

**Effect of E - learning on the efficiency of self - assessment of performance and the teaching efficiency of rhythmic exercises using ribbon**Dr Nahla Abdel Azim Ibraheim¹ and Dr Maha Mohamed Abdelwahab²¹Exercises, Gymnastics, and Motion Expression Department. Faculty of physical Education for Girls, Zagazig University, Egypt.²Curricula and Methods of Teaching, Training and Practical, Education Department, Faculty of Physical Education for Girls, Zagazig University, Egypt.
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Abstract: Introduction: The researcher noted that the greatest interest in the process of teaching, learning and teaching methodologies/ attention has been paid to the study of the extent of student's self-assessment of the movement's skills, although it has a significant role in promoting the learning process through error's discovery and the attempt to correct them. **Study aim:** Research aims to identify effect of E-Learning on the efficiency of self-assessment of skillful performance and teaching efficiency of some exercises skills by using ribbon **Material and methods:** Sample was 40 students of the fourth year of the Faculty of Physical Education for Girls Zagazig University in 2018 - 2019, applied the E-Learning program to the students of the experimental group after completing pre-measurements directly for 6 weeks. **Results:** There are statistically significant differences between the pre and post measurements in the level of self-evaluation efficiency of the student's performance for the ribbon usage, the level of the teaching efficiency of the rhythmic exercises using the ribbon, and the cognitive achievement test of the experimental group which follows the E-Learning method **Conclusions:** E-learning contributed positively and effectively in learning and improving the efficiency of self-assessment of the student, the level of teaching efficiency and level of cognitive achievement.

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Key words: E-Learning, Efficiency of self-assessment, Teaching efficiency.

1. Introduction:

World countries seek to adopt causes of scientific and technological applications which the most important manifestation of it is the progress in communication technology. And we notice the reflection of this massive development on the educational system and the modernization of educational program. The traditional education is no longer, depending on the teacher and the transferring of science and primarily knowledge to learner, able to absorb sizeable numbers of individuals and meet their needs. Hence countries and communities began to search for new methods of education that depend greatly on the learner's reliance on himself in the educational process, which is known as self-learning and this in turn has led to the appearance of new term which is known as E-Learning. This term is the most widely used term which provides the learner with rapid learning according to his abilities and capacity out of the obligations of particular location and time to complete the education process. And E-Learning helps

through scientific content containing multi-media (texts, animation, images, video clips, voice and music) and offers through modern electronic media such as computer, internet and satellite. (24)

Mohammed Saad and Mustafa Elsayah (2004) state that the scientific development has added a lot of modern education technology which can be used by the teacher in preparing areas of expertise for students until they are prepared with a considerable degree of efficiency, how to use it in preparation and its impact on the educational process, Where technology plays an important role in educational field in general and teachers preparation in particular and thus to face the problems that hinder the development of educational process based on curricula, learning and teaching techniques and methodologies, Hence the contribution of multiple education technology were in the facing of changes caused by social and environmental life, assisting the educational process to keep up with the modern era and interacting with it and all its

development (11:3).

Aisha Zaitoun (1994) believes that the teacher, in order to organize the educational experiences, scientific activities and guiding students in an effective and successful manner in teaching, he/she must prepare an outstanding preparation and acquire appropriate abilities and skills to enable him to carry out his educational work or in other words to possess educational competencies (productivity). (3:225).

The entrance of teaching efficiency is one of the most significant recent trends in teacher's preparation and even the most common and widespread in the professional community in that issue, as it has become an educational movement aimed at preparing efficient teacher able to cope with rapid changes in this current era, Where by this entrance is based on a key premise that the teaching process can be analyzed into a range of competencies can be identified and teachers be trained on it, this will result in the existence of teachers with a high level of competencies. (7:143)

The researcher noted that the greatest interest in the process of teaching, learning and teaching methodologies/ attention has been paid to the study of the extent of student's self-assessment of the movement's skills, although it has a significant role in promoting the learning process through error's discovery and the attempt to correct them. Also, through her work as an assistant professor in the exercises, gymnastics and activist expression department at the faculty, she found that a large present age of female students had no teaching efficiency of motor skills and the use of tools. Although the main objective of female student's course was to prepare a student capable of teaching and training skills with high efficiency and ability to discover errors, find common mistakes, ho to connect them and not only to perform the movement with high skills. The researcher mandated fourth year students in her research, as they studied all motor skills of

exercises in previous years. She restored to use E-Learning which is capable of providing the theoretical content of an explanation of the technical points of performance, skill progression and common mistakes and it's treatment with practical content (images and videos of skill performance) for student.

Therefore, it was necessary to use technology and modern teaching methodologies in motor learning field generally and teaching exercises in particular, which made the researcher use E-Learning to help for promoting the educational units that increase its role in guidance, continuity of learners to interact positively, ability on self-assessment and error's discovery and modifying it to achieve the stage of perfection and good performance for learner as it develops the cognitive competence to become a good teacher.

The research aims to identify:

Research aims to identify effectiveness of E-Learning on the efficiency of self-assessment of skillful performance and teaching efficiency of some exercises skills by using ribbon.

2. Methods

Experimental Approach to the Problem

Use the experimental approach to suit the nature of the research, sample of the research was chosen deliberately by the students of the fourth year of the Faculty of Physical Education for Girls Zagazig University in 2018 - 2019, where the number of sample is 40 students, (10) students were selected to conduct the exploratory study. The basic research sample (30) was randomly divided into two equal groups, one control and the other an experimental, each group contains (15) students.

Subjects

The researcher conducted the homogeneity to sample in the variables (intelligence and level of cognitive achievement) and this is shown in Table (1).

Table (1) The physical characteristics of the subject (*n=40)

Variable	Mean	SD	Median	Skewness
intelligence	49.89	5.17	51	0.64
level of cognitive achievement	6.33	1.50	6	0.66

Table (2) The significance of differences between the two research groups (*n1=n2=15)

Variable	control		experimental		T test
	Mean	SD	Mean	SD	
self-assessment efficiency	9.20	0.90	8.36	1.42	1.91
teaching efficiency	27.80	2.17	27.46	2.19	0.41
cognitive achievement	10.93	2.01	10.26	2.01	0.96

There are no significant differences in the following variables (intelligence and level of cognitive achievement) ($P < 0.05$) which indicates the harmony of sample's research as well as the possibility of conducting such an experiment in such a sample Table (1). The researcher found the parity between the experimental and control groups in the self-evaluation, the level of the performance of the teaching performance and the level of cognitive achievement, as shown in Table (2).

There were no statistically significant differences at 0.05 level between the two groups in the level of self-assessment efficiency, level of teaching efficiency, cognitive achievement, indicating the equivalence of the two research groups.

This study has been conducted of three steps.

First step: doing the pre-measurement to the two groups using the cognitive test to measure the level of cognitive achievement of ribbon skills building by the researcher (2011) (18). The researcher conducted the scientific studies to verify his validity and IQ test building by Ahmed Zaky Saleh (1), The performance of the research sample was evaluated at 5 degrees for each of the uses of ribbon, by a committee of arbitrators teaching the exercise and rhythmic gymnastics, in a form to assess the level of performance and the same form was used in the self-evaluation of the level of performance of the student where the degree of efficiency Self-assessment (the difference between the degree of arbitrators requesting the degree itself) where increasing the efficiency of the student in self-evaluation, the less the difference between the degree and the degree of student living for herself.

The level of teaching the skills of using ribbon for the sample of the study was measured by simulating the practical exam by using a committee of arbitrators from the faculty of teaching and teaching methods to evaluate the research sample in the part of teaching the skills of the rhythmic exercises in the physical education lesson through a card to evaluate the teaching skills of the exercise skills The rhythmic art is prepared by Noha Al-Sayed Darwish (2018) (20)

The validity of the card has been ascertained through conducting scientific transactions.

Second step: applied the E-Learning program to the students of the experimental group after completing pre-measurements directly from 2/10/2018 to 6/11/2018 at the Faculty of Physical Education for Girls Zagazig University.

Third step: post-measurements for the control and experimental groups, from 7/11/2018 to 8/11/2018.

The content of the tutorial:

The program was implemented through educational units, with one unit per week. The program includes (6) educational units and the implementation time of each unit is 90 minutes. The unit includes the following details:

- 10 minutes for Warming Up.
- 10 minutes for displaying the educational content of the program through the parameter.
- 15 minutes for the practical performance of the uses of the learning tool (in question).
- 10 minutes for re-viewing the educational content through the computer and displaying the knowledge content of the unit.
- 10 minutes for self-assessment of performance and correction of errors.
- 20 minutes for teaching the remaining parts of the lecture (skills or sentences dynamic).
- 5 minutes for Conclusion part.

3. Results and Discussion:

Table (3) shows that there are statistically significant differences between the pre and post measurements in the level of self-evaluation efficiency of the student's performance for ribbon usage, the level of the teaching efficiency of the rhythmic exercises using the tape and the cognitive achievement test of the control group which follows the traditional method of learning the uses of the tape instrument which reflect the impact of the traditional program on these variables.

Table (3) Comparison between pre and post measurement of the control group.

Variable	pre		post		T test
	Mean	SD	Mean	SD	
self-assessment efficiency	8.36	1.42	6.70	0.77	4.06
teaching efficiency	27.46	2.19	45.26	3.15	16.36
cognitive achievement	10.93	2.01	26.6	1.99	23.74

The researcher attributed this result to the traditional method of teaching represented in verbal explanation by giving a clear idea of how to perform well? also creating a model by the teacher or one of

the learners, then the practice and repetition of the learners come, then feedback from the researcher and error's correction gives the learners an opportunity to learn correctly, and thus it affects positively the

learning of some of the uses of the ribbon and also affects the efficiency of the self-assessment of the skill performance and cognitive achievement of the control sample.

This coincides with the results of the study of Ehab Fahim (2006) (5) and Maysa Afifi (2006) (9), which indicates the importance of the traditional

method (memorization), which can't be ignored, as it helps to learn correctly. The researcher also attributed this result that collective learning (the method of memorization) raised the motivation of learners to compete among them to highlight the superiority of all each other and this makes them perform skills in the best possible way.

Table (4) Comparison between pre and post measurement of experimental group

Variable	pre		post		T test
	Mean	SD	Mean	SD	
self-assessment efficiency	9.20	0.90	2.26	0.49	24.78
teaching efficiency	27.80	2.17	54.26	1.62	32.92
cognitive achievement	10.93	2.01	38.6	1.95	43.91

Table (4) shows that there are statistically significant differences between the pre and post measurements in the level of self-evaluation efficiency of the student's performance for the ribbon usage, the level of the teaching efficiency of the rhythmic exercises using the ribbon, and the cognitive achievement test of the experimental group which follows the E-Learning method. Where the value of "T" has been set at (24.78: 43.91) is greater than the value of "T" at a significant level of 0.05.

The researcher returns these differences in the dimension measurements to the experimental group, which use the proposed electronic tutorial, where there are many educational alternatives for learners that evoke their interest and enthusiasm and increase their positive, which leads to the survival of the impact of what they learn, as e-learning helps each learner to learn the skill according to his own speed in addition error's correction and each learner takes enough time to learn and provide feedback, which led to mastering the performance, knowledge of all important learning points and the speed of error's discovery and how to correct them.

The researcher also attributed this progress to the fact that the use of the computer plays an effective role in the learning process, as the ability of the electronic program to provide opportunities for learners to remind and give attention when they receive information, in addition to the educational content through images and graphics, and video clips that show the technical stages of performance as well as watching a number of videos of high-level players, and thus increase the efficiency of the student to know errors compared to the correct models of performance, which makes it able to self-evaluation and agree with the results of the study of "Nashwa Nafi" (2003) (19), "Mona Najib "(2007) (15), which confirmed their findings that educational programs that use computers have an active role in learning motor skills.

The researcher finds that having the competence of self-evaluation is more useful for students of practical education throughout the education process, as they can determine their actual level and modify their teaching performance based on the concurrent work to get better performance.

This is consistent with what "René Reic" (2007) (21) has pointed out that criticism in general is aimed at the intellectual knowledge which does not create a different imaginary world but ultimately has to reach an organizational knowledge or literary theory.

Mohamed Hamouda (2005) (13), Mustafa Nasr El-Din (2008) (16), assert that multimedia feedback in education is concerned with three main functions: error identification, use of the error signal to redirect behavior, movement or behavior in the right direction.

This is in consistent with what Al-Asadi Jassem and "Amer Al-Abbadi" (2003) (3) have pointed out that by evaluating students and helping them in training the teaching skills, the field training and their preparation for the profession of the future are of great benefit.

The researcher finds that the progress of the experimental group in the level of educational attainment is due to the use of educational tools such as computer and the data show in the presentation and explanation of information and the varied activities to suit their level and to provide the learners with feedback to identify and rectify errors through the evaluation.

In this regard, " Anita Hockelman, et al (2004) (21) indicate that the improvement of the experimental group in the cognitive representation and in the physical performance level of some rhythmic gymnastics skills is a result of providing a good knowledge of motor skill and presenting it in an interesting and an attractive way And Agath to learners.

Both A. Bota and C. Urzeala (2007) (4) emphasize that feedback is an integral part of the learning process, either to guide the learner to proper performance or to master performance. Information technology tools provide many information about the physical performance of each skill such as timing, sequence of movements and direction of body parts.

Table (5) shows statistically significant differences between the two post-measurements in the

level of the self-evaluation efficiency of the students' performance for the tool bar usage, the level of the teaching efficiency of the rhythmic exercises using the bar, the cognitive acquisition test of the control group and the experimental group. The calculated value of (9.83: 18.76) is the largest tabulated value of "t" at a 0.25.

Table (5) Comparison between pre measurements of two groups

Variable	Post control		Post experimental		T test
	Mean	SD	Mean	SD	
self-assessment efficiency	6.70	0.77	2.26	0.49	18.76
teaching efficiency	45.26	3.15	54.26	1.62	9.83
cognitive achievement	26.6	1.99	38.6	1.95	16.64

Therefore, we find that the proposed educational program which applied to the experimental group has an impact compared to the traditional method of teaching applied to the control group in the research variable.

Both K. Bach and A. Hokelmann (2007) (23) agree that the distinct possibilities of a computer with a variety of multimedia are a powerful and effective tool in teaching learners who seek to improve their performance as they can compare their performance with the performance of the best educational model which designed on the computer. Thus, the importance of computer is shown as an intermediary in learning motor skills.

The researcher traces the existence of statistically significant differences between the post-measurements in the level of self-evaluation efficiency of the control and experimental groups in favor of the experimental group to multiple sources of feedback through presentation of many educational alternatives (teacher, watching the skills by CDs and watching videos that contain the skills of using the tool linked to motor skills) which led to the formation of good knowledge stock on the skills of the learner and thus gaining the student self-evaluation efficiency of performance through continuous comparison between the practical performance and performance of models available on the program Tutorial.

In this regard, "Mustafa Abdel-Samea" (2001) (17) points out that the use of teaching tools in learning process provides the learner with feedback that results in an increase in learning. Provide educational content to suit individual differences also lead the learner to achieve the required level.

The researcher attributes the improvement in teaching efficiency of the fourth year students during teaching rhythmic exercises in the field training

courses to the electronic program that rich in knowledge and information related to performance in addition to student self-evaluation by portraying and presenting her performance in order to identify and correct errors. This contributed to the improvement of teaching the skills of rhythmic exercises for students.

This is in line with what Mohammed Saad et al. (2001) point out that feedback aims to find and correct error, leading the learner to achieve the maximum proficiency in teaching the skills of motor activities. The use of educational technology helps in physical education through synchronous feedback, which affect positively affect building and developing the mobility vision of learner, which in turn leads to improve performance specifications and Consolidate and deepen what the learner is learning during sports activities. (12:29)

This is confirmed by the results of the study of **Moin Abdulla (2006) (15), Hany Abdel Moneim (2006) (8), Hamed Al-Koumi (2008) (6)**.

The researcher traces the existence of statistically significant differences between the post-measurements in cognitive acquisition of the control and experimental groups in favor of the experimental group to include and integrate the cognitive content of the educational course. This leads to the achievement of learning aspects through containing of educational videos, still and moving images and more which contribute to increase students' motivation to learn the educational steps for the present tool bar usage and to gradually learn the teaching skills through the educational steps, technical stages of performance, the educational points and evaluation. All this helped to acquire the cognitive aspect as it helped learners to learn more about rhythmic gymnastics in terms of historical and legal aspects and the technical and educational aspects of the tool bar as well as the

systematic and interesting presentation of all this knowledge and information, thus increasing the cognitive outcomes of the learners as well as providing feedback, which helps in finding and correcting errors through evaluation and facilitate the retention of information in Long-term memory and organize this information retrieval, and consistent with the results of each of the "Mohammed Arabi Shamoun, Walid Ahmed Sber" Studies (2009) (10), which emphasizes the effective use of educational technology to Veadh academic achievement.

4. Conclusions

E-learning contributed positively and effectively in learning and improving the efficiency of self-assessment of the student, the level of educational competence and level of cognitive achievement.

- The method used to implement the curriculum is insufficient to reach a good level of performance and this is evidenced by the results of the control group compared to the results of the experimental group.

Recommendations:

- The importance of the use of computer program for physical education colleges designed to teach its students the use of tools and motor skills in rhythmic gymnastics as well as the information and knowledge associated with it.

- Conducting further studies and research in the use of educational alternatives and technological devices in the field of learning at the level of faculties of physical education to upgrade the educational and training process and keeping abreast of the developments in developed countries.

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