

# E-LEARNING AND MANAGING ITS CRISIS UNDER COVID-19 FOR THE COUNTRIES OF THE WORLD

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**Abstract** The study aimed to review the experiences of others in e-learning from different universities in Iraq and countries around the world about facing the Covid-19 and how to face the crisis in the educational field and come up with positive outcomes to advance the educational reality. The researchers used an electronic questionnaire (Google Form) to collect information from (152) male and female students, the questionnaire included (15) questions about e-learning, and the positive answers supported the success of e-learning in getting out of the Covid-19 crisis with satisfactory positive results.

 Crossref  [10.36371/port.2022.3.5](https://doi.org/10.36371/port.2022.3.5)

**Keywords:** *E-Learning; Covid-19; Education.*



## 1. INTRODUCTION

The era in which we live with our various work and trends in general, and the challenges that education is going through in particular, have made us vulnerable to successive changes in all areas of educational, social, economic, cultural and political life under the Corona pandemic (COVID-19). The previous areas are a necessity necessitated by the circumstances of changes, their pursuit of them, and the assimilation of all that they bring [1].

The development of sciences related to information technology and its employment in all aspects of life has made the use of the Internet a major requirement of modern life, [2] especially the application of the Internet in the field of education, [3] which in turn demonstrated the concept of virtual learning environments, [4,5] which are software or educational management systems that support the process of direct and indirect communication Between the learning process team through the computer and the Internet, [6] and based on this fact, many academic and educational institutions have made educational use of these modern technologies associated with employing virtual learning environments to enrich the teaching and teaching process [7]. The idea of virtual e-learning environments via the Internet [8].

E-learning is an educational system based on the use of Internet technology and its means to transfer knowledge of all its elements (written texts - still images - animated images - educational films - drawings, etc.) [9] E-learning is based on several bases, the most important of which are the following:

E-learning is one of the educational technologies means that is concerned with the implementation of education, [10] but it differs completely from the traditional means because it includes modern technological tools and means that are used in presenting content in different ways and is applied using different methods and methods of learning, face-to-face education and distance education [11]. E-learning is also implemented by applying There are many learning theories, the most important of which are the behavioral and constructivist theories, being a meeting point between different philosophies and learning theories. It provides the opportunity for learners to build their knowledge and understanding [12].

E-learning allows the use of various educational formations when they are in line with education planning, [13] whether it is face-to-face or distance education. One of its advantages is that it allows educational experiences and practices to support and advance the formations of both face-to-face and distance learning methods, in multiple ways and using Various technological innovations, including online discussion boards [14]. What is more important than choosing electronic technological tools and means is how to employ them using appropriate learning methods, [15] as employing technological means is more important than the quality of the technological means used, as there is no doubt that a good selection of teaching approaches and appropriate educational theories to employ e-learning technology is more important than choosing methods and means [16]. Technological Assuming that the weak employment of technology reflects

poor learning, and accordingly, the failure of the e-learning system falls on those responsible for choosing the technological tools and means used, as it is a joint responsibility with those responsible for planning how the learning process will proceed through it [17].

### • Research Question

Since the outbreak of the Covid-19 pandemic, the world's greatest crises have begun in the education system, as the crisis has created the largest disruption in education systems in history, affecting about 6.1 billion science seekers in more than 190 countries and on all continents. The closures of schools and other places of learning affected 94 per cent of the world's students [18].

Consequently, the wheel of life in general and education, in particular, will stop, as the delay in starting the school year or its interruption will lead to a complete disturbance in the lives of many students and students, their families, and their teachers.

Therefore, the researchers dealt with the Covid-19 crisis and how to manage it in the field of education through the experiences of countries.

### • Importance Of Research

Education is the backbone of life, and it is the key that makes us continue to develop and advance and meet all the requirements of life in a reasonable balance [19]. Whenever obstacles arise, there must be solutions and ideas that make us adapt them and make them lead us to the solution [20].

Therefore, the halting of the wheel of science, education and learning stops our development and creates a separation between us and the future we desire, which creates obstacles between us and the realization of our ambition, and makes it stop our progress towards well-being, development and the future that we aspire.

We are witnessing today how the world is turning to digital knowledge, [21] keeping pace with the rapid transformations at all levels, perhaps the most important of these transformations is “e-learning”, which has brought about a scientific revolution in the field of learning [22].

This form of education saves the countries of the world from the collapse of the educational system in light of the spread of the “Covid-19” pandemic, which disrupted the wheel of life in all countries of the world [23].

E-learning is a method of learning using modern communication mechanisms (computer and its networks) and multiple media (sound, image, graphics, search mechanisms and electronic libraries), which means they use the technology of all kinds to deliver information to the learner in the shortest time, less effort, and more usefulness [24].

### • Research Objective

The aim of the research is how to benefit from the experiences of other countries in developing e-learning and confronting the Covid-19 crisis with constructive positive outcomes.

### • Research Limits

The research included undergraduate students in Iraq and some Arab and foreign countries for the academic year 2020/2021.

### • Search terms

E-learning: E-learning can be defined as a process of teaching and learning using electronic media, [25] including the computer and its various software, networks, the Internet, electronic libraries, and others, all of which are used in the process of transferring and communicating information between the teacher and the learner and prepared for specific and clear educational goals [26].

## 2. PREVIOUS STUDIES

### Study of Shadi Abu Shanab & Hazem Ferwana (2021)

The study aimed at evaluating the process of transforming Palestinian universities to e-learning in light of the spread of the Coronavirus (Covid 19), through a case study of the University College of Applied Sciences, where the researchers used the case study approach to describe and analyses the process of converting the college to e-learning, and the results of the study showed The college's success in the transformation process according to a school and court plan, in addition to the rapid response of the academics in the college to the college's procedures and the response of the students [27].

### Crawford et al. (2020)

This study was carried out by many research professors from different countries, and its purpose was to identify the challenges and obstacles that stand in front of students and professors in the use of e-learning. The researchers took 20 universities from 20 countries as a sample for research. The researchers used a questionnaire for the descriptive study, which concluded that there is a discrepancy in the answers of professors and students between the re-development of curricula in proportion to e-learning and between looking at safety measures on campus. The researchers provided a breakdown of the types of responses found in universities and an assessment of the role of higher education in pandemic preparedness [28].

## 3. SEARCH PROCEDURES

### • Research community and sample:

The two researchers adopted an electronic form (google form) prepared by them and published via the Internet among

the groups of students studying inside and outside Iraq for the undergraduate stage (bachelor - graduate studies). The form consisted of (15) various questions that covered all aspects related to e-learning.

- **Validity of the tool:**

The honesty of the tool is intended to perform and measure the questions of the test from what it was designed to measure in terms of clarity of the test questions and their vocabulary and understanding to the students, as well as being valid for statistical analysis. [29]

The researchers followed the apparent honesty as one of the types of honesty to ensure the validity of the test tool, as they modified some paragraphs of the form in proportion to the research objectives. The form was presented to several expert professors and specialists in teaching methods, and based on their opinions and directions, the necessary amendments were made and the form became ready for application.

- **Stability of the tool:**

Reliability is defined as the ability of an instrument to give the same results if the measurement is repeated on the same person several times under the same conditions [30]. It is obvious that if the tool has high credibility, the results of the following times will be the same or consistent with the results of the first measurement. Also, the consistency depends on the internal consistency, which means that the questions are all aimed at the objective to be measured.

Alpha Cronbach's method, which depends on internal consistency and gives an idea of the consistency of questions with each other and with all questions [31,32] in general, is one of the most common ways to find the stability of the tool. The value of alpha ranges between 0 and 1, where the closer the stability value is to 1, the higher the reliability of the test. The researchers extracted the stability value of the test tool using SPSS version 22, and the value was (0.90), and this is a good value for accepting the tool.

- **Apply the tool:**

The two researchers distributed the questionnaire to groups of students studying inside and outside Iraq in several Arab and foreign countries (Romania - Turkey - Russia - Austria - Iran - Lebanon).

- **Statistical means:**

Statistical charts for Google Form have been approved.

#### 4. ANALYSE AND INTERPRET THE RESULTS

After publishing the questionnaire form on the totals of students for the undergraduate level (bachelor's - postgraduate studies) inside and outside Iraq, the answers were collected and analysed for (152) male and female students as follows:

Where the segment of postgraduate/master's students was the most responsive to the questionnaire by 73.7%, followed by undergraduate students with 19.7% and then graduate / doctoral students with 6.6% as shown in Table (1).

**Table (1).** the answers were collected and analysed for (152) male and female students.

Sequence	Study Type	Percentage
1	Bachelor of	%19.7
2	Master's	%73.7
3	PhD	%6.6

As for the type of virtual platform adopted for the study, the answers varied, and the answers varied, as shown in the following Table (2).

**Table (2).** type of virtual platform adopted for the study.

Sequence	Platform Type	Percentage
1	FCC	%2
2	ZOOM	%50.7
3	Google classroom	%3.1
4	Jitsi meet	%0
5	Edmodo	%2.1
6	Meet	%11.2
7	Mozabook	0
8	Other	%30.9

Where the answers of the students who adopted one of these virtual platforms above were about 69.1%. As for the answers that are placed under another paragraph, which represented 30.9% of the percentage of responding students between (Microsoft team - Adobe connect - Moodle - on the university link), according to what those educational institutions approved.

As for the remaining paragraphs of the questionnaire, which provided for taking the views of the students, the results were as follows:

Q1: From your point of view: is e-learning an effective alternative when compared to regular education? The answers were as in Table (3)

**Table (3).** The answers (Q1)

Sequence	Type of Answer	Percentage
1	agree Strongly	%34.2
2	Agree	%31.6
3	Neutral	%12.5
4	Disagree	%14.5
5	Strongly disagree	%7.2

Q2: From your point of view: a high potential for e-learning in terms of information delivery? The answers were as in Table (4).

**Table (4).** The answers (Q2)

Sequence	Type of answer	Percentage
1	agree Strongly	%32.2
2	Agree	%31.6
3	Neutral	%9.9
4	Disagree	%20.4
5	Strongly disagree	%5.9

Q3: From your point of view: does E-learning address multiple problems, including providing lectures at a time other than the allotted time? The answers were as in Table (5).

**Table (5). The answers (Q3)**

Sequence	Type of answer	Percentage
1	agree Strongly	%45.4
2	Agree	%23
3	Neutral	%17.8
4	Disagree	%9.1
5	Strongly disagree	%4.7

Q4: From your point of view: E-learning facilitates the process of reviewing the material at any time I find appropriate? The answers were as in Table (6).

**Table (6). The answers (Q4) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	%43
2	Agree	%19.7
3	Neutral	%27
4	Disagree	%7.6
5	Strongly disagree	%2.3

Q5: From your point of view: E-learning facilitates the process of communicating with the professor of the subject? The answers were as in Table (7).

**Table (7). The answers (Q5) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	%36.2
2	Agree	%28.9
3	Neutral	%9.9
4	Disagree	%19.7
5	Strongly disagree	%5.3

Q6: From your point of view: all students interact with their lessons and teachers through e-learning? The answers were as in Table (8).

**Table (8). The answers (Q6) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	24.3%
2	Agree	%23
3	Neutral	%7.2
4	Disagree	%32.9
5	Strongly disagree	%12.5

Q7: From your point of view: the professors are cooperating well with the students? The answers were as in Table (9).

**Table (9). The answers (Q7) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	36.8%
2	Agree	%38.2
3	Neutral	%12.5
4	Disagree	%9.9
5	Strongly disagree	%2.6

Q8: From your point of view: the electronic exams are real and fair? The answers were as in Table (10).

**Table (10). The answers (Q8) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	%30.3
2	Agree	%22.4
3	Neutral	%11.8
4	Disagree	%21.1
5	Strongly disagree	%14.5

Q9: From your point of view: Is success easy and guaranteed with e-learning? The answers were as in Table (11).

**Table (11). The answers (Q9) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	%27
2	Agree	%20.4
3	Neutral	%11.2
4	Disagree	%34.9
5	Strongly disagree	%6.5

Q10: From your point of view: Internet service affects the effectiveness of e-learning? The answers were as in Table (12).

**Table (12). The answers (Q10) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	%32.9
2	Agree	%18.4
3	Neutral	%46.1
4	Disagree	%2.6
5	Strongly disagree	%0

Q11: From your point of view: support for the continuation of e-learning even after the end of the Corona pandemic? The answers were as in Table (13).

**Table (13). The answers (Q11) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	31.6%
2	Agree	%11.2
3	Neutral	%20.4
4	Disagree	%23
5	Strongly disagree	%13.8

Q12: From your point of view: The state supports the e-learning process? The answers were as in Table (14).

**Table (14). The answers (Q12) were as.**

Sequence	Type of answer	Percentage
1	agree Strongly	34.9%
2	Agree	%27
3	Neutral	%9.9
4	Disagree	%21.1
5	Strongly disagree	%7.1

## 5. CONCLUSIONS

From the students' responses to the questionnaire items, we can conclude:

- 1) E-learning is effective and has positive outcomes to get out of the COVID-19 crisis



- 2) The weak scientific knowledge of some teaching staff in the use of virtual platforms affected the quality of interaction between professors and students
- 3) Students' lack interest in studying and sticking to the deadlines, as e-learning allows students to review lessons at a later time.
- 4) Weak monitoring and supervisory role in following up the quality of e-learning, as it lacks the principles and foundations of e-learning.
- 5) Recommendations and Suggestions:
- 6) Continuing to work with blended education (e-learning with in-person education) side by side even after the end of the Corona pandemic as an aid and supportive factor for the educational process
- 7) Providing the appropriate environment for the success of e-learning in terms of enabling educational and teaching staff to use technology according to the requirements of e-learning.
- 8) Work to overcome the difficulties facing the success of the process (e-learning) in terms of cooperation with the Ministry of Communications to strengthen the Internet service in a way that facilitates the process of uploading and downloading electronic lessons.
- 9) Activating and developing the supervisory and supervisory role in educational institutions to follow up on the e-learning mechanism by the standards set by the educational institution.

## REFERENCES

- [1] Daniel, S. J. (2020). Education and the COVID-19 pandemic. *Prospects*, 49(1–2), 91–96. <https://doi.org/10.1007/s11125-020-09464-3>
- [2] FNR Solutions, Inc. (2016). The Importance of Information Technology In Today's World. *International Journal of Physical Distribution & Logistics Management*, 30(3/4), 331–344. Retrieved from <https://www.emeraldinsight.com/doi/full/10.1108>
- [3] Corell-Almuzara, A., López-Belmonte, J., Marín-Marín, J. A., & Moreno-Guerrero, A. J. (2021, May 2). Covid-19 in the field of education: State of the art. *Sustainability (Switzerland)*. MDPI AG. <https://doi.org/10.3390/su13105452>
- [4] Al-Sarray, E. (2019). Engagement and authoring platform for teacher and learner of science, Go-Lab portal for learning at school. *Journal Port Science Research*, 34–53. <https://doi.org/10.36371/port.2019.02.1.3>
- [5] *Multiple Perspectives on Problem Solving and Learning in the Digital Age*. (2011). *Multiple Perspectives on Problem Solving and Learning in the Digital Age*. Springer New York. <https://doi.org/10.1007/978-1-4419-7612-3>
- [6] Weryńska-Bieniasz, R. (2018). E-learning as a tool supporting the processes of knowledge management in education. *Współczesne Problemy Zarządzania*, 6(2(13)), 71–84. <https://doi.org/10.52934/wpz.92>
- [7] Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability (Switzerland)*, 12(24), 1–22. <https://doi.org/10.3390/su122410367>
- [8] Muniasamy, A., & Alasiry, A. (2020). Deep learning: The impact on future eLearning. *International Journal of Emerging Technologies in Learning*, 15(1), 188–199. <https://doi.org/10.3991/IJET.V15I01.11435>
- [9] Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. (2012). In *Learning Unbound: Select Research and Analyses of Distance Education and Online Learning* (pp. 41–133). Nova Science Publishers, Inc.
- [10] Milicki, J. (2019). Optimum implementation of information technology in elementary education. *IASL Annual Conference Proceedings*. <https://doi.org/10.29173/iasl7391>
- [11] O'Neil, C. A., Fisher, C. A., & Rietschel, M. J. (2019). Introduction to Teaching and Learning in Online Environments. In *Developing Online Courses in Nursing Education*. Springer Publishing Company. <https://doi.org/10.1891/9780826140579.0001>
- [12] Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 26(2), 43–71. <https://doi.org/10.1002/piq.21143>
- [13] Yuliani, R. E., & Heru, H. (2021). E-Course Design of Middle/MTs Teacher Training Using Google Classroom. *International Journal of Elementary Education*, 5(2), 357. <https://doi.org/10.23887/ijee.v5i3.37667>
- [14] Napitupulu, R. M. (2020). Dampak pandemi Covid-19 terhadap kepuasan pembelajaran jarak jauh. *Jurnal Inovasi*

*Teknologi Pendidikan*, 7(1), 23–33. <https://doi.org/10.21831/jitp.v7i1.32771>

- [15] Bates, T. A. (2015). Chapter 8: Choosing and using media in education: the SECTIONS model. In *Teaching in a digital age: Guidelines for designing teaching and learning*. (pp. 304–361). Retrieved from <https://opentextbc.ca/teachinginadigitalage/chapter/9-3-the-sections-model-ease-of-use/>
- [16] OECD. (2014). A teachers' guide to TALIS 2013. *Teaching and Learning International Survey*, 23129638, 28 S. Retrieved from <http://www.oecd.org/education/school/TALIS-Teachers-Guide.pdf>
- [17] Facer, K., & Selwyn, N. (2021). Digital technology and the futures of education-towards “non-stupid” optimism. *Background Paper for the Futures of Education Initiative*, (April), 19
- [18] Rivera-Mills, S. (2021). Leadership in the Time of COVID-19. *ADVANCE Journal*, 2(2). <https://doi.org/10.5399/osu/advjrnl.2.2.10>
- [19] Dinesh, R., & Belinda, R. (2014). Importance of life skill education for youth. *INDIAN JOURNAL OF APPLIED RESEARCH*, 4(12), 92–94.
- [20] Carney, S. (2022). Reimagining our futures together: a new social contract for education. *Comparative Education*, 1–2. <https://doi.org/10.1080/03050068.2022.2102326>
- [21] Shultz, L., & Viczko, M. (2021). What are we saving? Tracing governing knowledge and truth discourse in global COVID-19 policy responses. *International Review of Education*, 67(1–2), 219–239. <https://doi.org/10.1007/s11159-021-09893-y>
- [22] MĂDĂLINA, C. U. C. (2021). IMPROVING KNOWLEDGE MANAGEMENT THROUGH 21ST CENTURY DIGITAL SKILLS. *Annals of “Constantin Brancusi” University of Targu-Jiu. Economy Series*, (2), 143–157. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=151076172&site=ehost-live&scope=site>
- [23] Novita, Diana, Et. al. (2021). Dampak covid-19 melalui digitalisasi UMKM. *Prosiding SEMinar Stiami*, 8(1), 28–31. Retrieved from <https://ojs.stiami.ac.id/index.php/PS/issue/view/215>
- [24] Abed, E. K. (2019). Electronic learning and its benefits in education. *Eurasia Journal of Mathematics, Science and Technology Education*, 15(3). <https://doi.org/10.29333/ejmste/102668>
- [25] Sangrà, A., Vlachopoulos, D., & Cabrera, N. (2012). Building an inclusive definition of e-learning: An approach to the conceptual framework. *International Review of Research in Open and Distance Learning*, 13(2), 145–159. <https://doi.org/10.19173/irrodl.v13i2.1161>
- [26] Fuller, F. (2003). Information and communication technologies in teacher education: a planning guide. *Technology, Pedagogy and Education*, 12(3), 447–450. <https://doi.org/10.1080/14759399800200232>
- [27] abu shanab, shadi, & ferwana, hazem. (2021). E-learning in Palestinian higher education institutions in light of the outbreak of the Coronavirus (Covid-19) “Case Study of the University College of Applied Sciences. *Journal of Business Administration and Economic Studies*, 7(1), 792–810. <https://www.asjp.cerist.dz/en/article/154021>
- [28] Crawford, J., Henderson, K. B., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... Lam, Sophia. (2020). Journal of Applied Learning & Teaching COVID-19 : 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1–20. Retrieved from <https://n9.cl/o7osu>
- [29] Mills, G. E., & Gay, L. R. (2019). *Educational Research: Competencies for Analysis and Applications Twelfth Edition*. Pearson Education, Inc (Vol. 6, p. 641). Pearson. Retrieved from <http://library1.nida.ac.th/termpaper6/sd/2554/19755.pdf>
- [30] Shaw, F., Good, C. V., Barzun, J., & Graff, H. F. (1959). Introduction to Educational Research. *Journal of Educational Sociology*, 33(1), 45. <https://doi.org/10.2307/2264328>
- [31] Laerd. (2018). Cronbach's Alpha ( $\alpha$ ) using SPSS Statistics. <https://statistics.laerd.com/spss-tutorials/cronbachs-alpha-using-spss-statistics.php>
- [32] Kurian, G. (2014). Reliability and Validity Assessment. In *The Encyclopedia of Political Science*. CQ Press. <https://doi.org/10.4135/9781608712434.n1341>