

The Reality of E-Learning in the Reform of the Educational System in Algeria

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Abstract:

By the end of the 19th century, the world witnessed a sweeping technological revolution in information and communication technologies and scientific research, which made it necessary to open new horizons for improving and developing education and raising its quality. Algeria has been among the countries facing the problem of globalization, which brought with it many changes that hastened the reform of its educational system. The state has sought to spread the culture of technology and use its tools in the education sector, given its importance and in recognition of globalization's strategies and possession of its means and tools. Thus, Algeria adopted the technology of e-learning, aiming to eliminate the drawbacks of the traditional education model and to overcome the challenges and difficulties posed by that mode of education in an electronic environment, and to adopt a pattern of education that keeps pace with developments in other countries.

Keywords: Algeria, distance learning, education, educational technology, electronic learning

1. Introduction

The past years have witnessed a tremendous development of digital information technology in its various types and forms, and this growth is expected to increase significantly, making it difficult for those interested in education to keep up with it unless this development is responded to and adapted to in order to reform and develop education and achieve optimal investment. Technology in our time is considered the basis for building scientific knowledge that relies on modern techniques and methods for teaching. Using computers, satellites, the Internet, and satellite channels, to provide educational content through a unique combination of written and spoken language and audio-visual effects

With the development of information and communication technology and the world turning into a small village, various countries around the world have turned to using educational technology. Algeria is among the countries that rely on technology in light of the transformations through the educational system to create means of developing education, especially since Algeria has witnessed a leap in the level of construction of educational institutions, such that we find a university in every state. Algeria has provided huge capabilities to keep pace with modern technology for education in all its forms, including e-learning techniques, which have brought about a scientific revolution in Algerian educational institutions, with the aim of reforming the educational system in all its stages.

The Algerian state has worked to strengthen its endeavors and efforts in the field of e-learning, which is considered one of the most important features of the educational system in the future, to confront the challenges and obstacles posed by the applied educational process in the Algerian system.

Therefore, the problem that can be raised in this context:
To what extent has the role of e-learning developed in reforming the educational system in Algeria?

What are the pros and cons of e-learning?

2. The Conceptual Framework

2.1. The First Requirement: Definition of Education

2.1.1. Literally: Ibn Manzur defined: learning from the word (teach): I knew something, taught it knowledge: I knew it. He says he taught and jurisprudence, meaning he learned and understood, meaning he mastered the scholars and jurists, taught him knowledge and taught it to him, so he learned it. Sibawayh differentiated between them and said: I taught as I permitted, and I taught him something and he learned. (Ibn Manzur, 1981, p. 417)

2.1.2. Terminologically: Many scholars and thinkers have dealt with the concept of learning according to scientific trends and the fields in which they deal. Learning has been defined in different ways throughout the ages. We mention among them:

Education is an educational process represented in delivering the material (science) to the learner, who is the receiving element, which is the function that the teacher performs by virtue of being a source of receiving the material of knowledge. It is an integrated process between four elements: (science, the teacher, education, and the learner). (Dedouna, 2006, p. 45)

Learning is a crucial state of our being that results from the interaction between experience and practice, and the ways in which people learn is that they are empowered and empowered to acquire new knowledge and skills that lead them to a powerful, enjoyable state of learning. (Al-Rubaie, 1971, p. 10)

Learning is the process of acquiring methods that allow a person to satisfy his motivations or achieve his goals, and this always takes the form of solving problems. (Ahmed, D.S., p. 30)

Learning, according to Al-Ghazali, is returning the soul to its essence and bringing what is in its conscience into action, just as learning is inscribed in the soul. He believes that learning must have several conditions in the learning process and for a learner to emerge from strength to action, such as gradually in this process, taking into account individual differences, and following a simplified approach,

as well as maturity, motivation, training, and understanding. (El-Boukhari, 1991, pp. 42-49)

John Piaget interpreted learning as building information and accompanying growth, and it allows each individual, based on his activity, to acquire the conceptual (mental) tools that help to understand the environment in which he exists, it is achieved by a balance between the two interacting parties (the learner and the environment). According to its three mechanisms: assimilation, suitability, and balance. (Mohammad and Ali, D.S., pp. 19-20)

The concept of education is more general and comprehensive than the concept of learning and varies according to theories and models. Through the previous definitions, we see that education is not limited to school only, but rather it is a mandatory requirement in Islam and the basis of faith in God Almighty, which is considered one of the basic capabilities of the human being which is manifested and developed through the activities he undertakes to gain experiences that help liberate himself from the darkness of ignorance and to shape, modify or change his behavior. There is hardly any pattern of human behavior that is devoid of some kind of learning. Education is the process of transferring knowledge and skills to the learner in a specific way, which he learns as a result of linking new experience with previous experiences, when he faces a real problem or task during which he rebuilds his knowledge of social negotiation and creates an adaptation that is compatible with the cognitive pressures exerted on his experience.

Teaching is also an educational approach carried out by the teacher, which consists of understanding the nature of the formation of social trends, values and standards and how to modify, change or evaluate them. The teacher also explains the lesson and the students' attempts and asks immediate questions to evaluate achievement, taking into account the learner's mental abilities and perceptions, while facilitating and simplifying his learning and what he wants to learn in a way that is appropriate for him, to expand scientific skills through training and rehearsal on specific topics.

2.2. The Second Requirement: E-learning

The term e-learning has many definitions, and below are some of them:

E-learning is a broad term that includes a wide range of educational materials that can be provided through CD-ROMs, or through the local or global network. It includes computer-based education and training, network-based education and training, and it supports distance education, direct network education, and electronic private lessons. (Talal, 2012, p. 225)

E-learning is based on the philosophy of distance learning, which focuses on self-learning for learners to a high degree, using modern communication mechanisms such as computers, networks, and multiple means in order to deliver information to learners in the quickest time and at the lowest cost and in a way that enables the learning process to be managed and the learners' performance measured and evaluated. (Houdhayfah, 2018, p. 13)

E-learning is an innovative way to deliver accessible learning environments that are well-designed, interactive, and learner-centered, by taking advantage of the features and resources available in many digital technologies together with other types of learning materials appropriate for open and flexible learning environments. (El-Akil, 2021, p. 692)

E-learning is the interaction between the learner and the material to be learned with the least effort and the greatest possible benefit, through electronic networks suspended within the group, shared between universities, or on the Internet, with listening with flexibility in time and place. (Amer, 2015, p. 25)

By looking at the previous definitions, we find that they all share a comprehensive view of the concept of e-learning. Accordingly, e-learning is a radical transformation of traditional education into distance education, as it is an electronic educational system that employs communication technology and modern technological innovations, it is centered around self-education, and this system trains the learner anywhere and anytime, which is done through creating an interactive educational environment with modern

communication mechanisms such as computers, networks, and multimedia, including audio, images, graphics, activities, and educational programs. With the aim of achieving his goals through his interaction with their sources, achieving mastery of skills, and directing directions according to emerging needs, which leads to achieving the goals of the educational process at any time, place, and speed that suits his circumstances and abilities, in the quickest time, and at the lowest cost.

2.3. The Third Requirement: Defining the Reform of the Educational System:

The system is defined as an integrated and interconnected whole whose components interact to achieve the goals of the system and the objectives of learning and teaching, regardless of their type. They are linked to each other by a relationship of continuous influence and influence, and each part of it performs a specific and necessary function for the entire system. Each country produces it according to its educational policy and its commitment to the curricula adopted in application. Its reform process has goals that it hopes to achieve in reality in order to achieve quality in education. It is a strategy for change and development or modernization in the environment of the educational system that helps schools develop plans and programs that address weaknesses and support strengths. Reform also works to improve creativity and creativity. Reform stems from sound thought and a comprehensive and complete awareness of the individual's life and criticism of its conditions and conditions, then rebuilding anew so that goodness and prosperity prevail. Reform is defined as: "It is an intellectual or practical attempt to introduce improvements to the current situation of the educational system, whether related to the school structure, administrative organization, educational program, teaching methods, textbooks, etc." (Morsi, D.S., p. 8)

3. The second topic: The Role of E-learning to Reform the Educational System in Algeria

3.1. The Development of E-learning by Reforming the Educational System in Algeria

E-learning is a broad and comprehensive term in the field of technology that uses this technology to support, enhance and facilitate the educational process, it is a type of education used in educational institutions that provides the opportunity to study or learn for any person, regardless of his age or work, and the subject of e-learning is the best that has been achieved in the era of creativity and technology in our time. The use of e-learning in the educational process is not new, but dates back to years ago, as it is one of the latest educational methods and technology in the world.

The Algerian state, like the rest of the world, has been happy to develop the e-learning system, trying to overcome the challenges posed by this type of education in the electronic environment, and working to spread its culture, use its tools in the education sector, and provide more effective scientific capabilities and skills.

E-learning is the method that emerged as a result of the adoption of technologies in the fields of life, in which modern communication mechanisms are employed in addition to all means of communication. UNESCO has defined e-learning as the employment of educational activities and programs between a faculty member and the learner using communications technology and technological equipment with the aim of bringing about behavioral changes in the learner (El-Gharib, 2009, p. 53).

The use of e-learning technology by the island state is still in its infancy and is at a standstill. This may be due to the lack of awareness of the effectiveness of this type of education. Although it is lagging behind its counterparts in countries of the world, it is witnessing the launch of some initiatives in this field. It has undergone the experience of using this technology to contribute to raising the educational and qualification level of the individual. It is one of its priorities. According to researcher (Abbasi), the national e-learning project was launched at the university within the priorities and planning report for

the year 2007, which was prepared in September 2006. However, the absence of proper and serious planning and a unified information policy made the Al-Jaziri university adopt different educational platforms, despite the Ministry of Higher Education and Scientific Promotion purchasing the (E. Charlemagne) platform, the project was halted due to weak infrastructure, human resources, and even legislative resources, as Constantine universities alone contain a large number of platforms such as: Accolade, and E. Charlemagne (e.charlemagne) and Ganecha (Moodle). As for the platforms embodied in reality, they are represented by the (Ganesha) and (Moodle) platforms.

The University of Setif 2 in eastern Algeria also adopts e-learning via e-learning platforms (MOODEL). Which are considered grounds for remote training based on web technology, and they serve as arenas through which works and all courses and activities related to e-learning are presented and through which the learning process can be achieved.

Researcher Nasr Al-Din Gharaf also mentioned (Gharaf, 2011, p. 68). Algeria began this experience early by trying to experiment with the EEPAD Foundation. The experience of the National Center for Distance Vocational Education (CNEPD) is the first experience in the field of virtual education, which is still in place, and is supervised by the University of Continuing Education, which has created a virtual website through which it broadcasts complementary lessons to its students in some specializations.

As for this Algerian experience, it took place in several stages, starting from 03/12/2020, the time of the issuance of the President of the Republic's decision regarding the general plan, in order to prevent the spread of the epidemic (Corona virus) among students and teachers and from there to families and society. Thus, signs of e-learning began to appear little by little until it reached what it is today. (Majdoub and Bouchareb, 2021, p. 9). It contributes to reforming the educational system by enhancing the use of advanced technology and modernizing the infrastructure of educational institutions, in addition to qualifying educational personnel, integrating modern teaching

methods, and working on developing curricula and educational content to raise the quality of education, enhance innovation and creativity, and improve educational returns.

3.2. The Second Requirement: Types of E-learning

E-learning has several types, including:

3.2.1. Synchronous e-learning: It is considered direct education that requires communication and interaction at the same time. It is the most advanced type of e-learning, as the teacher meets with his students at a specific time through distance e-learning applications. It uses computers to conduct discussion and conversation or receive lessons through virtual classes (Delsey, 2013, p. 51). It is education in which the time of giving lectures coincides with the presence of the teacher and student in front of the computer screens, meaning that the meeting is direct so that both parties can discuss, dialogue, and ask questions (Bounjah, 2020, p. 90). One of its most important advantages is that it is possible to obtain direct feedback on the lesson, and this reduces the effort and cost required of it because it is not necessary to go to the place of study. However, its only drawback is that it requires modern electronic devices. (Arik, Belezaar, 2019, p. 251).

3.2.2. Asynchronous Electronic Learning: This type is characterized by the fact that there is no need for the student and the teacher to be present at the same moment. It is sufficient for the teacher to record the lecture and place it on the website, and the student enters and downloads the lecture. (Arik, Belezaar, 2019, p. 251). The student is provided with all the studies at any time that suits him personally and the number of times he needs to return to the study subjects. This is done by using e-mail or websites designated for discussion. (Khalaf, 2010, p. 69). Students respond later and the feedback process takes place through these means. This type also serves as a forum for free-flowing ideas and is more closely related to situations that require social cohesion. (Amer, 2018, p. 16)

3.2.3. Blended E-learning: It is the mixing of strategies and methods of synchronous and asynchronous education between the teacher and the learner to become one strategy. (Abu Musa, and Al-Sous, D.S., p.

6) It is also an educational approach that combines traditional face-to-face learning and Internet-based e-learning in one integrated educational environment. The advantages of both types of learning are taken advantage of, combining the best of traditional learning with the latest digital technologies to provide a rich and comprehensive learning experience for students. (Zarrout, Baghdadi, 2025, p. 691)

3.2.4. Distance Learning: It is a type of teaching in which the learning behavior is separate from the educational behavior, and which is conducted through postal services, radio, telefax, telephone, and newspaper, without direct contact between the teacher and the learner through specially prepared material sent to the individual learners, and the learning groups, and monitors the progress of the learners with criticism and correction. (Abou El-Nasr, p. 10). This type of education provides great flexibility for students and teachers, as they can access study materials and interact with each other from any time. (Agoun, 2024, p. 18)

3.3. The Third Requirement: pros and cons of E-learning.

3.3.1. Advantages: E-learning has achieved many positives and benefits for the learner, the teacher, and the entire world, and this is what was shown by: (Hawass, 2021, p. 894) and (Khalidi, 2008, p. 245), including:

- Increase the possibility of communication between students.
- Sense of equality.
- Not relying on actual attendance.
- Flexibility in time and place.
- Ease of developing online curricula.
- Low financial cost and quick access to information.

3.3.2. Disadvantages: Despite the positive advantages achieved by e-learning, there are negatives and obstacles that affect the learner, and this is what both (Ray, 2020, p. 189) and (El-Akil, 2021, p. 694) pointed out.

- Learners' lack of familiarity with the skills of using modern technologies.
- Difficulty in applying evaluation tools and methods.
- The high cost of designing and producing educational software.

-It needs diligent study and has a personal desire to learn because there is no face-to-face confrontation.

-Lack of quality in education.

-Lack of observational accuracy, especially for specializations that depend on the technical aspect and accuracy of observation.

Characteristics of e-learning: E-learning is characterized by a set of characteristics, which are as follows:

a. Interactivity: It is the interaction of both the student and several elements such as the teacher, colleagues, and the educational institution, through the synchronous communication tools that e-learning provides, such as video conferences, discussion groups, and chat rooms, or asynchronously, such as: e-mail, the student also interacts with the educational content through the freedom that the content provides to the student in choosing the parts he studies and the tests he presents, which works to achieve the pre-determined educational goals.

b. Diversity: It is a diversity in the presentation of educational contents, which helps stimulate the learner's mental abilities through many stimuli that address the student's different senses, so he can watch moving pictures or still pictures, and he can also deal with written and audio texts, music, sound effects, drawings, and sermon compositions in all their forms. (Kabli et al., 2012, p. 231)

c. Individuality: It matches the needs of each learner, meets his desires, and is consistent with his academic level, allowing progress in the program or learning according to the learner's ability to learn.

d. Integration: This means the integration of its components with each other in order to achieve specific educational goals. (Faraona, 2019, p. 22)

e. Flexibility: Through e-learning, the learner can work with a large group of teachers and other professors around the world. Rather, the student chooses the method that suits him in education, so he can learn from anywhere and using a variety of different methods that are more accurate and fair in evaluating the learners' performance.

f. Cost: Providing an online service, CDs, DVDs, etc., the learner has to go through the hassle of moving to a distant educational center, which means that he will save the cost of travel and gain more time. (Abougbin, 2012, p. 17)

(Ghanem, 2020, p. 1934) mentioned some characteristics available in e-learning, which are as follows:

-Ease of use and development of programs and curricula.

-E-learning suits individual differences among learners, as it enables them to choose applications that suit their interests.

-It faces the problems of crowding in classrooms and applies the idea of social conformity.

-Gain multiple experiences, and benefit from the vast information resources available on the Internet easily.

-Suitable for teaching and learning people with special needs without difficulty.

5. Conclusion:

Since independence until the present day, Algeria has witnessed several reforms, transformations and changes at various levels due to the pressures and challenges it was facing. The explosion of knowledge, the population explosion, the transportation and communications revolution, the technological revolution and the resulting rapid transfer of knowledge are all factors that put pressure on the educational institution for greater effectiveness, innovation and innovation. E-learning is considered a set of methods and means for developing scientific competence and the superior ability to apply the results reached by science.

The use of e-learning in the educational institution is considered a means of achieving other goals of education through developing educational curricula and making them keep pace with international developments.

By keeping pace with technological progress, it becomes clear that these factors do not mean that the educational system of any country should remain static, but rather that there must be permanent and continuous reform, change, and development of the educational system. This is to rehabilitate the teaching profession and make it at

the forefront of the professions, and work to improve schooling conditions and develop work methods while adjusting the pace of daily and weekly academic work according to scientific and technical study.

Educational technology plays a major role in improving the quality of education and bringing it to the degree of mastery, as well as in reducing the costs of education without affecting its quality. It seeks to develop various physiological, cognitive, emotional, and linguistic aspects, all of this will be a basic encouraging base for research centers and organizing and reforming the education structure and educational system to build educational programs and employ global technology related to the pedagogical and educational field.

Several results were reached, which can be summarized in the following points:

- It can be said that e-learning is a new field in the field of education in the Arab world and Algeria in particular, which would lead to outcomes more compatible with the requirements of development in our country.
- The importance of e-learning in education and teaching, by achieving the necessary awareness for all members of society with the help of various media.
- Strengthening the digital infrastructure
- Contributing to the development of Algerian curricula that are compatible with e-learning technology.
- Encouraging academic research and field studies on e-learning, especially with regard to its impact on academic achievement, interaction and engagement in learning.

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