

Full Length Research Paper

Online learning during the COVID-19 pandemic from the perspectives of English as foreign language students

Talal Alodwan

Department of Curriculum and Teaching, College of Educational Sciences, The World Islamic Sciences and Education University, Jordan.

Received 12 May 2021; Accepted 25 June, 2021

This study aimed at exploring the advantages and disadvantages of the online learning system implemented during COVID-19 Pandemic from English as foreign language (EFL) students' perspective. To achieve the objectives of the study, qualitative approach was used. The sample of the study consisted of 20 students who were chosen purposely from the World Islamic Sciences and Education University in Amman, Jordan. A semi-structured interview was used to collect data and Braun and Clarke's thematic approach (2006) was used to analyse the data. The study generated the following findings: E-learning saves time, money and effort; it is active in humanities faculties to some extent but it is inactive in science faculties; it encourages students' self-learning and it enables them to listen to recorded lectures many times; it causes social isolation between students; some students resort to cheating in exams; most students face technical problems while using online learning.

Key words: Covid-19, English as foreign language (EFL), Jordan, online learning.

INTRODUCTION

The spread of the Coronavirus pandemic in the first months of 2020 was a shock to students because suddenly they had to switch to distance learning. The governments issued their regulations and asked the academic institution to implement e-learning as an alternative tool to traditional education (Almanthari et al., 2020). The tools of E-learning have played a critical role in most academic institutions worldwide due to COVID-19 (Giovannella, 2021). They pursue to help teachers, schools, universities and academic institutions to facilitate the process of teaching and learning during their closure. Moreover, some of these tools are free or costless (YouTube, zoom, video conferences, educational platforms, free websites and others) and grant continuous

learning (Almaiah et al., 2020).

The success or failure of any technological system relies on the use of this system by users, both teachers and their students encounter some difficulties when using e-learning at home in some developing states due to their shadow experience. At the same time, academic staffs are taught how to utilize the e-learning platform. However, the shift to e-learning has prompted concerns about the quality of education (Sahu, 2020).

In some developing states like Jordan, some challenges (technology, internet, socio-economy) act as obstruction to online learning especially in rural areas (Di Vaio et al., 2020). As a result of their economic status and geographical locations, a difference occurs between the

E-mail: talaladwan@yahoo.com.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

two essential elements, widening the gap of qualified e-learning. At present, E-learning supports and facilitates the process of education everywhere through internet. Academic institutions are providing online courses for students and trainers because of the lockdown in Jordan well as other countries.

Based on the literature, many studies (Ebner et al., 2020; Mayer, 2020; Wu et al., 2020; Favale et al., 2020; Radha et al., 2020; Hasan and Bao, 2020) discussed e-learning during the coronavirus pandemic, unfortunately, no study tried to know the impression on students who are the focal element in the e-learning. Therefore, it is very significant to know their perspectives of e-learning since they are influenced by this type of learning. This study aims at exploring the overall EFL students' perspectives towards the implementation of online learning and exploring challenges and barriers of the online learning that appeared during the COVID-19 pandemic.

LITERATURE REVIEW

With the progress of technologies and education, methods of learning have also improved. One of the results of modern technologies is e-learning which is broadly used in education. As a result of the coronavirus (COVID-19) pandemic, many of the education systems have been shifted to online learning teaching. In his study, Hoq (2020) confirmed that the use of information technology has a very significant role in the application of distance learning during the coronavirus pandemic. The learning process can run fine with the existence of the rapidly developed information technology including e-learning, Google class, WhatsApp, Zoom, and other information media and internet networks that can link lecturers and students. Heppen et al. (2017) confirmed that online courses are increasingly used for credit recovery in districts across the country and the effectiveness of these courses for students. For some lessons that need practice such as practicum courses, video observation is one method suggested as an alternative for student teaching (Kim, 2020). To achieve the aim, online learning needs different learning teaching methods from those used in traditional learning. Barhoumi (2015) explained that the mathematics statistics course that used WhatsApp group media was quite effective when observed from student learning outcomes. Some advantages of e-learning are explained by Al Hadhrami and Al Saadi (2021), that online learning: makes it possible for learners to take up a course without attending an educational institution; gives learners the benefit of taking up a course from their home or from any place they find comfortable; it also enable learners to get credible certifications and improve their qualifications. Kuama and Intharaksa (2016) mentioned two challenges which students face due to e-learning, these are technological and individual difficulties and to overcome

technical challenges, sufficient and reliable Internet access, as well as twenty-four-hour availability of the Internet, are needed; while, the individual challenges, it is very important to pay attention to the design and content of an online course which cannot be overstated. It is also important to include adequate clarifications for the lessons and exercises. Learning mission preparation and content must be closely reviewed and updated regularly. Khabbaz and Najjar (2015) investigated students' language learning strategies in a Moodle-based language acquisition program, and the study found that emerging technologies in language learning could hinder autonomous learning due to challenges posed by new technology. Adnan and Anwar (2020) examined the efficacy of online learning during the COVID 19 pandemic between higher education students, they found that e-learning is unable to generate good results in developing countries such as Pakistan because the bulk of poor students cannot use the internet and it is not available or weak in their villages and towns.

Due to the consequences of E-Learning on the user, such as detachment, isolation and the shortage of interaction between the students and the community in some platforms of E-Learning, the student's desire to learn is reduced. Therefore, Wu et al. (2020) studied how chatbot technology helps students reduce their detachment and social isolation. They designed a chatbot to be utilized alongside the platform of E-learning. This chatbot can be used with course materials and daily conversation. Therefore, it is a very significant issue to identify the advantages and disadvantages of E-learning to avoid the latter.

MATERIALS AND METHODS

This study is based heavily on a qualitative approach. Many reasons motivate the researcher to adopt this approach. Describing as well as analyzing the data helps the researcher and the reader understand the phenomena. "One of the greatest strengths of the qualitative approach is the richness and depth of exploration and description" (Myers, 2000). The ability of qualitative data in describing a phenomenon is an important consideration not only from the researcher's perspective but also from the reader's point of view, "If you want people to understand better than they otherwise might, provide them with information in the form they usually experience it" (Lincoln and Guba, 1985, p. 120). Researchers of the qualitative approach analyze the experience of people and invite the readers to explore the covert data that is embedded in words and sentences. Qualitative research requires the researcher to ponder and reflect on the data collected so as to find the meaning within (Chandler et al, 2002, abstract). This approach also assists the researcher to achieve the goals of the study easily and smoothly (Creswell, 2013). It will help the researcher understand the advantages and disadvantages of e-learning, so, the policymakers, the academic staff and the IT technicians support the advantage points and change the disadvantages to advantages.

Participants

According to Kvale (1996), the size sample must be neither small

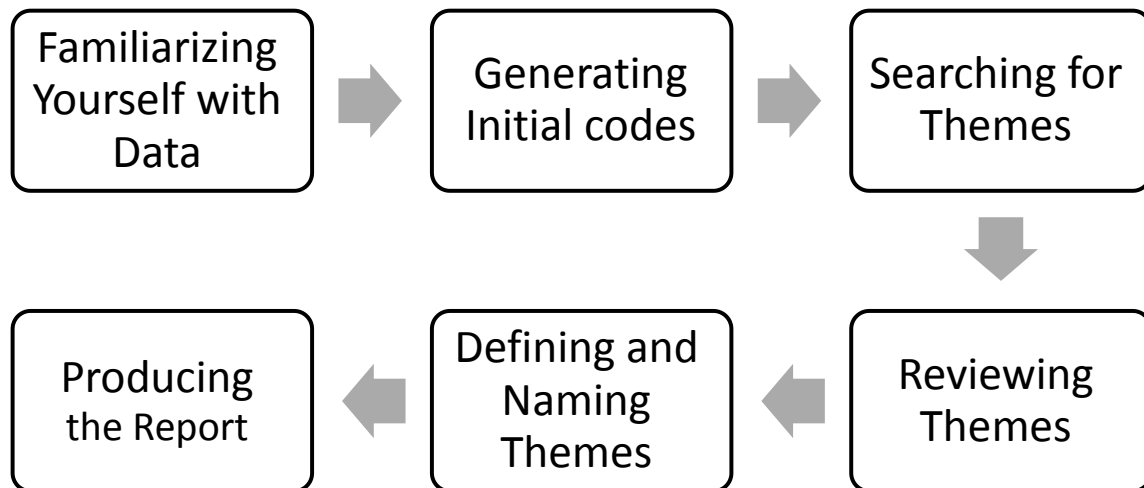


Figure 1. Braun and Clarke thematic approach (2006).

nor large to reach the saturation point of the answers and the information power, based on a study of Quick and Hall (2015), the convenient sample size is a range (4-50) in a qualitative study and the participant should have adequate knowledge about the phenomena (Everitt and Howell, 2021). Twenty students from different colleges at The World Islamic Sciences and Education University, Amman, Jordan were selected purposely based on the following criteria: the students should be twenty from freshmen, sophomores, juniors and seniors; gender: ten males and ten females; and their grades: excellent, very good, good, and pass. These criteria helped us have different perspectives of the students and to achieve validity and reliability.

Data generation

In this study, a semi-structured interview was used to collect data from the selected participants. The interview tool was used for the following reasons: offering flexibility to the interviewer in controlling the order of posing the questions: the interviewer can explain the question and ask many questions to clarify the answers of the participants. Scholars use semi-structured interviews to collect new data that belong to the topic of the study, triangulate other sources of data or validate results through the respondent answers (Lincoln and Guba, 1985). During the semi-structured interview, the scholar did not use a list of questions, but he used a guidance lists to guide the interview. The interview was in the form of a dialogue between the interviewer and the interviewees, and this leads to getting accurate information. Due to COVID19 a comprehensive lockdown was imposed. Therefore, the interview was through Zoom platform, it discussed different aspects that related to the objectives of the study.

Data analysis

In qualitative studies, thematic analysis is the most famous type of analysis (Guest, 2012). This analysis is identified as "the identification of the main recurrent or most important (based on the specific question being answered or the theoretical position of the reviewer) issues or themes arising in a body of evidence" (Pope et al., 2007, p. 96). To verify the process of the appearance of frequent themes, themes will emerge through accurate readings of

the texts, and a reflection of the idea process is mentioned as following "immersion, incubation, illumination, explication and creative synthesis" (Patton, 2002, p.486). The findings from the analysis will be the themes that form the structure for answering the research questions. This study used Braun and Clarke (2006) thematic approach to analyse the data for the following reasons: it is an appropriate method to analyze any study which needs interpretation, it is a flexible method that helps the researcher analyse the data, it is also a suitable method in case the data size is large, and it was used by many scholars (McDonald, 2011). Davey (2014) Alobeytha et al. (2018) found that it was suitable for analysing data in qualitative studies. This approach is implemented by pursuing six stages of coding in order to find a meaningful organized pattern (familiarizing yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report) (Figure 1).

Triangulation

Triangulation is introduced by Yeasmin and Rahman (2012 as "a process of verification that increases validity by incorporating several viewpoints and methods" (p. 156). Triangulation is a kind of strategy which is used to improve and authorize the validity and credibility of the research. Mathison (1988) states, "Triangulation has become an important methodological issue in naturalistic and qualitative approaches to evaluation [in order to] control bias and establishing valid propositions because traditional scientific techniques are incompatible with this alternate epistemology" (p. 13). This study used data triangulation, where 20 students from different colleges were interviewed to give multiple sources of information. It also used investigator triangulation when the researchers employed two professors (from The World Islamic Sciences and Education University) to evaluate and test the themes during the process of data analysis.

RESULTS AND DISCUSSION

The interview was written as soon as it was recorded. The analysis of the texts was carried out based on Braun and Clarke thematic approach, processes (2006).

Table 1. Suggested themes from the first readings.

Excerpt	Suggested themes
-----	Communication and social media
-----	Limitation and economy
-----	Exam
-----	Limitation and money
-----	Communication and interaction

Table 2. Organization of the themes.

Excerpt	Suggested themes
-----	Communication and Social Media
-----	Communication and Interaction
-----	Limitation and Money
-----	Limitation and Money
-----	Exam

Table 3. Appropriate themes.

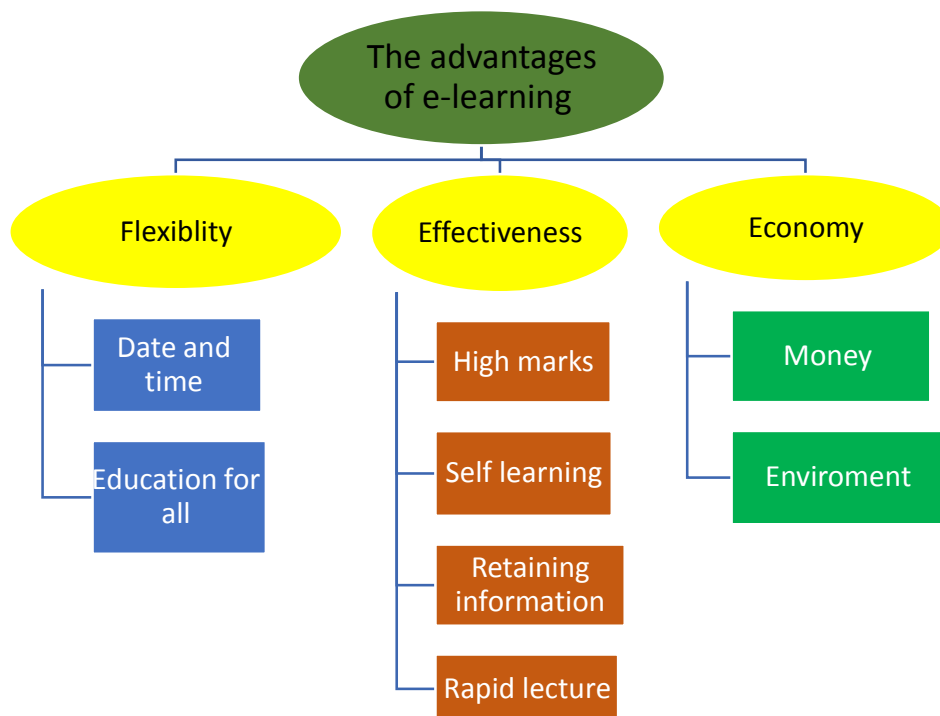
Excerpt	Suggested themes
-----	Communication and Social Media
-----	Communication and Interaction
-----	Limitation
-----	Limitation

Table 4. Final themes.

Excerpt	Suggested themes
-----	Communication
-----	Communication
-----	Limitation
-----	Limitation

Firstly, for familiarization with the data, the text was read twice until the author familiarized with it. Secondly, for generating initial codes, these codes were produced via the process of an inductive analysis (general to specifics). The analysis was an iterative process that went front and back to analyse in-depth. Some important notes were written and notions were coded by a particular colour, for instance, green colour for the theme communication, yellow colour for the theme limitation and so on. Table 1 exhibits several themes that resulted from the first readings. Thirdly, in searching for themes, the related themes were ordered together based on the colour, and the forming of Table 1 was based on the

themes. For instance, the rows that involve the same colour (Communication) in the above table were organized together. Table 2 shows how the themes are organized. Fourthly, the reviewing themes, the themes were reread many times to find the appropriate themes and delete some inappropriate ones. Table 3 shows the appropriate themes. Fifthly, defining and naming themes, the author defined the themes and explained every theme in some sentences. Table 4 reveals the final themes. Sixthly, in this stage, the author wrote the discussion based on the final themes which answer the research questions. Three themes were extracted. The section of analysis was cross-checked with an expert



1

Figure 2. exhibits the themes of the advantages of e-learning.

2 Fig.2 exhibits the themes of the advantages of e-learning

(doctor in the field of education to check it in depth).

business and also study without any obstacles so that I study in my free time".

The advantages of e-learning during the COVID-19 pandemic

This study considers the thematic findings that identified the chief advantages of e-learning during COVID-19 Pandemic. Figure 2 explains the themes of the advantages of e-learning.

Flexibility

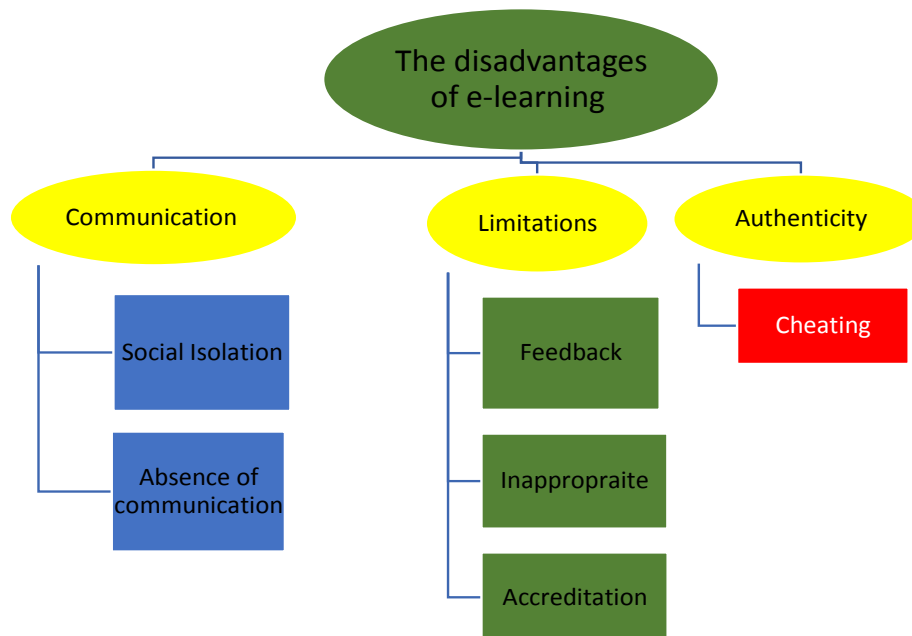
Date and time: The interviewees agreed that e-learning allowed the students to select the date and time of attendance of the recorded online lesson. The students do not need to travel and waste their time and money they can attend the class in their homes. They said" *I can attend the class whenever and wherever I want, no obstacles*"

Education for all: Some students work part-time at supermarkets, restaurants, bookshops etc.; thus, they found that online learning overcame many obstacles that prevented them from joining universities and working at the same time. Some of the students who are married joined universities due to the online learning, where they can balance their education and their home duties. They stated that "Thanks to online learning, I can do my

Effectiveness

High marks: Online Learning has a positive inspiration on students, a huge number of the students get high marks, and they felt that online learning was fairer than traditional learning since the evaluation of the students depends on their grade, not on the opinion of their lecturers. Those students cite that, "*I have achieved high scores in online education and these marks outweigh my scores in face-to-face education*" On the other hand, some students failed to get high marks or failed to pass exam due to the types of questions which focused on multiple-choice, and they could not answer them because of the short time that was allocated for the exam.

Retaining information: E-learning - helps students retain their information for long periods. There is no need to ask the lecturer to repeat the lectures unless there is a vague point. According to the interviewees, "Unlike traditional learning, E-learning allows students to access academic materials an unlimited number of times. "Students rarely asked their professors questions if they did not understand some point because they could find it in the videos which were uploaded on the educational platform." Self- Learning- online learning motivates many students to search on the web and YouTube for more



1

Figure 3. Findings of the disadvantages of e-learning during COVID-19 pandemic.

information. Therefore, the students make sure that they are in synchronization with modern knowledge. Knowledge has come within the reach of many people. Visiting websites opens up prospects for knowledge instead of visiting libraries which may be located in a city. This helps the students update their information. The interviewees stated that " *due to online learning, I taught myself by visiting the webs and extracting the information that I need*"; Rapid Lectures - online learning is a good method to present a lecture in a short time for the following reasons: lecture commences rapidly without taking time to register the absent students and also ends in a shorter time than the traditional way of teaching because there is nothing interpreting it. This assists the lecturer to cover all the curriculum in a specific period while in the face to face education, lecturers rarely covered the course; students do not follow the speed of the students but they define their speed of learning. The interviewees stated that " *in the traditional education, the time which is located for the lecture is wasted and the lecture is interpreted many times, but in an online learning, the professor covers all the class within 20 minutes*"

Economy

Low costs: The importance of e-learning is in its ability to reduce financial costs for students and their families since it has saved the cost of transportation from one region to another to go to school or university. It has also saved additional expenses such as food and clothing for

the purpose of spending a day outside home, as well as the cost of books which have become available electronically and at a reasonable price. The interviewees see that, "online learning is costless and they save money. There was no need to go to the university which is far from some students' residences and they do not pay for transportation, accommodation, course materials and others".

Environment: E-learning contributed to reducing the environmental pollution, because it is a key element in reducing the dioxide carbon in the air as a result of reducing the using of vehicles. E-learning also contributed to reducing the cutting of trees and forests that are used in the production of paper .Some interviewees agreed that " *their consumption of paper is low due to the online learning. There is no need to cut trees and send them to paper factories which produce dioxide carbon. Therefore, online learning is a friend of environment*".

The disadvantages of E-Learning during COVID-19 Pandemic (Figure 3)

Communication

Social isolation: The interviewees believe that online learning made students bear the remoteness, and the shortage of social interaction. Therefore, several students underwent social isolation which usually may drive the

students to much stress and anxiety. The effects of social isolation and loneliness are not limited to the psychological aspect only, but also to the health of the mind and heart of the students. They also decreased students' immunity and ability to confront infection. The interviewees said *"universities are considered centres for practising social activities and human interaction. When they closed their doors, many youths lost their social relationships that have a fundamental role in learning and development"*.

The absent of communication: The interviewees agree that practising communication skills between teachers and their students or between the students themselves is absent in e-learning. This will have a significant impact on their ability to work as a team effectively. Those students are also unable to shift their knowledge to others or transfer their theoretical knowledge to a practical one.

Limitation

Online student feedback: The interviewees agree that practising communication skills between teachers and their students or between the students themselves are absent in e-learning. This will have a negative impact on their ability to work as a team effectively. Those students are also unable to shift their knowledge to the other or transfer their theoretical knowledge to a practical one. It is known that the feedback enriches the understanding of the lesson. Unfortunately, as the interviewees said, *"E-learning prevents us from asking the questions or discussion inside the class because of the huge number of the students who want to ask. Professors did not allow for many questions. Therefore, the rate of feedback of the professors and the students is low"*.

Inappropriate: Online learning may be relatively effective in teaching humanities such as history, some topics in language, geography and others, students can understand the subject relatively, but it is difficult to use online learning in teaching scientific subjects such as medicine and engineering because it needs practical experiences. The interviewees stated that *"Students in scientific colleges face a great difficulty in understanding scientific subjects because these materials require labs and practical applications. They believe that the university's tendency to distance-learning in all subjects will not be fruitful"*.

Accreditation and quality assurance: Interviewees saw that some universities encounter great challenges in using e-learning. They lack the infrastructure which facilitates the e-learning process, such as good educational platforms, computers for every student, good communication networks, the readiness of educational programs, computerization of educational materials, and

competence of the elements of e-learning including educational administrators, faculty members at universities and their ability to deal with these mechanisms. They say that, *"the platform does not help the students to understand the lesson and it does not encourage interaction between the students and their teachers."*

Authenticity

Cheating: Academic cheating became a global phenomenon during the outbreak of the Corona pandemic where academic institutions resorted to the use of e-learning and electronic assessments. In light of the lack of direct monitoring of students during the exams, this phenomenon has spread among students. It negatively affected the credibility of the learning process, its results, and the academic reputation of these institutions. The interviewees believed that some students have different methods of cheating in e-learning exams. These are: some students form a group where everyone answers one or more questions and shares the solution with the group; searching on Google and another searching engine for the answers, or from the books; some senior students answer the questions. E-learning helped spread cheating between students in exams, where educational platforms lack any way to prevent cheating and to reduce cases of cheating, teachers resort to asking difficult questions within a short time and using many forms of the exam, and these procedures were not active to stop or reduce cheating. The interviewees asserted that *"the scores of some students were very low before online education, but they are very high and competitive during online learning. And this caused great frustration for the outstanding students."*

The main suggestions to overcome the disadvantages and challenges that EFL students faced while using the online learning system during the COVID-19 pandemic

Social isolation

Interviewees saw that professors should not follow the routine ways of online learning. They have to devote some time to talking about topics that are not related to the academic atmosphere. Moreover, the size of online classes should be small to allow for building the social relationship between students and their teachers. *"Teachers must focus on some activities that mitigate social isolation, such as encouraging students to play sports in their backyards or sharing a personal experience in front of the online class,"* the interviewees agreed. The interviewees believe that combating social isolation is very important and this is possible via social media,

which stimulates the communication and interaction between the students during COVID 19.

Absent of communication

The lecturers should not focus on the academic sides, but they must play their roles in developing the morals and personality of students in order to play their effective role in teaching future generations. Therefore, the lecturers must master the skills of communication with students and try to gain their confidence. The most important characteristics of successful teachers are their ability to build a relationship of respect and affection between the teachers and their students. The students' behaviour and academic performance are affected by the quality of the relationship between them and teachers. Students prefer teachers who are warm and intimate. The interviewees suggested, "*The teachers should have four important skills to deal with the students: the friendship, positive attitude, the ability to listen and be heard, and the ability to compliment genuinely*".

Feedback

It is necessary to solve the feedback problem through a small meeting between professors and their students and listen to their feedback. The interviewees stated that "*there should be an informal meeting between the students and their instructors, and this meeting can be performed via video conference, zoom platform which operates similarly to a lecturer's office hours inside the camp of the university*".

Inappropriate

To avoid the difficulties that encounter the students who need practical application of their theoretical knowledge, the interviewees suggested blended learning which mixes face to face learning and online learning. That means there will be online learning lectures and lectures at university. They also suggested, "Students at the university should keep two-meter social distancing, wear face mask, and use hand sanitiser".

Accreditation and quality assurance

The interviewees believe that the universities should be qualified and accredited to teach online otherwise, the outcomes will be unsatisfactory. These universities should have a good platform and qualified teachers who can teach online. They said that "Universities should have an e-learning platform which is capable to achieve all the goals of the educational plan. Universities should not be

stingy in buying an effective platform, and they must train their professors and students to use this platform efficiently".

Authenticity (cheating)

Types of the questions: The multiple-choice questions or single-choice questions allow the students to cheat easily and the examiners rarely discover the cheaters. Therefore, it is better to use a free-text question which gives a sign that the students understand the question and answer it. The interviewees suggest that "50% of the questions should be single or multiple choices and the times that are allocated to answer these questions should be short, while the rest of the questions is free-text question which should have enough time to be answered".

Performance file: The interviewees suggested that the evaluation of the students should not only depend on the online exam which allows cheating between the students, but it should also depend on the performance file. The interviewees stated that "The student is evaluated on the principle of activities or projects that the student has completed during a semester. Thus, every student should write a project or an activity"

Technical program: The interviewees agreed that universities, as well as professors, should take some procedures to ensure the authenticity of online exams. The interviewees stated that "one of the anti-cheating programmes that are used in online exams is Examity. This programme uses several anti-cheating procedures like machine teaching to discover fraudulent exam-students as well as automated ID verification".

theoretical and practical implications

This study is considered an added value to the literature review via identifying the advantages and disadvantages of e-learning and mitigating the difficulties of E-learning. It offers many significant practical visions in online learning in the world. This study represents the perspectives of the students who are influenced by e-learning. It is expected that this study will support the course design, and the attitudes of professors, technicians and universities management to deal with the difficulties that encounter the students. It will also strengthen the positive points in e-learning.

The findings of this study are includes advantages and disadvantages. The advantages of e-learning are: E-learning is costless; it save the time of the students and professors; it allows all people(employees, housewives, and others) to study; it helps students get high scores; it motivates self-learning. The disadvantages of E-learning are: it causes social isolation between the students; it

limits the communication between the students and their professors; it also limits the feedback of the professors and their students; it is inappropriate for students who need practical training; some universities are unqualified to teach online due to the technical issues and experience in teaching online; and it assists some students to be cheaters to get high marks.

The study proposes some suggestions. First, there should be a qualified educational platform that enables the professors and students to use it easily. This platform should have some characteristics such as: facilitates the feedback between the students and their instructors; it is equipped with a program that prevents cheating; It allows the students to be evaluated fairly; it facilitates the communication between the students to avoid the social isolation; it should be easy to be used. Second, online class should have no more than 35 students in the Humanities area and 25 in scientific areas to make the class more active than the current situation and encourage interaction between the students and their instructors. Third, offering laptops or desk computers and free internet for the poor students. Also, teachers have to teach in-depth and avoid surface education. In addition, policymakers should encourage the students to adopt self-learning and to interact with their professors. Lastly, blended learning should be implemented.

Conclusion

Online education was optional, and most countries, especially Jordan, did not recognize the graduates of distance learning. Nowadays, it has become an inevitable matter. This study came to shed light on the advantages of e-learning and strengthen them. At the same time, it discussed the disadvantages and challenges of e-learning and tried to overcome them. This is a qualitative study that used an online semi-structured interview to collect data and a Braun and Clarke thematic approach (2006) to analyse the data and extract the themes that answer the research question. This study suggests some future studies, such as examining teachers' perspectives on E-learning in vocational training, how students with disabilities deal with e-learning, the model role of educational platforms, and the emotional difficulties that families face while participating in e-learning.

CONFLICT OF INTERESTS

The author has not declared any conflict of interest.

REFERENCES

- Adnan M, Anwar K (2020). Online Learning amid the COVID-19 Pandemic: Students' Perspectives. *Online Submission* 2(1):45-51.
- Al Hadhrami S, Al Saadi N (2021). The Advantages and Challenges of e-Learning During COVID-19 Pandemic in Omani Schools from Parents' Perspectives of Cycle Two Schools (5-9). *International Journal of Educational Technology and Learning* 10(1):26-39.
- Almaiah MA, Al-Khasawneh A, Althunibat A (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies* 25(4):5261-5280.
- Almanthari A, Maulina S, Bruce S (2020). Secondary school mathematics teachers' views on E-learning implementation barriers during the COVID-19 pandemic: the case of Indonesia. *Eurasia Journal of Mathematics, Science and Technology Education* 16(7):1-9.
- Alobeytha FL, Mohamed AH, Rahman FA (2018). The Identity of The Trafficked Child in Young Adult Literature: Patricia McCormick's *Sold*. *International Journal of Education, Psychology and Counseling* 3(9):1-9.
- Barhoumi C (2015). The Effectiveness of WhatsApp Mobile Learning Activities Guided by Activity Theory on Students' Knowledge Management. *Contemporary Educational Technology* 6(3):221-238.
- Braun V, Clarke V (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2): 77-101.
- Chandler G, Hunter A, Jacelon C, Lusardi P, Zucker D (2002). Making meaning: The creative component in qualitative research. *Qualitative Health Research* 12(3):388-398.
- Creswell JW (2013). *Qualitative inquiry and research design: Choosing among five approaches*. (3rd edition). London, U.K: Sage Publications, Inc.
- Davey J (2014). How do novice parasport coaches develop their knowledge? A look at the experiences of para sailing coaches (Doctoral Thesis). Retrieved from <https://search.proquest.com/docview/1522759667?accountid=27931>
- Di Vaio A, Boccia F, Landriani L, Palladino R (2020). Artificial intelligence in the agri-food system: Rethinking sustainable business models in the COVID-19 scenario. *Sustainability* 12(12):1-12. <https://doi.org/10.3390/su12124851>
- Ebner M, Schön S, Braun C, Ebner M, Grigoriadis Y, Haas M, Taraghi B (2020). COVID-19 epidemic as E-learning boost? Chronological development and effects at an Austrian university against the background of the concept of "E-Learning Readiness". *Future Internet* 12(6): 1-20.
- Everitt BS, Howell DC (2021). *Encyclopedia of Statistics in Behavioral Science*. Hoboken, NJ: John Wiley and Sons LTD.
- Favale T, Soro F, Trevisan M, Drago I, Mellia M (2020). Campus traffic and e-Learning during COVID-19 pandemic. *Computer Networks* 176(2):1-23.
- Giovannella C (2021). Effect induced by the Covid-19 pandemic on students' perception about technologies and distance learning. In *Ludic, Co-design and Tools Supporting Smart Learning Ecosystems and Smart Education* (pp. 105-116). Springer, Singapore.
- Guest G (2012). *Applied thematic analysis*. Thousand Oaks, California, CA: Sage.
- Hasan N, Bao Y (2020). Impact of "e-Learning crack-up" perception on psychological distress among college students during COVID-19 pandemic: A mediating role of "fear of academic year loss". *Children and Youth Services Review* 118(2):1-9.
- Heppen J, Sorensen N, Allensworth E, Walters K, Rickles J, Taylor S, Michelman V (2017). The struggle to pass algebra: Online vs. face-to-face credit recovery for at-risk urban students. *Journal of Research on Educational Effectiveness* 10(2):272-296.
- Hoq MZ (2020). E-Learning during the period of pandemic (COVID-19) in the kingdom of Saudi Arabia: an empirical study. *American Journal of Educational Research* 8(7):457-464.
- Khabbaz M, Najjar R (2015). Moodle-based distance language learning strategies: An evaluation of technology in language classroom. *International Journal of Applied Linguistics and English Literature* 4(4):205-210.
- Kuama S, Intharaksa U (2016). Is online learning suitable for all English language students? *PASAA* 12(1):53-82.
- Kvale S (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: SAGE.
- Lincoln YS, Guba EG (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

- Mathison S (1988). Why triangulate? *Educational Researcher* 17(2):13-17.
- Mayer RE (2020). Searching for the role of emotions in e-learning. *Learning and Instruction* 70(1):1-3.
- McDonald DNHS (2011). *Gulag and the role of personal values in coping with the trauma of exile* (Doctoral Thesis, Adler School of Professional Psychology, Chicago, IL). Available from ProQuest Dissertations and Theses Global. (1476389829). Retrieved from <https://search.proquest.com/docview/1476389829?accountid=27931>
- Myers M (2000). Qualitative research and the generalizability question: Standing firm with Proteus. *The qualitative report* 4(3/4):1-9.
- Patton MQ (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Pope C, Mays N, Popay J (2007). *Synthesizing qualitative and quantitative health evidence: A guide to methods*. Maidenhead, England: Open University.
- Quick J, Hall S (2015). Part two: Qualitative research. *Journal of Perioperative Practice* 25(7-8):129-133.
- Radha R, Mahalakshmi K, Kumar VS, Saravanakumar A R (2020). E-Learning during lockdown of Covid-19 pandemic: A global perspective. *International Journal of Control and Automation* 13(4):1088-1099.
- Sahu P (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): impact on education and mental health of students and academic staff. *Cureus* 12(4):1-7. [://doi.org/10.7759/cureus.7541](https://doi.org/10.7759/cureus.7541).
- Wu EH, Lin CH, Ou YY, Liu CZ, Wang WK, Chao CY (2020). Advantages and Constraints of a Hybrid Model K-12 E-Learning Assistant Chatbot. *IEEE Access* 8(1):77788-77801.
- Yeasmin S, Rahman KF (2012). Triangulation research method as the tool of social science research. *Bup Journal* 1(1):154-163.