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The Effectiveness of a Blended Learning Curriculum in Learning Some Basic Skills in Gymnastics for Female Students

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ABSTRACT

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The research aims to identify the effectiveness of an educational approach with blended learning in learning some basic skills in gymnastics for female students of the third stage - Faculty of Physical Education - University of Al-Qadisiyah.The researcher used the experimental method to adapt the nature of the research and the research sample was divided into two groups of (20) students representing the control group and (20) students representing the experimental group, and the following results were reached: The experimental group that used blended learning was superior to the control group, which indicates its effectiveness in learning gymnastics skills for female students.

Keywords:
Blended Learning – Gymnastics Skills

1- Introduction

1-2 Introduction and Importance of the Research:

The real renaissance of any country comes only through investment, and that modern technologies have become a necessity and not a choice, and that traditional methods have become incompatible with the modern environment, so learning needs to harness all technologies for the elements of the educational environment in order to help the learner learn. Blended learning is one of the important means in presenting programs and curricula in an electronic environment, and blended learning is an introduction to the use of information technology and the formulation of educational programs in accordance with the age stages and achieving the benefit of all goals in the The educational process. .Blended learning is an environment or learning style in which modern technologies are integrated into the traditional educational process taking into account the lack of commitment to a specific time or place, and it is a pattern that combines both traditional education through the use of traditional classrooms and distance education through dealing with modern computer technologies and the interaction between the learner and the teacher. In Time and Space (13:10) Waleed Yousef (2007) adds that blended learning is a combination of classroom learning and e-learning to achieve the benefit between all methods (9:85).

1-2 Research Problem: Gymnastics is one of the important and difficult games and activities due to its skills that require accuracy in the sequence of movement and smoothness in performance.. .The skills of the gymnastics subject for the third stage under study are (human wheel - Arab jump - diving), so the researcher considered the use of blended learning in learning some gymnastics skills as a way to increase the actual participation in performance with the least time and effort, because the more difficult and complex the skill, the more difficult it is to perform.

1-3 Research Objective:

- Identifying the effectiveness of an educational curriculum with blended learning in learning some basic skills in gymnastics for female students of the third stage - Faculty of Physical Education - University of Al-Qadisiyah.

1-4 **Research Hypotheses**: There are significant differences between the results of the pre- and post-test tests for the research sample and in favor of the post-test tests.

1-5 Research Areas:

1.5.1 Human Field: Female Students of the Third Stage, Faculty of Physical Education, University of Al-Qadisiyah

1.5.2 Spatial Field: Gymnastics Hall for Female Students in the College

1-5-3 Temporal Domain:- 10/2/2025 -11/4/2025

2. Field Research Procedures:

2.1 Research Methodology:

The researcher used the experimental method by designing the experimental group and the control group with the pre- and post-test to suit the nature of the research.

2.2 Research population and sample:

The population consisted of (50) students, the research sample consisted of (40) female students from the third stage of the Faculty of Physical Education and Sport Sciences - University of Al-Qadisiyyah, and they were selected by the deliberate method, where the

experimental group consisted of (20 students) and the control group consisted of (20 students), while the survey sample consisted of 10 female students other than the original sample.

2-3 Sample homogeneity:

The researcher conducted homogeneity for the research sample (50) students, including the basic sample in the research variables (height, weight, and age) to ensure that it falls under the moderate curve, as shown in Table (1).

Table (1) shows the arithmetic medians, standard deviations, and torsion of the research sample

Torsion	Standard deviation	Broker	Arithmetic mean	Unit of Measurement	Variables
0.080	0.62	18.000	22.65	Year	Age
0.049	3.90	65.000	163.98	Poison	Length
0.082	8.20	63.000	65.58	kg	Weight

It is clear from Table (1) that the torsion coefficient in the variable of age-height-weight For the research sample, it was limited between (± 3) which indicates the homogeneity of the sample with the variables.

2.4 Sample equivalence:

Table (2) shows the equivalence of research groups in skill variables

t	Average spreads	Control group Q		Experimental group Q		Unit of Measurement	Variables
0.85	0.24	0.88	1.55	0.70	2.80	Grade	**Human Wheel**
0.60	0.17	0.63	1.10	0.65	2.10	Grade	**The Arab Leap**
0.88	0.22	0.82	1.30	0.80	1.55	Grade	**Snorkeling**

Table T value at the significance level of (0.05) = 1.684

Table (2) shows that the calculated value of (t) is smaller than the tabular (t) indicating the equivalence of the research groups.

2.5 Tools and devices used in the research:

2.5.1 Tools used:

Arab and Foreign Sources, Performance Appraisal Form,

, tape measure, 4- ruler 1- chalk

2.5.2 Devices used:

Weighing Device - Computer - (Sony Camera)- Stopwatch 1 - Aqla 1 - Mastaba 1

2.6 Field Research Procedures:

2.6.1 **Tests used in research** (7:67)

-Wide jump test to measure leg strength

-Attachment test with arms flexion to measure arm strength (30s)

- Bridge test to measure the strength of the spine muscles

-Metatarsal standing test to measure balance

-Zakzak Running Test between Contraindications to Measure Agility
- Flexion test of the torso from standing to measure flexibility

2-6-2 **Skills used in research:** (42:8)

2.6.2.1 The skill of the human wheel Technical stages:

- **Preparatory section** : The student stands with her feet apart, stand in front of her, side and lean on her right or left leg and raise her legs tilted high.

Main section : The student moves the center of gravity of the body on the left leg to rest on it, raise the arms inclined high, and bend the torso to the bottom of the left side of the left foot. The palm of the left hand is placed with the fingers open and the arm is extended on the ground, so that the fingers point backwards and the right leg swings high and pushes the ground with the left foot, then the right hand is placed on the ground to rotate the body and the legs are open to the other side.

Final section: The student pushes the floor with her right hand to return to the standing position with her arms aside.

2.6.2.2 The Arab Leap: Technical Stages:

Preparatory Department: The student does partridge on her free foot and swings the most delicious in front of her.

Main section : The student places the right rising foot first and bends the hip joint quickly, then she puts the palm of the right hand first, then then the palm of the left hand that is placed forward near the right hand, then the student performs a half turn with the free leg swing strongly upwards, and the standing foot pushes the ground to join the free foot as the body passes in a standing position on the hands. After that, she bends the hip joint quickly and the hands push the ground hard and the legs remain closed and the torso is turned.

Final section: The two men land together on the ground and the student reaches a standing position.

2-6-2-3 Diving Skill: - Technical Stages:

The movement is performed from the paired rise and after this approximate run the body is shaving with air for a short period of time with a straight and elongated body or slightly bent from the hip joint, and in both cases the two wings must be extended and the head is raised and after the body reaches the highest point in its flight, the upper part of the body bends from the hip joint forward downwards and the head bends on the chest when the hands are on the mat and curl the body by bending the knees and pulling them on the chest, with the bend of the The elbows are slow to absorb the shock, land and roll with a front roll.

2-7 Survey Study:

On 10/2/2025, the researcher conducted the exploratory experiment on a sample of (10) female students other than the original sample of skills to identify the difficulties they face in applying the curriculum in terms of time and time of skills.

2.8 Pre-Test:

The pre-tests for the research sample were conducted on (11/2/2025) at 8:30 am in the gymnastics hall for female students at the Faculty of Physical Education and Sport Sciences - University of Al-Qadisiyah, and the tests were conducted for the research sample, and the researcher sought to

stabilize the same conditions related to the tests all in terms of place, time, tools used, and method of application in order to control and create a similar atmosphere when conducting the post-test tests.

2-9 Main Experience :

The researcher applied the educational curriculum with blended learning on Sunday, 15/2/2025, for the experimental group, the researcher prepared educational videos containing models of players performing the oryx from the Internet, and pictures were entered and a detailed explanation of the skills and explained how the body position is about the performance, and these videos were uploaded to an electronic class for the sample, while the control group learns in the traditional way, as the educational units prepared by the researcher were applied to the sample in two units. The total number of units was (16) and the duration of the educational unit was (90 minutes) divided into (preparatory (educational) section (10 minutes), and the main section in which the basic oryx application in gymnastics is (70 minutes) and the final section (10 minutes) consists of skill games[1].**

2 - 10 Post-Testing

The post-tests of the research sample were conducted after the completion of the application of the educational curriculum on 11/4/2025 at 8.30 am in the gymnastics hall for female students, and the researcher took into account, providing the same conditions in which the pre-tests were conducted for the purpose of obtaining high moral results.

2.11 Statistical Methods:

The researcher used the SPSS statistical bag to obtain the results.

3. Presentation and discussion of the results:

3-1 Presentation of the results of the experimental group for pre-tests and post-tests.

Table (3)
Shows the arithmetic mean and standard deviations of the pre-test tests of the experimental group

Post-testing Q	Pre-test Q	Variables

Attachment (1)[1]

** Names of Residents : Dr. Wassan Saeed Dr. Ola Salam Dr. Rana Abdel Wahed Eng. Afrah Abdel Qader

0.42	6.85	0.70	2.80	Human Wheel
0.45	5.50	0.65	2.10	The Arab Leap
1.40	6.20	0.85	1.55	Snorkeling

3.1.1 Presentation of the difference between arithmetic means, deviations, calculated T-value, and the significance of the differences between the pre- and post-tests of the experimental group.

Table (4)

It shows the values of the difference between the mean and the deviations and the value of (T) calculated between the pre- and post-tests of the experimental group.

Significance	**Error Rate**	**Calculated**	**H**	**A.F.**	**Q-F**	**Variables**
Moral	0.000	10.45	0.10	0.44	1.85	Human Wheel
Moral	0.000	8.25	1.18	0.80	2.5	The Arab Leap
Moral	0.000	10.8	2.30	1.30	2.8	Snorkeling

T tabularity at the significance level of (0.05) = 1.68

3.2 Presentation and analysis of the results of the control group for pre- and post-tests

Table (5)

Shows the arithmetic mean and standard deviations of the pre-post tests of the control group

Post-testing Q		Pre-test Q		Variables
0.38	3.000	0.88	1.55	Human Wheel
1.47	2.50	0.63	1.10	The Arab Leap
1.73	2.70	0.82	1.30	Snorkeling

3.2.1 Presentation of the difference between the arithmetic means, deviations, the calculated T-value and the significance of the difference between the pre-test tests of the control group.

Table (6)

It shows the values of the difference between the arithmetic medians, deviations and the value of (T) calculated between the pre-post-test tests of the control group.

Significance	Error Rate	T calculated	H	A.F.	Q-F	Variables
Moral	0.000	5.90	0.09	0.45	0.45	Human Wheel
Moral	0.000	6.99	0.15	0.68	1.80	The Arab Leap
Moral	0.000	8.85	0.28	0.25	1.50	Snorkeling

T tabularity at the significance level of (0.05) = 1.68

3-3 Presentation and analysis of the results of the post-tests for the experimental and control groups.

Table (7)

Shows the values of the arithmetic medians and standard deviations of the post-tests and the value of

(T) calculated for the research tests for the experimental and control groups

Significance	Error Rate	Calculated	Control group Q		Experimental group Q		Variables
Moral	0.000	3.66	0.38	3.000	0.42	6.85	Human Wheel
Moral	0.000	3.82	1.47	2.50	0.45	5.50	The Arab Leap
Moral	0.000	4.42	1.73	2.70	1.40	6.20	Snorkeling

Significant at the significance level of (0.05) and the degree of freedom = 38

3-4 Discussion of the Results:

The results showed that the value of (T) is greater than the tabular value at the significance level of (0.05).

This indicates that there are significant statistical differences in favor of the post-tests of the experimental group, and the researcher explains the reason that this group used blended learning that combines in-class learning and e-learning, which helped to learn technical skills and stages with high quality and gradual presentation through video for the stages gradually from easy to difficult, which helped students to understand the parts of movement, correct mistakes instantaneously, increase motivation and competition among themselves, and form a basic base of knowledge. Compact is one of the modern approaches based on the use of information technology in the design of educational situations (46:4)

Also, learning with the blended learning curriculum helped to provide a suitable environment and increase the bonding between students, in addition to using the live application after watching the video and linking what is being watched and what is being applied, which helps to convey the impact of learning and the use of feedback during performance, which increases the chances of success and learning quickly. This made the Oryx show of an integrated character in terms of content and form. Al-Sharman (2015) reminds that "the use of various activities avoids monotony and boredom and creates an atmosphere of interaction between learners and teachers, and blended learning is the best solution to achieve flexibility in education in accordance with the

circumstances of learners. (1:28) (Abdul Sami et al., 2001) points out that "the use of educational aids in the education process provides learners with a positive nutrition that results in an increase in learning (5:76).

As for the control group, the researcher explains the reason for the appearance of the results in favor of the dimensionality to the fact that the curriculum in the traditional way has an effective effect on learning for the teacher through verbal explanation and giving a model for learning on skills, and the researcher attributes this effect to the regularity of the sample members in applying the traditional method, and giving a clear picture of how to perform correctly. From the learner. (21:6)

4. Conclusions and Recommendations:

4.1 Conclusions:

1- The experimental group that used blended learning outperformed the control group in the skill of the human wheel, then the skill of diving, and then the skill of the Arab jump on its effective impact on students' learning.

4-2 Recommendations:

1- The use of modern methods and methods using assistive means that contribute to the development of oryx.

2- .Spreading the culture of e-learning among the teaching staff and applying it to different age groups.

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Attachment (1)

Educational Unit Time: (90 mins). Number of Female Students: 20

Educational Objective: Learning the Skill of the Human Wheel Stage: Third

Educational Objective: Teaching students commitment, obedience and cooperation Tools: Gymnastics hall, Basta

Notes	Details	Time	Categories
Emphasizing Standing in One Format	Taking Attendance and Warming Up	10D	Preparatory Section
Emphasis on arm movement and rotation Emphasizing the free movement of the man. - Error Clarification	Explain the skill of the human wheel and give information about the skill and how to perform it	70D 10D	Main Section Educational Part
Emphasis on repetition - Emphasizing the performance of all female students and repetition.	Students apply blended learning by observing the application of the skill on the computer and then applying it on the ground while correcting mistakes	60min	The Applied Part
	Stand one line and leave.	10D	Concluding Section