal explanation and performance of the model) in learning the skills of basketball under discussion.

The researchers apply the program on (15) students from the secondyear and outside the basic research sample (sample exploratory), to conduct exploratory studies of the program of virtual classes room,

They have also been used a number of 60 students from the third year were also hired to calculate the scientific transactions for the physical and skill tests under discussion and to design the knowledge test for the basketball skills under discussion.

1- Moderate distribution the data of the research sample: attachment (1 / a)

Fourth: Identify the learning outcomes under discussion:

The two researchers identified the learning outcomes (skills - knowledge) under discussion

by reference to the curriculum course for the basketball for students of the second year of girls in the Faculty of Physical Education, Sadat City University for the academic year 2017/2018, which included skills: (pass) Peaceful correction).

Third, tools and means of data collection:

1- Devices and tools used in the research: attachment (1 / b)

2- Growth rates: attachment (1 / c)

3- Personal interviews: attachment (2)

4- Tests (physical and skill) used in research: attachment (3), (4)

4- Data registration forms and test results: attachment (5)

Sixth: ExplorationStudies:

A) Calculation of the Believe coefficients of the tests under discussion: attachment (1 / D)

B) Calculation of stability coefficients Tests under discussion: attachment (1 / E)

Seventh: The knowledge test (prepared by the researchers): attachment (1 / F) Shows the steps and stages of design the knowledge test for the skills under discussion.

Eighth: Design of the Virtual Classroom program under discussion: attachment (1 / G)

Ninth: Plan to application the basic research experience:

It was applied Plan of the Basic Research Experience and Measurements under the supervision of the researcher and the assistants, Where uniformity of circumstances was observed during the measurements (post, pre), according to the time plan shown in Table (1).

Table (1)

Plan to apply the research measurements (post, pre) and basic research experience

the plan	day	date	group	Arrange the tests
Post measure	Saturday	24/2/2018	Experimental	Test verbal intelligence then physical tests
	Sunday	25/2/2018	Control	
The beginning of the use of virtual classroom Tuesday 27/02/2018				
The end of the use of virtual classroom Tuesday 17/04/2018				
Pre measure	Wednesday	18/4/2018	Experimental	Test verbal intelligence then skill tests
	Thursday	19/4/2018	Control	

Tenth: Equal Sample Research: attachment (1 / H)

Eleventh: Time Plan for Implementing Basic Research Experience:

Based on the opinions of the experts in basketball and teaching methods, the researchers prepared the virtual classroom program for the experimental group

(**attachment** 12), the traditional program (verbal explanation and performance of the practical model) for the control group (**attachment** 13), Where the basic search experience was applied on the two groups during the period from Tuesday 27/02/2018 until Tuesday 17/04/2018, With the two assistance in the basketball division in the college **attachment** (6). The **attachment** (1 / i) explains the main axes of the implementation of the basic research experience.

Twelfth: Statistical Processes:

In the light of the objectives and research hypotheses, the researchers used the statistical program (SPSS) to process the data using the following statistical methods: arithmetic mean, standard deviation, Medium, skewness, Test (t) to calculate the significance of differences, The simple correlation coefficient of Pearson, Multiple correlation coefficient, The percentage of improvement was (%). The two researchers accepted the level of statistical significance at (0.05) in two directions, and one direction.

Presentation and discussion of the results: -

First: Presenting and discussing the results of the hypothesis of research (one and third):

Table (2)
The significance of the differences Of the control and experimental groups In the basketball skills tests in question N 1 = N 2 = 60

variables	Measure unit	Control		Experimental		Calculate 'T' value	Improve ascription
		mean	s.d	mean	s.d		
Push scroll	Degree	66.41	5.18	82.44	4.32	*12.80	%24.14
Running with the ball rolling	second	17.89	1.75	14.10	1.64	*8.96	%21.19
Sit shot	Degree	5.20	0.68	6.10	0.77	*4.20	%17.31
Lay-up-shot	Degree	5.09	0.63	5.94	0.54	*5.52	%16.70

*The value of (T) of the table at dgree (N 1 + N 2 - 2 = 58), the level of significance (0.05) in one direction = 1.671
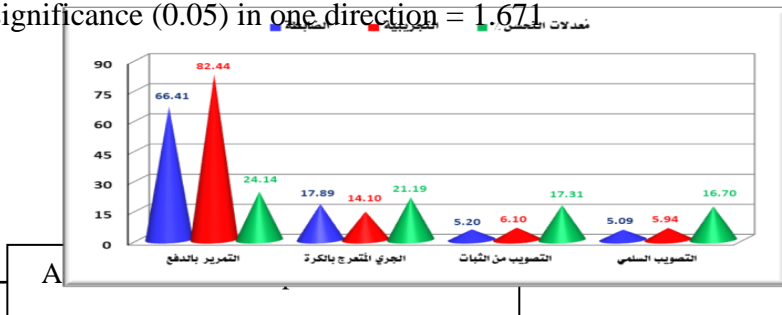
Figure (1)
The differences between the averages of the pre measurements of the control and experimental groups and improvement rates in basketball skills tests are under discussion

As shown in Table (2), and from the results obtained graphically in Figure (1) there are statistically significant differences between the averages of the pre measurements of the control and experimental groups in the basketball skills tests under discussion (chest pass, dialogue, correction of the stability, peaceful correction) and in favor of the experimental group, as well as the variations in the improvement rates in the measurements of the skills tests under discussion, ranged between (16.70% to 24.14%), Where came test the pass with push (The pass skill) in the first ranking with an improvement rate of (24.14%) while the sloping run of the ball (skill dialogue) came in the second ranking with an improvement rate (21.19%) and came in The test of free throw (the skill of correction of stability) in the third arrangement with an improvement rate of (17.31%), and then came the pacification test (the skill of peaceful correction) in the fourth and final rate of improvement rate (16.70%) and in favor of the experimental group.

The researchers attributed the differences in favor of the experimental research group to the virtual classroom under the researcher made the students participate in the making of the educational process and also helped cover a large number of students and limited the obstacles of communication between the researchers and students, in addition to the high speed in dealing and responding according to individual differences of students, It also provides the opportunity for students to freely choose the educational material that is appropriate to the nature of their ability to learn.

Nader Shimi (2010) notes that virtual classrooms particularize Features user interfaces have easy to

conform to the needs of learners and help them explore how to handle virtual classroom tools, , and provide an easy to use learning environment, that greatly reduces frustration that can,to be infected by learners in the event of difficulty in use, and depends on the development of digital learning environments on a basic basis, learning occurs through participation, and thus an exchange of experiences of learners occursThrough relationships that connect them to each other in virtual classroom sessions. (30: 13)

This is consistent with the conclusion of the results of each study Zongkai Yang and Qingtang Liu (2007) (39), Alfred Rovai et all. (2009) (33) Lynn McBrien et all (2009) (35), Faiza Al-Maghraby and Nadia Sindi (2013) (21), Hoyeda Sayed (2015) (31)

Hamad Al-Ghunaim (2016) (10) which indicated the positive effect of using virtual classe room in learning the courses and variables under these studies.

In light of the above, it is clear that the hypothesis of the first and third research is achieved, Where the researchers confirmed the existence of statistically significant differences, As well as differences in the rates of improvement between the averages of the pre measurements of the control and experimental groups in the skills of basketball under discussion: (chest pass, dialogue, correction of stability, peaceful correction) and in favor of the experimental group.

Second: Presenting and discussing the results of the hypothesis of research (second and fourth):

Table (3)
The significance of the differences between the averages of the
dimension measurements Of the control and experimental groups
In the axes of the cognitive achievement test The skills of
basketball in search

Topics of the cognitive achievement test	Measure unit	Control		Experimental		Calculate 'T' value	Improve ascription
		mean	s.d	mean	s.d		
How to perform the skill	Degree	6.19	0.92	7.76	0.86	*6.71	%25.36
Educational steps for skill	Degree	6.10	0.89	7.55	0.82	*6.45	%23.77
Common errors	Degree	2.85	0.70	3.50	0.65	*3.66	%22.81
Basketball Act	Degree	1.90	0.36	2.29	0.41	*3.85	%20.53
Total grade	Degree	17.04	1.85	21.10	1.67	*8.77	%23.83

 N 1 = N 2 = 30
 *The value of (T) of the table at dgree (N 1 + N 2 - 2 = 58), the level
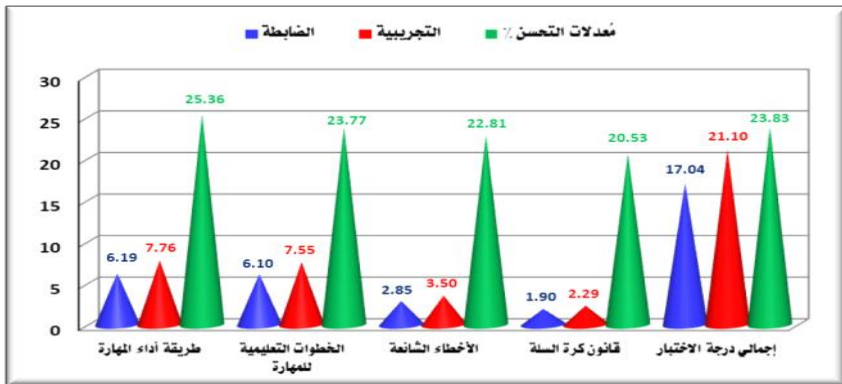of significance (0.05) in one direction = 1.671

Figure (2)
The differences between the averages of the pre measurements of
the control and experimental groups and improvement rates in
knowledge test of basketball skills under discussion

As shown in Table (3), and from the results obtained graphically in Figure (2) there are statistically significant differences between the averages of the pre measurements of the control and experimental groups in the **knowledge test of basketball skills** (skill performance, learning steps for skill, common mistakes, basketball law), and in favor of the experimental group, As well as the variations in the improvement rates that occurred in the knowledge test, which ranged from (20.53% to 25.36%), where the center of the performance of the skill in the first ranking with an improvement rate (25.36%), while the center of the educational steps of skill in the second ranking improved rate (23.77%), common mistakes in the third ranking came at an improvement rate (22.81%), The improvement in the total score of the **knowledge test** for the basketball skills **under discussion** was (20.83%) and in favor of the experimental group.

The researchers attributed the improvement rates to the experimental research group to the fact that the virtual class room that were designed helped to create open, interactive environments and uses between the researchers and the experimental group students, which helped to develop the teamwork spirit of the students and to communicate the theoretical information and knowledge related to the skills **under discussion** easily and simply, Which helped to consolidate that knowledge in the minds of students better than students in the control group.

This is consistent with the conclusion of the results of each study of Sachin G. Deshpande and Jenq-Neng Hwang (2001) (36), Karen Swan (2006) (34) Starr Hiltz (2006) (38), Sherif el-Morsi (2009) (16), Mohammed Al-Baghdadi (2011) (24), Ghada Abd el-Aziz (2015) (19), which indicated that the use of virtual class room led to a clear improvement in the learning of courses and variables under these studies.

In light of the above, it is clear that the hypothesis of the second and fourth research is achieved, Where the researchers confirmed the

existence of statistically significant differences, As well as differences in the rates of improvement between the averages of the pre measurements of the control and experimental groups in the **knowledge test** of basketball skills under discussion: (performance Skill, skill learning steps, common mistakes, basketball law), and in favor of the experimental group.

conclusions and recommendations: -

First - conclusions: -

In light of the research objectives and hypotheses and within the limits of the research sample, based on the statistical treatments, As indicated by the results of the research .. It can be concluded that the use of virtual class room In learning basketball course of the second year of girls led to improvement of the experimental group students about the control that used the traditional method (verbal explanation and performance of the practical model) in the following:

1- Skills of basketball under discussion: Passing with push test (pass pass skill) improvement rate (24.14%), ball rolling test (conversational skill) improvement rate (21.19%), Free throw test (correction skill of stability) improved by (17.31%), the peaceful correction test (the skill of peaceful correction) improved by (16.70%).

2- the **knowledge test** of basketball skills under discussion: center of skill performance improved in the rate of (25.36%), The center of the educational steps of the skill improved in the rate of (23.77%), The center of common mistakes improved in the rate of (22.81%), The center of basketball law improved in the rate of (20.53%), The rate of improvement in the total score of the **knowledge test** for the basketball skills under discussion was (23.83%).

Second: Recommendations:

Based on what the results of this research indicate .. The researchers were able to identify the recommendations that benefit the work in the field of basketball education .. As follows:

1 - Adopt the proposed model of the virtual class room (under discussion), which was reached

through the current research, and use it as a supportive activity to teach the basketball course for second-year students.

2. Encourage students to use teaching and learning technology by allowing physical and physical education courses to be taught through virtual class room, both in learning skills and knowledge.

3 - Intensifying the training courses for faculty members for the Egyptian universities to teach them how to design, build and implement virtual classroom programs to eliminate traditional education problems.

4 - Designing, building and developing electronic courses based on the use of virtual class room of all kinds in order to promote active learning centered around the learner.

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