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Chapter

The Role of Modern Technologies in Improving the Quality of Education

Abbood Abbas Abbood, Ansam Qassim Gadhban and Mayyadah Hasan Rhaif AL-Sahlanee

Abstract

The past era between 2019 and 2022 witnessed a development in technologies as a result of the use of scientific platforms and the creation of virtual interactive lectures, as universities began to develop scientific platforms as well as conduct virtual workshops and seminars, and once the matter of coexistence with the virus became necessary, a term called blended education appeared, which is a mixture of between the environment of e-learning and the environment of in-person education, and this form of education is considered one of the arts that universities resort to in completing the education process. As it became possible to attend the lecture from anywhere, this is a good thing that creates more freedom in the possibility of attending the interactive lesson or watching the recorded lecture later. Also, the teacher can take the test for his students in a way that does not require his attendance. Blended education is a method of self-education, as the student can access educational resources without the need to go to the university, so it is necessary to pay attention to developing modern technologies, improving the Internet service, and harnessing it for the benefit of the educational process to the fullest.

Keywords: education, traditional education, E-learning, blended learning, modern technologies

1. Introduction

The years of the third millennium are witnessing a vast knowledge and technological revolution characterized by rapid development through many local, regional, and global changes, and contributed to defining the features and characteristics of the education field. These changes forced educational institutions to respond and push them to adopt modern methods and strategies, and to be able to face and keep pace with these changes, with the intention of providing the best in this field. At the same time, education in the era of the knowledge revolution faces various challenges because of the enormous achievements in the field of information and communication technology, which made the world a small village in light of globalization and scientific and economic openness, and this in turn reflects in the development of education, which does not stop because there are convictions that the real renaissance in
any country can only come with a real education renaissance. Quality education leads to a worthwhile investment and a great renaissance, so governments began to think about changing educational systems and shifting to e-learning blended learning as the main and only source of information e-learning, in which the role of the teaching is a supervisor, guide, facilitator, assistant, and complement to education, employed by modern teaching strategies that rely on the Internet. The era of the Internet is the focus in the development of school curricula and decisions, and this new assignment represents the primary role teaching must play. Thus, studying blended learning and identifying its methods, components, and foundations based on them, and how to design educational situations for it have become an important and necessary matter for the teaching to be qualified to deal with it. Academic achievement is also one of the important aspects of the mental activity conducted by the student, which has a clear impact on academic excellence. Proceeding from these data, it is necessary for those concerned to give this subject sufficient attention by identifying the needs of students in adapting to their personal requirements and in accordance with the needs of society [1–3].

Various forms and patterns of e-learning have emerged, including blended learning, which has become the focus of attention for many universities. Blended education focuses on providing learning in an interactive, flexible, and a variety of interesting ways and helps to create suitable learning environments for students. Blended learning is based on the integration of learning experiences in a classroom face-to-face lesson and learning experiences through networks and the Internet; thus, it allows active independent learning, develops personal relationships, and encourages students to exchange ideas, information, and experiences. However, blended education has shown its importance in meeting the educational needs of institutions, where the combination of traditional classrooms and e-learning for web-based training or synchronous and asynchronous presentation via the Internet leads to improving the quality of education and increasing expertise and experiences [1, 3].

Modern learning has many advantages as follows:

- Increasing the effectiveness of education: Blended education helps to increase the effectiveness of education through improving education outcomes.

- Diversity of means of knowledge it employs various education and cognitive means for the learner to choose from them what suits his/her abilities and skills: It helps students to acquire more knowledge and raise the quality of the educational process.

- Achieving active learning for students: It depends on enriching the activities and focusing on the role of the active interactive learner through integrating individual and cooperative activities and projects instead of the learner receiving information.

- Achieving interaction during education helps enable students to have the opportunity to deal with teaching and their colleagues face-to-face through electronic and traditional means of interaction, which helps to strengthen human and social relations and attitudes of learners during education.

- Teaching flexibility provides flexibility to the individual needs and learning styles of students at all levels.
• Mastering practical skills helps in providing scientific topics and skills that are difficult to teach completely electronically, especially practical skills.

• Providing practice and training in the educational environment gives the possibility of training in the study environment, practical training and actual practice of skills, and appropriate reinforcement for performance to achieve educational goals.

• Achieving satisfaction with education students can communicate with Internet programs to consolidate information, increase achievement, and follow up on actual training, which will increase the effectiveness of the teaching process and increase student satisfaction toward learning.

• The credibility of evaluation achieves a great deal of credibility in the education assessment system, and blended education needs modern learning and teaching strategies. Among these strategies, the learner-centered learning strategy is one of the strategies that help accelerate learning and discover knowledge faster, student-centered teaching strategies.

Considering the developments of the current era, and in response to the huge changes in the requirements of the labor market, which reflect in the teaching processes and strategies in higher education, it has become necessary to move from traditional teaching methods to methods that suit students’ minds and conscience and meet their needs while achieving efficiency and effectiveness in performance and achieving targeted learning outcomes, which aims in general to move from teaching students about knowledge to training them to search for it and transforming the student for a future of information into a product. This process takes place considering the momentous change in students’ thinking methods and the multiplicity of their learning styles and their exposure to multiple stimuli that distract their attention. The most prominent one is modern communication technology devices and applications. It has become necessary to search for teaching strategies that help to arouse the attention of students to enable them to participate in the teaching situation and immerse them in thinking about what they learn, which results in the assimilation of information and its use in solving problems [1].

The education based on the traditional role of teaching being a carrier of information and knowledge is no longer appropriate for the era of teaching innovations that require the participation and communication of the learner interactively and positively in obtaining information from its various sources to develop. Using skills in modern educational means and techniques is represented by the emergence of e-learning, digital curriculum, distance learning, smart classrooms, and others. The preparation of the teaching considering this technical development in education is one of the most important challenges facing the institutions of his preparation, in terms of developing his preparation programs in the faculties. To enable him to use the latest contemporary technological means and to perform his roles entrusted to him that require his knowledge of the learning skills represented in the use of tools Electronic Communication. Several studies have emphasized the need to train student-teaching on the skills of using technical means in education and developing interaction and electronic communication skills before and during service using (the Internet and its applications—electronic courses, various applied programs—searching in educational websites—using e-learning management systems). The
mechanisms of its use in education create and provide an interactive learning environment in the study. If these skills and competencies are among the most important requirements for the teaching in general to perform his roles and tasks, then the teaching and educational technology specialist has them as one of the necessary skills that he must master, because it is at the core of his work, as he is the reference in this field and the missing thing is not given to him, especially since there are studies and researches indicating the lack of these skills among learners in general. The emergence of modern educational strategies based on combining the advantages of e-learning and the advantages of traditional education under the name of blended education with the aim of achieving an elevated level of communication and electronic communication between information sources and students is explained. The blended learning patterns are as follows: integration of e-learning and traditional education with a combination of self-learning and cooperative learning programs. Integration of synchronous e-learning programs and asynchronous e-learning programs is the most used type one that links e-learning with traditional education. There are many models for this common type of blended education that combines e-learning and traditional education, but despite this multiplicity, the difference in starting one before the other or synchronizing between them has not been accurately determined so far, especially since one of these models may be negative for the results of some students. Sometimes the opposite happens, and what does not affect the collection aspect becomes effective in the performance aspect, which calls for the need to conduct such a study [4, 5].

2. Traditional education concepts (in-person education concepts)

Traditional education is an active style of learning. Students learn quickly in the classroom. One-to-one interaction with teaching and students helps them to actively learn the given lessons. This is the most prominent advantage of traditional education. Active student and teaching participation students actively participate in classroom activities. They help other students study relevant lessons. They ask questions from teaching if they have any misunderstandings in the study. Active participation is necessary to gain a clear understanding of the theories discussed in the classroom. There is effective communication between teaching and students. This is very necessary to increase the level of confidence of the students. Effective communication makes students well connected and teaching also feels efficient after getting feedback from students. Regular leisure activities make the students better and get some relief from the stress of studying. They enjoy these fun activities. These activities are useful in addition to studies. The best part about traditional education is that it is scheduled and implemented correctly and regularly. Timetable and duration of lectures or classes are all scheduled. This helps in the quality of education and makes students disciplined and civilized.

Students engage with different people during their study experience. One of the benefits of studying at an on-campus university is creating meaningful relationships that are likely to last for years. The entire study or college experience relates to the need to be part of the many individual and group projects that require you to connect with your peers. Various activities that take place in university, schools, gatherings to study for exams, and sharing study notes are some of the ways in which personal relationships can be maintained. While keeping these relationships on campus is quite easy, doing it online will be problematic. If a student is considering a particular major such as nursing, agriculture, biology, music, medical, theater, or others, then online
classes cannot be beneficial in these areas. But some impractical online classes can be easy to take, and studies cannot be done in labs, clinical practice, or without a traditional class. The university officials organize courses in this traditional way so that all students can attend. Attending classes means joining the class on time. In this way, the students will learn their own routine, which will inevitably make the students disciplined and committed, because they practice punctuality throughout their years and acquire habits for all their lives. There are some university experiences that you will not get anywhere else. Field trips, university activities, and various clubs, of which you can be a part, are just some for those experiences. From each of these activities, you will receive life lessons that will be useful in the future.

Overall, interacting with teaching and colleagues online will not take more effort, although communication through emails and social media may make communication easier for both parties and save time and effort than visits or interviews.

Not all majors are available while one can study many different subjects online, some of them cannot be modified according to the format across the course. All those majors that require firsthand training or the use of any equipment fall into this category. To study these specific majors, you may have to attend their classes on campus. Therefore, it will be a restricted time and obligated to go and return at a certain time, which is against the nature of some people. More Responsibility Leads to Constraint: Flexibility is what makes online learning unique and convenient for students. However, this flexibility can be more comfortable, and while attending classes is on your own schedule, it is your responsibility to organize everything else in between and manage your time, constraint, and inability to engage in other activities.

Attendance or traditional education is education based on giving education lessons in the present with the participation of the teaching and the learner, and it is the pattern used and the method used in education in all countries of the world for many centuries. Due to the rapid spread of the Corona pandemic around the world, many countries have taken precautionary and preventive measures to limit its repercussions, including closing educational and university institutions, and replacing education with education through electronic platforms and various social media.

The process of teaching online in emergency situations is a temporary means necessitated by the circumstances to transform the educational process from the traditional system to an e-learning system using technology and employing it in teaching students during crises. Of quality and does not consider the educational foundations of presentation, reporting, empowerment, communication, and evaluation.

There is no doubt that in-person education is the most appropriate and useful method of education for acquiring knowledge, strengthening the knowledge supply, and developing capabilities through direct communication and instantaneous interaction between the teaching and students in a single temporal and spatial framework. The face-to-face meeting of the teaching with his students in the classroom at the university is a direct means of communication in transferring information and knowledge from teaching to the learner, and testing and evaluating them formally and morally, where teaching can meet, discuss, ask, and evaluate, and thus can evaluate and guide them in a better way.

The transformation process for remote e-teaching, while it contributes to finding alternatives to teaching and learning in the time of the pandemic, will not be in any way a permanent alternative and a suitable and successful option, as there is no inevitable attendance of education in its traditional, customary form, with the use of modern technology and platforms. It supports and supports in-person education, as it enhances the learning process within the traditional classroom.
3. E-learning concepts

The use of computers in the field of education is still in its infancy, but it is growing every day and has started to take numerous forms, from the use of computers in education to the use of the Internet in education, and finally, the notion of e-learning has emerged, which depends on technology [2]. E-learning programs are becoming more important because of their capacity to address the issue of the knowledge explosion, which is brought on by the enormous amount of intellectual output in the various scientific and human fields and the inability of traditional education programs to comprehensively encompass the objective aspects of various disciplines, due to the difficulty of Modernization and inf. This attempts to emphasize the idea of e-learning and the motivations behind our focus on it, as well as to highlight the barriers that stand in the way of the development or use of this area of education [3].

E-learning Definition Modern educational methods and tools have emerged because of technological advancements, which rely on the application of technological innovations to improve educational effectiveness and efficiency. Examples include the use of computers and their accessories, electronic displays, satellite channels, satellites, the Internet, and electronic libraries to make learning accessible to everyone, for those who want it, and in a location that works for them [6].

E-learning can be defined as a method of delivering educational content with fixed and moving visual elements as well as audio and visual effects. E-learning has several definitions, including that it is an interactive system for distance education.
that is provided to the learner on demand and is based on an integrated electronic
digital environment aimed at educating people over distance, and this definition reflects the specifics of e-learning that affect educational communication processes, course development, teaching strategies, and assessment, as well as any related to them. It also includes organizing exams, providing guidance and direction, managing, or evaluating resources and processes. The elements have contributed and continue to contribute to the adoption and spread of this system in numerous nations worldwide [7, 8].

An additional definition of e-learning was given as “the use of technology and technological means in education and harnessing them to learn the student individually and collectively and making it the focus of the lecture, starting with the techniques used for presentation inside the classroom from multimedia and electronic devices and ending with deviating from the physical components of education: such as the smart school and virtual classes that are during which the interaction between the members of the educational process via the Internet and interactive video technologies” [9, 10].

E-learning takes place in three different environments, namely direct network learning, blended network learning, and supportive network learning. The scope of the educational process is through a range of means, including computers, the Internet, and electronic programs prepared either by specialists in the field of education Ministry or by companies. It is one of the educational means that rely on electronic means, to make knowledge available to those who spread outside the classroom, and it is one of the forms of distance study, and it is also a method of education using modern communication mechanisms, computers, networks, and multimedia, to deliver information to the recipient as soon as possible and at the lowest cost [8, 11].

After the emergence of e-learning and the spread of its various applications and the acceleration of its growth and development day by day, and the attempts of specialists and those interested to find a comprehensive definition of the concept of e-learning, each of them formulated a definition of this concept from a different angle, which made an agreement on a unified definition of e-learning exceedingly difficult. Several definitions of e-learning have been presented, some of which are overlapping, and others are not overlapping [8, 12].

Through closed electronic networks within the group, shared between universities, or on the Internet, e-learning enables the learner to interact with the material to be learned with the least amount of effort and the greatest amount of benefit, while also enjoying the feature of flexibility in time and place. Although it has been identified with contemporary communication technologies embodied in electronic computers and networks, the notion of e-learning extends to cover many communication technologies that rely on electronic components in their creation, such as radio, video, and television [13].

Even if it is 24 E-Learning and Virtual Education Describing it by means of electronic communication, in addition to the fact that the concept is also linked to computers and networks together, which makes us refer to the initial use of computers in education, which was represented in two directions.

• The first trend: is to use the computer to help in education.

• The second trend: is computer-based education, whereby the computer and its programs are the other party in the education process as a substitute for teaching [14].
E-learning can be defined as an interactive system for distance education that is provided to the learner according to demand and depends on an integrated digital electronic environment aimed at building courses and delivering them through electronic networks, guidance, and direction, organizing exams, managing, or evaluating resources and processes. E-learning is one of the most important technological applications in the field of education and its methods so it can be said that it represents the new model that works to change the complete form of traditional education in the educational institution to be concerned with global cooperative education, continuing education, continuing training, and training of professionals in all the education and scientific fields [15].

Due to its many benefits and advantages, including its ability to help with the knowledge explosion problem and the growing demand for education, as well as its ability to help with lecture overcrowding when used in a distance education method, as well as its ability to increase opportunities for admission to education, e-learning has spread so quickly that some have predicted that it will be the best and most widely used method for education and training in the near future [16, 17]. E-learning works to raise students’ achievement in various subjects, by providing many exercises in which the learner interacts with educational software and the presence of feedback [4].

For educational purposes, this great rush to use technology led to the emergence of modern trends in the education field, most notably the study of the impact of e-learning on the teaching and learning processes. Digital technology has contributed to changing the features of the educational system with its various elements. For example, digital information technology has contributed to changing the role of the faculty member and the teaching from a mere transmitter of information to playing the role of facilitator, explainer, guide, trainer, evaluator, and constructive leader [16]. Digital technology has also contributed to changing the role of the learner from just a recipient of knowledge to the role of the investigator, researcher, and discoverer. The adoption of e-learning in most universities as a supportive educational method has become urgent, as was mentioned in the report, which was titled “The Pursuit of the Goal” of online education in the United States and others, which concluded that the demand for e-learning has doubled during the last 5 years students and faculty members agreed that this may come through the capabilities provided by e-learning and distance education that meet their needs and remove the obstacles that may be caused by traditional forms of education such as distance, lack of time, transportation costs, conflicts of appointments, childcare, or others.

E-learning has two types: synchronous e-learning and asynchronous e-learning:

Synchronous e-learning refers to live online lessons, synchronous online lessons, or virtual lessons in the classroom. Synchronous e-learning is used in online conference systems, webinars, or other such applications such as Zoom, Free Conference call, Meet, WebEx.

Asynchronous e-learning is a self-paced step where students access lesson materials on a computer, or on the Internet, at the appropriate speed for students and then choose what they want to learn and set a learning history with students. Asynchronous e-learning software includes lecture content, videos, pre-recorded visual or text elements, and other interactive elements such as Classroom, Edmodo, Moodle, YouTube, Telegram, WhatsApp, Viber [18].

Figure 2 shows that the quality of e-learning in previous years was low and quality indicators increased in conjunction with the Corona pandemic, and the return of these indicators decreases somewhat after the pandemic.
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Figure 3 refers to electronic communication platforms, where we note the most used platforms are Google Classroom for asynchronous e-learning. As for the most used platform in synchronous interactive lectures, it is the Zoom platform, and the educational platform least used is the Edmodo platform.

4. The difference between traditional education and E-learning

Urban or traditional learning relies on the presence of learners or students daily or at predetermined periods during the grade as a venue to absorb science, whereas
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e-learning aims to deliver education through the methods of communication. The instructional material in traditional education is frequently printed in writing, while e-learning offers educational material in the form of books, documents, electronic papers, websites, and diverse electronic sources as auditory or visible. E-learning relies on synchronous and asynchronous learning because traditional classrooms in urban settings cannot accommodate students who happen to be in class at the same time as the teacher and vice versa [19, 20]. Costs of distance learning are frequently lower than those of traditional learning. The teacher’s position in this education was distinct from that of the corporation and the only information source, as well as from that of the supervisor’s purpose, and the student’s prompt aids in overcoming all barriers and challenges that stand in the way of the arrival of the scientific article. Along with its many other sources of information, including the Internet, this education also relies on self-learning, which encourages more productive involvement of student. More adaptability makes it easier to update and change training or instructional materials offering both the same education and the options for admittance to children who compete for scarce places in urban schools. Additionally, it aids in the quick detection of outcomes and errors and the immediate assessment of pupils’ skill levels. Without having to abandon their jobs or roles, learners can learn, train, and qualify. It has the flexibility to ask the teachers the questions he wants whenever and wherever he wants [17, 20].

Due to the close relationships and the educational setting, these young people overcome their shyness and introversion and approach the lecturers with questions. They participate in answering questions with their classmates and offer their responses, which are then reviewed as to whether they are correct or incorrect. This unique interaction as well as the many ways people express themselves—from words to actions, signs, and feelings—makes presence education crucial. It allows the teacher to deliver to the class any messages he chooses that are simple for the students to understand and retain [21].

E-learning is thus a contemporary revolution in teaching methods. In this pattern of education, educational lessons are exhibited for students through the Internet in the form of educational images and files, and other ways. The nature of e-learning depends on how information and instructional materials are delivered electronically or by default. The use of electronic media enables communication, information gathering, skill acquisition, and engagement between the learner and the school as well as between the teacher and the university. This pattern can be referred to as a default education and readiness because it does not require learning to take place in a classroom or other venue for instruction [9].

5. Blended learning concepts

One method of modern education is the combination of traditional education and e-learning in a learning environment. Online learning, traditional classroom instruction, and solitary study are all combined to create blended learning, which is effective. Its popularity has increased in the recent years because of the remarkable expansion of online learning as well as other causes. Some people could view blended learning as a compromise or as an alternative to online learning. Improving the learner experience is unquestionably a wonderful method to use the blended learning model. Blended learning has benefits and drawbacks in terms of both staff training and student education.
By viewing the curriculum online, students can access the resources without limitations and in accordance with the timetable, which makes blended learning more convenient. By incorporating technology into classroom instruction, teachers are free to reach more students through blended learning, which gives each student the opportunity to receive individualized instruction that suits their specific requirements [4, 5].

Blended education aims to develop the cognitive and performance aspect of students, and to achieve democracy in education, in addition to supporting students with modern technological tools that raise their creativity, and in blended learning nomenclature there may be many names for blended education, which fall under one goal, which is distance education, and among these names are the following:

- Blended learning.
- Mixed learning.
- Hybrid learning.
- Blended learning history

Blended education has been known for about a hundred and twenty years, specifically at the beginning of the year 1900 to 1910. During these 10 years, the use of mass media and communication aimed at educational education began, and these means were represented in holograms, films, slides, graph tables, and others. Many other means [22].

Blended learning is traditional education in the presence of the teacher and the learner together face to face, with indirect education, which is through communication only through the Internet. Self-education is also mixed with direct traditional education, as there is no authority over the learner except himself. The process of integrating education is also known as planned and unplanned education, which is web-based education. It also mixes customized education, that is, prepared according to the student’s need, with the provision of ready-made contents, which are closer to the educational specialization. Education is also mixed with practice, if it contains many scientific exercises in addition to the basic teaching foundations known, from direct education [23].

The built-in approach is based on the integration of learning face to face and learning online. This means that the student has his lessons from the teacher directly and has some at home. This makes a learning environment with modern developments and does not lose the features of direct interaction between the teacher and student, particularly in practical colleges such as medicine, agriculture, and others. This also provides pupils in the basic educational stages an opportunity to collect academic in the case of their absence from the school for disease, travel, or epidemics. Here, we must point out that distance learning materials may be complementary to learning in the classroom. But it may not be available in the lesson hours in the classroom. The article in the school, which tells the era of ancient state in the Pharaonic Egypt, is complemented with a documentary and graphics for the construction of pyramids. This makes history here is not an article, but an interactive material that students interact with the viewing article. This requires qualitative change in learning environment in schools and universities to suit the limited capacities provided by this pattern of learning. The learner here is active generating ideas and obtaining knowledge in an
individual and collective way. Distance learning is an opportunity over the Internet to think all students and data from home. The course allows for the semester for discussions and applied activities, which raises the knowledge capabilities of learners. Of the data of this type of education: The participation of ideas over the course of serious discussions about the lesson develops the ability of mind to generate ideas. This requires exercises on ways of thinking and devising solutions and obtains new generations other than those who are used to education in the Arab world to provide them with a mention and conservation only without realizing the mind. This is also a sense of responsibility since the teacher will not be a source of information as much as it will be evidence of building ideas. This is pushing new generations toward sailing in the knowledge space and gaining self-learning capabilities. Create concepts: The creation of a structure or identifier of any topic in mind is the best knowledge exercise for learners, and this helps build maps of concepts, from here to build maps of concepts through unlimited digital learning tools, such as images and graphics. This makes a fun learning process and helps the student on indulgence, particularly if he is asked to implement an explanation for his material according to his understanding. Creative presentations: This type of creative capacity education undertakes any students who have opportunities to build stories and short videos and guidance, about education. This is what develops students’ expression skills and helps them make their ideas in the field of work after graduating. Cooperative Education Strategy: Individual competitions in education in the Arab world have generally been disaster in creating individual trends through competition in the classroom, while cooperative learning strategies have proven effective in developing a student’s responsibility, and gaining collective action skills, and logical and analytical thinking, through which teachers can ensure the participation of all learners in the learning process. Project-based learning: The draft-based education combines project-based learning advantages in traditional learning environments and learning through the Internet environment. In this type of education, students learn basic concepts through online sources, and they are taking their practical skills by engaging in collective projects in a face-to-face learning environment. Education is increasing from the teacher’s ability to analyze and review the work of the students and to provide them rapidly, giving the ability to adapt its teaching methods and feedback to each student and improve its efficiency in time management [24].

Blended learning is more than just a virtual lesson that is added to lessons in the classroom. He reformulated education overall but was flexible and practical so that the student becomes active educators. Flexible education is based on the use of time for learning with methods that suit students, and their individual preparedness, and the speed of each student in reading and analysis and enabling him to use modern technologies, so it is based on the design of flex grade or sometimes called design-oriented design to face. Most of the activities are made in a quota. To complete some of them in the form of activities or duties are executed outside the grade, whether at home or anywhere else. Inverted grade design is opposite to the flexible school grade structure. When students read about the lesson at home, they answer questions, and are formed and seek related to visual and audible sources. Blended learning makes it possible to continue learning much faster. By combining face-to-face training with e-learning, the learner becomes active in his training process. This method allows him to validate what he has learned during his lessons. This facilitates the control of the education process. People who do this type of training choose how quickly they learn. When a learning point is not understood, it can be revised as many times as desired until it is incorporated into on-the-spot learning. Conclusion Blended learning is a
combination of face-to-face teaching and learning with online teaching and learning. Examples of blended learning include problem-based, project-based, and original learning tasks. Any university program can be in the form of blended education, as its models will include empowerment, improvement, development, and training [5].

We notice from Figure 4 the quality of blended education between the past and the future, where it is expected that the quality of blended education in the coming years will be better than it is now.

Figure 4. The quality of blended education in the previous and coming years.

Figure 5. Use of blended education in universities.
The use of blended education in universities has forms, and as shown in Figure 5, where we note that the best use is the presence of the student in the class, and it is side by side providing him with a video lecture.

6. Conclusion

The aim of writing this chapter is to study the impact of blended education on the quality of higher education and the role of modern technologies in improving the quality of education, as blended education is what educational institutions in the entire world go to, especially Iraq. By comparing traditional education with e-learning, we noticed that each of them has benefits and harms, but the integration between them overcomes the difficulties and improves the performance of the teacher and student alike.

It was also noted that the development of modern technologies and educational platforms increases the improvement of the scientific level by creating an interactive atmosphere. As a result, educational institutions seek to build their own platforms for the sustainability of e-learning and the integration between it and traditional education.

Conflict of interest

The authors declare no conflict of interest.

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