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**Investigating Iraqi EFL College Students' Attitudes towards E-Learning and the Challenges Faced by Them****A B S T R A C T**

This study aims to investigate the Iraqi EFL university students' attitude towards e-learning and identify the obstacles faced them in using it. At the end of 2019 and by the beginning of 2020, Iraq witnessed a wave of demonstrations against corruption. The demonstrators closed more than 8 universities and hundreds of schools. Then and particularly in February of 2020, the closed universities and schools in the provinces which witnessed demonstrations were opened and students went back to their education. Two weeks later, a first case of coronavirus has been proved. Due to the spread of the virus, the government imposed quarantine on the people. The students were forced to take their lessons from their teachers via internet and educational platforms such as Google Class, Free Conference Call, Zoom, and social media such as Telegram and YouTube. This study aims to shed lights on the attitudes and challenges of Iraqi students on one hand and the Iraqi EFL university students towards e-learning on the other.

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## استقصاء مواقف طلبة اللغة الإنجليزية كلغة أجنبية الجامعيين العراقيين تجاه التعليم الإلكتروني والتحديات التي يواجهونها

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تهدف هذه الدراسة إلى استقصاء مواقف طلبة الجامعات العراقية من التعليم الإلكتروني وتحديد التحديات التي تواجههم في استخدامه. في نهاية عام 2019 وبحلول بداية عام 2020، شهد العراق موجة من المظاهرات ضد الفساد. وأغلق المتظاهرون أكثر من 8 جامعات ومئات المدارس ثم وخاصة في فبراير من عام 2020، تم فتح الجامعات والمدارس المغلقة في المحافظات التي شهدت مظاهرات وعاد الطلاب إلى تعليمهم. وبعد أسبوعين، ثبتت أول حالة إصابة بفيروس كورونا. وبسبب انتشار الفيروس، فرضت الحكومة الحجر الصحي على المجتمع واضطر الطلاب إلى أخذ دروسهم من معلمهم عبر الإنترنت والمنصات التعليمية مثل ( Google Class و Free Conference Call و Zoom و وسائل التواصل الاجتماعي مثل ( YouTube و Telegram ) ) تهدف هذه الدراسة إلى تسليط الضوء على مواقف الطلبة العراقيين بشكل عام من جهة وطلبة اللغة الإنجليزية كلغة أجنبية العراقيين الجامعيين تجاه التعليم الإلكتروني من جهة أخرى

### 1. Introduction

In recent years, e-learning has been used as another option for education. This option proved its success as a new way of learning and teaching in high developed countries. Internet and technologies have become powerful tools for developing educational system in some countries and have also improved the efficiency of teaching and learning skills in universities. They also helped improve students' level of education, achievements, and performance. The rapid use of technologies and e-learning is promising of employment for many graduates and economic growth especially in developing countries (Olson et al., 2011; Lwoga & Komba, 2015).

E-learning is a process of gaining knowledge via electronic means (Wentling et al, 2000). Such means include computers, cell phones, and educational platforms such as Google Class, FCC, Zoom, and social media such as Telegram, Facebook, and You Tube. E-learning is an educational system which is completely different from that of the traditional one. It uses information and communication technologies (ICTs) for teaching, learning, training, and communicating.

### Literature Review

Few kinds of research have explored the students attitude towards E-learning sustainability when studying an English course in E-learning means.

The use of technology into education (for instance, the use of E-learning) encountered many challenges even in developed countries. Donnelly, & McAvinia, (2012) stated that there are "many teachers have had no training and little experience in the use of information technology and communications as an educational device" ( p 19) . Moreover, administrative factors could contribute to minimizing the benefit of using E-learning devices. Therefore, Taurus, David, and Alex, (2015) identified the challenges inhibiting the

implementation of E-learning. It also emerged that application of E-learning faces some obstacles. According to Feeney (2001), E-learning use has been the focus of recent academic attention. In higher education studies, as the integration of technology becomes obligatory at universities worldwide, the implementing of digital courses in a new E-learning setting becomes both a source of data upon which to evaluate the educational performance and an organizational goal. Moreover, Feeney (2001) also stated that the higher education studies face many challenges in the use of E-learning. However, Kim (2008) asserted that the challenges of technology obstruct the use of E-learning in higher studies is university resistance. Furthermore, other studies present factors such as interaction, technology, instructor, and characteristics of students were key factors to an efficient E-learning (Selim, 2007). Khan, Hasan, and Clement, (2012) indicated that if teachers want to implement technologies in their classes appropriately, they need to possess a positive attitude towards the use of these technologies. For the benefits of E-learning devices, Clarke (2004) argued that students have freedom in choosing time, place, and the educational environment (p.32). Meanwhile, Berhanu (2010) pointed out that enhancing E-learning offers a potential and comparative ladder for improving countries to leapfrog to the overall knowledge. It facilitates learning to the students through the use of communication technologies. Al-Harbi (2011) stated that different factors affect E-learning acceptance. Moreover, the most important factor in determining the students' intention to use E-learning is their attitude toward E-learning. Meanwhile, students' decision to use E-learning devices is also decided by their subjective norm, i.e., the effect of people around them. However, the awareness of E-learning's accessibility plays a great role in shaping the students' attitudes regarding E-learning acceptance. Bendania (2011) pointed out that the factors related to mainly confidence, experience, usefulness, positive attitudes, enjoyment, motivation and whether students are skillful in ICT are all correlated. Fageeh (2011) showed that informants identified and the inhibitors/facilitators of E-learning recognized in prior research. He also demonstrated that students are ready to accept the use of technologies and shift to an educational E-learning programme. In the same setting, Al-Dosari (2011) assessed the university students' perceptions of E-learning in the ELT departments. He noticed that their responses were positive and indicated that learning enhanced in an E-learning setting compared to a traditional method. Al-Mansour and Al-Shorman (2011) argued that students who taught English language through E-learning programmes alongside the traditional method showed a better achievement than those who taught English language through the use of traditional method alone. According to Salmon (2004), "training on the technological features of the E-learning system is only the first step to success, and the real challenge is training for changes to pedagogy" (p.6). Blinco., Mason., McLeamon, and Wilson, (2004) stated that articulating the success of E-learning rests upon the urgent requirement that the teachers and students possess adequate educational skills to use E-learning tools. Moreover, Zake (2009) stated that poverty is one of the most important obstacles because ICT is relatively more expensive. Rhema and Miliszewska (2010) presented some challenges with cultural & linguistic background of university students/teachers with their perceptions/attitudes towards E-learning, such as low technological infrastructure, technological cost, lack of E-learning lectures management and lack of proficiency in E-learning.

Some of the related studies asserted that the use of E-learning has increased as university perspectives toward such technology which has increased too (Ong, Lai, & Wang, 2004; Roca, Chiu, & Martínez, 2006). There are many challenges to be avoided while using E-learning in universities. According to Al-Ghaith., Sanzogni, and Sandhu, (2010), the quality of internet access is an important factor influencing the implementing and usage of E-learning. However, the hypotheses of this study are to find out the attitudes and obstacles that EFL students face in learning English when using E-learning devices.

Sangrà, Vlachopoulos, & Cabrera (2012) stated that:

The evolution of distance education, as a result of new technologies and the contributions of computer scientists to the field of education along with the conceptualisation of education as a lifelong process, poses a major challenge for educational institutions: how to integrate these technologies into their organisation and, especially, into their teaching. From simple occasional use of ICT to reinforce face-to-face teaching and learning to the use of virtual environments for courses conducted completely online according to a variety of educational models, the incorporation of ICT into the learning process is being achieved from very different perspectives and through an extensive range of formulas, albeit with one common denominator: the use of practices whose origin and pedagogical foundations lie in distance education (p.36).

### **Definition of E-learning**

The term E-learning was presented in 1998 by Jay Cross; Electronic learning or E-learning is a popular way of developing education by adopting technological devices. In general, the term E-learning is synonymous with online learning. E-learning becomes a new trend and a modern philosophy in teaching in general and in teaching English language in particular. So, E-learning has been defined in many different ways. For instance, Khan (2005) defined it as "an innovative approach for delivering well-designed, learner centred approach, interactive, and facilitated learning environment to anyone, anyplace, anytime" ( p.3).

This definition includes education on perspectives in addition to the content and access. On the other hand, Garrison (2011) defined E-learning as "electronically mediated asynchronous and synchronous communication to construct and confirm the knowledge" (p.2). Palloff and Pratt (1999) connected the physical, psychological and emotional issues in their definition "Electronic learning or E-learning is a general term used to refer to computer-based learning" (pp.15-6). Congruz-Bacescu, M. (2013) defined it as "E-learning concisely as the use of internet technologies to provide a broad range of solutions that enhances performance and knowledge. E-learning also means any act or virtual process used to obtain data, information, skills or expertise. In a broad sense, E-learning means all learning situations where there is significant use of informatics and communication resources "(pp. 573-578).

According to the previous definitions, E-learning implemented the internet and new multimedia technologies to improve the quality of teaching and learning. In other words, using of the internet and new multimedia technologies in learning as the educational tools to improve efficiency , accessibility, and quality of education. Clarke (2004) argued that the

close relation between ICT and "E-learning is covering many different approaches that have in common which use information and communication technology" (p.2). Jones (2003) stated that "E-learning is a digital learning, computer-enhanced learning. So, no matter which tag is applied, and all aim to exploit web-based technology to improve learning for students" (p. 66).

Iraq's idea of implementing e-learning did not come from previous planning, but it came as a result of the coronavirus crisis. There has been no research yet on Iraqi e-learning system. Therefore, this study aims to illustrate the obstacles that are facing Iraqi e-learning. The study also aims to measure the students' attitude towards the e-learning.

In order to achieve the aims, this study is motivated by two hypotheses:

1. Iraqi EFL college students' attitudes towards Iraqi e-learning are positive.
2. Iraqi EFL college students face no obstacles in using e-learning devices .

## **2. Research Method and Procedures**

The statistical population of the research consists of the students of the Department of English Language at the College of Education for Humanities-Wasit University. The participated students were from different levels of education. They are from first, second, third, and fourth levels. In order to test the first hypothesis and find out the students' attitude towards the e-learning, Cheng's (2006) questionnaire was adopted. Cheng's questionnaire is composed of (12) points. Each point contains (5) scales ranging from (a. strongly agree, b. agree, c. neither agree or disagree (neutral), d. disagree, e. strongly disagree). The questionnaire is used to measure the students' attitude towards e-learning. After explaining the questionnaire items to the students, the questionnaire is given to them in a classwork in Google Classroom. The students are asked to read each point and pick up one of the options whether they : strongly agree, agree, neutral , disagree, and strongly disagree. The total number of the participated students in the questionnaire is 184 students. The research follows simple random sampling technique. The collected data were analysed through using the statistical analysis software SPSS 20. Moreover , in order to test the second hypothesis and find out the students' opinions about the challenges faced them in using e-learning , the 184 students are also interviewed through using Google Meet and asked about their problems and challenges in the learning process. They indicated important challenges and difficulties as well as weak points in the e-learning method. The obstacles are listed in the results and discussion of the second hypothesis section in detail.

**Table 1***Cheng's (2006) Questionnaire Used to Measure Students' Attitude towards E-learning*

1	I like using e-learning for English modules
2	I think the teacher's application of e-learning in teaching English modules helps me improve my skills in English
3	I think the teacher's application of e-learning in teaching English modules is not useful
4	I think my grades will improve by using e-learning for English modules
5	I find English modules easier when the teacher uses e-learning in teaching
6	I hope teachers of English continue to use e-learning in their teaching
7	Using e-learning for English modules is more interesting than the traditional method
8	E-learning make me more interested in learning English
9	By using e-learning for English modules, the opportunity of interaction with the teacher is enhanced
10	By using e-learning for English modules, the opportunity of interaction with my classmates is enhanced
11	Using e-learning for English modules encourages me to continue learning on the Internet by myself
12	I am unwilling to learn English modules through using e-learning

### 3. Results and Discussion of the First Hypothesis

This section is concerned with the statistical analysis of Cheng's (2006) questionnaire which is used for measuring Iraqi students' attitudes towards e-learning. The questionnaire consists of 12 points. Each point has 5 scales ranging from strongly agree, agree, neutral, disagree, strongly disagree. The 184 students answer all the 12 points with their 5 scales. Each point is analysed according to the number and percentage of each scale.

**First Point:** I like using e-learning for English modules

**Table 1***Numbers and Percentages of the First Point Scales*

Scale	Number	Percentage
Strongly Agree	7	4%
Agree	21	11%
Neutral	23	13%
Disagree	62	34%
Strongly Disagree	71	39%

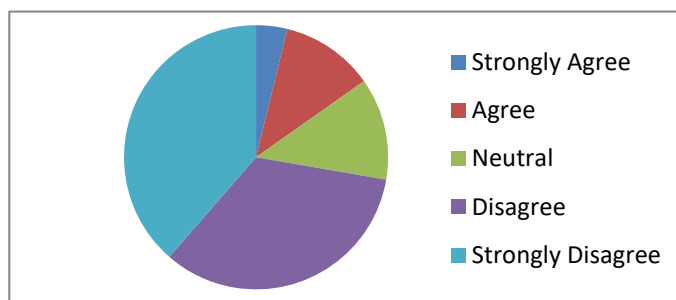
**Figure 1***Scales of the First Point*

Table 1 and figure 1 above clearly illustrate that most of the students show negative attitude towards the first point of the questionnaire. Out of 184 students, 62 (34%) of them disagree with the first point and 71 (39%) of them strongly disagree with the first point. Out of the 184 students, 133 of them do not like using e-learning for English modules.

**Second Point:** I think the teacher's application of e-learning in teaching English modules helps me improve my skills in English.

**Table 2**

*Numbers and Percentages of the Second Point Scales*

Scale	Number	Percentage
Strongly Agree	5	3%
Agree	27	15%
Neutral	29	16%
Disagree	59	32%
Strongly Disagree	64	35%

**Figure 2**

*Scales of the*

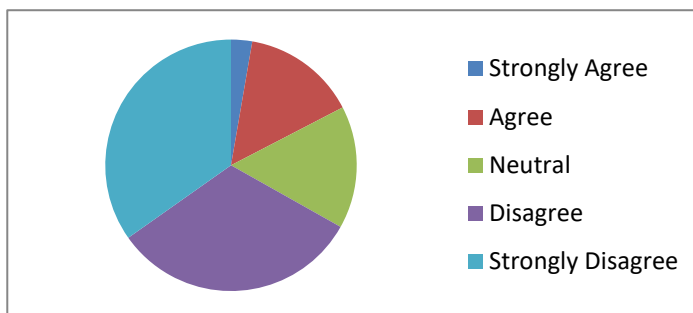


Table 2 and figure 2 above illustrate students' attitude towards the second point of the questionnaire. Out of 184 students, 123 of them disagree and strongly disagree with the second point. In other words, 123 participants do not think that the teacher's application of e-learning in teaching English modules help them improve their skills in English.

**Third Point:** I think the teacher's application of e-learning in teaching English modules is not useful.

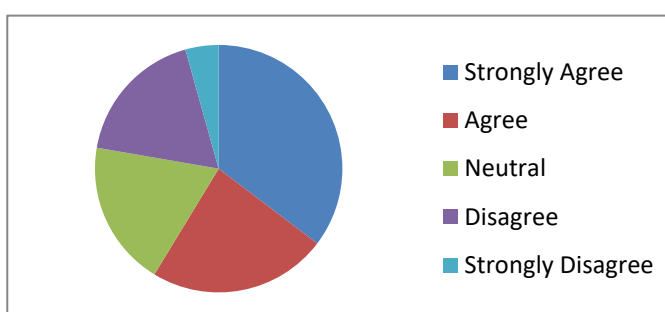
**Table 3**

*Numbers and Percentages of Third Point Scales*

Scale	Number	Percentage
Strongly Agree	65	35%
Agree	43	23%
Neutral	35	19%
Disagree	33	18%
Strongly Disagree	8	4%

**Figure 3**

*Scales of the Third Point*



The aforementioned table 3 and figure 3 clearly shows the numbers and percentages of each scales related to the third point. 65 of the participants which account for 35% of the total sample strongly agree with the third point. 43 (23%) of the total 184 students agree with the third point. 35 (19%) remain neutral (neither agree nor disagree) with the third point. 33 (18%) of the total 184 students agree with the third point, while 8 students only strongly disagree.

**Fourth Point:** I think my grades will improve by using e-learning for English modules

**Table 4**

*Numbers and Percentages of Fourth Point Scales*

Scale	Number	Percentage
Strongly Agree	5	3%
Agree	18	10%
Neutral	34	18%
Disagree	67	36%
Strongly Disagree	60	33%

**Figure 4**

*Scales of the*

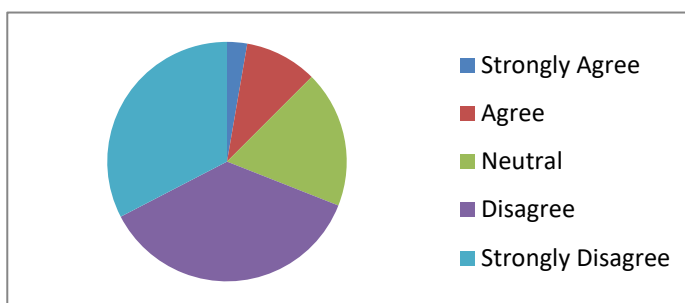


Table 4 and figure 4 show students' attitude towards the fourth point of the questionnaire. The numbers and percentages of the scales clearly show that 127 participants disagree and strongly disagree with the fourth point. 34 participants remain neutral, 18 participants agree with the fourth point, while 5 only strongly agree with the point. This indicates that most of the students show negative attitude towards the fourth point. Most of them do not think that their grades will improve by using e-learning for English modules.

**Fifth Point:** I find English modules easier when the teacher uses e-learning in teaching

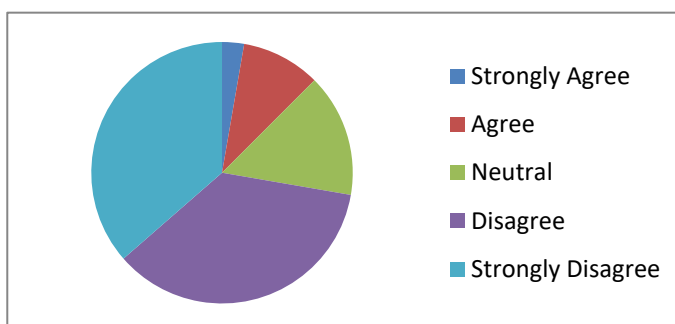
**Table 5**

*Numbers and Percentages of the Fifth Point Scales*

Scale	Number	Percentage
Strongly Agree	5	3%
Agree	18	10%
Neutral	28	15%
Disagree	66	36%
Strongly Disagree	67	36%

**Figure 5**

*Scales of the Fifth*



Out of 184 participants, 66 of them disagree with the fifth point, 67 strongly disagree with the fifth point, 28 of them remained neutral, 18 only agree, while 5 only strongly agree with the fifth point. Most of the students, as it can be seen, show negative attitude towards the fifth point. Most of them do not find that English modules easier when the teacher uses e-learning in teaching.

**Sixth Point:** I hope teachers of English continue to use e-learning in their teaching

**Table 6**

*Numbers and Percentages of the Sixth Point Scales*

Scale	Number	Percentage
Strongly Agree	4	2%
Agree	15	8%
Neutral	29	16%
Disagree	50	27%
Strongly Disagree	86	47%

**Figure 6**

*Scales of the Sixth*

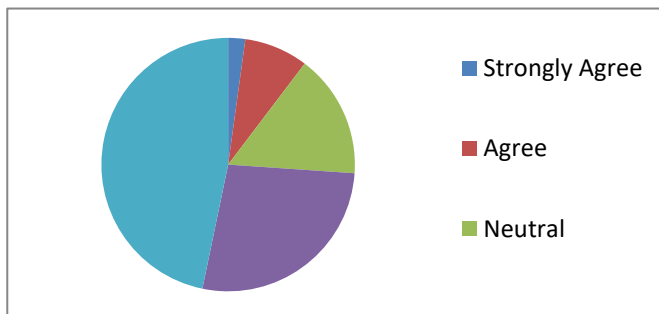


Table 6 and figure 6 clearly show that most of the students' responses are negative towards the sixth point. 86 (47%) of the participants strongly disagree, 50 (27%) disagree, 29 (16%) neutral, 15 (8%) agree, and only 4 (2%) strongly agree with the sixth point. The numbers and percentages of each scale illustrate that most of the participants show negative attitude with the sixth point of the questionnaire. In other words, most of the students do not hope that teachers of English continue to use e-learning in their teaching.

**Seventh Point:** Using e-learning for English modules is more interesting than the traditional method

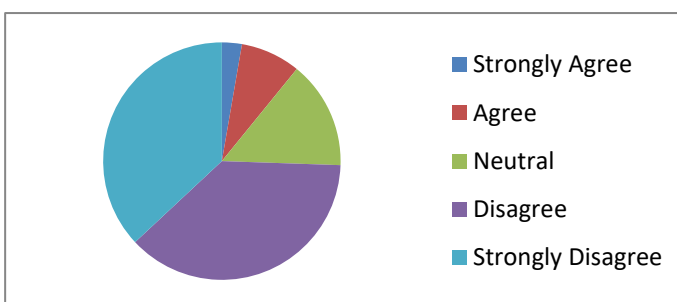
**Table 7**

*Numbers and Percentages of the Seventh Point Scales*

Scale	Number	Percentage
Strongly Agree	5	3%
Agree	15	8%
Neutral	27	15%
Disagree	69	38%
Strongly Disagree	68	37%

**Figure 7**

*Scales of the*



Out of the 184 students, 137 of them disagree and strongly disagree with the seventh point. In other words, students are uninterested in learning English using e-learning. The numbers and percentages of each scale show that their attitude is negative. The participants prefer the traditional method for English modules.

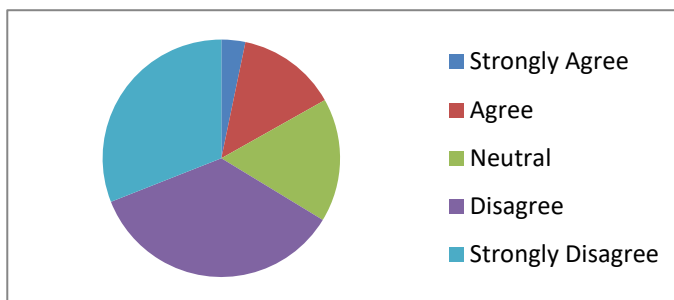
**Table 8**

*Numbers and Percentages of the Eighth Point Scales Point*

Scale	Number	Percentage
Strongly Agree	6	3%
Agree	25	14%
Neutral	31	17%
Disagree	65	35%
Strongly Disagree	57	31%

**Figure 8**

*Scales of the Eighth*



As it can be clearly shown in table 8 and figure 8 above, most students are less interested in learning English through e-learning. Students' attitude is still negative towards the Cheng's questionnaire of attitude. Only 31 out of 184 participants agree and strongly agree with the eighth point.

**Ninth Point:** By using e-learning for English modules, the opportunity of interaction with the teacher is enhanced

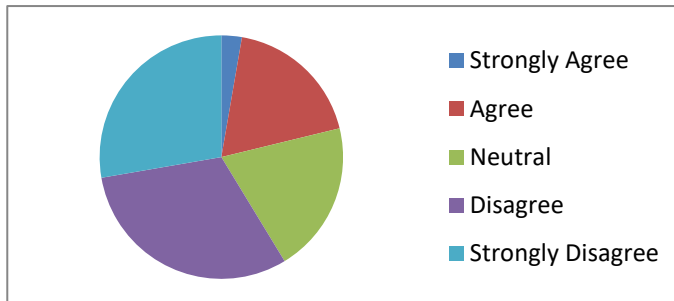
**Table 9**

*Numbers and Percentages of the Ninth Point Scales Ninth Point*

Scale	Number	Percentage
Strongly Agree	5	3%
Agree	34	18%
Neutral	37	20%
Disagree	57	31%
Strongly Disagree	51	28%

**Figure 9**

*Scales of the*



According to table 9 and figure 9 above, more than half of the students disagree and strongly disagree with the ninth point of the questionnaire. 5 participants only strongly agree, 34 agree, 37 neutral, 57 disagree, and 51 strongly disagree with the ninth point. It can be clearly seen from the numbers and percentages of each scales related to the ninth point that the students disagree with the idea that the opportunity of interaction with the teachers can be enhanced through e-learning.

**Tenth Point:** By using e-learning for English modules, the opportunity of interaction with my classmates is enhanced

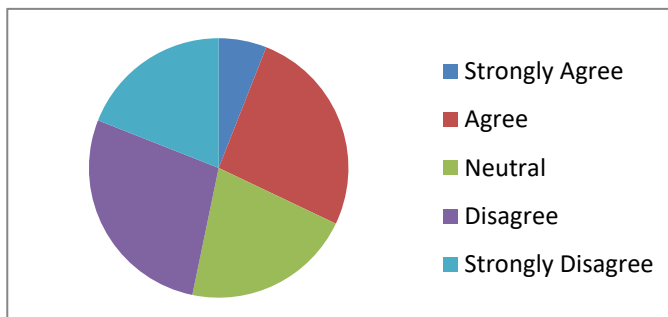
**Table 10**

*Numbers and Percentages of the Tenth Point Scales*

Scale	Number	Percentage
Strongly Agree	11	6%
Agree	48	26%
Neutral	39	21%
Disagree	51	28%
Strongly Disagree	35	19%

**Figure 10**

*Scales of the*



Out of the 184 students, only 11 strongly agree with the tenth point, 48 participants agree with the tenth point, 39 students remain neutral, 51 disagree, while 35 strongly disagree with the tenth point. The participants show some positive attitude towards this point with 11 (6%) of them strongly agree and 48 (26%) agree. 86 of the participants disagree and strongly disagree with the tenth point, while 39 (21%) prefer to stay neutral.

**Eleventh Point:** Using e-learning for English modules encourages me to continue learning on the Internet by myself

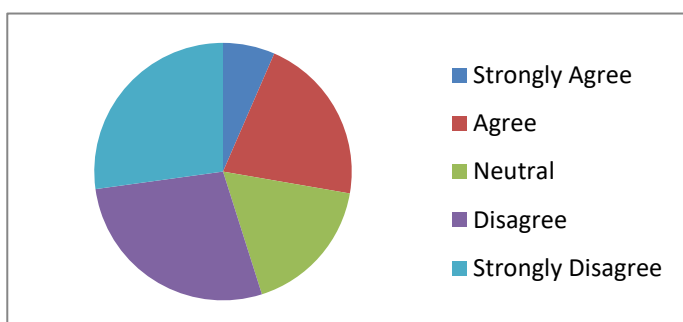
**Table 11**

*Numbers and Percentages of the Eleventh Point Scales*

Scale	Number	Percentage
Strongly Agree	12	7%
Agree	39	21%
Neutral	32	17%
Disagree	51	28%
Strongly Disagree	50	27%

**Figure 11**

*Scales of the*



More than half of the participants disagree and strongly disagree with the eleventh point. 101 out of 184 participants disagree and strongly disagree with the idea that e-learning can help and encourage them to learn on the internet by themselves.

**Twelfth Point:** I am unwilling to learn English modules through using e-learning

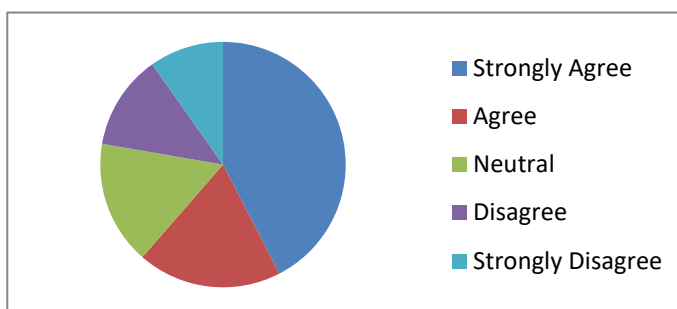
**Table 12**

*Numbers and Percentages of the Twelfth Point Scales*

Scale	Number	Percentage
Strongly Agree	78	42%
Agree	35	19%
Neutral	30	16%
Disagree	23	13%
Strongly Disagree	18	10%

**Figure 12**

*Scales of the Twelfth*



Most of the participants are unwilling to learn English modules through using e-learning. Most of the participated students agree and strongly agree with the twelfth point. In other words, they refuse the e-learning process. The numbers and percentages of the twelfth point suggest that there is a negative attitude towards the e-learning.

#### **4. Results and Discussion of the Second Hypothesis**

The second hypothesis of this study indicates that Iraqi EFL university students have no challenges in using e-learning devices, after interviewing the 184 participated students, the collected data reveals that the students faced the following challenges throughout using e-learning:

1. Online learning is inaccessible to the computer illiterate population.
2. E-Learning requires strong time preparation, management and self-motivation skills.
3. E-Learning is probably limited to certain disciplines.
4. Cheating prevention during online assessments and evaluation is complicated.
5. Online teachers tend to focus on theory rather than practice and avoid application.
6. E-Learning lacks face-to-face communication and interaction.
7. Feedback is limited in E-Learning study.
8. E-Learning lacks communicational skill development.
9. In E-Learning education there is a clear lack of accreditation and quality assurance.
10. Finally, E-Learning can cause social isolation cases.

## 5. Conclusions

Based on the result of the data analysis that have been explained above, it can be concluded as follows:

1. Iraqi EFL university students' attitudes towards Iraqi e-learning are negative, that most of the sample students show negative attitude towards e-learning.
2. Most participants do not think that the teacher's application of e-learning in teaching English modules is not useful and doesn't help them to improve their skills in English.
3. The majority of the students think that their grades will not improve by using e-learning for English modules.
4. Most participants do not want to continue with using e-learning in their teaching.
5. Iraqi EFL university students prefer dealing with the traditional method other than e-learning .
6. The participants indicated that by using e-learning for English modules, the opportunity of interaction with the teacher and the colleagues are disappeared.
7. The vital majority of the sample are unwilling to learn English modules through using e-learning.
8. E-learning technologies are sometimes difficult to access by students that made teacher difficult to teach students.
9. The students cannot have direct communication with the teacher that made teacher difficult to know characteristic of the students by person.
10. Not all the competences and material can be delivered well.
11. The result of students learning may be not objective since teacher cannot monitor students immediately.

### **Biodata:**

**Asst. Prof. Qasim H. Al-Ibadi is a PhD holder in the field of ELT. He is an instructor in Department of English/ College of Education for human sciences/ University of Wasit. He is interested in teaching English language, curriculum design, psycholinguistics, sociolinguistics, language and culture, and applied linguistics.**

## References

- Al-Dosari, H. (2011). Faculty members and students perceptions of E-learning in the English Department: A project evaluation. *Journal of Social Sciences*, 7(3), 391-407.
- Al-Ghaith, W., Sanzogni, L., & Sandhu, K. (2010). Factors influencing the adoption and use of online services in Saudi Arabia. *The Electronic Journal on Information Systems in Developing Countries*, 40(1), 1-32.
- Al-Harbi, K. A. (2010). E-learning in Saudi tertiary education: Potential and challenges. *Applied Computing and Informatics*, 9, 31-46. <http://dx.doi.org/10.1016/j.aci.2010.03.002>
- Al-Mansour, N. S., & Al-Shorman, R. A. (2011). The effect of computer-assisted instruction on Saudi University students' learning of English. *Journal of King Saud University – Languages and Translation*, 24, 51-56. <http://dx.doi:10.1016/j.jksult.2009.10.001>
- Bendania, A. (2011). Teaching and learning online: King Fahd University of Petroleum and Minerals (KFUPM) Saudi Arabia, case study. *International Journal of Arts & Sciences*, 4(8), 223-241.
- Berhanu, B. (2010). *A Model for an E portfolio-based Reflective Feedback: a Case study of Elearning in Developing Countries*, unpublished PhD thesis. University of Hamburg, Hamburg.
- Blinco, K., Mason, J., McLean, N. & Wilson, S. (2004). *Trends and Issues in E-learning Infrastructure Development: A White Paper for alt-i-lab*. Prepared on behalf of DEST (Australia) and JISC-CETIS (UK).
- Clarke, A. (2004). *E-learning Skills*. MacMillan.
- Cheng, K. (2006). A research study on students' level of acceptance in applying e-learning for business courses – A case study on a technical college in Taiwan. *Journal of American Academy of Business*, 8(2), 265-270.
- Condruz-Bacescu, M. (2013). Cultural Challenges of E-learning. *Proceedings of the 9th International Scientific Conference "eLearning and Software for Education"*, 573-578
- Donnelly, R. & McAvinia, C. (2012). Academic Development Perspectives of Blended Learning. In Anastasiades, P.S. (Ed.), *Blended Learning Environments for Adults: Evaluations and Frameworks*, (pp.1-18). Hershey, PA: IGI Global. 2012.
- Fageeh, A. I. (2011). EFL students' readiness for E-learning: Factors influencing e-learners acceptance of the BLACKBOARD in a Saudi university. *The JALT CALL journal*, 7( 19-42).
- Feeney, D. (2001). Rates of adoption in a university course management system. *Unpublished Dissertation, West Virginia University, Morgantown, WV.*
- Garrison, D.R. & Anderson, T. (2003). *E-learning in the 21st century. A framework for research and practice*. London: Routledge.
- Khan, B. (2005). *Managing E-learning Strategies: Design, Delivery, Implementation and Evaluation*. Hershey, PA, USA: idea group Inc.

- Khan, S., Hasan, M. & Clement, C. (2012). Barriers to the introduction of ICT into education in developing countries: The example of Bangladesh. *International Journal of Instruction*, 5(2), 61-80.
- Kim, M. (2008). Factors influencing the acceptance of E-learning courses for mainstream faculty in higher institutions. *International Journal of Instructional Technology and Distance Learning*, 5(2), 29-44.
- Jones, A. (2003). ICT and Future Teachers: Are We Preparing for E-learning? In D. Carolyn & K.W. Lai (Eds), *Information and Communication Technology and the Teacher of the Future* 65-83. Boston: Kluwer Academic Publishers.
- Lwoga, E. T & Komba M (2015), “Antecedents of continued usage intentions of web based learning management system in Tanzania”: *Education & Training* 57 ( 7), 738.
- Olson, J. et al. (2011). *An Analysis of e-Learning Impacts & Best Practices in Developing Countries: With Reference to Secondary School Education in Tanzania*: pp. 1-53.
- Ong, C.-S., Lai, J.-Y., & Wang, Y.-S. (2004). Factors affecting engineers’ acceptance of asynchronous e-learning systems in high-tech companies. *Information & Management*, 41 (6), 795-804.
- Palloff, R. M., & Pratt, K. (1999). *Building Learning Communities in Cyberspace – effective strategies for the online classroom*. Jossey-Bass.
- Rhema, A., & Miliszewska, I. (2010). Towards e-learning in higher education in Libya. *Issues in Informing Science and Information Technology*, 7, 423 - 437.
- Roca, J.C., Chiu, C.M. & Martínez, F.J. (2006) Understanding e-learning continuance intention: An extension of the Technology Acceptance Model. *International Journal of Human-Computer Studies*, 64, 683– 696.
- Salmon, G. (2004). *E-moderating: The key to Teaching and Learning Online* (2nd Ed.) . Taylor & Francis Books Ltd.
- Sangrà, A., Vlachopoulos, D. & Cabrera, N. (2012). Building an inclusive definition of e-learning: An approach to the conceptual framework. *The International Review of Research in Open and Distance Learning*, 13 (2), 145-159.
- Selim, H. M. (2007). Critical success factors for E-learning acceptance: Confirmatory factor models. *Computers & Education*, 49(2), 396-413.
- Ssekakubo, G., Suleman, H., & Marsden, G. (2011). Issues of adoption: Have e-learning management systems fulfilled their potential in developing countries? In *Proceedings of the South African Institute of Computer Scientists and Information Technologists Conference on Knowledge, Innovation and Leadership in a Diverse, Multidisciplinary Environment* (pp. 231–238). Cape Town, South Africa.
- Taurus, J.T., David, Gichoya. & Alex, Muumbo. (2015). Challenges of Implementing E-learning in Kenya: A case of Kenyan Public University. *International Review of Research in Open and Distributed Learning*, 16(1), 120 -141.

Wentling, T.L., Waight, C., Gallaher, J., La Fleur, J., Wang, & C., Kanfer, A. (2000), *Elearning -A Review of Literature*. Available ahttp://learning.ncsa.uiuc.edu/papers/elearnlit.pdf

Zake, J. (2009). *Challenges to E-learning in Developing Communities of Africa*. Available at: <http://digitallearning>. (Accessed on August 28, 2013).