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## Mixed Education and Quality Standard in the University Teaching: A Theoretical Study

Mohammad Omar AL-Momani\*, Elham Mahmoud Rababa

Educational Sciences Department, Ajloun University College, Al-Balqa Applied University, Jordan

\*Correspondence: E-mail: [m.o.e.m@bau.edu.jo](mailto:m.o.e.m@bau.edu.jo)

### ABSTRACTS

This study seeks to achieve the following objectives: (i) Introducing e-learning and blended learning, (ii) Introduction to university education, (iii) The study focused on the concept of total quality in education and standards and quality assurance requirements for blended learning, (iv) The study focused on highlighting the criteria for the success of blended learning and its benefits, (v) The study identified obstacles to the application of blended learning, (vi) Preparing a proposed design for the blended learning program. We adopt the descriptive-analytical method in collecting opinions, information, facts, and concepts related to the axes of the study, to build an integrated knowledge system, and to benefit from it in presenting what is referred to about the aspects related to the concept of blended learning, its application, quality assurance, success criteria, and benefits in the educational process. We hope that this study can give information for Mixed Education and Quality Standard in the University Teaching.

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## 1. INTRODUCTION

Educators are constantly looking for the best ways and techniques to provide an interactive learning environment that attracts students' interest in exchanging opinions and experiences. With the advent of the Internet and the use of modern information and communication technology, the development of distance learning is called e-learning, which focuses on introducing advanced technology into the educational process and transforming traditional classes into virtual classes. The traditional classes and the replacement of the default classes.

With the passage of time, research, studies and scientific experiments revealed to us many shortcomings in e-learning, such as the material cost, the unwillingness to deal with devices, the absence of the human teacher and the educational guide...etc. Also, many researchers have proven that e-learning is no better than traditional learning.

Blended education can be described as "a learning program in which more than one means is used to transfer (delivery) knowledge and experience to the target audience to achieve the best possible in terms of learning outcomes and the cost of implementing the program," as others defined it as "a type of modern education that integrates the trainer between traditional education and e-learning." Also, "blended learning means mixing the roles of the traditional teacher in the traditional classroom with the virtual classroom and the electronic teacher, that is, learning that combines traditional learning and e-learning."

The importance of blended education does not lie in just mixing different modes of transportation, but rather in focusing on the outcomes of education and the work sector. Therefore, this definition can be reformulated as follows:

Blended learning focuses on the best achievement of learning objectives, through the use of the "correct" teaching techniques to match the "correct" personal learning styles to impart the "correct" skills to the "right" person at the "right" time.

It appeared that the obstacles facing the ways of applying blended learning in teaching-centered between the high financial cost of the inputs of this type of learning, the low level of culture, experience, and skill of some teachers and students in dealing seriously with information and communication technology and educational technology, and the absence of integrated educational plans that guarantee progress in Huda science and technology.

The study emphasizes the importance of reconsidering the inputs of the teaching process and the procedures for its implementation to assimilate the concepts of the knowledge and electronic revolution, and societal mobilization, to achieve the requirements of the current stage, and to follow the path of modernity, development, and change.

### 1.1. Problems

All countries are aware of the importance of education in general and university education in particular, as it is the main pillar for developing society, increasing national income, and pushing it towards the corridors of progress and prosperity. No nation can reach the stage of prosperity and progress without science and technology, and attention to quality and innovation plays a role in this regard. Notable in rehabilitating and accelerating the pace of human development for the advancement of various sectors of society (Shelbourne & Nitz, 2008).

The great role played by the university revolves around a group of issues, topped by university teaching, scientific research, knowledge production and employment, training and continuing education, holding educational conferences, courses and workshops, community service, and local and international cooperation. The success of university teaching is linked to many elements, some of which are related to the university's academic and scientific

structure and system, and others are related to the general education system as a whole. University teaching, because the requirements of the current stage, with all its technical, information, information, and electronic implications, and its economic and political transformations, but all those in charge of university teaching, especially teachers, in front of questions and hypotheses, necessitating them to get out of the cycle of routine and tradition, and enter the world of communications, information and e-learning technology, and to think seriously about How to take advantage of these innovations, design, integrate and employ them with the existing regular teaching methods, within the framework of the active and free participation of both the student and the teacher, without paying attention to the temporal and spatial circumstances, to reach the service distinguished education that meets the requirements of the educational situation, and strengthens the principle of partnership between e-learning and traditional education, not alienating them, to advance university teaching towards more renewal and development, and to achieve high-quality educational outcomes that serve the individual and society.

Other problems include the information revolution and its accompanying steady doubling in the techniques of generating, processing, and storing information, and the emergence of the Internet available to all countries and individuals, which enabled learners to access easily, quickly, and at any time to that information, as well as the emergence of multimedia and the consequent employment of its elements in the transfer of information and presenting that information in different learning programs (Beauchamp *et al.*, 2005).

## 1.2. The Importance of Studying

Modern educational trends emphasize the need to find the best methods and most effective means concerned with providing an appropriate interactive learning environment to attract students' interest, urge them to learn, exchange opinions, and dialogue. Thus, they are not only a recipient of information but also a positive participant, an experienced maker, and a searcher of information and knowledge by all possible means. Using a set of scientific procedures, such as observation, understanding, analysis, synthesis, measurement, data reading, and conclusion, under the supervision of a teacher, his guidance, and evaluation. The process of integrating information technologies represented by the computer and the Internet, and their attachments of programs and multimedia in the teaching process, is one of the most successful means to create such rich environments that are rich in resources for learning, education, training, growth, and the following development, to achieve the needs and interests of students, enhance their motivation on one hand, serve the educational process, and advance. On the other hand, we should consider its outputs.

Hence, the interest is considered in introducing blended learning into educational systems because it is a form of e-learning, and a unique learning style that complements the education process, calling for the integration of modern technical means and their interaction with the usual educational methods, to provide a new type of education, commensurate with the characteristics and needs of learners and their courses, at the lowest costs, and in a way that enables the management, control, and measurement of the educational process and the evaluation of students' performance.

The roots of blended learning go back to the beginnings of the old educational systems, where it took many forms, and its names varied... from blended learning to blended learning, or hybrid learning, to composed learning or component learning, and finally blended or blended learning. However, with the development of communications systems, information networks, the Internet, and computers, and the accompanying focus on knowledge and how to discover it and transfer it through the available means, in light of the amazing development

the world is witnessing, which has exceeded the limits of expectations, and exceeded distances, especially in the field of e-learning, it began to appear in the circles (educational names such as virtual education, virtual classes, virtual libraries, online or network learning, digital learning, knowledge economy, electronic teacher, mobile learning...etc). The difference in these names should not be a cause for confusion in the teaching process, but rather an appropriate opportunity to benefit from these innovations to the extent that is in the interest of education (Knight, 2004).

This study reflects the importance of talking about blended learning standards and ensuring its quality in university teaching, as it includes a set of rules and procedures that affect educational objectives, teaching methods and activities, academic content, e-learning technology, infrastructure, material capabilities, and the role of both the student and teacher. within the framework of an attractive interactive educational environment, working to establish and integrate modern technologies into the prevailing teaching patterns, to provide everything new in blended teaching, to achieve educational goals, meet students' needs, serve the community, and catching up with development and scientific progress, at a time The products of the human mind, knowledge, and technology, are accelerating. Given the importance of this, universities must constantly work to develop their performance, programs, curricula, and implementation strategies, and link them to the requirements of the labor market, in an era when quality has become the main test for its outputs.

This interest is crystallized by assimilating the concepts of the cognitive and technological revolution fraught with positives and negatives, and presenting them to university students in blended and effective teaching methods and methods, capable of criticism, veto, and analysis, in the light of modern theories and the philosophy of society, and the development of the student's personality from all its intellectual, social and skill aspects. The relationship between the university and the community is an integrative one, because the university leads the community as a repository of thought, science, research, development, and training, and follows the community as one of its institutions operating in its ideological, educational, economic, and social fabric (Mehta, 2011).

### 1.3. Objectives of The Study

This study seeks to achieve the following objectives:

- (i) Introducing e-learning and blended learning.
- (ii) Introduction to university education.
- (iii) The study focused on the concept of total quality in education and standards and quality assurance requirements for blended learning.
- (iv) The study focused on highlighting the criteria for the success of blended learning and its benefits.
- (v) The study identified obstacles to the application of blended learning.
- (vi) Preparing a proposed design for the blended learning program.

### 1.4. Study Questions

The study will answer the following questions:

- (i) What are blended learning and its concept?
- (ii) What is the overall quality of education?
- (iii) What are the standards and quality assurance requirements for blended learning?
- (iv) What are the criteria for the success of blended learning and its benefits?
- (v) What are the obstacles to applying blended learning?
- (vi) How to design the blended learning program (lessons)?

## **2. METHODS**

### **2.1. Procedure**

We adopt the descriptive-analytical method in collecting opinions, information, facts, and concepts related to the axes of the study, to build an integrated knowledge system, in which the problem of the study, its background, importance, and objectives are clarified, by referring to many studies, researches and articles, and reviewing some global experiences in the field of e-learning and blended learning. , to benefit from it in presenting what is referred to about the aspects related to the concept of blended learning, its application, quality assurance, success criteria, and benefits in the educational process.

### **2.2. Quality and Procedural Tariffs**

Quality is the total of the characteristics and attributes of the product, whether physical or human, or the continuous service provided by the institution to satisfy the overt and implicit needs of the beneficiaries, and to meet their desires, aspirations, and expectations with a high degree of efficiency and certain satisfaction.2000): It is “a set of characteristics or features that express the extent to which the inputs, processes, and outputs in the educational institution meet specific levels that collectively constitute the comprehensive quality standards”. We used two types of quality:

- (i) Quality standards: are those specifications and characteristics that should be available in the blended learning inputs (the learner, the teacher, the course, the university administration, the teaching outcomes, the community, the financial and material capabilities .... etc).
- (ii) Quality Assurance: It means full commitment and seriousness to work, continuity of giving, providing confidence, and preventing deviations and errors, to maintain quality, good performance, and perfection at all times.

### **2.3. The use of E-Learning**

An educational method that uses modern, multiple, and diverse means of communication and computer technologies, within the framework of a free interactive process between the parties to the educational process, not governed by time and place, to achieve specific goals that serve the individual and society quickly and at a low cost.

Blended learning: It is one of the forms of e-learning, which combines in its style the use of information and communication technology and other traditional teaching methods so that these methods integrate and interact with students and teachers individually or collectively, to serve the educational goals, and to achieve the interests of the students, without abandoning the educational reality. In the classroom.

An integrated system that integrates the traditional method of face-to-face learning with e-learning via the Internet to guide and assist the learner as one of the modern approaches based on the use of educational technology in designing new educational situations.

### **2.4. University Teaching**

An organized human planning process, not a mechanical or random process, with its various variables, and the measures it adopts as the main focus is the learner’s needs and goals and the exploitation of his environment and capabilities, to reach the optimal and finest level of learning.

## 2.5. Study Plan

The study plan revolves around the following main themes:

- (i) The first axis: The concept of e-learning, blended learning, and university teaching.
- (ii) The second axis: Comprehensive quality in education and standards and quality assurance requirements for blended learning.
- (iii) The third axis: Blended learning models and their success factors, advantages, and obstacles.
- (iv) Fourth Axis: How to design the blended learning program.

## 3. RESULTS AND DISCUSSION

### 3.1. The First Axis: E-Learning, Blended Learning, and University Teaching

#### 3.1.1. E-Learning

Method of education using modern communication mechanisms such as computers, networks, and multimedia, such as sound, image, graphics, search mechanisms, electronic libraries, as well as Internet portals, whether remotely or in the classroom. Less effort and greater benefit.

Some teachers believe that their use of the personal computer, or data show in the classroom, or entering the computer lab, sitting in front of the computer and using the Internet...etc. has brought about the entire e-learning, and others believe that e-learning is achieved by distributing computers and multimedia to universities, schools, and offices. And the belief tends to be that the main field of e-learning is the smart and electronic minds that imbue the language with the color of scientific and technical development. On the other hand, this type of education has become very popular recently, and its definitions have increased, and conferences and research have not been free from talking about it, and the various media outlets have covered large areas for it, to discuss it and learn about its objectives and role in the educational process, but the reality is far away. Far from this and that, e-learning is an integrated educational system (inputs - processes - outputs) that includes:

- (i) Physical components: These include infrastructure, computers, and a high-speed Internet network.
- (ii) Software components: They include:
  - Learning Management Systems, which is an internet-based program that provides management and follow-up to the learner in terms of entry and exit, granting him powers and organizing content, and performs the following operations: registration for learners' data, scheduling for courses, and the learning plan, delivery i.e. making content available to the learner, tests and assessment, and communications i.e. communication Between learners via e-mail and other means of communication, tracking and follow-up of learner performance and issuing reports accordingly.
  - Content management systems. It is affiliated with Learning Management Systems, which is a developed system that controls the academic content, and it may be open or closed.
- (iii) Human resources: It includes the system administrator, the educational designer, and specialists in graphics of all kinds, programming, quality control, and support and support technicians.
- (iv) Legislation and systems: they include assessment methods, student attendance, copyright, citation, the privacy of individuals and information, academic accreditation, and recognition of the certificate (Abdul Majid, 2009).

In light of that, the concept of e-learning has transcended the use of machines and educational tools and traditional and random methods, as it is more like a complete revolution based on the shoulders of the revolution of computer technology, software, and communications.

This method confirms the integrative view of the e-learning system and its reciprocal connection with other systems, to reach the desired goals that guarantee the high quality of education and improve its outputs, in line with the requirements of development plans and the labor market, and the needs of students and the aspirations of the members of society, and the developments of the times, and catch up with civilization and global cultures.

### **3.1.2. Universities' Preparations for The Application of E-Learning**

Some universities have gone to great lengths to secure these preparations by taking some strategies the most important of which are the following:

- (i) Adopting a philosophy that depends on combining e-learning, the traditional model of education at one time, and gradually the percentage of traditional study decreases with the progress of the learner in his educational years.
- (ii) Cooperation with universities and foreign countries to benefit from their expertise in the field through, including (a) Approving its programs and certificates and participating in supervising its students, (b) Providing international programs alongside Arab programs, with the Arab student enjoying the advantages and rights of the student registered at the university participating in the program, (c) The assistance of foreign experts in the design and preparation of electronic courses according to approved quality standards, and (d) Inviting experts to participate in conferences and workshops held in Arab universities.
- (iii) Seeking to create an educational environment suitable for the needs and requirements of e-learning, and the most prominent features of this environment are (a) Preparing and designing programs based on multimedia, (b) Broadcasting lessons prepared for e-learning through more than one technical means, (c) Online and on-the-ground technical support for all beneficiary groups, (d) Exerting efforts to spread digital culture in general, distance education and e-learning in particular, and (e) Preparing electronic libraries that include many references, various documents, and electronic research.

### **3.1.3. Blended Learning**

Blended learning: It is one of the types or levels of e-learning, which is "learning through which various means of communication are used, including direct delivery, self-learning and communication via the Internet. In the classroom".

It has different names that carry the same meaning in educational circles. It has its style and method of teaching. It has been applied in some studies. Several definitions of this type of learning have been common, reflecting the researchers' view and their interest in e-learning patterns. Among these definitions, by way of illustration, are not limited to the following:

- (i) It is the restructuring and formulation of educational content based on learning theories and integrating it with various modern electronic media, which provides the learner with an active interactive environment through content management programs, as it transfers it from the traditional classroom to a broader class that is not specified in time or place.
- (ii) Employing technological innovations and integrating them with objectives, content, learning resources and activities, and methods of communicating information through the two methods of face-to-face learning, to create an interaction between the faculty member being a teacher and a guide for students.

- (iii) An educational and learning system that takes advantage of all available technical capabilities and media, by combining more than one method and tool for learning, whether electronic or traditional, to provide a good type of learning commensurate with the characteristics and needs of learners on the one hand, and the nature of the course and educational goals on the other hand.
- (iv) It is the use of modern technology in education without abandoning the usual educational reality and attendance in the classroom, where the focus is on direct interaction between students and the teacher through the use of modern communication mechanisms such as computers and internet portals.

One of the learning modes in which e-learning merges with traditional classroom learning in one framework, in which computers, Internet, and communication networks are employed, and in which the teacher meets the student face to face most of the time.

- (i) Learning combines traditional learning and e-learning in several different ways to obtain productivity at the lowest cost.
- (ii) Education that uses an effective set of multiple presentation methods, teaching methods, and teaching styles that facilitate the learning process, and is based on a combination of traditional methods in which students meet face to face with e-learning methods.
- (iii) An integrated system that aims to assist the learner during each stage of learning and is based on integrating traditional learning and e-learning in different forms in the classroom (Khamis, 2003).
- (iv) It is learning that combines connected models through the Internet and the intranet, and non-connected models that occur in traditional classes (Harveys, 2003).

All definitions focused on the fact that blended learning is the use of modern means of communication, such as computers, multimedia, and Internet portals in the classroom. Thus, teaching methods are integrated, and students and teachers interact together, using electronic materials, whether individually or collectively. Without abandoning the usual educational reality and students' attendance, and away from the restrictions of time and place, and at the lowest possible cost, in a way that enables the management and control of the educational process, and the measurement and evaluation of students' performance.

The study presents a definition of blended learning, which indicates that it is an out-of-the-ordinary teaching method that combines originality and contemporary methods through the use of modern educational techniques and integrating them with the usual traditional methods to create a rich, purposeful, interactive learning environment that is not governed by time and place, that meets the needs of students and enhances their learning. The position of the teacher is to raise the quality and quality of education and improve its outputs.

The use of the integrated learning method in education is not a modern phenomenon, but rather an issue with historical roots linked to the development of man throughout history. To take advantage of its data to enhance the sensory perceptions of individuals and satisfy their needs. Despite the introduction of this call, blended learning did not enter the world of education as modern technology and its systematic and intended use, except in the first half of the last century, when a limited number of Western schools, institutes, and universities, especially in the United States of America, began using and integrating some audio-visual teaching aids. in the educational process. However, the actual recognition of the importance of means in education, and the necessity of integrating them into education did not crystallize until after the Second World War, when it became a major part of the education system in general.



Perhaps the most supportive voices for blended learning are those that call for education without restrictions and limits, respect for the learner's personality, experiences, abilities and positive role, freedom and culture, support for specialized education styles and strategies, consolidation of the concept of lifelong education, keeping pace with scientific development and technical progress, and focusing on knowledge. Instead of transferring it and ways of discovering it, producing it and employing it in educational situations, and the necessity of using technological, information, and communication media, and emphasizing the importance of linking and partnership between the public and private sectors, to provide the necessary financial, material and technical support for this education. Dealing with technology does not cancel out the active and organized role of the teacher in the educational process. Without it, no appropriate material or educational media is selected and selected. Without his knowledge, directions, instructions, and activities, there is no effective and effective education. Its implementation and ways of evaluating it. Education is viewed as an organized process through which all the participating elements can be activated to develop the creative and innovative aspects of students.

It should be noted here that the process of merging or mixing different educational methods is not carried out in a random or moody manner, but in an organized and homogeneous scientific method, governed by several criteria, related to the requirements of the educational situation. Which made some educators call blended learning analogies, such as the integrated meal, or successful musical instrumentation, and prefer it to e-learning, including:

- (i) E-learning focuses on the cognitive and skill aspects without paying attention to the emotional aspect.
- (ii) E-learning sometimes develops students' introversion and isolation because they are not in a real educational situation in which the actual and interactive confrontation between teachers and students takes place.
- (iii) E-learning focuses on using the senses of hearing and sight more than others.
- (iv) E-learning faces some difficulties in applying assessment methods.
- (v) E-learning needs a certain quality of teachers.
- (vi) E-learning sometimes lacks social affinity and human relations between the teacher and the learner.
- (vii) Many students still prefer the traditional way of attending lectures.

#### **3.1.4. University Teaching**

The university is that educational institution, philosophical in origin, developmental in aim, rehabilitative in style, can understand and respond to the interrelationships between different systems and all groups in society, determine its options and adjust its paths, is supervised and managed by humans, intellectual and academic energies to provide strategic services to restore the balance between needs And the goals, within the state's policy aimed at developing youth and directing them towards the right path.

The university is seen as an academic scientific community, an educational intellectual forum, and a center for human civilizational radiation, and its name has been associated throughout history with the yearning for progress and incitement to thinking, expression, creativity, and innovation as far as knowledge communication is achieved between peoples. It serves as an educational laboratory for the production of theories and theoretical and applied research. Interesting practical experiences.

The university's mission does not stop at the borders of education and training only but also extends to include support for the requirements of growth, belonging, construction, development, modernization, and development. Resposo states that the university represents a scientific field concerned with the search for truth and that its functions are teaching, training, continuing education, community service, increasing its social balance of qualified and trained technical cadres, developing its human energies, consolidating their moral values, satisfying their desires and abilities and enhancing their scientific and national personalities. It also plays a large and important role in leading the transformation process, preparing young people towards spaces of freedom and creativity, scientific thinking, organized movement, the ethics of organized teamwork, respect for democracy, transparency and human rights, and how to manage dialogue and participate in decision-making in the future.

Given the vital role that university teaching plays in development, change, and development, and because it is the long way to achieve further progress and qualitative development in all cultural, social, and economic fields, its importance increases in:

- (i) Spreading the culture of quality, creativity, excellence, and knowledge, and applying their philosophy, tools, and implementation mechanisms in teaching.
- (ii) Integrating existing teaching methods with teaching methods charged with modern technologies and e-learning technology to address the largest possible number of variables of the teaching process in terms of clarity, importance, and complementarity.
- (iii) Taking into account the characteristics of students and their learning styles.
- (iv) Methods of addressing students, their communication channels, and their interaction with educational situations and current events
- (v) Continuous training to develop the skills and capabilities of faculty members.
- (vi) Adjusting classroom procedures.
- (vii) Dynamism and flexibility in teaching.
- (viii) Respect and manage time as required.
- (ix) Various methods of measurement and evaluation reinforcement.
- (x) Feedback and follow-up strategies.

### **3.2. The Second Axis: Total Quality in Education and Standards and Quality Assurance Requirements for Blended Learning.**

#### **3.2.1. Total Quality in Education**

Under this framework, a set of definitions and clarifications reflect the concept of quality, linguistically and idiomatically. Quality is a language. It means generosity, goodness, generosity, kindness, beauty, and generosity, and idiomatically it is defined as Any institution or organization providing a service characterized by a high level of proficiency and quality to meet the needs and desires of people in a way that is consistent with their expectations about the level of this service, thus achieving their satisfaction and pleasure.

Quality in this study: it is the quality, good performance, and workmanship, which is the total sum of the characteristics and characteristics of the product, whether it is material or human, or the continuous service provided by the institution to satisfy the overt and implicit needs of the beneficiaries, and meet their desires, aspirations, and expectations with a high degree of efficiency and assured satisfaction. The factors responsible for the quality of education do not stop at the boundaries of the teacher but include the learner, the family, the school, the university, and the community.

Thus, any difference in views on the concept of total quality in education, but they all focused on:

- (i) It is the strategic planning and continuous monitoring of student achievement, human resources management, human relations within the educational institution, decision-making, and quality outputs that meet the needs of the beneficiaries.
- (ii) A comprehensive philosophy of life and work in educational institutions that aims at continuous improvement of learning and teaching processes and the development of educational outcomes based on teamwork to ensure the achievement of comprehensive quality standards.
- (iii) That the educational system provides continuous and distinguished service to satisfy the beneficiaries, including teachers, students, parents and all sectors of society.
- (iv) It is a set of characteristics and features that accurately and comprehensively express the essence of the education process and its condition in all its dimensions of inputs, processes, outputs, near and far, and feedback that interact with each other to achieve the desired and appropriate goals for the community of beneficiaries.

Al-Khatib (xxx) believes that quality in education reflects two meanings: realistic and sensory, the real meaning is the educational institution's commitment to achieving real, recognized standards and indicators, such as promotion rates, quantitative internal efficiency, and the cost of education., 2003. Quality also has two dimensions: procedural and personal, both of which are important in providing high-quality service. The procedural dimension consists of specific systems and procedures for providing the service, while the human aspect of the service is how employees deal with their behavior and verbal skills with the beneficiaries.

Quality is not a specific goal that is achieved and then forgotten. Rather, it is a continuous organized process that aims to improve the final product, through controlling and improving all working conditions in the institution. It is pointed out here that increasing attention to quality does not mean making educational institutions commercial or industrial establishments that seek to double their profits by improving their products. educational product.

The objectives of quality are:

- (i) Continuously improving the quality of outputs (products).
- (ii) Create an environment to support and maintain continuous development.
- (iii) Reduce wastage of effort and time.
- (iv) Involve everyone in the development process.
- (v) Develop performance and quality measurement tools.
- (vi) Increasing the adequacy of workers.

Therefore, the quality of blended learning is a strategic choice, imposed by the nature of the educational movement based on science, knowledge, development, scientific research, and the requirements of the times. Legal legislation and the regulatory environment that guarantees this type of education are all the ingredients for success. Since both teacher and learner are the intellectual capital, and the two poles of the educational process are one of its inputs, they needed to have a conscious culture, sufficient conviction, and adequate knowledge of the application and practice of technology in education, arguing that change and development is a modern and future national demand, and not my timely perfection.

### **3.2.2. Blended Learning System (Requirements)**

One of the most important things on which the success of blended learning is built is reassurance about the standards and quality of its requirements, which makes it feasible, applicable, and evaluated, in light of the availability of an educated, supportive, trained, and qualified human infrastructure, and a broad and broad community base in the field of

computer and Internet use. It also requires a dynamic electronic university community that includes teachers, lecturers, learners, technicians, courses, laboratories, guidance and counseling, training and education, and can absorb technology, research, thinking, induction and design, and an effective electronic link system.

Blended learning is complementary to the existing regular educational methods, and building its system requires a set of procedures, namely:

- (i) Setting goals.
- (ii) Teaching methods, methods, and accompanying activities.
- (iii) Content analysis.
- (iv) Infrastructure.
- (v) Technical requirements.
- (vi) Human requirements.
- (vii) Financial and material support.
- (viii) Community mobilization.
- (ix) Partnership and linkage between the public and private sectors.

### **3.2.3. Dimensions of Blended Learning**

The original use of the term blended learning was often associated with simply linking traditional classroom instruction to e-learning activities. However, the term has evolved to include a richer set of learning strategies, and a blended learning program may combine one or more of the following dimensions:

- (i) Integrating direct and indirect education.
- (ii) Integrating self-paced learning and cooperative learning.
- (iii) Integrating formal and non-formal education.
- (iv) Merging custom content with ready-made content.

### **3.2.4. Blended Learning Requirements Quality Standards**

They are those specifications and characteristics that should be available in the educational system's inputs, which are in the following.

#### **3.2.4.1. Quality of Objectives**

The formulation of clear and reasonable logical objectives, commensurate with the teaching methods, the syllabus, and the needs of students, capable of implementation, performance, application, measurement, and evaluation at the appropriate time and place.

#### **3.2.4.2. Quality of Teaching Methods and Methods**

Choosing various and purposeful teaching methods and methods equipped with technical and electronic means and accompanying activities, appropriate to implement academic content, achieve teaching goals, meet students' desires, and devote the principle of learning through action, participation, interaction, dialogue, and problem-solving, and develop students' spirit of innovation, creativity, renewal, and learning continuously.

#### **3.2.4.3. Quality of Content (The Course)**

The course is the beating heart of the study plan, because it is interactive, and contains the objectives, knowledge, and techniques that students study, to enrich their knowledge and skills in the required manner, so the quality of the course is one of the most important factors related to the quality of university teaching and there are many requirements Which must be available in the course for blended learning, and they are:

- (i) Dividing the academic content into graded and logical units that are easy to understand and collect on the one hand, and serve individual education on the other.
- (ii) That each lesson contains an integrated detailed explanation, exercises, questions, and simulations, according to the needs of the students, and allows the students' performance to be evaluated continuously.
- (iii) That each lesson contains additional and external sources of knowledge and is complementary to the needs of students.
- (iv) The content should cover the same content as the traditional course.
- (v) The content should be compatible with the teacher's strategies and all learning methods.
- (vi) The content includes interactive activities appropriate to learning methods such as remembering, understanding, analyzing, synthesizing, criticizing, and evaluating.
- (vii) The possibility of investing content for all technical data and according to what is available.
- (viii) Usability and reuse.
- (ix) Its ability to reach students and achieve what is required of them to what is required.
- (x) Modifiability of the course (dynamism and flexibility).

#### **3.2.4.4. Infrastructure Quality**

It includes spatial, physical, and climatic conditions, capacity, speed, and carrying capacity of the means of communication and available alternatives.

#### **3.2.4.5. Quality Technical Requirements**

They require:

- (i) Providing a sufficient number of modern computer equipment equipped with data show and connected to the Internet.
- (ii) Providing an electronic course for each subject.
- (iii) E-learning management system.
- (iv) Academic Content Management System.
- (v) Electronic evaluation programs.
- (vi) Websites that can be contacted and negotiated with.
- (vii) Guidance and guidance by teachers.
- (viii) Virtual and traditional classes.
- (ix) E-mail, messages, and electronic simulation.
- (x) Weekly meetings between students and subject mentors.
- (xi) Partnership and linkage between the public and private sectors.

#### **3.2.4.6. Quality Human Requirements**

There are several requirements. The first requirement is that the teacher must have:

- (i) The desire to move from traditional education to e-learning.
- (ii) Desire to enter the virtual classes.
- (iii) The ability to combine traditional and electronic teaching.
- (iv) Definite desire to enter e-learning and e-management.
- (v) The ability to deal with the Internet to update its information and develop its decisions.
- (vi) The ability to traditionally train students to deal with computers and their technologies.
- (vii) Ability to deal with course design programs.
- (viii) Ability to design computer tests.
- (ix) The ability to deal with e-mail and exchange messages with students.

- (x) The ability to motivate learners and create a spirit of participation and interaction in the classroom.
- (xi) Full understanding of the characteristics, needs, and requirements of students at all levels.
- (xii) Monitor the performance of each student individually.
- (xiii) Apply the principle of individualization of education to help students learn according to their abilities.
- (xiv) Understand the objective of blended learning.

The second requirement is that the learner is the focus of attention for various learning conditions, and to carry out this task, the learner must:

- (i) To have a real desire for blended teaching and learning.
- (ii) Learner independence means commitment and perseverance to achieve success for e-learning.
- (iii) The ability to participate in the learning process to be interactive and not receptive.
- (iv) The ability to train and deal with e-mail.
- (v) Perception, full awareness, and mature thinking.
- (vi) The ability to dialogue, debate, constructive criticism, and decision-making.
- (vii) Respecting, managing, and maintaining time.
- (viii) Pay attention to their desires, abilities, and interests.
- (ix) To have mature cognitive abilities.
- (x) their preferred learning styles.
- (xi) Enemies and how to reach them.
- (xii) Practice using electronic communication patterns.

The third requirement is that computer laboratory technicians who possess sufficient knowledge and skills that qualify them to carry out their technical, technical, guidance, and training roles towards students, according to the requirements of the educational situation and provide all assistance, advice, and assistance for the success of the teaching process.

- (i) The quality of financial capabilities: money is the real artery of life, and a major driver of its wheel, and without it, hopes, slogans, and plans remain in the drawers, because of its direct impact on the support and development of economic, social, and educational life. Something is to provide an actual financial budget, scheduled and governed by a timetable, that covers all aspects of financial expenses, expenses, and operational costs, to ensure the correct functioning of the e-learning system. Where studies indicate the average cost of an e-learning course. reached between 200 and 400 USD per person.
- (ii) The quality of community mobilization: The university community is the fertile framework that encapsulates the educational process with its system and philosophy, starting from the learner to the teacher, lecturer, lecture, laboratory, library, guidance, and direction. Therefore, this human structure should have a degree of desire, knowledge, culture, and skill in the field of dealing with computers and their technologies, through an interactive environment that is purposeful and supportive of individuals' trends towards the assimilation of technology, communication, exchange of experiences and collaborative work, to enhance the blended learning system, and access to the era of e-learning.
- (iii) The quality of the partnership and the linkage between the public and private sectors: In light of the widespread of communication networks and the Internet, and the acquisition by private companies of a large part of them financially, administratively, and technically. In light of the successes achieved by this sector, and the quality of the services it provides, in return for the high financial cost of this technology and its attachments on the one

hand, and the inability of some government institutions and their inability to provide electronic services, on the other hand, the need seems necessary and urgent for the establishment of partnership and the automatic connection of communication networks and the Internet between the two sectors Public and private, through organized legislative protocols, offers and agreements, characterized by the provision of all high-quality written, written, audio-visual electronic services.

### 3.2.5. Quality Assurance

It means a commitment to work, continuity in giving, providing trust and preventing deviations or mistakes, to maintain quality, good performance, and perfection at all times, and to ensure that it is necessary to:

- (i) Follow the transparent and diversified control methods for quality programs from all employees, students, and teachers at the university.
- (ii) Emphasizing that quality, workmanship, and good performance are a modern job requirement, and a national duty, required by the requirements of the current stage.
- (iii) Develop the spirit of teamwork and cooperation to benefit all employees of the institution.
- (iv) Consolidating the concepts of total quality under the slogan "There is no substitute for the right one."
- (v) Achieving qualitative progress in the teaching process by activating all the regulations in force at the university without exception.
- (vi) Maintaining the level of performance of teachers, technicians, and students at the university through continuous field follow-ups, and giving the necessary directions in a spirit of responsibility whenever the need arises.
- (vii) Taking all measures and measures that enhance and raise the level of quality and reduce the occurrence of errors in teaching.
- (viii) Solve teaching problems in the field and by scientific methods, propose appropriate solutions, and follow up on their implementation.
- (ix) Opening channels of communication and communication with the official authorities, and cooperating with companies concerned with the system to update and develop its programs.
- (x) Applying the principle of decentralization and flexibility in making all decisions, which will allow the opportunity to participate for all employees of the institution, each according to his specialization and place of work.
- (xi) Profitability and accountability for everyone who works in the teaching process.
- (xii) Honesty and credibility in providing and obtaining educational services.
- (xiii) Teaching has value and strives to excel and exceed expectations.
- (xiv) Stability and continuity in providing educational service regardless of circumstances and capabilities.

### 3.3. The Third Axis: Blended Learning Models and Their Success Factors, Advantages, And Obstacles

#### 3.3.1. Blended Learning Models

Male valiant (Valetan) that the blended learning has three models, according to what was stated in the study (Al-Ghamdi), which are:

- (i) Skill development model: It combines self-learning and the teacher who plays the role of supporting and developing knowledge.
- (ii) Situation development model: It is a method in which various events and means of presenting them are mixed to develop certain behaviors.

- (iii) Competency development model: This method combines performance and supporting tools with the management of knowledge sources, guidance, and experts, to develop competencies to acquire and transfer knowledge.

And (Salem) that the mixing process takes place in several dimensions:

- (i) Blending networked learning with non-network learning.
- (ii) Self-paced learning with co-op.
- (iii) Special pre-made content as needed and ready-made content.
- (iv) Learning by doing.

Driscoll noted (Driscoll) mentioned in (Abu Musa) indicates that blended learning has four meanings:

- (i) Learning by blending computer technologies with traditional educational methods.
- (ii) Learning by blending teaching methods based on behavioral, constructivist, or cognitive theories with traditional methods.
- (iii) Learning by blending audio-visual teaching aids and devices with traditional methods.
- (iv) Learning by doing.

### 3.3.2. Blended Learning Success Factors

The program begins with a plenary session that brings together teachers and students face to face, in which the objectives of the program, its plan, how to implement it, the strategies used, and the role of each of them in the success of blended learning are explained, through:

- (i) Effective meaningful communication and guidance between the parties to the educational process.
- (ii) The learner's independence in learning according to his abilities and capabilities.
- (iii) Encouraging creative and creative work.
- (iv) Focusing on knowledge and how to discover it and use it in educational situations.
- (v) Collaborative work in the form of a team.
- (vi) Continuous and flexible options.
- (vii) Involve students in choosing the appropriate course.
- (viii) Repetition because it allows students to receive the same message from different sources and in multiple forms.
- (ix) The measurability of its outputs and ensuring their effectiveness.
- (x) Suitable and appropriate for this type of learning for large numbers of students.
- (xi) The availability of the infrastructure that supports its application using educational technology.
- (xii) Its outputs are described as raising the level of education.
- (xiii) Think... Call... Learn.

### 3.3.3. Blended Learning Features

Studies and research unanimously agree that blended learning has many advantages, which can be summarized, as follows:

- (i) It provides targeted communication and communication mechanisms, enhances social and participatory relations, and increases interaction between the parties to the educational process (teacher, student, course, trainer and technician).
- (ii) Low costs and financial expenses compared to e-learning.
- (iii) Connect goals to results.
- (iv) Adequate flexibility in providing all needs, requirements of individuals and learning opportunities for learners of all levels.



- (v) Increases the possibility of access and obtaining information between sites and people beyond the limits of time and place.
- (vi) Develop concepts of team and cooperative work.
- (vii) Speed... Freedom... Flexibility in learning and shortness in time and place.
- (viii) Maintains the permanence of the original bond between the student and the teacher.
- (ix) The learner feels that learning is taking place outside the four walls of the classroom.
- (x) It focuses on the various cognitive, skill and emotional aspects without affecting the other.
- (xi) Combining the advantages of e-learning and the advantages of traditional learning, not alienating them.
- (xii) Enriching human knowledge and employing it using methods of understanding, analysis and synthesis, and raising the quality of the teaching process, product quality, and teacher efficiency.
- (xiii) Some courses are difficult to teach electronically, especially some of the high and precise skills.
- (xiv) Communication and civilized interaction between different cultures to keep abreast of all new.
- (xv) Optimal use of educational technology in the field of design, implementation and application in blended learning.
- (xvi) Focusing on learner independence and increasing his motivation and experience.
- (xvii) Optimum use of physical and virtual resources.
- (xviii) Reinforcement of traditional teaching methods with modern technical means.
- (xix) It works on the integration of formative and final evaluation systems for students and teachers.

### **3.3.4. Obstacles to Blended Learning**

Despite all that has been said and written about e-learning and blended learning, its advantages and benefits, some human, material and procedural obstacles emerge from time to time, which impede, from near or far, the ways of applying blended learning:

- (i) The low level of experience and skill of some students and teachers in dealing seriously with computer equipment and its attachments.
- (ii) The high costs of computer equipment and its attachments may sometimes stand in the way of their acquisition by some students, teachers, and other parties.
- (iii) The low level of actual participation of specialists in curricula, education and teaching in the manufacture of integrated electronic courses.
- (iv) The difference in the efficiency and capacity of computer devices, and the speed of their development from one generation to another, hinders the pursuit of keeping pace with them sometimes.
- (v) The multiplicity of networks, their capacity and speed, and companies and their communications sometimes hinder the provision of the best service to the individual.
- (vi) The low level of effectiveness of the monitoring, evaluation, correction, attendance and absence system among students.
- (vii) Feedback and incentives and compensatory incentives may not be available sometimes.
- (viii) Some school levels, especially primary, and some curricula and courses, especially those that need practical skills, may not be useful in using e-learning.
- (ix) There are still some customs, traditions and concepts that incite the use of technology.
- (x) The low level of culture of some teachers and students in dealing seriously with educational technology.

- (xi) Focusing on the cognitive and skill aspects of the students more than the emotional aspects.

### **3.4. Fourth Axis: How to Design the Blended Learning Program (Lessons)**

Based on the foregoing, the process of mixing different educational methods is not carried out in a random or moody manner, but rather in an organized and homogeneous scientific manner, governed by several criteria and controls, related to the requirements of the educational situation. Therefore, initiating the design of a blended learning program requires the following:

- (i) Determining the type of blended learning program, is it transformative and innovative, that is, the existing program will be converted into a program mixed with electronic technological means and tools, with the aim of developing, improving, upgrading and raising the level of its performance. Or will there be a blended tutorial ready from the start that will be used.
- (ii) Determining the methods and types of mixing and how to do so, and this depends on the following questions:
  - What is the best educational way to implement content learning well?
  - What is the best way to guide student learning?
  - What is the best way to provide institutional requirements, procedures, and constraints in blended learning?

Therefore, the designer of lessons based on blended learning must implement blended learning based on:

- (i) Analyzing the content into graded units that include facts, concepts, generalizations, principles and additional sources, to facilitate their understanding, explanation, analysis, synthesis, criticism and evaluation.
- (ii) Determine the manner and manner in which each content item will be implemented.
- (iii) Determining students' needs and identifying their interests and individual differences between them.
- (iv) Organizing the requirements and restrictions for organizing the work environment (attendance records, attendance, absence and lecture times).
- (v) Determining the time and place conditions necessary for the program.

## **4. CONCLUSION**

And the basic question that everyone faces is how to pursue this astonishing explosion in human knowledge and its technological applications, and how will individuals be prepared for the future? The only solution is to focus on education, whatever its level, the quality of its curricula and methods, and finding ways to solve its problems, and since human being is the inexhaustible renewable natural wealth, and it is one of the main inputs, axis and outputs of the educational process, it was necessary to focus efforts towards improving its quality, the improvement of its performance and the upgrading of its culture away from the manifestations of imitation and alienation, given that its outputs are the development of human resources in its various scientific, cultural, economic and social aspects. And university education tomorrow constitutes the locomotive of development led by education makers, including thinkers and innovators, who assume the leading role in directing and directing growth and progress. Traditional educational methods and patterns are no longer able to meet the developments of the current stage, and it has become necessary to integrate modern technical and electronic methods into teaching, with the participation of all parties to the educational process, within comprehensive and purposeful programs, characterized by

qualitative performance and high quality, that reflect the future visions of education. Not everyone who has studied can be taught, because teaching is a science, an art and a profession, which can only be improved by someone who has acquired and trained in its rules and strategies, and whose personality has the elements of a successful teacher, who is able to carry out this noble humanitarian mission, adapt and control the data of technology and the information and communication revolution, under the circumstances. The appropriate time and place, to activate the process of collective and individual dialogue, and educational communication, leading to specialized educational outputs of high quality, capable of dealing with the vocabulary of the times and adapting to the present and future variables, represented by the knowledge, technical and electronic revolution.

With the presence of this scientific progress and the explosion of knowledge, and its current and future effects, especially in the educational fields, and in light of what was stated in the study literature, the researchers recommend the following:

- (i) Reconsidering university programs and curricula and their implementation strategies, to assimilate the concepts of the electronic and technological revolution, integrate them with high-quality teaching methods, and present them to students in a way that fulfills the requirements of creativity and innovation, and meets the needs of individuals and society.
- (ii) E-learning is a dear requirement for all educational circles, but the high costs, the large number of requirements and the complexity of its procedures, prevent the possibility of its full application in the educational process, which opens the way for the application of one of its types such as blended learning, distance learning or open learning....
- (iii) Emphasizing the importance of blended learning and its ability in the educational process, as it combines more than one method of teaching, and fulfills the requirements of the educational situation.
- (iv) Improving teaching methods is a strategic choice, imposed by the nature of the requirements of the educational situation, which aims to achieve goals and objectives together and link them to results.
- (v) Emphasizing the importance of using educational technology in teaching along with information technology.
- (vi) Good teaching at a good time from a good teacher gives a good product.
- (vii) Access to the era of communications and the electronics revolution requires societal mobilization and infrastructure, to accommodate all concepts related to that.
- (viii) Consolidating the concept of a culture of change and development in society and convincing individuals that this change and development is a modern national demand and not a temporary perfection.

## 5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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