

# **E-learning and its effectiveness in improving The Performance of Techniques and Skills of playing the piano**

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**Abstract.** E-learning is of great importance and role in learning music, represented in the supply of the teacher and the student and provide him with theory and practical information about the nature of the right performance at the piano, thus enriching his skill audio - play in the performance of various musical compositions on the piano, and the improvement of piano technique, and techniques for various expressive piano skills. Technique is the necessary skill for controlling the motive system members, used in playing on the musical instrument. Playing on the piano ways has varied because of the difference in opinions and the experts of playing. Techniques on the piano whether they were teachers or music players that may be from the basic means to reach right playing on the piano. The research aims to identify the nature of e-learning and how to take advantage of it to improve the skills and techniques of playing the piano. In addition to the description of the proposed program of music, and its importance lies in identifying the effectiveness and quality of e-learning in learning the piano.

**Keywords.** e-learning, piano skills, good performance, music

## **1 Introduction**

The revolt which took place in information technology and means of communication has turned the world into an e-village in which time and spatial separators. This change imposes the institutions to benefit from that technology to raise the out puts of the educational process as the indulgent of technology in the educational process has become a vital necessity for developing it as it has a specific transformation in restyling the syllabus with its total conception, raising the educational output level by a less effort and better specification and enabling of designing a climatic environment for a reactive and creative education. The e-learning is considered one of the most recent for having a re-active educational environment shares in enriching education and making it more valid in its effect. E-learning is one of the most important educational means which depends upon the electronic sub aids for providing knowledge for

education students out of study sections, thus, by using the modern communication techniques, such as, the computer, nets, several sub media and the internet bogs for getting the information to the learners at a speed limit, less expense and in a way enables in directing the educational process, controlling measuring and assisting the learner's performance. [1]

The musical education directed by the computer, it is a "term" means learning music by the help of the computer to express the educational use of the computer in learning music and this is by means of the direct reaction with the learners and providing the educational lessons by collecting the information, storing it, managing it with the students' in the self-individual education, the educational management in general. This will be through the strategy of the student's reaction with the computer to achieve the educational targeted objectives.

Self-education, it is a lively activity for the individual its more and effectiveness spring from self-born, constant confidence, self-regulation with the aim of promoting the personality towards a better level of development and promotion. It is an activity for inspiring learning.

Electronic education, it is specialized educational programs in a lot of fields and specializations, become complete by means of the computer in a direct way between it and the receiver. These programs are designed by means of specialists in programming, shared by specialists in the educational field.

The computer, it is an electronic appliance. It deals with data and treats it according to specific instructions programs. It gets out information electronic computers are of several kinds according to their way of compound, work up and collection.

The computer dick (CD), it is a recording and presentation data. This is by the use of "laser rays" according to certain cods. These registered discs are read by the CDs appliance unit.

Distance learning, it is based upon the learner's independence by the least face to face interview with the teacher and with the biggest possible amount of the educational subjects, capable of individual learning especially productive for learning and including a high degree of quality that is sent by means of media. Thus, acquiring two merits:- individual learning from one side and learning of the biggest number of scholars from the other one. [2](Aly, p 244.1993)

The elements of the e-learning systems: 1) Content the educational subject which has been prepared, electronically. It is of the most important elements of e-learning, as the educational. Content is prepared by using especial techniques and programs. It consists of video films and pictures and several reactive equipment's. 2) Media, it is the means of communication between the educational process elements. Whether it was the internet, data nets or any e-means through which it becomes easy for a student or a teacher to communicate with each other and the content. 3) The e-learner, he is the student who uses the e-medias and electronics of e-learning, attending the lessons and exams, reacting with the teacher and fellow students in the field of electronic environment. 4) The e-teacher who reacts with the learner electronically. He takes over the mission of supervision burdens and the educational guidance for students to secure good learning. He may be inside an educational institution or his house. Mostly, this teacher is not linked to work with limited time. He usually deals with the educa-

tional institution by the number of set books he supervises and is responsible for them and the students, number, registered with him. [3]

The most important skills on the piano, which is to improve their performance on the piano is 1) Attention to the right to play the piano at the hearing. 2) Technique, and through selected exercises from the book Longo first part, as it involves the performance of connected separately and performance. 3) Musical sentences correlated, as contained in the aesthetic expressions, as well as how to separate them during the performance. This is by Bella Bartok book the first part, Beyer, and John Thomson.

4) Large and small musical scale similar movement and reverse movement, and Arpeggio peace movement similar to octave range. 5) Control skill in the flexibility of the fingers during the performance, and the amount of tension and relaxation necessary for performance.

Several studies have appeared dealt with the specific and non-specific musical education by using the computer from which, that of "Mostafa Kadry" which handled the computer uses in improving the performance of practical harmony. [4] Also, "Mostafa Morsi" study which aimed at using the computer in achieving the subject of "Musical Analysis". [5] And "Ashraf El Masri" study which pointed out the importance of using the computer and its applications in the educational process. [6] In addition to the several studies, in which, they dealt with the e-learning. From this Previous studies, "Feldt R. James" study which handled a comparison between the teaching of the theoretical musical basics by using the computer and using the traditional ways, used in the educational process. [7]

A study, for "James, 1991" Teaching music by means of the computer help, this study targeted teaching "harmony" through the group learning and recalling the information by the computer help. It has been carried out by means of an educational program to teach the theoretical side by an attractive way depends upon moving pictures through the computer. Thus, shows the information in a regular way and a speed matches the general level of students' intelligence. The experimental syllabus has been used and out of its findings there have been differences with statistical indications between the mark-Means of the empirical group and those of the controlling one in the final achievement test for the empirical group, in addition to the success of using the computer in learning harmony by the group learning style. [8]

The purpose of this study was to determine if the electronic learning method has been more effective than the normal method on the acquiring the skills of performing on the piano which contain music sentences melody or, the form and the timber between a sample of university first level students. The following areas of investigation stem from the study's purpose: (1) to determine if e-learning improves a students' ability for learning and performing the playing skills on the piano; (2) to ascertain the extent that e-learning impacts the playing performance skills achievement of music appreciation students; and (3) to explore music appreciation students' preference for the e-learning method or the normal method.

## 2 Materials and methods

Current study follows the experimental syllabus which handles the independent variable the e-learning and applying it on the students. After this handling the follower variable is measured performance of playing skills. The study contained a number of the first level students (1<sup>st</sup> grade) who study the piano in faculty of specific education. Their number was (8) eight.

The she-researcher used the empirical design of two empirical groups for one scholastic session of (15) fifteen weeks. The whole students had a pre-test of the playing skills on the piano at the beginning of the second scholastic session. In this test the students were asked to do the playing skills and the articles, contained, in the test accurately and perfection.

An example, out of this test is the performance of the music scale "Do" C, up and down in a matched equaled direction.

All students had the same test at the end of the scholastic session as a post test. (4) Four students in the normal lectured classes as a control group to be possible for the empirical group which receives the e-learning to be compared with. The empirical design is identified the control group before and after the test. In the beginning of the second semester, the (8) students filled in a *Musical Background Questionnaire* to assess the musical experiences they had, and the purpose of the questionnaire was to compare the experimental and control groups at the start and determine if they were similar. At the end of the semester, the experimental group filled in *The Electronic Learning Questionnaire* which pointed out what felt, concerning the used teaching methods. The electronic learning method clarified and explained the most important concepts of music and playing skills which require improvement in performance according to the selected syllabus articles of the first level. Thus, through varying the activities, the remote student meets. There are an explanation of the theoretical concepts, individual assignments for training, in addition to an explanation and clarification of how to perform playing skills, recorded on (CD) for every student.

For example, at studying exercise no. (12) From Bella Bartok's book, the she researcher begins to explain the melodic style, harmony, the method and the way by which the musical sentence is performed.



Fig. 1. Refers to the musical note of Exercise No. 12 from the book Bela Bartok.

It is the most important thing that distinguished Bella Bartok's style, in addition to listening to the complete note. Then the (CD) is remained to the student, a period for self-learning and effective training on the piano and correcting his/her performance by himself. The she researcher chose some items of the first scholastic level syllabus to be learnt and acquired through distance learning which contains most of playing skills, acquired through this level that covers, in an integrated form, the first scholastic level.

*The questionnaire items* contained the most important following musical skills: 1) The correct sitting at the piano. 2) Music scale. 3) John Thompson books. 4) Bella Bartok books. 5) Alesandro longo part (A). 6) Ferdinand Beyer books.

The she researcher used in CD experimental methodology, which has defined the positions of educational and instructional objective of each study and identify a code associated with the position of educational concepts and determine the steps to be followed for the implementation of the electronic tutorial steps to improve the performance skills of playing the piano. The e-program and experiment steps were applied by using the set syllabus items. One model was chosen, only, for every book.

For example, exercise in title ROW, ROW from John Thompson's book. The teacher explains the musical. Concepts in the model as the balance, used, the vocal range of tones, the rhythmic symbols and their time. Then, pointing out and explaining how to perform the model and the expressive arches and performing sentences clearly, and pointing-out the skill of hand exchanging in playing or how to perform with the suitable expression. Then, there should be a period for the student to learn by means of self e-learning and training through, following CD, on which the exercise is explained. Then, his/her performance is estimated.

**Row, Row**

Fig. 2. Refers to the musical note of Exercise P. 34 from John Thompson's book

Another example, it is Exercise No. (55) From Beyer's book.

It shows the she researcher explanation of the theoretical concepts connected with the note and its vocal range, in addition to the rhythmical symbols, and its performing style.

We notice that the exercise is played by the two hands together. The right hand plays the basic melody and the left hand plays on accompanied harmony in the shape of (bass alberte) and performing the melodic sentences in a constant performance. And noticing the accompanied harmony performance in constant way and with melody strength, equaled in fingers, noticing fingers numbers, as well and controlling in melody appearance during both hands performance together. In addition to acquiring the skill of performing the coloring sound, and the technical expressions, pointed out according to time and speed, written down in the note.



Fig. 3. Refers to the musical note of Exercise No. 55 from Ferdinand Beyer's book.

### 3 Results

The scores for increasing and improving playing performance skills on the piano by using the e-learning were significantly higher than the scores using the normal learning method in this study. This clear difference has been due to the noticed gains in performing the playing controlled rhythm the musical sentences, and the constant, separated performance (legato and staccato performance), in addition to the correct sitting at the piano. The final statistics have been examined on the base of the (pre-post) tests.

The scores on choosing the musical concepts items and playing skills ranged between ( ) score to ( ) score. The means score for the experimental group's pretest was (7.5), while the control group's mean pretest score was (5.5). Both of the two groups had relatively low pretest scores.

The mean posttest score for the experimental group was (61), while the control group scored (30). The information resulted from the *Musical Background Questionnaire* has been examined, statistically tested with an independent samples (*t*. test). It was important to know if there were differences in the musical background between the experimental and control groups.

We notice that the statistical results in the table point out that the results in relation to the e-learning group were, noticeably higher than that of the normal way group. The difference between them was (31) scores.

TABLE I: THE ARITHMETIC MEANS, STANDARD DEVIATION, "T. VALVE" AND THE STATISTICAL INDICATION OF THE TWO GROUPS "EMPIRICAL CONTROL" IN THE TESTS OF FINAL PERFORMANCE

Channels	arithmetic Means	Standard Deviation	T. Valve	indication level
Empirical Group	61	4.06	5.3	function
Control Group	30	14.5		

At the end of the semester, the students who received the e-learning answered a questionnaire to decide whether to prefer concentrating on the e-learning or the normal method, used, in learning. (Three student) Most students agreed and mentioned that they prefer e-learning and distances learning to the normal method. As they save time and provide swift learning and make it easy for them to communicate with the teacher through the E-mail and researches.

This method provides the syllabus all the day long and all week's days (twenty-four hours a day and seven days a week, In addition to not attending to the real sittings.

TABLE II: THE ARITHMETIC MEANS, STANDARD DEVIATION , "T. VALVE" AND THE STATISTICAL INDICATION LEVEL IN THE SCORE OF THE TESTS OF THE SELECTED SET SYLLABUS ITEMS

Items of playing skills	Groups	Arithmetic Means	Standard deviation	De- T. Valve	Statistical indication
Correct sitting	Empirical	7.8	0.9	3.3	function
	Control	5.6	1.8		
Ex. No. (5) & (4) From Longo	Empirical	10.8	0.7	3.009	function
	Control	4.6	4.07		
Note No. (12) From Bartok	Empirical	10.2	1.16	4.2	function
	Control	6.2	4.11		
Note page No. (34) From Thompson	Empirical	8.6	1.01	3.3	function
	Control	4.2	2.4		
Music scale "C"	Empirical	10.4	1.2	5.2	function
	Control	5.2	2.9		
Ex. No. (55) From Beyer	Empirical	13.2	1.16	4.2	function
	Control	4.2	4.11		

From the previous information, mentioned, the researcher got the following findings:

- 1) playing skills on the piano have been improved by using "e-learning" as the score means, the e-learning group got were higher than those of the traditional group when measuring;
- 2) the dependent variables which produced the important effects for e-learning in the selected syllabus items were as follows;
- 3) most of the students practiced the e-learning in playing skills, preferred it to the traditional method, known in the other classes.

#### **4 Discussion**

The data showed that the e-learning method appeared to be more effective than the traditional method in lectures. These findings agreed with (Feldt R. Tomes, 1970) who found that the students that learn the theoretical musical bases by using the computer in these bases got with a significant degree scored higher than those who received learning by giving a lecture. The findings of the current study have been assured by means of several studies (Kadry, 1996; Morsy, 1998; El Masry, 2000) that examined the effects and the use of computer in improving the performance of practical harmony and achieving music analysis. In every case, the effect and achievement of harmony learning in music analysis has been increased with a significant degree. When students receive learning through on electric media. We can be concluded that the use of e-learning increases and improves learning in general and the growth of the educational process.

The e-learning creates a reactive educational environment through new electronic techniques and varying in information sources and experience. The e-learning encourages treatment process between the student and the teacher through exchanging of educational experiences, ideas, and objective discussions by getting help from different communicative channels such as chatting, e-mail and virtual classrooms.(Mahmoud,2014, pp.96).

The e-learning provides a syllabus for the student on a day's long for (7) seven days a week. Through the real experiment and students' participation in e-learning, they perceived that they learnt more and that their performance improved in the skills of playing the piano.

#### **5 Conclusion**

From the previous showing of this paper, it appears that the E-Learning method develop the knowledge, skills in musical study. That the use of multimedia enhances the educational process in the field of music it is absorbing and deepen the understanding of the theoretical foundations and audio for music and rules. In addition, the use of CD in the education of musical principles achieved the best results. And teaching music, drawing on e-learning has led to a great significance to the process of informa-



tion retrieval and performance of musical skills on the piano.

## References

- [1] Sh. H. Mahmoud, "Techniques and technology of education," *The Arabic group for Training & publishing. 1<sup>st</sup> edition. Cairo*, pp. 92, 2014.
- [2] Abdoul Latif Aly, "Introduction to Technology Education," *Nabil Foundation for printing and publishing, Cairo*, p 244.1993.
- [3] Hussein Taha & Khaled Omran, Self-learning, e-learning, collaborative methods, "educational contemporary vision", *Elelm and Aleman for publication and distribution First edition. Desouq, Kafr El-Sheikh. Egypt*, p 57-79, 2008
- [4] Mustafa Kadry, "The impact of computer use in improving the performance of harmony pragmatic," *Unpublished Master Thesis, Faculty of Specific Education, and Cairo University*, 1996.
- [5] Mustafa M. Morsy, "The impact of the use of computers in the collection of material musical analysis," *Unpublished PhD thesis, Faculty of Music Education, Helwan University, Cairo* 1998.
- [6] Ashraf M. Al-Masry, "Applied computer and its uses in the educational process" *Sixth Scientific Conference (Music in the Third Millennium) The first volume, Faculty of Music Education, Helwan University, Cairo* 2000.
- [7] Feldt. R. James, "Von Computer – Assisted instruction in the public school General music class a comparative study", *U. of Missouri, city, U.S.A.* 1972
- [8] A. Hoffman, James, "computer aided collaborative music, *Harvard educational review, Ohio*, 1991.
- [9] Alessandro Longo: "La Tecnica Pianistica", *Edition Curci, Milano*. Part (A) 1942.
- [10] Bela Bartok, "Mikrokosmos – piano solo," *Winthrop Rogers Edition*, vol. (1).
- [11] Ferdinand Beyer, "Preparatory school," *Peters Edition*, opus 101.
- [12] John Thompson, "Modern course for the piano, teaching little fingers to play," *Willis music co. Ohio, USA*.
- [13] Alesandro Longo, "Tecnica prepartoria," *Edizioni Curci, Milano, part (A)*. 1942.