

## **THE CHALLENGES FACING E-LEARNING IN THE REPUBLIC OF IRAQ - A FIELD STUDY IN IRAQI UNIVERSITIES**

Esraa Hassan Jawad Al-Wakel

Computer Systems techniques, Karbala Technical  
Institute AL-Furat AL-Awsat Technical University  
esraa.hassan@atu.edu.iq

Wisam K. Hamdan

Computer Systems techniques Karbala Technical Institute  
AL-Furat AL-Awsat Technical University  
Wissam.hamdan@atu.edu.iq

Nahla O. AlShamri

Accounting Techniques, Karbala Technical Institute AL-Furat  
AL-Awsat Technical University of Iraq - a field study in Iraqi universities  
nahla.talal@atu.edu.iq

### **Abstract:**

The aim of the current study is to shed light on the role played by e-learning in the Republic of Iraq and the most important challenges facing this type of emerging research. Additionally, the study examines the extent of effectiveness in e-learning, particularly in light of the outbreak of the Corona virus pandemic (COVID-19), from the lens of teaching faculty engaging in e-learning as well as its challenges and perceived effectiveness as experienced by students. The research sample consisted of professors and students from different Iraqi universities who engaged in this form of online education. A descriptive approach was adopted to analyze the data gathered for the research. From our findings, a number of recommendations emerged including how e-learning has a positive impact on the educational experiences of the teaching staff as well as students. It is therefore imperative to embrace education technology to the extent possible in the context of Iraq, through the use of the most advanced software and equipment available in our effort to improve and expand the e-learning process. The majority of the obstacles to e-learning in Iraq are rooted in slow internet speed and unremitting power outages. Despite these difficulties, both teachers and students who participated in our study interacted meaningfully with e-learning. For educators, the potentials offered by e-learning goes beyond teaching students and enters a realm where other activities such as offering online courses, and workshops among other possibilities become available for all stakeholders. Among other positive outcomes of e-learning is its ability to enhance communication between Iraq and other countries and allow for a critical exchange of views and experiences.

**Keywords:** e-learning challenges, e-learning.

<https://ejedl.academiascience.org>

**Emergent: Journal of Educational Discoveries and Lifelong  
Learning is a scholarly peer reviewed international Journal**



## **Introduction**

Across the world, different countries have increasingly gravitated towards applying e-learning method in their educational structures in an effort to meet the training and educational needs of their students. Further, the adoption of e-learning has enabled policymakers to address problems plaguing educational institutions and highlighted the importance of communication and information technology, especially in view of the spread of the Corona virus. The ease of access and affordability of technological devices as well as the widespread presence of modern means of communication such as the Internet, has led to the development of accessible online course materials and various web-based learning activities, students' comprehensive access to e-learning material, and the availability of a range of digital tools for teaching and learning. As such, developing countries particularly those in the Global South, have welcomed the opportunity to implement e-learning and provide learning materials and online resources to their students. The inclusion of modern technology can help advance educational goals particularly in precarious times, in lieu of their versatility, ease of access, affordability, and ability to be constantly be updated. E-learning addresses the challenges and gaps identified and if the infrastructure required to set-up e-learning becomes available, students and teachers critically engage in educational practices and benefit from its advantages by receiving continuous support. Such experiences can help improve students' educational experiences and skills and overcome shortcomings with traditional educational systems.

In its effort to examine the impact of e-learning in the Iraqi post-pandemic academic space, the current research offers a set of recommendations. In the following sections, the research methodology will be discussed followed by an overview of the theoretical framework. Consequently, the data collected from different Iraqi university pertaining to students and teachers' experiences with e-learning will be analyzed. The study will conclude recommendations informed by the findings and implications for future research.

## **Research methodology and Literature Review**

### **Research methodology**

The current study is informed by the following problematique:

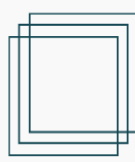
#### **1) Research Problem**

Among the most important problems addressed by the research are:

- a) Lack of expertise and skills necessary to effectively implement modern technical devices, inability to communicate about potential concerns and opportunities afforded to educators and students through the adoption of e-learning.
- b) Iraqi universities are currently devoid of the necessary infrastructure to adopt e-learning at a mass-scale as the effective implementation of e-learning requires running specialized software, fast internet networks, different types of smartphones and computers with high performance for all students.

<http://ejedl.uicaadup.com>

**Emergent: Journal of Educational Discoveries and Lifelong Learning is a scholarly peer reviewed international Journal**



## **2) Research Objectives**

**The general objective of the research:** The current research aims to examine the role of e-learning in public and private universities across Iraq as well as identify the challenges faced by educators and students in the process of using e-learning.

### **Specific research aims:**

- a. Identifying the possibilities and challenges offered by e-learning in terms of formal education and training students, the extent of its effectiveness, and the various methods adopted by educators to communicate their knowledge and experiences to students.
- b. Continuous improvement of the necessary skills to implement e-learning effectively for educators in public and private universities in Iraq by offering continuous professional development and training sessions. As part of these sessions, educators are expected to become well-versed in technical and administrative issues related to effective e-learning implementation. Additionally, educational professionals will be trained to use and update the necessary software and learn how to transition traditional curricula to online formats as well as offer students the necessary skills and mechanisms to adapt to the online e-learning space.

## **3) Research Significance**

The importance of the current research can be encapsulated in the following points:

- a) Identify the challenges brought on by implementing e-learning in Iraqi universities and their impact on the process of improving overall performance of the e-learning system in Iraq.
- b) Measuring the effectiveness and impact of the e-learning system in Iraqi universities in order to help us make more informed decisions in the various precarious circumstances, including the recent pandemic.
- c) The current research is a timely one as it addresses the impending issue of the post-pandemic learning spaces and forces us to revisit our preconceived biases toward e-learning. Specifically, the research offers insights regarding the possible benefits of implementing e-learning in resource constrained regions like Iraq and being prepared in case of other crises including wars and ecological devastation in the future.

## **4) Research Hypotheses**

The research seeks to examine the following hypothesis:

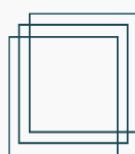
The extent of the effectiveness and efficiency of e-learning in view of the conditions imposed following the Covid pandemic from the perspective of teaching staff and students in Iraqi universities?

Several sub-hypotheses emerged from the main hypothesis

- a. What are the complexities and challenges faced by students and educators following the implementation of e-learning in Iraqi universities?

<https://ejedl.academiascience.org>

**Emergent: Journal of Educational Discoveries and Lifelong Learning is a scholarly peer reviewed international Journal**



- b. To what extent has the adoption of e-learning in Iraqi universities has positively or adversely impacted interactions among faculty members across the country?
- c. To what extent has student interactions been impacted as a result of implementing e-learning in Iraqi universities?

## **5) Theoretical Framework**

The theoretical framework adopted for the purpose of completing this research includes an in-depth literature review followed by an electronic questionnaire completed by study participants.

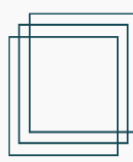
## **6) The Research Sample**

The electronic questionnaires were distributed among professors and educational trainers in Iraqi universities and institutes, and also among students attending Iraqi universities. The number of responses from educators reached 103, while 161 students completed the questionnaire for the 2021/2022 academic year. A copy of each questionnaire has been included at the end of the research.

## **Second: previous studies**

In the following section, the researchers will chronologically reflect on the most recent scholarship addressing the central premise of our study:

1. **(Bashir, 2019):** In the study, the researcher examines modeling the e-learning interaction process, learner satisfaction, and future plans for continuing education in Ugandan higher education institutions. The study specifically focused on the effectiveness and positive impact of e-learning, which had been attributed to learner satisfaction and continuing education. An important contribution of the study includes the conclusion that e-learning interaction experiences consist of a three-factor structure involving learner's interface, feedback interaction, and learning content.
2. **(Draissi & Yong, 2020):** In this study, the authors explore the response plan in Moroccan universities following Covid-19 outbreak. Specifically, the study looks at the impact of implementing distance education in different Moroccan universities. The content analysis is carried out by examining various documents including news articles from daily newspapers, reports, as well as notices from university websites. The study findings include a focus on the devastating impact of the pandemic on higher education institutions across the world and the myriad of attempts at trying to overcome subsequent challenges and for students and faculty to thrive in the volatile post-pandemic educational space. The recommendations offered in the study include investing in scientific research and intensifying efforts to engage in preventative measures to minimize the spread of the virus. The study also highlights the fact that online teaching methods have resulted in greater independence for students as well as affording educators and learners access to a number of paid e-learning platforms or databases.



3. However, the study also found that by being required to engage in distance education, teachers often found themselves overwhelmed with the abundance of additional duties assigned to them in addition to their traditional teaching responsibilities.

4. **(Favale, Soro, Trevisan, Drago, & Mellia, 2020):** Entitled "Traffic on Campuses and E-Learning during the Corona Pandemic", this study analyzes the effect of post-pandemic campus closures and lockdown measures on the subsequent growth of Internet traffic volume as well as experiences of e-learning during the COVID-19 pandemic. The authors traced visible changes in traffic patterns on the campus which was the focus of the study and the different measures adopted to mitigate the circumstances. Specifically, the study pointed out that while incoming traffic increased considerably, the university witnessed a doubling of out-going traffic. The researchers also pointed out that the unforeseen circumstances following the pandemic also led to an unprecedented reliance on distance education platforms and frequent use of online teaching portals. The study made a number of conclusions including how the university's internet structure proved capable of adapting to the needs of students and educators by implementing robust strategies to counter the mitigating effects of critical situations like the pandemic. As well, distance e-learning platforms and online collaboration networks were offered as viable solutions to addressing social divergence policies and practices during the COVID-19 pandemic.

The current research is similar to previous studies in its analysis of e-learning and also its reliance on descriptive and analytical approaches. However, our research can distinguish itself from the majority of scholarship, by specifically addressing the challenges and barriers faced by Iraqi universities in the context of e-learning in the post-pandemic space. Our study's emphasis on Iraqi faculty members and students' perceptions and experiences of engaging in e-learning in various universities across the country make it a timely and important contribution to scholarship in this area.

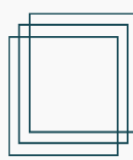
## **Theoretical Contributions**

### **First : E-Learning**

#### **1. The Concept of E-Learning**

E-learning has been conceptualized as a form of learning in which the principle of education is based on the student's dependence on the use of modern electronic technology, particularly in relation to communication as well as receiving and sending information. To acquire the necessary skills to thrive in the context of e-learning and to be able to maintain electronic communication with teachers and the educational institution on an ongoing basis, several definitions of e-learning have been postulated throughout recent years. Among the most important definitions of e-learning has been offered by Bosman (2020), who describes it as:





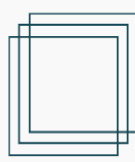
an education that aims to find and create an interactive environment between the student and the teacher on the one hand, and between the students with each other on the other hand, Which is rich in applications based on computer and Internet technologies, which enable the student to access many educational resources at any time and place. (14)

The concept of e-learning is understood as learning materials being presented to the student in an effective manner. It is imperative to consider the information technology adopted to engage in the process of e-learning, so as to ensure that learners can interact with the required content in an efficient, cost-effective, and timely manner. Reducing the time and effort necessary for the education process to occur productively requires that learners gain the most from the learning experience in the most cost-effective way. Among the most significant contributions of e-learning revolves around the fact that students are no longer obligated to travel long distances and at times in dangerous settings to gain an education. Consequently, student are able to pursue their studies and continue to receive instructions from their professors while being based in different locations without the burden of having to move away from their place of residence. Thus, students are no longer confined to a learning experience where they need to sit in a physical classroom and be in face-to-face communication with their teachers. In fact, by using a computer that can be connected to the university website, the student is able to access the necessary learning materials (Islam: 2005, 333). While e-learning has been defined in different ways, the concept of "learning" is understood as the process of converting data into information, whether through self-effort or by receiving it from others. Hence, the term "Electronic Learning" refers to the use of electronic means of various kinds by the learner (student) in order to obtain and understand the learning material.

## **2. E-learning Features**

E-learning can be characteristics in the following ways:

- a) E-learning provides an excellent environment for students to interact with the teacher by way of discussion through the microphone, as well as through the use of an electronic board.
- b) E-learning enables teachers to immediately evaluate the students' ability to respond to learning by requiring students to participate in a questionnaire. Through the adoption of such questionnaires, the teachers can understand the extent and depth of the students' interaction with them as well as how deeply students have understood the educational material (Al-Arifi:2003, 21).
- c) E-learning affords all stakeholders particularly teachers, an opportunity to use many different interactive teaching methods, such as sharing educational applications.
- d) E-learning affords the teacher the opportunity to divide the students into small groups and engage in further discussion about the course content.



- e) Working in smaller rooms for each group using interactive audio and video tools can provide opportune moments of deep learning and critical thinking.
- f) E-learning allows teachers to carry out immediate evaluations of the students' responses to the lesson by conducting quick tests. After the students have completed the test, the teacher can lead a class discussion on a course topic and also evaluate student's interaction in the e-learning space.

### **3. E-learning aims**

The aims of e-learning:

- ❖ Finding solutions to different problems and various unprecedented conditions impacting the university and school environment and using electronic communication networks to deal with and solve the potential problem areas.
- ❖ Giving the new generation of students sufficient space and unlimited opportunities in terms of offering economic, cultural, scientific, and social development.
- ❖ Providing students with new services available because of information technology. Through innovative ways, students can be exposed to different forms of communication, which can be advanced by meeting with individuals inside and outside of learning institutions in an effort to promote and activate the spirit of inclusivity and mutual respect among all the stakeholders.
- ❖ Encouraging parents to engage with and interact with the e-learning system on a large scale along with the growth and development of their children and the students' behavior and academic advancement.

### **4. Advantages of E-Learning**

**First: Effectiveness:** E-learning provides an opportunity for everyone involved to create instantaneous interaction electronically between students and teachers or amongst students themselves through e-mail (Ghuloom: 2003).

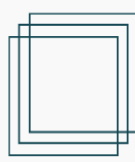
**Second: Cost-Effectiveness:** E-learning drastically reduces economic costs compared to traditional teaching, cuts down on transportation costs, and saves more of students' time.

**Third: Ease of Accessing and Following the Curriculum:** E-learning curricula are always available in online platforms, allowing the students to access them at any time that is convenient for them through e-learning services.

**Fourth: Promotes Participation:** Modern education theories centered on student participation emphasize human interaction as well as the availability of such participation through virtual electronic classes, social media, and continuous video-based online meetings.

<https://ejedl.academiascience.org>

**Emergent: Journal of Educational Discoveries and Lifelong Learning is a scholarly peer reviewed international Journal**



**Fifth: Flexibility:** Distant learners can interact with a large group of learners and professors around the world at any time when the Internet is available.

**Sixth: Integration:** E-learning provides learners with knowledge and educational materials in a cohesive and integrated manner through evaluation tools. Specifically, the adoption of evaluation measures offered by e-learning platforms can assist in analyzing learner knowledge in the fullest extent possible and students' progress that can be carefully tracked in a way that ensures the provision of integrated educational standards.

**Seventh: Taking into account Learners' Cases:** E-learning affords all students the opportunity to select the appropriate learning speed for the learning process (i.e., the student becomes able to prolong the time of the learning process and vice versa, as needed). The ability to choose one's pace of learning also allows students to choose the content and tools appropriate to their interests, mental needs, and skill levels.

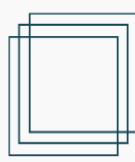
#### 5. **The Role of E-Learning in Improving the Educational Level:**

The increase in the number of teachers and students who use computers, the Internet, and smartphones in the education process is a byproduct of the relative availability of technological devices and a reflection of a defining feature of e-learning as well as its positive effects. A study conducted by Edwards and Fritz (1997) revealed that the method of e-learning is engaging and interesting and leads to desirable educational results. Specifically, the authors point out how the experience of e-learning improves and increases students' ability to learn new concepts and skills.

#### 6. **E-Learning Standards**

Establishing the foundations and standards for e-learning stemmed from the need for this type of education in the world. The first initiative related to e-learning that appeared on the technological scene was in 1997 and through the US Department of Defense. The Advanced Distributed Learning (ADL) initiative, allowed for distributed learning to ensure consistent access to quality programming for all stakeholders and increasing opportunities to obtain an acceptable level of education. The Advanced Distributed Learning initiative's unique contribution at the time centered around finding new strategies and training materials for learners and various other stakeholders to obtain educational materials effortlessly and allow users to access these materials at the time and place of their choosing. The emergence of this initiative led to the development of other models, including the common content model (SCORM) adopted by standards institutions. In addition to other models, SCORM is one of the reference models for the joint educational and training content (Salah al-Din:2018, 619).





## **7. The Importance and Obstacles of E-Learning**

### **A // The importance of e-learning**

E-learning is of great importance to advancing educational goals in precarious times and some of the central advantages of e-learning include (Islam: 2005, 331; Salah Al-Din: 2018, 615):

- Students and teachers can access extensive knowledge and expertise in the field of e-learning by using rich educational resources and references, whether local or external.
- E-learning enables teachers and students to gain experience through non-traditional means of education, which helps and supports the advancement and distribution of various educational prerogatives.
- E-learning improves the process of communication between different departments in educational institutions, and allows teachers and students to stay abreast of the latest developments, especially when experiences political, environmental, or health crises.
- E-learning provides opportunities for students who have encountered difficulties in traditional classroom settings to engage in a new learning context, which can meet their educational needs, address their abilities, and take into consideration their speed of learning.

### **B // Obstacles to e-learning**

Despite the great importance of e-learning, its application has encountered a number of obstacles (Musa et al.:2020, 104):

- a) Material obstacles: This type of constraint refers to the scarcity of computers, the difficulty in ensuring a reliable access to technology including the Internet in remote areas, and the high cost that it incurs for some sectors of society.
- b) Human constraints: These constraints refer to the scarcity of individuals who are proficient in the art of e-learning. Specifically, some teachers in schools still do not have sufficient knowledge and experience in using modern devices.
- c) Difficulty connecting to the Internet and its high fees.
- d) Difficulties faced by faculty members in applying electronic assessment tools.
- e) The high cost attributed to the design and production of educational software.
- f) The lack of recognition of e-learning as a viable alternative to traditional education in some countries and the absence of recognition of the certificates granted to students who have completed an online program through e-learning platforms.
- g) The society's view of distance e-learning as less prestigious and effective than traditional education.



### **The challenges of e-learning**

**E-learning faces a number of challenges and opportunities, including the following (Barakat: 2020, 55):**

**First:** Material cost: Many students resort to e-learning due to the low costs associated with online learning.

**Second:** E-learning allows users to choose the most appropriate options: This is an important advantage of e-learning because when educational resources and spaces are available, students choose the most appropriate place for their education in line with their financial capabilities. Considering that e-learning imposes far less costs in terms of learning materials and is also more time-efficient than traditional education, many students opt to engage in online learning environments.

**Third :** Training and education will take place in manageable chunks: Education and training using e-learning platforms takes place in multiple time periods. As such, when learners are exposed to a particular training or educational experience, they can take their time in absorbing and understanding the material. However, among the shortcomings of e-learning include the fact that training which takes place in-person allows information to be communicated to the learners with far greater ease and with the potential for self-correction or teacher-generated corrective feedback. Despite its many advantages, e-learning cannot afford its learners the same level of in-depth one-on-one feedback and critical reflection which can be experienced in a traditional learning settings.

**Fourth:** Bookmark: In the e-learning environment, to gain a deep and thorough understanding of the learning materials, students have the opportunity to find a reference for the lesson as often as they desire and at a pace that is appropriate for their educational needs.

**Fifth:** Need to know the basics: Electronic computers have several advantages, and with the unrepresented spread of e-learning in the post-pandemic space, many technologies have been adapted to it. As such learning how to use computers and access online learning platforms is fast becoming one of the basic necessities for the new generation of learners.

**Sixth:** Continuous development: The ongoing integrative development involving communication technologies and computers must take place in collaboration and in tandem with the continuous development in various specialized fields, particularly in the fields of communications and technology.

### **The third topic - the applied side**

#### **Research Hypothesis Tests:**

**Statistical analysis:** (2) electronic questionnaires were distributed, one for students and the other for teachers who practiced the e-learning process. Each questionnaire was analyzed separately and as mentioned below.

### First - the statistical analysis of the students' questionnaire

An electronic questionnaire was distributed randomly to a group of students of institutes, colleges and postgraduate studies, and the number of responses was (161) questionnaire. The answers were taken in Excel, then coded, and then converted into SPSS for statistical analysis.

1. **Cronbach's alpha coefficient** was extracted to show the validity and stability of the questionnaire, and the value of the coefficient was equal to (0.804), which is a high percentage that indicates the validity and stability of the questionnaire.
2. In order for the statistical analysis process to proceed in the right direction, the data must be subjected to the **normal distribution test**, and the result was positive, as shown in Figure (1) below:

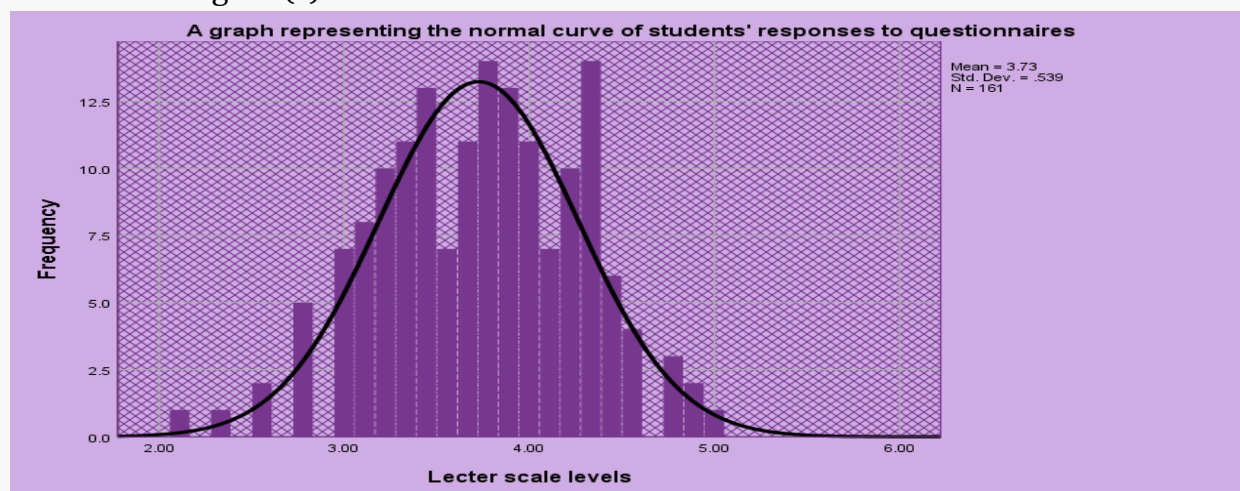


Figure (1)

Also, the value of the mean = 3.73 appeared in the figure, which means that the majority of the answers fall within the limits of (agree) for the five-point Lecter scale, and this is a very good indicator. As for the standard deviation, its value was equal to (0.539), and this is also a very good indicator indicating harmony among the sample members.

### 3. **Descriptive and inferential Measurs:**

a) View of the sample :

The sample was classified according to the gender distribution and study. According to Table No. (1) and as shown below:

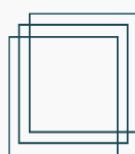


Table No. (1) represents the research sample of students classified according to gender and study

Gender \ study	Institute	college	postgraduate studies	Total
Male	17	40	5	62
Female	28	68	3	99
Total	45	108	8	161

From the observation of Table No. (1), it becomes clear to us that the highest response is for college students with (108) responses, (68) female and (40) male responses, and the institute students come in second place with (45) responses, and finally postgraduate students with (8) responses.

b) When the students were asked about the e-learning tools used in their teaching, their answers were as shown in Table No. (2) below. This indicates that the highest response is (social media with e-learning) by (52.8%). It comes after (e-learning platforms only) by 34.2% , Then (social media such as WhatsApp, Telegram and YouTube channels (only 13%) . This indicates that the teachers make every effort and diversify the means in order to deliver the information to the students.

Table (2) shows the methods used in e-learning in Iraq

E-learning tools	frequencies	percentage
(Social media such as WhatsApp, Telegram and YouTube channels) only.	21	13%
E-learning platforms (such as Classroom and other platforms) only.	55	34.2%
Social media with e-learning platforms.	85	52.8%
Total	161	100%

c) The students answered about: Do you prefer e-learning, face-to-face education, or both? The students answered that 17% reject e-learning , that 41% prefer it And (42%) find it suitable for times of crisis. And as shown in Figure (2) below:

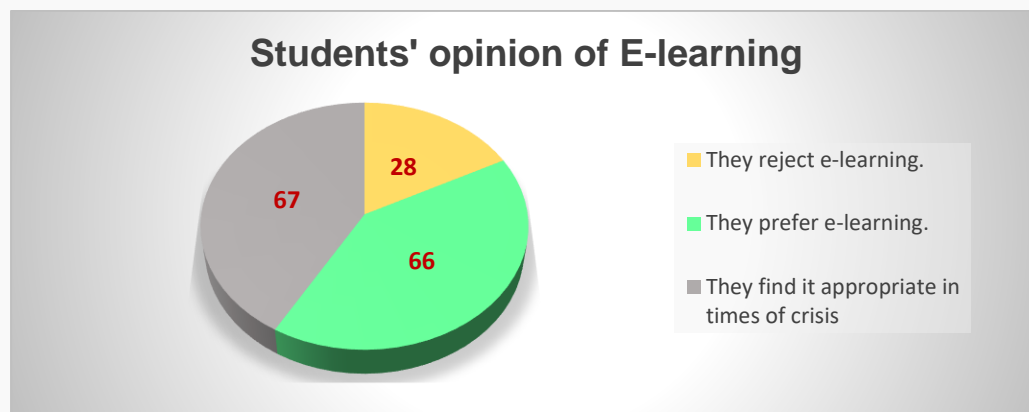


Figure (2)

d) Under normal circumstances: What would you prefer...? The students answered that the percentage (60.2%) would be preferable to study (the basic subjects are in attendance and the assistance is electronic), which is the highest percentage. Then comes a rate of (27.3%), preferably all subjects being attended, And a percentage of (12.4%) prefer e-learning for all subjects. And as contained in Table No. (3):

Table (3) represents a student survey on the type of e-learning

How do you prefer e-learning	frequencies	percentage
All electronic materials	20	12.4%
The basic materials are present and the assistance is electronic	97	60.3%
All materials are present	44	27.3%
Total	161	100%

e) From the observation of the descriptive analysis of the two axes, we find that: The arithmetic mean for each of the first and second axis, respectively (3.71, 3.71) This means that the majority of the answers fall within (accept) within the five-point Lecter scale, and this is a very good indicator. As for the standard deviation of both axes, in order (.571, .741) this is also a very good indicator. And that the correlation coefficient between the challenges facing e-learning and the interaction of students in Iraqi universities is equal to (.3340), although the correlation is weak, but it is statistically significant. And that the value of the F test is equal to 19.957 at a significant level of 0.00, which is less than 0.05, and this indicates that the relationship between them is statistically significant, and as shown in the equation below:

$$Y = 2.152 + 0.431x$$

That is, if the independent variable represented by the first axis (challenges facing e-learning) changes by one degree, the dependent variable represented by the second axis (students' interaction with e-learning...) changes by (0.431).

All these indicators indicate that the type of challenges facing e-learning have a statistically significant effect on student interaction.



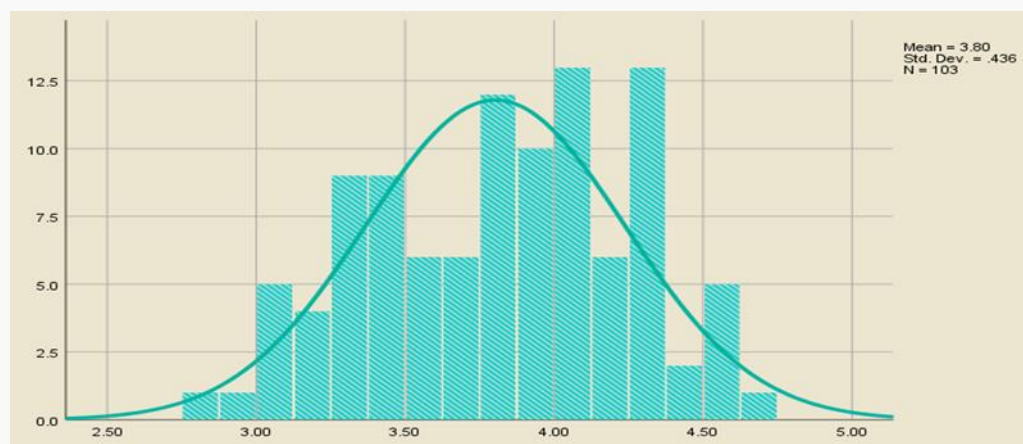
## Second - the statistical analysis of the questionnaire for teachers

An electronic questionnaire was randomly distributed to a group of professors of institutes and colleges, and the number of responses was (103) questionnaires. The answers were taken in Excel, then coded, and then transferred to the SPSS program for statistical analysis.

**1) Cronbach's alpha coefficient** was extracted to show the validity and reliability of the questionnaire, (0.819), which is a high percentage that indicates the validity and reliability.

**2)** By testing the data, are they subject to a normal distribution, it turns out that they are subject to **a normal distribution**, as shown in the figure below, which makes the statistical analysis process the right track.

Figure(3) A graph representing the normal curve for responding to teachers' questionnaires



Also, the value of the mean = 3.80 appeared in the figure, which means that the majority of the answers fall within the limits of (agree) for the five-point Lecter scale, and this is a very good indicator. As for the standard deviation, its value was equal to (0.436), and this is also a very good indicator indicating harmony among the sample members.

### **3) Analysis of demographic and scientific questions:**

a) View of the sample :

The sample of teachers was classified according to gender and academic achievement as shown in in Table No. (4).

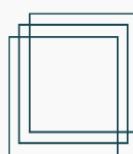


Table (4) represents the research sample of teachers by gender and academic achievement

Academic achievement Gender	Bachelor's	Higher Diploma	Master's	Ph.D	Total
male	10	2	18	7	37
Female	27	3	22	14	66
Total	37	5	40	21	103

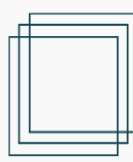
b) The classification of the sample according to years of service was as shown in Table No. (5) below: As the highest percentage (29.1) includes the first category, whose years of service range from 1 to 5 years, This indicates that a third of the respondents are young, which is a good indicator, given that they have to rely on them for the future, The last category comes in second place, whose years of service range from 26 or more, which means that it is possible to benefit from their experience in university work.

Table (5) represents the categories of the sample by years of service

The categories	frequencies	percentage
From 1 to 5	30	29.1%
From 6 to 10	14	13.6%
From 11 to 15	8	7.8%
From 16 to 20	13	12.6%
From 21 to 25	17	16.5%
From 26 and over	21	20.4%
Total	103	100%

c) When the teachers were asked about when they became acquainted with e-learning, it became clear that 66% of them learned about it through their studies inside Iraq before the Corona pandemic, and this is a high percentage, which indicates that e-learning was known in Iraq before the pandemic. 23.3% of them through their studies inside Iraq during the pandemic, And 7.8% through their studies outside Iraq during the pandemic And 2.9% through their studies outside Iraq before the pandemic.

d) It turned out that (57.3%) did not practice the e-learning process, (40.8%) practiced e-learning inside Iraq before the pandemic and (1.9%) practiced e-learning inside Iraq after the pandemic. This means that (42.7%) had knowledge of e-learning inside Iraq before the pandemic, which is a good percentage and that (94.2%) agreed that e-learning has other benefits than teaching students, and this is a very high percentage. Such as (holding electronic development courses, seminars and workshops) that help in obtaining data and enriching and renewing teachers' information, especially during critical times, such as the Corona pandemic as example.



e) That (98.1%) participated in electronic (development courses, seminars and workshops), which is a very high percentage of the sample size, compared to (1.9%) who did not participate at all, which is a very small percentage, and this is a good indicator. The number (52) of the respondents find that the benefit from the electronic (development courses, seminars and workshops) is the same as in the attendance and better compared to (51) who find that the benefit from them is less than the attendance and the number is almost, although it is close, but the preference is for the electronic.

f) From the observation of the descriptive analysis of the two axes, we find that: The **arithmetic mean** for each of the first and second axis, respectively, is as follows (3.9592, 3.6456). This means that the majority of the answers fall within the limits of (accept) within the five-point Lecter scale, and this is a very good indicator. As for the **standard deviation** of both axes, in order (0.40715, 0.60872), this is also a very good indicator. And that the **correlation** coefficient between the challenges facing e-learning in Iraqi universities and the interaction of faculty members is equal to (0.45), which is a statistically significant direct average with a significance level of 0.01 . And that the value of the F test is equal to 25.565 at a significant level of 0.00, which is less than 0.05, and this indicates that the relationship between them is statistically significant, and as shown in the equation below:

$$Y = .985 + .672 x$$

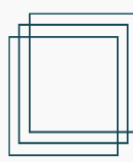
That is, if the independent variable represented by the first axis (challenges facing e-learning) changes by one degree, the dependent variable represented by the second axis (faculty interaction with e-learning...) changes by (0.672). All these indicators indicate that the type of challenges facing e-learning have a positive impact on the interaction of teachers.

## **The fourth topic - conclusions and recommendations**

### **First- Conclusions:**

Through the statistical analysis of the questionnaire for each of the teachers and students, we conclude the following:

1. E-learning studies have proven its importance and has had a positive impact on developing the views of the teaching staff and students.
2. It is possible to take advantage of all the modern and advanced means in the e-learning process, represented by the devices, equipment and software that can be used.
3. The multiplicity and diversity of modern technical means and their rapid developments contribute to increasing the need to benefit from the advantages of using them in various fields of life, and that not benefiting from them can be an indication of the size of the scientific gap in that field in which they were not used.
4. Most of the obstacles to e-learning in Iraq result from poor internet and power outages.
5. Both teachers and students are interacting with e-learning, despite the difficulties.



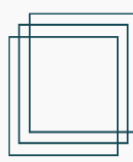
6. The teachers believe that e-learning is not conditional on teaching students only, but it is possible to continue it in reviving other activities such as courses, workshops, etc....), which helps communication between other countries and the exchange of opinions and experiences quickly.

### **Second - Recommendations:**

1. The need to include teachers who do not have the necessary technical knowledge of how to use information technologies in general and the means that can be used in the field of e-learning in particular in training courses and provide them in their academic departments so that they can use them permanently and continuously.
2. The need to encourage students to deal with information technologies and to benefit from them in the education process.
3. Continuing e-learning, especially for theoretical and auxiliary subjects, and broadcasting study schedules and grades via the Internet, similar to other countries and in force even before the Corona pandemic.
4. For each teacher to keep an electronic channel or class in which he communicates with his students, even if his subject is present. At least, we will create a background for the student on e-learning to benefit from when completing his studies outside Iraq.
5. The teacher can broadcast his lectures in the classroom, which reduces the burden of the student by reproducing the lecture.
6. That the university e-mails remain in force by the faculty and the student together.

### **Arabic sources**

- 1) Islam, Abdul Aziz bin Salem, (2005) Informatics and Education, Theoretical Rules and Foundations, Dar Al-Zaman for Publishing and Distribution.
- 2) Al-Jarf, Rima Saad (2009) Requirements for activating electronic courses in the stages of general education in the Kingdom of Saudi Arabia. Proceedings of the e-learning forum in the Ministry of Education.
- 3) Al-Khan, Badr Al-Huda, translated by Ali Bin Sharaf Al-Mousawi and others (2005) E-learning strategy, Shuaa Publishing and Science, Syria, Aleppo.
- 4) Arifi, Yusef. "E-learning is a pioneering technology and a promising method." A working paper presented to the first symposium on e-learning during the period (19-21 Safar 1424 AH), King Faisal Schools, Riyadh.
- 5) Al-Muhaisen, Ibrahim bin Abdullah (2003), E-learning... a luxury or a necessity, a working paper presented to the symposium of the School of the Future, King Saud University. p.1.
- 6) Al-Mousa, Abdullah bin Abdulaziz, (2003), the concept of e-learning, its characteristics, benefits and relationships, School of the Future, King Saud University.

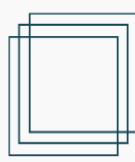


- 7) Al-Mousa, Abdullah bin Abdulaziz, and Al-Mubarak, Abdulaziz Ahmed (2005), e-learning, foundations and applications, Riyadh Data Network Corporation.
- 8) Al-Hasnawi, Mowaffaq Abdulaziz, The effect of using computers and the Internet on developing students' attitudes and developing motivation for learning, (2013), Southern Technical University (research accepted for publication).
- 9) Al-Hersh, Ayed and others, 2010) Obstacles to the use of e-learning from the viewpoint of secondary school teachers in the Koura district, The Jordanian Journal of Educational Sciences, Volume 6 / Number 1, Jordan / College of Education).
- 10) Hamed, Suhair Adel, Tala Asim Faeq, digital education, a conceptual and theoretical introduction, The Arab Journal of Psychological Education, Issue 7, 2019 .
- 11) Salah El-Din, Safaa Mohamed, The role of e-learning in the development of e-learning in the Arab Republic of Egypt, 2018, research published in the Middle East Research Journal, Issue 45 .
- 12) Ghuloom, Mansour, e-learning in the schools of the Ministry of Education in the State of Kuwait, a working paper presented to the e-learning symposium during the period (19-21 Safar) corresponding to (21-23/4/2003).
- 13) Musa et al., Ibtisam Sahib, Duraid Musa al-Araji, Raeda Hussein Hamid (2020) Obstacles to applying e-learning from the point of view of Arabic language scholars and teachers, Aalborg Academy Journal of Humanities and Social Sciences, Volume 1, Issue 2.

### **Foreign References**

- 1) Bashir, K. (2019). Modeling E-learning interactivity, learner satisfaction and continuance learning Intention in Ugandan higher learning institutions. International Journal of Education and Development using Information and Communication Technology.
- 2) Bosman.K.(2020),Simulation based E-Learning, Syracuse University.
- 3) Basilaia, G., &Kvavadze, D. (2020). Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. Pedagogical Research, 5(4), em0060. <https://doi.org/10.29333/pr/7937> Retrieved, 27/5/2020.
- 4) Draissi, Z. Yong, Q, Z. (2020). COVID-19 Outbreak Response Plan: Implementing Distance Education in Moroccan Universities. School of Education, Shaanxi Normal University.
- 5) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3586783](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3586783) .
- 6) [http://www.elearningnc.gov/about\\_elearning/what\\_is\\_elearning/](http://www.elearningnc.gov/about_elearning/what_is_elearning/) 2018).
- 7) Favale, T., Soro, F., Trevisan, M., Drago, I., Mellia, M. (2020). Campus traffic and e-Learning during COVID-19 pandemic. Computer Networks. 176.
- 8) <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>. Retrieved, 27/5/2020.
- 9) Koumi, J (2006). Designing Educational Video and Multimedia for Open and Distance Learning.





- 10) Sahu, P. (2020). Closure of Universities Due to Coronavirus Disease (COVID- 19): Impact on Education and Mental Health of Students and Academic Staff. Medical Education and Simulation, Centre for Medical Sciences Education, The University of the West Indies, St. Augustine, TTO.
- 11) Yulia, H. (2020). Online Learning to Prevent the Spread of Pandemic Corona Virus in Indonesia. ETERNAL (English Teaching Journal). 11(1).

### **questionnaire for students**

#### **In The Name of Allah Most Gracious Most Merciful**

**Dear Respondent:** The questionnaire in your hands is used for scientific research purposes only for research tagged ((challenges facing e-learning in the Republic of Iraq - a field study in Iraqi universities)), please help us answer the questions below.  
.... Thank you for your cooperation with the utmost gratitude and appreciation....

Female researchers

Esraa.hassan

Wisam K. Hamdan

Dr.

Nahla.talal

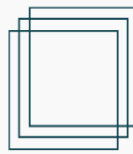
Al-Furat Al-Awsat Technical University / Technical Institute – Karbala

#### **First: demographic questions**

- 1) Gender: male....., female..... .
- 2) Academic achievement: Bachelor's degree..., higher diploma..., master's degree..., PhD....., others..... .
- 3) Years of service in university education: from 1 to 5....., from 6 to 10....., from 11 to 15....., from 16 to 20....., from 21 to 25....., from 6 and more..... .
- 4) Learn about e-learning: Through your studies inside Iraq during the Corona pandemic..... , Through your studies inside Iraq before the Corona pandemic.... , Through your studies outside Iraq during the Corona pandemic..... , Through your studies outside Iraq before the Corona pandemic..... .
- 5) I practiced e-learning as a teacher before the pandemic.....: Yes in Iraq....., yes abroad....., no..... .
- 6) Years of service in e-learning: Remember as a number..... .
- 7) E-learning has other benefits than teaching students: Yes....., No..... .
- 8) I participated in electronic activities such as (electronic courses, conferences or workshops...) as a lecturer: Yes....., No..... .
- 9) The number of electronic courses in which he participated as a lecturer within the institution: Mention as a number ..... .
- 10) Number of electronic courses in which he participated as a lecturer outside the institution: Mention as a number.... .
- 11) The number of electronic courses in which he participated as a lecturer outside Iraq: Remember as a number..... .
- 12) I participated in electronic activities such as (electronic courses, conferences or workshops...) as a participant: Yes....., No..... .

<https://ejedl.academiascience.org>

**Emergent: Journal of Educational Discoveries and Lifelong Learning is a scholarly peer reviewed international Journal**



- 13) The number of electronic activities that the participant participates in as a participant within the institution: it is mentioned as a number.
- 14) The number of electronic activities that the participant participates in as a participant outside the institution: it is mentioned as a number.
- 15) The number of electronic activities that the participant participated in as a participant outside Iraq: It is mentioned as a number.
- 16) Benefit from electronic activities: As it is in attendance.... , Less benefit than attendance..... , More benefit than attendance..... .

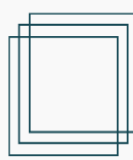
**Second: scientific questions:**

The first axis: What is the level and type of challenges facing e-learning in Iraqi universities?

S	Questions	Strongly disagree	disagree	neutral	agree	strongly agree
1	Students' interaction with e-learning and lectures was affected due to difficult or special living conditions.					
2	Students of remote areas, sub-districts and districts face more difficulty in attending electronic lectures because of their poor internet.					
3	E-learning constitutes a financial burden on the student in terms of the financial cost of providing a subscription line for the generator in the event of a power outage to work on it.					
4	It reduces the material costs of the student in terms of the cost of transportation, since education is remote.					
5	It reduces the financial costs of the student in terms of the cost of clothing, stationery and other supplies.					
6	E-learning allows diversity by using different electronic media, such as (various electronic platforms and social networking sites...), which leads to student interaction with electronic lessons.					
7	The university provides training guidance electronic courses that explain the mechanism of using the e-learning system for students during the Corona crisis.					
8	The student faces problems and obstacles when studying the subject electronically, since most students do not have sufficient information about this type of education.					
9	A power outage occurs during the educational process, which causes confusion and exit from the electronic classroom.					
10	E-learning constitutes a financial burden on the student in terms of the material cost of providing a computer or mobile device to work on.					

The second axis: What is the level of interaction of faculty members with e-learning in Iraqi universities?

S	Questions	Strongly disagree	disagree	neutral	agree	strongly agree
1	There is difficulty for teachers in keeping track of the large numbers of students through the available e-learning tools.					
2	E-learning allows interaction between students and the educational staff, between students with each other, and between students and the curriculum without fear.					
3	E-learning provides ease of interaction between students and the electronic curriculum for academic subjects.					
4	There is encouragement by the administration of universities and scientific departments in Iraqi universities to use e-learning.					
5	Providing financial support for e-learning at the university level, with a specialized technical support team.					
6	Provide professors who are able to plan for e-learning with the development of regulations and organizational procedures.					
7	Providing classrooms that contain the necessary equipment for the use of integrated accounting education, along with providing a fast connection to the Internet.					
8	Providing distinguished trainers in electronic calculator applications and university recognition for this type of education.					
9	An electronic link is made between the different education topics related to each other to facilitate the process of delivering the scientific material.					
10	Diversification is done with electronic media that provide e-learning through the use of electronic platforms.					



**questionnaire for teachers**

**In The Name of Allah Most Gracious Most Merciful**

**Dear Respondent:** The questionnaire in your hands is used for scientific research purposes only for research tagged ((challenges facing e-learning in the Republic of Iraq - a field study in Iraqi universities)), please help us answer the questions below. .... Thank you for your cooperation with the utmost gratitude and appreciation....

Female researchers

Esraa.hassan

Wisam K. Hamdan

Dr. Nahla.talal

Al-Furat Al-Awsat Technical University / Technical Institute – Karbala

**First: demographic questions**

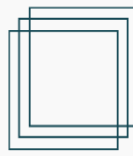
- 1) Gender: male....., female..... .
- 2) Student: Institute....., college....., postgraduate studies..... .
- 3) Stage: first..., second..., third..., fourth..., fifth..., sixth..., first year studies..., preparatory year... .. .
- 4) Did you teach online? Yes....., No..... .
- 5) Your e-learning was limited to: Social media such as (WhatsApp, Telegram, and YouTube channels) only..... , E-learning platforms such as (classroom and other platforms) only..... , Social media with e-learning platforms..... .
- 6) Prefer the application of e-learning: Yes....., No....., a suitable alternative when there are crises such as (pandemic, Corona... and others)..... .
- 7) Under normal conditions: Would you like to be..?: All electronic materials....., basic materials are available....., and electronic assistance, all materials are available..... .

**Second: scientific questions:**

**The first axis:** What is the level and type of challenges facing e-learning in Iraqi universities?

S	Questions	Strongly disagree	disagree	neutral	agree	strongly agree
1	E-learning achieves communication between students and teachers on the one hand, and between students with each other on the other hand.					
2	E-learning is keen to follow the laws in accordance with the directives of the Ministry of Higher Education and Scientific Research.					
3	Students face problems and obstacles when studying the subject electronically, since most students do not have sufficient information about this type of education.					
4	The student is fluent in dealing with technical problems that occur during the educational process according to e-learning.					
5	There are teachers or technicians who are good at dealing with technical problems, especially during the exam period.					
6	Students of remote areas, sub-districts and districts face more difficulty in attending electronic lectures because of their poor internet.					
7	E-learning constitutes a financial burden on the student in terms of the financial cost of providing a subscription line for the generator in the event of a power outage to work on it.					
8	E-learning constitutes a financial burden on the student in terms of the financial cost of providing a computer or mobile device to work on.					
9	Power outages during the educational process cause confusion and expulsion from the electronic class or exam.					

**The second axis:** What is the level of interaction of faculty members with e-learning in Iraqi universities?



S	Questions	Strongly disagree	disagree	neutral	agree	strongly agree
1	You have a real desire to learn through the e-learning curriculum.					
2	Following the e-learning curriculum helps to manage time regularly and well.					
3	E-learning achieves interaction between students and teachers and between students during the lecture.					
4	Students are fluent in classifying electronic information according to its importance to their studies.					
5	Do you have the desire to operate a computer to manage electronic files.					
6	Students are trained by the university to use e-learning by giving them some qualifying courses.					
7	Students' interaction with e-learning and lectures is affected by difficult or special living conditions.					
8	It reduces the financial costs of the student in terms of the cost of transportation, since education is remote.					
9	It reduces the material costs of the student in terms of the cost of clothing, stationery and other supplies.					