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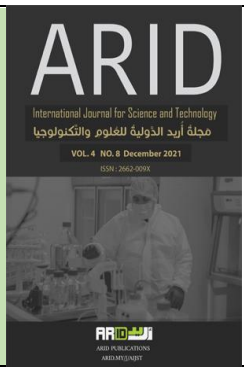


# مَجلةُ أُريد الدَّوليةُ للعُلومِ والتِّكنولوجيا

العدد 8 ، المجلد 4 ، كانون الأول 2021 م

# THE QUALITY OF E-LEARNING ON THE WEBSITE (CLASSROOM, EDMODO, MOODLE, ZOOM, FREE CONFERENCE CALL, MEET, WEBEX MEET, TELEGRAM, WHATSAPP, VIBER, AND YOUTUBE)

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# جودة التعليم الإلكتروني في موقع الويب (CLASSROOM, EDMODO, MOODLE, ZOOM, FREE CONFERENCE CALL, MEET, WEBEX MEET, TELEGRAM, WHATSAPP, VIBER, AND YOUTUBE)

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## Abstract

The goal of the current study is to learn more about different online apps that can be used in E-learning. The study also aims at shedding light on more important methods using applications on the web in the quality of E-learning. Applications are taken from the website: Classroom, Edmodo, Moodle, Zoom, Free Conference call, Meet, WebEx Meet, Telegram, WhatsApp, Viber, and YouTube. These applications are used in E-learning. The study focuses on various types of university education, and it is made public through social media. The study uses Google Forms approach that consists of a set of questions that are answered entirely and at random. The study was conducted on 288 samples during the 18 hours ending on 29/ 05/2020 at 13:50:30. The results were a questionnaire of seeing which website applications are mostly used in the quality of E-learning. Google, statistical package for the social sciences (SPSS), and Excel data analysis system is scrutinized by using the questionnaire results. Now E-learning uses more interactively in universities than any other time during the different web applications for creating conferences, seminars, classes for students.

**Keywords:** E-learning, website, applications Google, Classroom, Zoom.

**الملخص:**

تهدف هذا الدراسة إلى معرفة أكثر التطبيقات من موقع الويب استخداما في التعليم الإلكتروني. أيضا تهدف الدراسة إلى معرفة أهم طرق مستخدم موقع الويب لتطبيقات مختلفة في جودة التعليم الإلكتروني. حيث تم أخذ 11 تطبيق من تطبيقات موقع الويب: **Classroom** و**Edmodo** و**Moodle** و**Zoom** و**Free Conference call** و**Meet** و**WebEx Meet** و**Telegram** و**WhatsApp** و**Viber** و**YouTube**. حيث تعتبر هذه حاليا من أكثر التطبيقات المستخدمة في التعليم الإلكتروني. الدراسة تستهدف فئات مختلفة من التعليم الجامعي حيث تم نشر الدراسة عبر وسائل التواصل الاجتماعي. باستخدام طريقة نماذج جوجل، حيث تم استخدام مجموعة من الأسئلة تمت الإجابة عليها بشكل كامل وبشكل عشوائي. أجريت الدراسة على عينات مكونه من 288 حالة خلال 18 ساعة. كانت النتائج عبارة عن استبيان لمعرفة أكثر تطبيقات موقع الويب استخدامًا في جودة التعليم الإلكتروني كما في المناقشة والنتائج. حيث تم استخدام نظام تحليل البيانات **SPSS** وجوجل واكسيل لتحليل نتائج الاستبيان. التعلم الإلكتروني يستخدم الآن بشكل أكثر تفاعلاً في الجامعات من أي وقت مضى من خلال تطبيقات الويب المختلفة لإنشاء المؤتمرات والندوات والفصول الدراسية للطلاب.

**كلمات مفتاحية:** التعليم الإلكتروني، موقع الويب، تطبيقات جوجل، صف دراسي، منصة زووم.

## 1- Introduction:

E-learning is a simple matter of education that uses electronic technologies to access educational curricula outside traditional classrooms. Distance education, computer E-learning, online E-learning, and a variety of other words are all used to describe education provided online. E-learning can be defined as lessons that are offered privately by the Internet elsewhere (for students) other than the traditional semester in which the teacher teaches students online [1,2]. These are not lessons that the professor offers to students by disk, CD, videotape, or through a television channel, but rather interactive lessons. The interactive characteristic appears directly between professors and students. The students can interact with the professor by raising the hand in the E-learning program and interacting with the professor directly in his electronic lessons. The E-learning resources are related to the different websites education that students can register for these lessons by the Internet, and communicate and interact with the professor by using these different websites [1,2,3].

The first device for electronic lessons was invented in 1924. As this device allows to give lectures to students. Then in 1954, BF-Skinner is a professor of psychology at Harvard University from 1958 until his retirement in 1974, has discovered a teaching machine that enables schools to manage programmatic E-learning for their students [CF 1,2]. It did not appear until 1960 when the first computer-based training program was introduced to the world. This was a computer-based training (CBT) program for automated teaching processes. The first online educational systems have already been created to provide information only to students, but with the development of the seventies decade, online education began to become more interactive in Britain [1]. The Open University was keen to benefit from E-learning, as the educational system has been mainly based on distance education in the past, as the study

materials were delivered by e-mail and correspondence with students by email. The Open University has begun to offer a broader set of interactive learning experiences and faster correspondence with students by e-mail. With the evolution of computers and the Internet in the late twentieth century, E-learning tools and teaching methods have expanded. The first Macintosh (Mac) in the 1980s enabled individuals to have computers at home, making it easier to identify specific subjects and develop specific skill sets [1]. The virtual E-learning processes began in companies and universities and many schools to offer lessons or online courses. Technological developments have helped educational institutions reduce the costs of distance education, that is, to save time of learning for students, which has helped to provide education for students more broadly [1,2,3].

Companies and universities started using E-learning in 2000 to train new and seasoned staff, workers providing opportunities for them to gain industry knowledge, broaden their skill sets, and others. In 2010, new perspectives began to open the doors of the future to E-learning by taking advantage of the applications (social media) and huge open courses across the Internet as such different websites in YouTube, Moodle, and other applications were used in E-learning [1]. However, in 2020, it is noted that the qualitative prosperous that has occurred in E-learning. Using more interactively in universities through the different websites to create conferences, gave lectures for students and others [2,4].

The problem of the study is for the current research in using E-learning website applications in an irregular and random method. With the spread of modern means of communication from a computer, the Internet, and multiple media, such as audio, image, and video. E-learning has played an essential role in the success of the educational process, allowing a large number of people to receive education with ease and with less time and effort. However, due to the current

conditions that the entire world is experiencing as a result of the spread of the Coronavirus, the institutions were forced to switch to E-learning to ensure the continuity of the learning process. As well as to communicate with students remotely by using the Internet, smartphones, and computers. Universities that were forced to switch to E-learning and use communication methods they had never used before, and their faculty members communicated with students in a variety of ways, with some faculty members questioning the results of electronic tests because there were no tangible indicators on commitment. Students are subjected to the test instructions, which raises questions regarding e-effectiveness learning among university students. Some issues have arisen in the application of E-learning, such as the ineffective use of some E-learning software due to a lack of prior knowledge of E-learning or distance learning, as well as the ineffective E-learning infrastructure which necessitates the adoption of specific software and the provision of internet networks, smartphones, and computers for each student. In addition, various issues arose in the use of E-learning tools on a random and irregular basis. A professor's time and effort in classes, conferences, webinars, and other activities are considerable. As a result, there is a persistent need to understand and evaluate the performance of E-learning, including how well it satisfies educational objectives, how well it can meet student needs, and how well it can create an interactive environment that reduces the need for university attendance. Because each program differs in terms of its use, E-learning quality, and conclusions, there are several ways to use E-learning website programs regularly as stated in conclusions. One of the problems of the study presented by the research is the quality of E-learning on the website. Some sub-questions can be identified as follows:

1. What is E-learning?
2. What are the applications used in E-learning?

3. What are the E-learning platforms?

Among the most important objectives of the study is the current research. The study aims at:

1 -Reveal the level of obstacles by using the website in E-learning, and the level of interaction of students and faculty members with E-learning through the website.

2 -Enhancing levels of education, learning, and creativity.

3 -Using modern website technologies to create an interactive learning environment.

4 -Organizing and managing the activities of educational institutions through website technologies.

5 -The best-using methods of E-learning

6 -Knowing the use of each application in E-learning by the web.

7 -Differences between applications in their use of E-learning.

8 -Sensitizing the professor and students on how to use an E-learning by the web.

The importance of the current research from recent studies and research in E-learning is shown as follows:

**Theoretical importance:**

1. The importance of finding a modern and advanced method in E-learning.
2. The importance of finding a way to use each of the different applications of the website in E-learning.
3. Finding studies and significant strategies in E-learning.
4. The results of the study can be used to search by using website applications in E-learning in an organized, professional, and modern method.
5. Researchers can benefit from the current study to conduct modern research in E-learning.

**Practical importance:**

The findings of this study will help to improve the performance of the E-learning system, the development of human cadres, the material capabilities and trends in the selection of educational methods, and the development of plans for E-learning as an alternative to education attendance in universities. The tool of study can also be used to determine how effective a university E-learning system. The research is noteworthy since it is suitable for a real-world phenomenon, namely the spread of the Coronavirus. The results of this study can be valuable in the use of web applications regularly with the teaching and students in lessons, conferences, and forums via the internet and others, as shown in conclusions.

## 2- Material and Methods

The study is conducted via questionnaire by Google Forms method using the website in E-learning. The study mains goal is to use the best methods of various web applications in E-learning. This study shows that every application lags behind other applications in its use in E-learning. To identify the quality of E-learning in the website where the most used applications in each paragraph are calculated and arranged according to the graph. As shown below in the table of the questionnaire (a simple form of a questionnaire) to download the complete questionnaire inside this link: https://drive.google.com/file/d/1D9CiwUSuwsCU-JmAqLntOJHYGQdFvc4v/view?usp=sharing therapy. As in the table:

**Table(1):** Form of a questionnaire

| | | | | | |
|---|---|---|---|---|---|
| 5/28/2020 9:06:40 | Male | From 20 to 30 year | Degree BSC | university student | Classroom, Zoom, Free conference call, Telegram, WhatsApp |
| 5/28/2020 9:08:45 | Male | From 30 to 40 year | Degree MA | Professor | Edmodo |
| 5/28/2020 9:09:01 | Male | From 20 to 30 year | Degree MA | university student | Classroom, Free conference call |
| 5/28/2020 9:12:33 | Female | From 50 to 70 year | Prof Dr | Professor | Classroom, Edmodo, Moodle, Zoom, Free conference call, Meet, Webex Meet |
| 5/28/2020 9:23:15 | Male | From 50 to 70 year | Prof Dr | Professor | Classroom, Zoom, Telegram |
| 5/28/2020 9:29:59 | Female | From 20 to 30 year | Prof Dr | Professor | Classroom, Zoom, Meet, Telegram |
| 5/28/2020 9:37:24 | Female | From 20 to 30 year | Degree BSC | university student | Zoom, Telegram, YouTube |
| 5/28/2020 9:53:39 | Male | From 30 to 40 year | Degree MA | university student | Free conference call |
| 5/28/2020 9:55:08 | Female | From 20 to 30 year | Degree BSC | university student | Classroom |
| 5/28/2020 9:57:13 | Female | From 20 to 30 year | Degree BSC | university student | Classroom, Zoom, Free conference call, Meet, Telegram, WhatsApp, Viber, YouTube |
| 5/28/2020 10:22:54 | Female | From 30 to 40 year | Degree MA | Professor | Classroom, Free conference call, Telegram |
| 5/28/2020 10:29:30 | Male | From 30 to 40 year | Degree MA | university student | Edmodo |
| 5/28/2020 10:48:28 | Male | From 50 to 70 year | Degree PHD | Professor | Classroom |
| 5/28/2020 11:29:59 | Male | From 40 to 50 year | Degree MA | university student | Zoom |
| 5/28/2020 11:42:53 | Female | From 30 to 40 year | Degree PHD | Professor | Classroom, Moodle, Free conference call, Meet, Telegram, WhatsApp, Viber |
| 5/28/2020 12:14:56 | Male | From 20 to 30 year | Degree MA | university student | Free conference call |

These results indicate that the research sample supports that the majority of the questionnaire paragraphs are using applications website in E-learning to teach students through electronic classes, webinars, conferences, courses, and to others by the Internet as shown in the results and discussions.

**2-1 E-learning:**

Previous studies on E-learning were discovered a century ago until now as further development on platforms used in E-learning in 2020 more interactive use in universities through website applications.

E-learning is education using electronic technologies and technology to access educational curricula outside-of traditional classrooms. Education refers to lessons, an organized course, educational experience, or degree of exams that are offered entirely online. Downloaded done lectures and lecture schedules by the online classroom. Students can enter through these different website applications that are used in E-learning. E-learning has two types of Synchronous E-learning and Asynchronous E-learning.[1,2,3]

Synchronous E-learning refers to direct online lessons, concurrent online lessons, or virtual lessons in the classroom. Synchronous E-learning is used in online conference systems, webinars, or others as these applications Zoom, and Free Conference call, Meet, WebEx, etc . .[1,2,4]

Asynchronous E-learning is a self-paced step that students can access lesson materials on a computer, or web-based, at the speed that is appropriate for students and then choose what they want to learn and set the date for education with students. Asynchronous E-learning programs include pre-recorded lecture content, video, visuals, or text and other interactive elements such as Classroom, Edmodo, Moodle, YouTube, Telegram, WhatsApp, Viber, etc. [1,2,5].

**2-2 Using Classroom, Edmodo, and Moodle in E-learning**

These applications are commonly used in E-learning. These applications are free and provide a platform for E-learning in an easy and simplified method. They help various professors significantly representing lessons and the organizations of the lectures and the curricula during applications. Then facilitates interaction with students by the applications. The applications are incorporated into the classroom for a variety of uses include:

1. Create an electronic classroom for students.
2. Publishing lectures in an electronic classroom.

3. Posting assignments, competitions, and interactions through dialogue and discussion among students in an electronic class.
4. Conducting exams in an electronic class.
5. Create polls for student responses to exams and assignments.
6. Providing links to obtain useful information. The apps allow students to upload assignments, view and rate them.

## 2-3 Using Zoom, Free Conference call, Meet, and WebEx Meet in E-learning

These are applications used in workshops, webinars, video-conferences, and simple meetings on the Internet. These are mainly used by universities and companies to host meetings with professors, colleagues, and international clients. They are also a great way to start quick and easy meetings on the Internet. The free plan allows universities to collaborate with other universities in conferences and other posts on high-quality screens, web cameras, VoIP, and chat messages in one session.

Features of applications in E-learning include:

1. Free applications.
2. High-quality video and audio, or summons for listening to the meeting audio using the phone.
3. Easy-to-use tools for collaborating online with others, including sharing, shared comment, hacking and polling rooms, and whiteboards.
4. Allows high-quality meeting records and downloading those records as MP4 files.
5. Full feature apps for iOS and Android.

## 2-4 Using Telegram, WhatsApp, and Viber in E-learning

These applications are free instant messaging. they are applications for smartphones that works across multiple platforms and are widely used among college students to send multimedia messages such as photos, videos, and audio along with simple text messages. E-learning has been implemented through these applications. Professors and students can exchange photos, videos, and audio media messages by creating a group for studying class via these applications. These applications are used by a phone number as an identity. These applications allow free phone calls or send text messages or audio recordings to many groups (student groups). Once download any of the apps (Telegram, WhatsApp, and Viber), an access code will be sent by SMS or call back to activate applications to verify the user's identity in applications by Wi-Fi or even over 3G. Features of Telegram, WhatsApp, and Viber applications in E-learning include:

1. Free applications.
2. Used on mobile devices and computers and can be opened through different web browsers.
3. Downloading applications require a small space.
4. All file types, Messages or audio recordings can be sent to all students. And it is easy to send and receive any type of file that contains the learning process within the E-learning by these applications.
5. Possibility to create groups or channels in these applications for each semester or every stage or every course. The professor communicates with his or her students in the entire curriculum through groups. Feedback can be provided as a kind of response to students with everything related to the content of lectures.

6. Through group, possibility to publish study dates, schedules, scientific forums, conferences, and seminars. In addition to start and end dates of lessons for students in E-learning.
7. Make a voice call with one of the students to clarify what the professor cannot explain in the electronic lecture.

Through groups in the applications, the contents of the materials can be downloaded in the electronic class and an explanation is made for students. Messages can also be exchanged between the professor and students. The classes and discussions in the lectures do the role of competition between students' duties. Or asking questions during the explanation of the electronic lecture.

## 2-5 Use of the YouTube platform in E-learning

In recent years YouTube has been used in E-learning by creating a channel on YouTube, and lessons are downloaded on the YouTube channel too. Online lessons are broadcasted directly through a channel to explain the contents of the materials for students. E-learning on YouTube is used for lessons, seminars, or scientific conferences in more interactive, fun, and truly informative. The transform can be boring or complex topic into an exciting and attractive E-learning experience in general gives YouTube the ability to create fully customized playlists. A playlist of all the topics can be created in E-learning lessons so that students can quickly access videos that will help them expand understanding or learn more about the contents of the material. This makes it an ideal tool for lessons students. YouTube gives the E-learning specialist the ability to create videos that students can access even after the E-learning lessons have already done, whether they were webinars or conferences, or other applications. The invaluable reference tools enable students who want to update their memory and general information about the topics

unit or review content before any exams. Videos also can attract students to education. Difficult explanations of complex topics done through the use of text or images. However, videos can illustrate a complex concept or process of visualizing the steps or ideas involved. Even finding an existing video on YouTube that provides students with an in-depth look at how these ideas performed. They help students to acquire and retain knowledge sets and skills more effectively. They also provide a visual context for the content of E-learning courses for E-lectures.

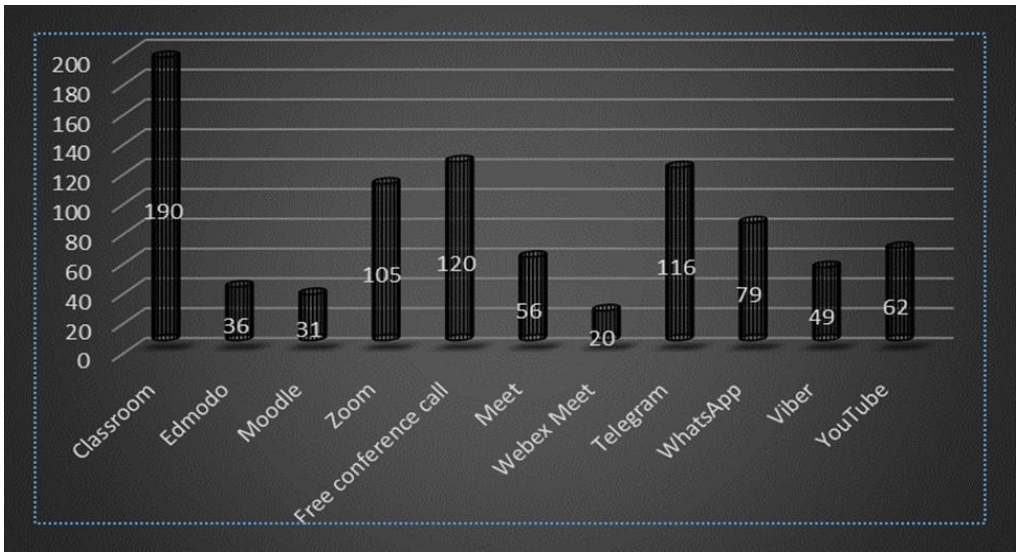
## 3- Results and Discussion

The study explains the quality of E-learning on the website applications including Classroom, Edmodo, Moodle, Zoom, Free Conference call, Meet, WebEx Meet, Telegram, WhatsApp, Viber, and YouTube. The comparison is made between applications used in E-learning by questionnaire method randomly. At different scientific levels of the professor and the students ranging in age from (20-100) years. Showing in a questionnaire that the percentage more used in website applications is Classroom, Free Conference call, Telegram, and Zoom in the E-learning. These four possibilities were high in a questionnaire. The study finds out that most of the community groups have sufficient knowledge about E-learning and educational methods. Using the Google forms method for creating the questions in a questionnaire. The set of questions completely and randomly answered. Questions that are used in a questionnaire are gender, age, certificates of the participants in the questionnaire, and the relative knowledge of the participants in the questionnaire for the professor and university students. The web applications eleven were identified to choose the participants for applications used in education. The number of all participants to a questionnaire is 288 samples. The number of answers of type gender participating in a questionnaire is 287 samples. The number of answers of age participating in a questionnaire is 287 samples. The number of answers for the cognition of certificates

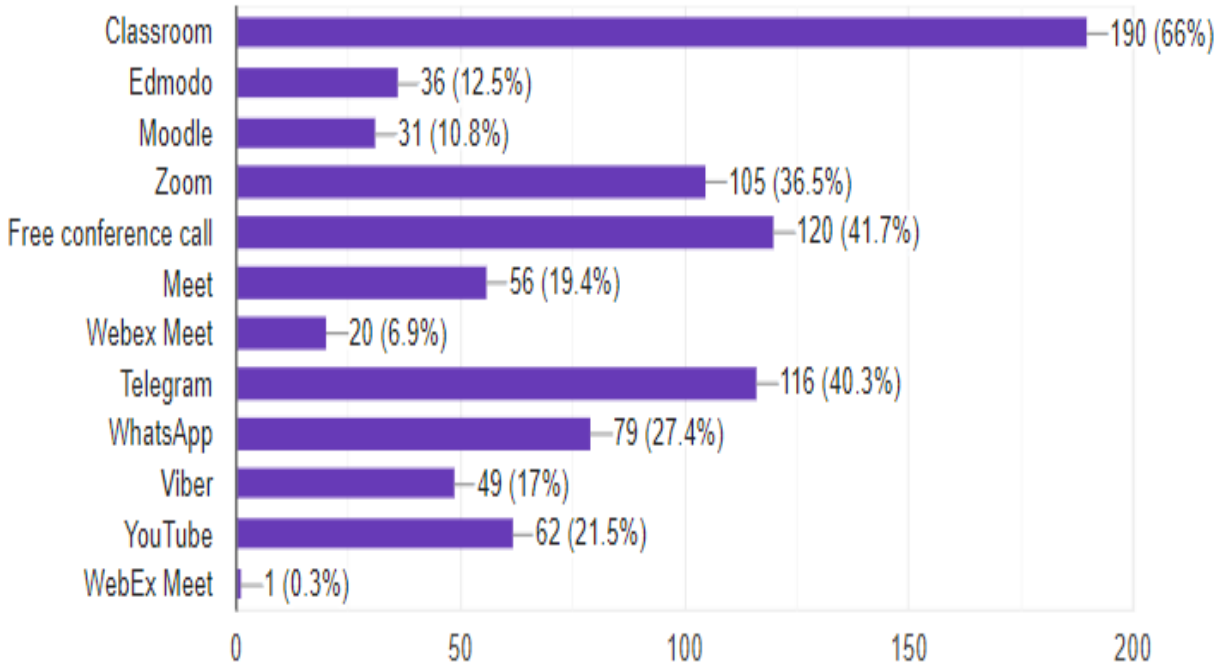
participating in a questionnaire is 281 samples. The number of answers for determining participating in a questionnaire than the professor and the university students is 273 samples. The number of answered choices for website applications mostly used in E-learning in a questionnaire is 288 samples.

AS in Figure 1 A-B, The number of participants in a questionnaire is 288 samples. The answer to a question is on boxes form as in the last paper. The percentage used on Classroom in E-learning in the questionnaire is 66%. The percentage used on Edmodo in E-learning in the questionnaire is 12.5%. The percentage used on Moodle in E-learning in the questionnaire is 10.8%. The percentage used on Zoom in E-learning in the questionnaire is 36.5%. The percentage of using Free conference call on E-learning in the questionnaire is 41.7%. The percentage used on Meet in E-learning in the questionnaire is 19.4%. The percentage used on Webex Meet in E-learning in the questionnaire is 6.9%. The percentage used on Telegram in E-learning in the questionnaire is 40.3%. The percentage used on WhatsApp in E-learning in the questionnaire is 27.4%. The percentage used on Viber in E-learning in the questionnaire is 17%. The percentage used on YouTube in E-learning in the questionnaire is 21.5%. The web applications mostly used in the quality of E-learning are Classroom, Free Conference call, Telegram, Zoom, and Meet. They are applications that are mostly used in E-learning for teaching students in universities. AS in figure 1 A-B, and figure 2:

(A)



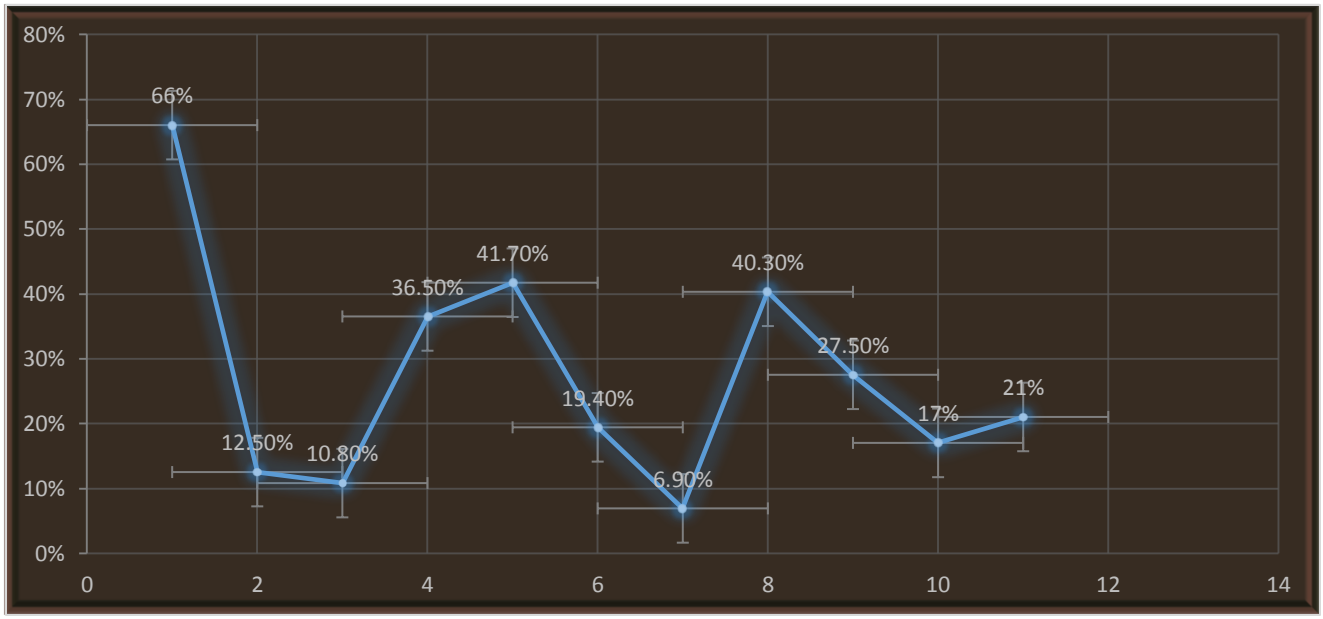

(B)




**Figure(1 A-B):** Graph for using the website eleven in the quality of E-learning

As in Figure 2, he classroom is the most used application in E-learning, creating online classes and enables students to collect, distribute and manage these classes, allows them to communicate and

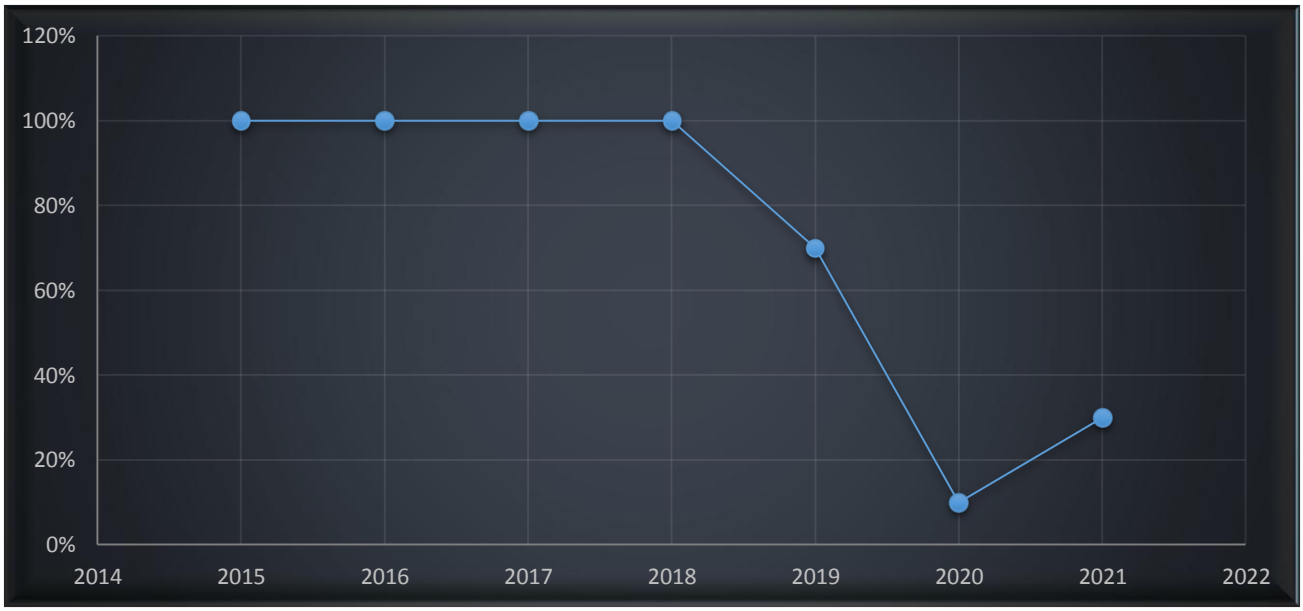
collaborate with students, share study materials and other related documents with students, and allows teachers to share files from their computers, YouTube videos, Google Drive links, or any other links once these materials are saved and stored online. Students can access them from anywhere, even mobile devices. In Student section, the teacher can decide whether their students are allowed to comment on questions, announcements, and assignments they create or if they can only post. The teacher can also choose to be the only one in their class who can post and comment. Google Classroom allows teachers to create, distribute, collect, and grade homework, and they can do other things like adding useful links to assignments, re-use the same assignment again, schedule the assignment for a later date. Educators can make ads through Google




**Figure(2):** most used application in E-learning

Classroom, and it will be automatically emailed to all students in the class, and they will also be able to view it in the Classroom's stream tab. The service also allows educators to schedule when an announcement, post, or assignment appears on the student's stream tab.

As in Figure 3, students are taught to attend universities. They are lectures, conferences, seminars, etc. at universities. However, E-learning is used in some universities to train new

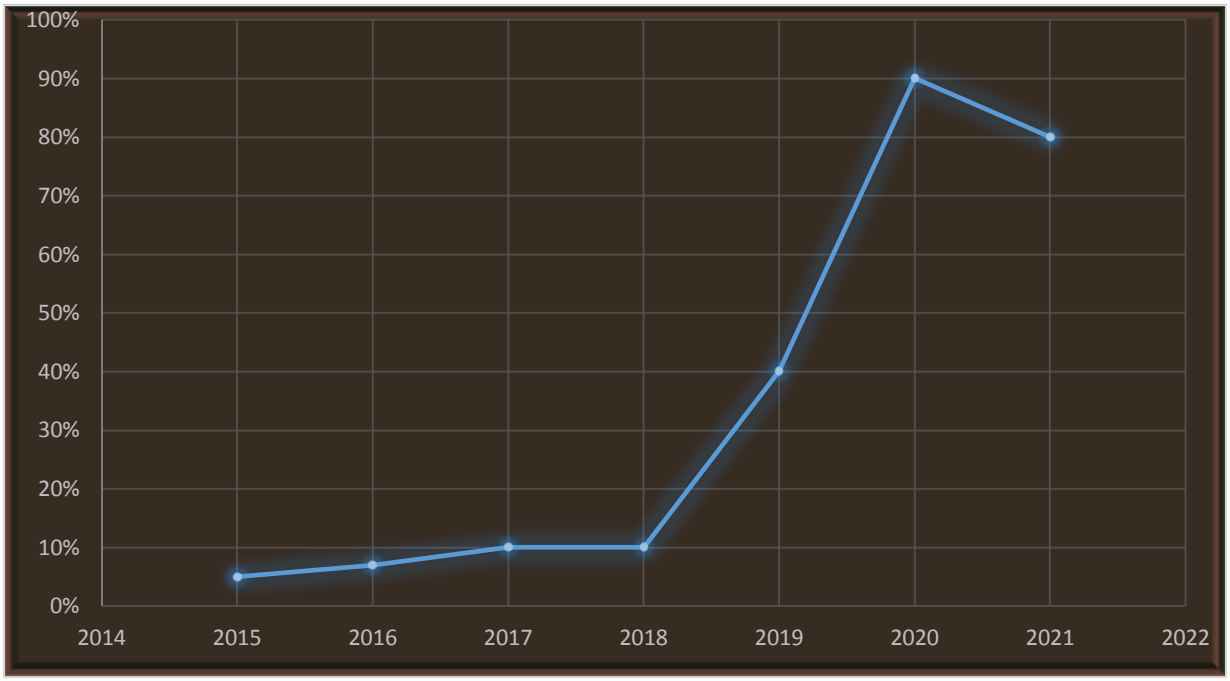



employees and conduct open online courses and others.

**Figure(3):** Use of attendance education in universities

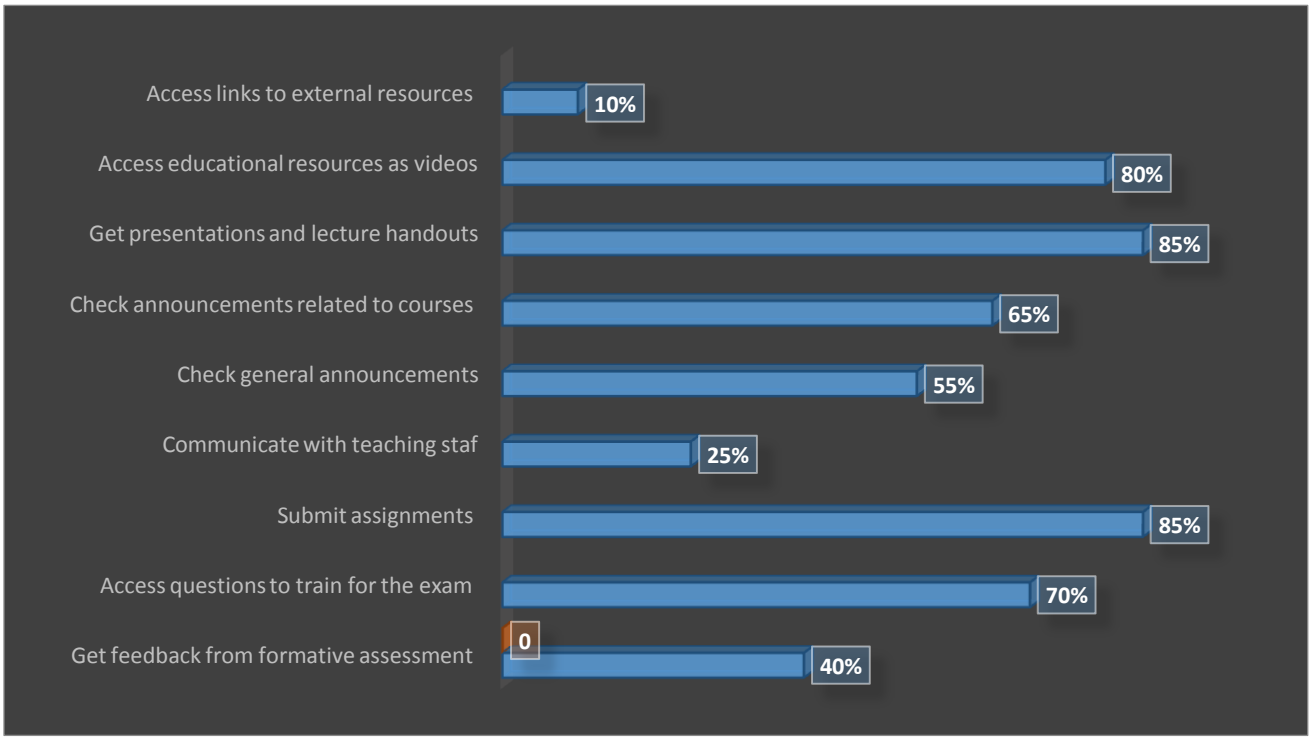
E-learning is used in 2020 and 2021 at universities by 100% due to the outbreak of the coronavirus, through the website used in E-learning. The website is used in E-learning to create lectures, conferences, workshops, and others. Classroom, Edmodo, Moodle, Zoom, free conference call, Meet, WebEx Meet, Telegram, WhatsApp, Viber, and YouTube are more common E-learning applications. Through the website applications, classes downloaded, lecture schedules on the E-learning site that students can access. In addition to the blackboard screen, interaction occurs in the classroom through instruction, tasks, and competitions. The lesson presented completely. It also has a live video for the professor to explain the semester for

students and interactions in lecture between the professor and students in the semester curriculum, duties, competitions, and stimulating discussion among students by the website. As in Figure 4:




**Figure(4)**: The use of E-learning in universities

The quality of interaction between students and online teaching is an imperative factor in determining the effectiveness of E-learning via a website to create and maintain sustainable learning communities. Interaction with the content is an internal dialogue of reflective thought that occurs between the learner and the content. Interaction is often triggered and supported by events in the learning environment focusing on how the learner reacts to what is to be learned. The interaction between students and teaching has been undertaken to improve the design and delivery of documented content via the website, to maximize the effectiveness of the online learning environment for undergraduate and postgraduate distance learning courses. As in Figure 5:




**Figure(5):** Students interaction with teaching via E-learning

**4- Conclusions:**

This study came to clarify the importance of the quality of E-learning in conformity with international standards of quality, for the success of the E-learning experience as a modern experience in many countries. The study done on using website applications including (Classroom, Edmodo, Moodle, Zoom, Free Conference call, Meet, WebEx Meet, Telegram, WhatsApp, Viber, and YouTube) in quality of E-learning, and how to use all web applications regularly in E-learning as shown in the following cases:

- The (Classroom, Edmodo, and Moodle) website applications are used in electronic classes for students, lectures, files, and slide presentations in electronic classes and are explained on it, and also students' exams are done during these applications.

- The (Classroom, Edmodo, and Moodle) website applications are used for designing huge courses for professors and students in different specializations, and after completing the courses, the certificate directly will be sent to Gmail.
- The (Zoom, Free Conference Call, Meet, and WebEx Meet) website applications are used by professors in conferences, webinars, and workshops to broadcast live direct presentations during these applications.
- The (Telegram, WhatsApp, and Viber) website applications are used for exam, advertisements, study dates, schedules, scientific forums, conferences, and webinars, and other, also set start and end dates of lessons for professors and students during these applications.
- The YouTube website application is used for lecture reviews for students before exams and also used in conferences, webinars, and others for live direct presentations during this application.

With the work to spread out the culture of quality among all workers in this field by holding conferences and scientific and training courses to raise the level of performance and reduce errors:

1 -Investing in the positive directives for students and faculty members towards E-learning, developing plans and programs to benefit from these directives, and giving training courses in the field of E-learning to both students and faculty members.

2 .Training and encouraging teachers to communicate with students through electronic pages and E-mail, given that many students have Internet service at home.

3 -The university should conduct more studies and research to find out the effectiveness of E-learning in the presence of harsh conditions and hold conferences and seminars for the development and advancement of E-learning.

4- The necessity for the university to offer materials that give the student the skills and techniques of E-learning to facilitate the process of interaction and benefit students with the educational materials presented electronically.

**Abbreviations:**

CBT: computer-based training
MAC: Macintosh
CBT: computer-based training
SPSS: statistical package for the social sciences

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