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Original Research Article

Jordanian University Students' Attitudes Towards Online Learning during the COVID-19 Pandemic and Lockdowns: Obstacles and Solutions

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Abstract

This study aims to investigate Jordanian university students' attitudes towards online learning during COVID-19 pandemic and lockdowns, shed light on the obstacles students encounter in online learning and suggest possible solutions. A questionnaire was designed by the researchers and was distributed amongst a study sample consisting of (195) students from the Department of English Language and Literature at the University of Jordan – Aqaba. The survey questionnaire was meant to elicit students' responses on the following domains: gender, level of seniority, availability of technological devices, access to internet, socioeconomic status, training and orientation for using eLearning platforms, and their attitudes, whether positive or negative towards online learning. Results showed that students' attitudes towards online learning were generally negative as the majority of the respondents reported that they prefer face-to-face classroom instruction over online learning because it gives them a direct contact with instructors. Furthermore, results revealed that there were statistically significant differences amongst students attributed to their gender, whereas there were no statistically significant differences as with regards to their seniority of study at university, socioeconomic status and the eLearning platform they prefer to use mainly Facebook Messenger, university's eLearning Moodle, Zoom, Microsoft Teams, YouTube, Skype, WhatsApp, and other platforms. The study concludes with proposing some pedagogical recommendations.

Keywords: Attitudes, Blended learning, COVID-19 pandemic, Obstacles, Online learning, Solutions, University of Jordan-Aqaba

INTRODUCTION

Jordanian university students were not accustomed to having lectures and assignments online before the Coronavirus pandemic started in mid-March, 2020. In response to the pandemic, the Jordanian government implemented strict health safety measures to prevent the disease from spreading widely through complete and partial lockdowns in all governorates in the country. Thus, for almost all university students, the shift from on-campus teaching to online learning was sudden. Neither university instructors nor students were prepared for such exceptional circumstances. The aim of this study is to explore Jordanian university students' attitudes towards online learning during COVID-19 pandemic and lockdowns, shed light on the obstacles students encounter in online learning and propose possible solutions and recommendations.

With the outbreak of the COVID-19 pandemic around the globe, many countries including Jordan have shifted education from on-campus face-to-face to online education. This sudden change in the learning/ teaching

process has garnered positive and negative attitudes from both university students and instructors. This article, therefore, explores students' attitudes towards online learning in light of the following variables: gender, level of seniority at university, household income and accessibility to technological devices and eLearning platforms. The variables will be discussed with regard to students' and instructors' preparedness and training or lack of such training for online learning/teaching, and governmental financial support for low income university students who cannot afford to buy laptops and internet bundles necessary for eLearning.

While blended learning has been encouraged by the University of Jordan even before the COVID-19 pandemic, neither students nor instructors were provided with enough training on how to use online teaching platforms like eLearning Moodle, Zoom, Microsoft Teams, Google Classroom and Microsoft Forms.

The shift to eLearning is beneficial for shy students who do not take part in classroom discussions. Some students are reluctant to speak English in class because they are worried about making grammatical mistakes or mispronouncing words in front of their classmates. Such worries increase the students' anxiety to speak English. However, such introverted foreign language learners who fear to take part in face-to-face classroom discussions feel more at ease while speaking English with their instructors and peers in online learning because online learning provides such learners with an anxiety free environment. Instant messaging (IM) and video chat (VC) through eLearning platforms like Moodle, Zoom, Microsoft Teams and many others, in addition to social media websites like Facebook Messenger, WhatsApp, provide English foreign language (EFL) learners with a venue for real daily synchronous interactions with their instructors. Thus, eLearning takes the form of private tutoring because it is based on interpersonal interactions between the instructor and students via the webcam, microphones and earphones.

Though this is beyond the scope of the current study, synchronous interactions during online lectures help students majoring in English and other foreign languages often improve their four language skills mainly speaking, listening, reading, and writing. In online learning settings, students are requested to do many assignments in all university courses and submit them online by meeting certain deadlines. These assignments help students improve their writing skill, increase their typing speed, become professional in using a grammar checker in word documents and above all get accustomed to submitting assignments on time.

Online learning during the Coronavirus pandemic and lockdowns has received much attention in the literature of synchronous and asynchronous computer mediated-communication. In fact, even prior to the worldwide spread of the Coronavirus pandemic, many studies have proved the pedagogical benefits of computer assisted language learning such as decreasing learner anxiety and providing shy learners with a safe learning environment (Beauvois and Eledge, 1996). For instance, many studies have shown that email exchanges in the foreign language can help learners improve their writing skill (Warschauer et al., 2000).

This attitudinal study investigated Jordanian university students' attitudes towards using synchronous and asynchronous interactions or online learning during COVID-19 Pandemic: Obstacles and Solutions - A case Study at the University of Jordan/ Aqaba. Online learning should include all modes of synchronous and asynchronous interactions between instructors and students and between students and their classmates so as to become an effective alternative pedagogical platform to face-to-face classroom setting. Several studies have investigated the effectiveness of online learning as a bridge to face-to-face traditional classroom settings (Warschauer, 1996; Beauvois and Eledge, 1996; Al-Ahmad, 2003; Al-Jamhoor, 2005; Altenaiji, 2005; Bulut and AbuSeileek, 2007).

Previous studies have reported on the advantages of online learning as a new exciting learning/teaching environment. Most online learning attitudinal studies conducted worldwide during the COVID-19 pandemic have been largely positive. For instance, students majoring in English Language and Literature in many Arab universities testified that synchronous interactions significantly improved their four language skills; the receptive and productive skills (Al-Jamhoor 2005; Bulut and AbuSeileek 2007); and enhanced their self-confidence in speaking the language (Al-Jamhoor 2005 and Akbulut 2008) and augmented their motivation to learn the language because it caters for their different learning styles and personality types (Beauvois and Eledge 1996); made the language learning process enjoyable because it takes place in a stress-free, informal homely environment (Stevens 1991); developed their computer literacy as a result of frequent texting with their instructors and peers (Altenaiji 2005); and significantly improved their writing competency and typing speed (Al-Ahmad 2003).

Problem Statement and Research Questions

Recent research on eLearning during the Coronavirus pandemic worldwide has reported on the benefits of online platforms as an alternative to face-to-face classroom instruction (Agormedah et al., 2020; Agung et al., 2020; Febrianto et al., 2020; Shawaqfeh et al., 2020; König et al., 2020; Coolican et al., 2020; Kalloo et al., 2020). However, students have reported that they encountered many obstacles during online lectures mainly internet interruptions and instability, and their inability to buy laptops, mobile phones and internet bundles necessary for their eLearning.

This research strives to fill the gap in the literature on the pedagogical uses of online learning during the Coronavirus pandemic in Jordan and worldwide. The study was designed to elicit answers to the following questions:

(1) What are Jordanian students' attitudes towards online learning during the Coronavirus pandemic and lockdowns?

(2) What are the obstacles students at the University of Jordan/ Aqaba encounter in their online learning during the Coronavirus pandemic crisis and lockdowns?

(3) Are there any statistically significant differences between students' attitudes towards online learning during the Coronavirus pandemic and lockdown attributed to the variables of gender, socioeconomic status, seniority of study, and preference of eLearning platforms?

Significance of the Study

In the literature review about online learning, many studies have reported on the positive effects of eLearning platforms as alternative pedagogical setting to on-campus learning (Agung et al., 2020; Febrianto et al., 2020; König et al., 2020; Coolican et al., 2020; Kalloo et al., 2020). In the Jordanian context, attitudinal studies toward online learning during the Coronavirus pandemic and lockdown are, however, still quite scarce.

The significance of the current attitudinal study stems from the fact that it will hopefully provide a thorough evaluation of Jordanian university students' attitudes towards online learning during the Coronavirus pandemic and lockdowns, shed light on the obstacles students encounter in online learning and suggest possible solutions. The copiousness of worldwide studies examining online learning during the Coronavirus pandemic, and the scarcity of attitudinal studies exploring its effects on the learning process and achievement of Jordanian university students, make this study a significant contribution to the current literature on online learning.

Theoretical Framework and Literature Review

The twenty-first century has witnessed an extraordinary worldwide spread of cyberculture and distance education. Nowadays, students and instructors use both multimodal synchronous and asynchronous platforms and blended learning to facilitate the learning/teaching process. A few studies have discussed the sudden shift from on-campus face-to-face learning to online learning, emphasizing the pros and cons of this unprecedented shift. Agormedah et al., (2020) have examined the effect of online teaching on the Ghanaian higher education. They gathered responses from around (467) students adopting an online descriptive survey questionnaire. They found out that while students find online learning positive, there are a few challenges that affect their learning progress. These challenges include lack of technological devices such as laptops, cell phones and others; the low socioeconomic status of some students who have no access to internet because it is expensive; and lack of orientation and preparation for online teaching. Similarly, and in the context of Indonesian higher education, Agung et al. (2020) have gathered (225) students' responses via a questionnaire in the English Department at Pamane Talino College of Education. They aimed to explore students' participation, accessibility, material and assignment delivery, and the use of eLearning platforms. They identified three major obstacles pertinent to online learning, namely, availability and internet interruptions, accessibility to eLearning platforms and the efficacy of these platforms to present the teaching materials to students.

Stressing the geographical importance concerning online learning, Febrianto et al. (2020) have investigated the effect of online learning on students living in the Indonesian Island of Madura. They used a qualitative research methodology to gather responses from (274) college students. They concluded that among the challenges facing students were internet interruptions during lectures and the lack of financial support for using online platforms. Their study was conducted in a place far away from the city, meaning that there will be issues concerning lack of internet access. Interestingly, many students agreed on the inefficiency of online learning on this island. However, their study proposed some recommendations including gaining governmental financial support and establishing facilities and infrastructure that will make it easy for students on the Indonesian island to have access to internet and technological resources.

Similarly, Shawaqfeh et al. (2020) conducted a three-question survey questionnaire focusing on such domains as students' attitudes toward eLearning, preparedness, and the barriers they encounter in online learning. They implemented the survey on pharmacy students at King Saud Bin Abdulaziz University for Health Sciences. The results showed that students had positive attitudes towards online learning and the university's preparedness and financial support for making the online learning a successful experience. Nevertheless, they found out that about (34%) of the respondents encountered obstacles that had affected their online learning. These obstacles included limited technological experience, lack of motivation, lack of instructions, and geographical barriers, that is, living in remote areas that lack technological services and facilities. Interestingly, this study shares some common issues with the previous studies discussed before concerning online learning such as instructors' and students' insufficient or lack of training on how to use the platforms and insufficient preparedness,

lack of financial support, lack of technological devices and services needed for online learning.

Many attitudinal global studies have explored students' reactions to online learning during the Coronavirus pandemic. However, very few researchers have shifted their focus to educators and university professors, and how they manage to deal with online teaching without much training on how to sue eLearning platforms for giving lectures, giving assignments to students and administering examinations online. König et al., (2020) explored the way teachers in Germany have adapted to online teaching. Particularly, they investigated how these teachers maintained social contact with students and their parents during the Coronavirus pandemic and lockdowns. They also traced the effects of what they described as "potential factors," for example, computer availability and teacher's pedagogical technological competence and training, in achieving positive outcomes in online learning (608). Results of their survey showed that "information and communication technologies (ICT) tools, particularly digital teacher competence, and teacher education opportunities to learn digital competence, are instrumental in adapting to online teaching during COVID-19 school closures" (608). They concluded that teachers who maintain better communication with students reported positive responses to online teaching.

Coolican et al. (2020) examined the effect of COVID-19 pandemic on the educational system and the sudden shift to online learning in four education and technical colleges from the San Nicolas District in Buenos Aires Province, Argentina. They particularly studied teachers' and specialists' measures in adapting to this sudden change in the teaching/learning process. They designed and distributed a questionnaire among participants in the study sample and interviewed them to elicit their responses to adaptation and the challenges they face. They found out that while teachers were able to adapt to the new situation, namely, the shift to online teaching, they encountered many challenges including inability to have access to technology necessary for online teaching and the inability to use eLearning platforms to upload and grade assignments. Similarly, Kalloo et al., (2020) investigated the administrative policies of facilitating the shift to online learning at the University of the West Indies in Trinidad and Tobago. Through questionnaires and interviews with policy makers and faculty members, they concluded that three key constructs played major roles in facilitating the transition to online learning during the crisis: "Community as an empathetic connection to stakeholders, Creativity as the ability for agile and imaginative responses, and Connectivity through technological readiness" (1).

Attitudinal studies toward online learning were conducted long before the COVID-19 pandemic crisis occurred. Many studies have reported on the benefits of multimodality in online learning because it entails that students and instructors use all modes of communication in the learning process (Kress 2000). Altenaiji's (2005) study explored students' attitudes toward online learning and showed that eLearning platforms enhanced students' sense of community, and developed their computer skills.

It should be noted that many studies have proved that the multimoded nature of eLearning platforms categorized under Synchronous Computer-Mediated Communication (SCMC) make such pedagogical tools resemble face-to-face communication in almost all aspects. Sotillo (2000) pointed out that SCMC discourse functions seem very ''similar to the types of interactional modifications found in face-to-face conversations'' (82). In addition, several studies have reported that synchronous texting in eLearning platforms improves students' writing skills (O'Connor 2005) and their computer literacy (Simpson 2005).

Related Literature in the Jordanian Context

While there is a lack of studies that have investigated online learning in the Jordanian higher education during the Coronavirus pandemic, some researchers have studied its merits and demerits. Jehad Alameri et al. (2020) have used a questionnaire to survey students' perceptions of online learning. They concluded that positive attitudes were registered, highlighting the preparedness of the University of Jordan to online learning for both students and instructors. They particularly discussed the benefits of using eLearning platforms such as Zoom, Microsoft Teams and Moodle. These platforms, they maintain, facilitate interactive learning and help students develop self-study skills. While students' responses have been explored, instructors' responses to the sudden shift to online learning have been almost overlooked. However, Haider and Al-Salman (2020) conducted a quantitative research analysis gathering university instructors' responses from six public and private universities in Jordan. The study sample included (432) respondents. Results showed that while online learning was effective and helped both instructors and students develop new teaching and learning skills, they reported having encountered many obstacles regarding insufficient orientation with eLearning platforms and preparedness for online learning and teaching. Therefore, the study recommended that the government and higher education institutions should provide training programs for both instructors and students to facilitate online learning. They also suggested that technological resources such as laptops should be made available for both university instructors and students to help advance and facilitate the online teaching/learning process.

Blended learning has become in vogue in Jordan, yet the outbreak of COVID-19 pandemic and the govern-

ment's restrictions and lockdowns have put pressure on Jordanian universities to implement blended learning, that is, the combination of on-campus face-to-face teaching and online teaching. Oweis (2018) examined a group of selected students (34) studying English at the German Jordanian University. He divided students into control and experimental groups. He concluded that the experimental group had achieved better results and learning outcomes compared to the control group after implementing blended learning. He recommended that blended learning be incorporated in the educational system for its effectiveness and appeal to students.

METHODOLOGY

This study explored Jordanian university students' attitudes towards online learning during the Coronavirus pandemic. The study was implemented during the transition period between the second semester and the summer semester (from April to November 2020) at the University of Jordan/ Aqaba. A quantitative approach using a survey questionnaire was used to elicit students' attitudes toward online learning. As a statistical survey method, the questionnaire has the following advantages over other data collection tools:

(a) it is much less costly and requires less efforts than other data collection tools;
(b) it is more reliable than other tools of data collection;
(c) the respondents' identities remain anonymous;
(d) results obtained from survey questionnaires are generalizable to
a larger population;
(e) respondents' responses are easy to interpret statistically;
(f) it is suitable for collecting data from a huge community of respondents in a short period of time

Nevertheless, the survey questionnaire has the following disadvantages and limitations:

(a) it requires much time for drafting and editing;
(b) it has to be reviewed by professional academics and judges; and
(c) it provides the researcher with descriptive information rather than interpretive explanations (Black 1999).

The questionnaire was quite helpful for the researchers in statistically investigating the differences among the variables. For instance, in the current study, many variables were tested and validated such as the students' gender, seniority of study at university, socioeconomic status, and the preferred online learning platform. Thus, it will be a simple task to use the questionnaire data, to manipulate the main variables to general statistics, such as the mean and standard deviation (Black 1999).

Study Sample

The study sample included (195) students from the Department of English Language and Literature at the University of Jordan/ Aqaba.

Research Instrument

A survey questionnaire consisting of (22) items and designed by the researchers for the purpose of implementing the study was distributed amongst students in the Department of English Language and Literature at the University of Jordan, Aqaba branch. The respondents' responses to questionnaire items were collected and statistically analyzed. The first part of the questionnaire was used to elicit students' responses regarding personal information such as gender, seniority of study at university, socioeconomic status, the possession of a laptop or mobile phone, and the online learning platform they prefer to use. As for domains in the second part of the survey questionnaire, they were intended to explore students' attitudes towards online learning during the Coronavirus pandemic and lockdowns. The survey questionnaire was distributed to all respondents (195) included in the study sample.

In the initial stage, the survey questionnaire was based on a pilot study administered to a limited number of participants (N ¼ 50) randomly selected from the study sample (Oppenheim 2000). The respondents were requested to react to all the questionnaire items and to express their attitudes and opinions. In light of analyzing the results of the pilot study, some items of the questionnaire were modified before the final draft was distributed among the study sample. It is worth mentioning that the edited and proofread questionnaire was distributed among the respondents by uploading it as an assignment on Microsoft Forms due to the pandemic crisis.

Validity and Reliability of the Instrument

The validity and reliability of the survey questionnaire items were ensured by making personal interviews with some students regarding their attitudes towards online learning and the obstacles they encounter. Additionally, the questionnaire was piloted among three judges to ensure its validity and reliability to elicit students' responses and to proofread and edit the questions. Taking into consideration the judges' suggestions regarding the relevance of the questionnaire items, some questions were reworded, some were removed and others were added. Participants were requested to fill in the questionnaire twice within a one-week interval with the aim to test and retest the reliability of the question-

naire and to check out if the same responses were collected and to ensure that some students did not answer the questions arbitrarily.

Administration Procedures of the Questionnaire

Confidentiality and Anonymity

Many procedures were used before the administration of the questionnaire. Students were ensured that their responses would remain confidential, and they were not asked to write their names on the questionnaire. This procedure was used so that the participants would express their attitudes toward online learning truthfully and frankly. Thus, participants' privacy was ensured through confidentiality, anonymity and by being ensured that their identifying information will not be disclosed to anyone under any circumstances (Cohen et al., 2000).

Data Analysis

The statistics software SPSS was used to analyze the questionnaire data. The mean score for each item of the questionnaire was computed in comparison to a hypothesized mean of 3, a neutral score that pinpoints the questions engendering positive or negative attitudes exceeding chance responding. In addition, the mean score for all respondents on all items of the questionnaire was calculated to reveal whether they expressed general positive or negative attitudes towards online learning. A one-way analysis of variance (ANOVA) and a t-test for the independent sample were administered to investigate any statistically significant differences between the respondents' attitudes towards online learning attributed to their gender, seniority of study at university and socioeconomic status.

Descriptive Statistics

Descriptive statistics based on the mean scores and standard deviations and the t-test and one-way ANOVA were employed to investigate students' attitudes towards online learning pertaining to all the study variables. Statistical interpretations of the survey questionnaire revealed the following: the majority of the study participants were female students with a participation percentage (81.5%) of the total study sample, while the male participants constituted the remaining percentage. (Table 1 below)

Moreover, the majority of the study sample participants are from the young group whose ages range between (18-29) years, and this group constitutes (97.4%) of the study sample. (see Table 2 below).

As with regards to the students' source of income necessary for paying tuition fees, the study, (see Table 3 below) shows that the majority of students, comprising (72.8%), depend largely on various government grants. Students who pay tuitions through parental financial support and which comprises (22.1%) ranks next as with regards to source of income.

Table 4 shows that participants are classified into three groups according to their household income: the income group (500 USD and less) at (33.8%), followed by the income group (800 USD and less) at (23.6%), followed by the income group (1000 USD and more) at a rate of (22.6%).

Table (5) shows participants' sonority at university. The table shows that among the study participants, third year students constituted the largest percentage (35.4%). While Table (6) shows that the majority of respondents are undergraduate students.

With regard to students' preference of the teaching/learning process method shown in Table (7), the majority of the participants (76.9%) reported that they prefer on-campus education compared to (22.6%) of the participants who prefer online learning. This could be due to the high cost of laptops, and internet bundles required for eLearning and the fact that students are burdened with too many assignments for each course they study every semester.

Results of the study revealed that (51%) of the participants use mobile phones, whereas (33%) reported that they use laptops. Table (8) shows the types of electronic devices students use in eLearning. Students' excessive dependence on mobile phones in online learning is due to the high cost of laptops and other electronic devices whose prices have drastically increased as a result of the high demand on laptops in the local Jordanian market during the Coronavirus pandemic. The financial challenges of buying a laptop or even a used one or having access to monthly internet bundles are shared by almost all university students regardless of their sources of income, gender, and seniority of study. During the Coronavirus pandemic and lockdowns in Jordan, many people, especially those working on daily wages basis, have lost their sources of income. As a result, they cannot support their university sons and daughters financially, and they cannot afford to buy a laptop and internet bundles for every one of them.

Students' preference of traditional on-campus university education over online learning is due to many factors the most important of which is the unpreparedness of both students and professors for the sudden shift of online learning. Some students and even university professors lack the proper training on how to use eLearning platforms such as Microsoft Teams, Zoom, Moodle, Facebook Messenger, Skype, and Microsoft Forms used for administering examinations.

In the initial stage of the Coronavirus pandemic, some universities lacked the infrastructure, facilities and staff needed for effective online learning such as enough

Table 1. Distribution frequency of the participants according to their gender

		Frequency	Percent
Valid	1.0	36	18.5
	2.0	159	81.5
	Total	195	100.0

Table 2. Distribution frequency of the participants according to their age

		Frequency	Percent
Valid	1.0	190	97.4
	2.0	3	1.5
	3.0	2	1.0
	Total	195	100.0

Table 3. Distribution frequency of the participants according to source of income

		Frequency	Percent
Valid	1.0	142	72.8
	2.0	5	2.6
	3.0	4	2.1
	4.0	43	22.1
	Total	194	99.5
Missing	System	1	.5
Total		195	100.0

Table 4. Distribution frequency of participants according to their household income

		Frequency	Percent
Valid	1.0	7	3.6
	2.0	23	11.8
	3.0	66	33.8
	4.0	46	23.6
	5.0	44	22.6
	Total	186	95.4
Missing	System	9	4.6
Total		195	100.0

Table 5. Distribution frequency of participants according to their seniority of study at university

		Frequency	Percent
Valid	1.0	34	17.4
	2.0	48	24.6
	3.0	69	35.4
	4.0	44	22.6
	Total	195	100.0

Table 6. Distribution frequency of participants according to qualification degree

		Frequency	Percent
Valid	1.0	10	5.1
	2.0	172	88.2
	3.0	4	2.1
	4.0	2	1.0
	Total	188	96.4
Missing	System	7	3.6
Total		195	100.0

Table 7. Distribution frequency of participants according to the type of teaching (on-campus classroom instruction or online learning) they prefer

		Frequency	Percent
Valid	1.0	44	22.6
	2.0	150	76.9
	Total	194	99.5
Missing	System	1	.5
Total		195	100.0

Table 8. Distribution frequency of participants according to the electronic devices (laptop, mobile phone or iPad) they use in E-Learning?

		Frequency	Percent
Valid	1.0	66	33.8
	2.0	3	1.5
	3.0	2	1.0
	4.0	2	1.0
	5.0	101	51.8
	6.0	2	1.0
	7.0	14	7.2
	8.0	3	1.5
	9.0	1	.5
	10.0	1	.5
	Total	195	100.0

laboratories, lab technicians, and even lack of coverage with internet networks, and the high cost of internet services charged by telecommunications companies and students' financial inability to buy laptops and internet bundles. Some Jordanian families have many children studying at schools and universities, and therefore many users use the same internet bundles to attend lectures online. This causes interruptions in the internet and consequently negatively affects students' learning. Moreover, many universities do not give any financial support to needy students to buy laptops or to have internet access. The low level of financial support the Ministry of Education provides to needy students in low income areas can also be considered as an obstacle to the facilitation of online learning. Finally, the pressure on internet coverage networks at peak hours when all students both at school and university levels are having classes online poses another problem for eLearning.

Nevertheless, the situation of online learning in Jordan has improved very fast and is yielding fruitful results. University professors and instructors have been given sufficient training on how to use eLearning platforms, how to upload and grade assignments and how to administer their examinations online. Many low-income students have been given free laptops and internet access by individual donors, the Ministry of Higher Education and Scientific Research and the Ministry of Education. By having daily lectures and assignments online, students have also been independently trained to use eLearning platforms. Both universities and schools throughout the

Table 9. Independent Samples Test, Hypothesis test 1

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Average	Equal variances assumed	.308	.580	-2.174	193	.031	-.22471	.10334	-.42854	-.02088
	Equal variances not assumed			-2.307	55.788	.025	-.22471	.09742	-.41988	-.02954

Table 10. Hypothesis test 2

Average	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.736	3	.245	.765	.515
Within Groups	61.251	191	.321		
Total	61.987	194			

country have significantly improved their internet networks infrastructure, facilities and laboratories.

Hypothesis Test

1) T -student test

The independent samples t-test is applied when two independent samples and two groups of individuals are compared.

The Null- Hypothesis refers to:

HO 1: There are no statistically significant differences between male and female students' attitudes toward online learning during the Coronavirus pandemic.

Ha: There are statistically significant differences between male and female students' attitudes toward online learning during the Coronavirus pandemic.

We reject H0 depending on the t -test, hence the t = -2.17, and exactly probability test value, P-value = 0.03 is lower than 5%. However, we accept the alternative hypothesis Ha as follows:

There are statistically significant differences between students' attitudes toward online learning attributed to gender and in favor of the female students. This could be due to the fact that female university students may understand and use technological devices better than male students. Female students are also more homely and domestic than male students who opt to have part time jobs during the coronavirus pandemic beside studying at university. (see Table 9 above)

2) F- fisher test

a) H0 2: There are no statistically significant differences between students' attitudes toward online learning attributed to their level of seniority at university.

Ha: There are statistically significant differences between students' attitudes toward online learning attributed to their level of seniority at university.

The null hypothesis shows that there is no difference in the mean online learning attitudes of students concerning their seniority level at university.

Based on the Fisher test through the analysis of variance, we accept the null hypothesis that indicates that there is no difference between the averages of students' attitudes toward online learning that can be attributed to their seniority of study at university. The value of F was poor statistically at a significance level of (5%), because the exact probability value of the test, which is equal to (51.0), is much greater than (5%). Therefore, we cannot reject the null hypothesis, but we have no option but to accept it. (see Table 10 above)

b) H0 3: There are no statistically significant differences between students' attitudes toward online learning attributed to their source of income.

Ha: There are statistically significant differences between students' attitudes toward online learning attributed to their source of income.

Table 11. Hypothesis test 3

Average	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.312	3	.437	1.394	.246
Within Groups	59.604	190	.314		
Total	60.917	193			

Table 12. ANOVA Hypothesis test 4

Average	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.089	4	.022	.069	.991
Within Groups	58.566	181	.324		
Total	58.655	185			

Based on the Fischer test, the null hypothesis cannot be rejected because the exact probability value of the test (F- Sig) is greater than (5%), where it reached (0. 246). Therefore, this entails accepting the null hypothesis. (see Table 11 above)

C) H0 4: There are no statistically significant differences between students' attitudes toward online learning attributed to their household income as with regards to the availability of electronic devices.
Ha: There are statistically significant differences between students' attitudes toward online learning attributed to their household income as with regard to the availability of electronic devices.

Based on the Fischer test, the null hypothesis cannot be rejected because the exact probability value of the test (F-Sig) is much greater than (5%), where it reached (0.99). Therefore, this entails accepting the null hypothesis. (see Table 12)

FINDINGS AND DISCUSSION

The current study aimed to explore Jordanian students' attitudes towards online learning during the Coronavirus pandemic. The study revealed a few obstacles that hinder, slow or affect the online teaching/learning process. In addressing the hypotheses of the study, a t-test for the independent sample was administered to explore any statistically significant differences between students' attitudes towards online learning that were attributed to their gender, seniority of study at university, socioeconomic status and the household income needed for buying laptops and other technological devices. In general, female participants have more positive attitudes toward online learning during the Coronavirus pandemic than males though both groups reported many technical problems and lack of training on how to use eLearning platforms. Many students reported that they do not feel stressed in online class discussions as they do in on-campus classroom settings. There were statistically significant differences among students' attitudes toward online learning attributed to their gender, but there were no differences between them in terms of the other two variables: socioeconomic status and seniority of study at university.

Before we consider the effectiveness of online learning, we should attend to the availability of tools and resources as prerequisites for online learning. Therefore, it is unfair to ask students how effective online learning is if they do not have the technological devices required for online learning. One reason for some students not being able to have devices for online learning is their low economic status. While a few may have

laptops or iPads, others do not. Thus, we should be aware of the students' household income. In Jordan, people who make (800 USD or less) per month (equals 550 JD or less) are classified as under the poverty line citizens by the government. As chart (1) below shows, out of the study sample (195) respondents, (113) students' household incomes are lower than (800) USD per month. Out of (113) respondents, only (66) students are from families with less than (500) USD per month income. The question that arises here is, can students or their families afford to buy them laptops, iPads or even buy internet bundles to be able to connect to these electronic devices? However, (74) respondents did not reveal their household income. This means that these numbers may increase. We can conclude from these numbers that the socioeconomic status of students may substantially affect the quality of their online learning.

Analyzing the statistics in the chart below, we can deduce that students are sure that online learning is for their benefit. As the chart indicates, (103) respondents believe that the students' socioeconomic status can influence their learning outcomes since online learning

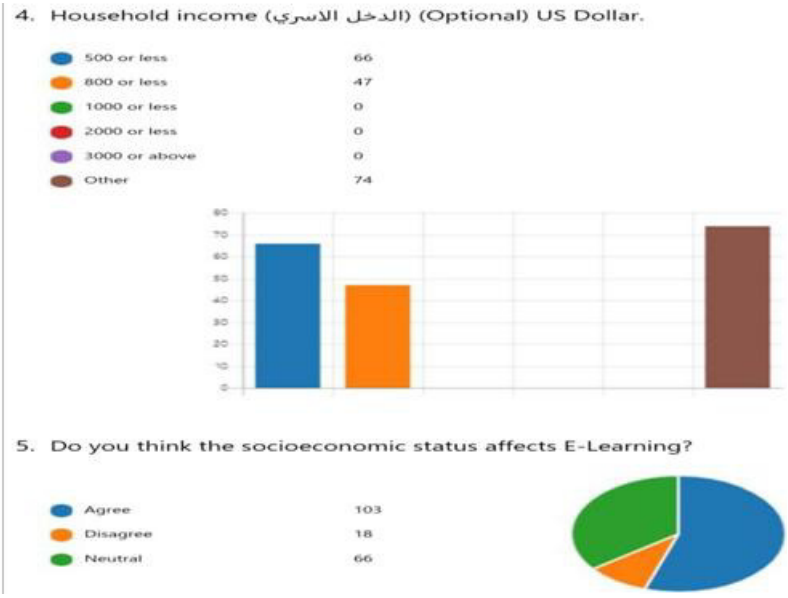

Chart 1. Students' household income

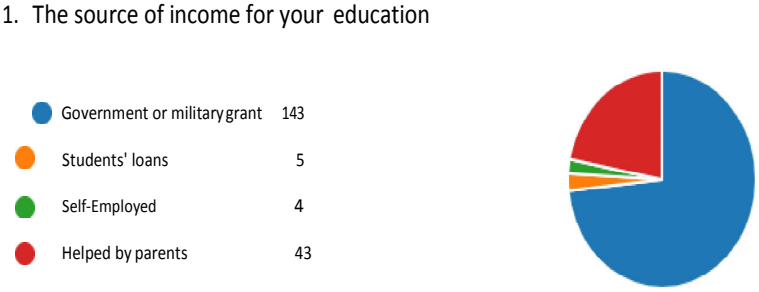

Chart 2. Students' source of income

requires tools and devices to be purchased.

The availability of electronic devices such as laptops or personal computers are important for achieving maximum effectiveness of online learning. As we have discussed before, to arrive at conclusions of whether online is effective and beneficial for students or not, we have to make sure that they have the required devices. In Jordan, for example, free laptops are given as donations to students, and many universities also grant their students internet access. But this happened after the end of the Spring semester 2020. Also, the distribution of laptops does not have clear parameters, meaning that many poor students still do not have laptops or internet access. But before the Jordanian government's grant of free laptops to some needy students, how were students at the University of Jordan-Aqaba able to continue online learning?

Our survey questionnaire has shown that (177) students use mobile phones while only (87) students use laptops in their eLearning. Some students reported that they use both a laptop and a mobile phone in their online lectures. Yet, what is more alarming here is the huge number of students who use mobile phones to participate in online learning. It should be noted that mobile phones are less efficient than laptops when it comes to online learning. The difficulty in using mobile phones for typing, their small screens compared to that of laptops and the limited options on mobile phones negatively affect the students' online learning. Additionally, the huge number of students who use mobile phones can be read in line with their socioeconomic status. While mobile phones can be bought at lower prices (poor people can have them), laptops are expensive. This explains why many students use mobile phones more than laptops.

One may draw a conclusion on why many students find online learning less effective when compared to traditional face- to- face learning in a classroom setting on campus. It is not because online learning is less effective; rather it is because the required technological devices and tools are not available to students. In the survey questionnaire, students are divided between the efficacy of online learning and its downsides. The first

three scales (very poor, poor and fair) register (105) respondents who believe that online learning is ineffective or unsuccessful. While (82) students believe that online learning is average or less, only (8) respondents think that online learning is excellent. This low number does not suggest that online learning is less productive when compared to on-campus face-to-face teaching. But rather, external factors such as the students' household income and their socioeconomic status play a major role in directing the results of this questionnaire towards these negative results.

Findings in light of the Study Variables

Gender

The t-test showed that there were statistically significant differences between students' attitudes towards online learning during the Coronavirus pandemic that were attributed to gender in favor of the female students. This result diverges from the findings of Akbulut's (2008) study, which showed that students' attitudes toward computer assisted language learning (CALL) are not affected by their gender. This could be attributed to the fact that Jordanian female students are more proficient in texting on mobile phones than male students. The female students' frequent texting with their classmates significantly improves their writing skills and typing speed.

Level of Seniority at University

Participants were classified into four groups according to their level of seniority (freshman, junior, sophomore and senior). The one-way ANOVA was employed to investigate the existence of any statistically significant differences among students' attitudes towards online learning attributed to their level of seniority. Results showed that there are no statistically significant differences between students' attitudes towards online learning attributed to their seniority level. This result is dissimilar to findings of previous studies which showed that senior students are more computer-literate than freshman, junior and sophomore students, and thus they would use online learning more than the other groups either on campus in the university internet laboratory or off-campus – or even at home. This result diverges from the findings of Blake's (2006) study, which showed that senior students had more positive attitudes toward Computer Assisted Language Learning (CALL) or internet-aided instruction than their freshman counter-parts. This study yielded different results from those obtained by Bataineh and Baniabdelrahman's (2006) study, which explored the perceptions of computer literacy amongst Jordanian learners of English as a Foreign Language. Their participants reported that the learners' seniority of study positively influenced their perceptions in favor of senior learners.

Socioeconomic Status

As with regard to the source of income needed for paying students' tuitions, chart (2) below shows that most students receive government grants, followed by students who are funded by their parents to pay their fees. Nevertheless, the study showed that there were statistically no significant differences between students' attitudes towards online learning that are attributed to their household income and socioeconomic status. However, results of the study revealed that students who possess laptops and have more access to internet bundles and routers have more positive perceptions of eLearning than students who use mobile phones for the same purpose. This result lends support to the findings of previous studies (Agormedah et al., 2020; Agung et al., 2020; Febrianto et al., 2020) which reported that the students' household income influences their online learning.

Thus, the students' socioeconomic status and household income affect their learning and progress positively or negatively. Not all students can afford to buy laptops or have mobile phones. Many students cannot even afford to have internet access; therefore, the University of Jordan provided them with free data bundles. Most importantly, there are some students who live in remote areas in which there is a lack of coverage or no internet at all. We thus examine these emergent issues and offer suggestions and recommendations for improving online learning at the University of Jordan.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to investigate Jordanian university students' attitudes towards online learning during the Coronavirus pandemic and lockdowns. Findings of the study demonstrated that students' attitudes toward online learning were generally negative, not due to the ineffectiveness of the online learning medium, but simply because of the many technical and financial problems associated with it. The study results also showed that there were statistically significant differences in students' attitudes toward online learning that are attributed to gender, but not to their socioeconomic status, seniority level and the availability of laptops though such variables significantly influence their online learning. In light of the results of the current study, the researchers suggested a number of recommendations and some directions for further research. In fact, there are ample opportunities for suggested future research. Foreign language scholars and educators in Jordan are encouraged to explore the

effect of using synchronous interactions (audio and video chat) with native speakers of English, French, Spanish, Korean, Chinese or any other foreign languages taught in schools of foreign languages in Jordan. Such unofficial and volunteered synchronous interactions between students and native speakers of the foreign languages would help improve their language proficiency outside the traditional classroom foreign language instruction. As a priority, it is recommended that all needy students especially those living in remote and poor sections of the Jordanian society be given free laptops and access to internet. These might be made available through government grants, or donations from individuals and private institutions. Finally, since online learning is a two-partner teaching/learning process, we recommend that both students and instructors have professional training on how to efficiently use all types of eLearning platforms.

Limitations of the Study

There are two limitations to generalizing the results of the current study. One limitation pertains to the instrument used for data collection. Survey questionnaires are generally used to elicit only quantitative data from respondents; thus, gathering and analyzing qualitative data would add more beneficial information. The other limitation concerns the study sample which was limited to one department from a public university in Jordan (Department of English Language and Literature at the University of Jordan- Aqaba). Attitudes of students from other Jordanian public and private universities were not surveyed. Thus, the findings of the study should not be generalized broadly.

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Appendix
Survey Questionnaire

COVID 19 and Jordanian Students' Attitudes Toward the Sudden Shift to Online Learning: A Case Study at the University of Jordan-Aqaba

This study explores the ramifications of the sudden closure of Universities in Jordan and its effect on the quality of teaching and learning. It explores the challenges facing students at the University of Jordan at Aqaba and how they deal with such an unprecedented shift from classroom teaching to online teaching.

1. Your gender
○ male
○ female

2. Your age
○ 18 to 29
○ 30 to 39
○ 40 to 49
○ 50 to 59
○ 60 and above

3. The source of income for your education
○ Government or military grant
○ Students' loans
○ Self-Employed
○ Helped by parents

4. Household income in US Dollar (Optional)
○ 500 or less
○ 800 or less
○ 1000 or less
○ 2000 or less
○ 3000 or above

5. Do you think the socioeconomic status affects E-Learning?
○ Agree
○ Disagree
○ Neutral

6. Level of Seniority
○ First year (Freshman)
○ Second year (Sophomore)
○ Third year (Junior)
○ Fourth year or more (Senior)

7. Degree
○ Diploma
○ B.A.
○ M.A.
○ Ph.D.

8. Which type of teaching do you prefer?
- ○ Online teaching
- ○ Classroom teaching

9. Which of the following do you use in online learning?
- ○ E-Learning (Moodle)
- ○ Facebook Messenger Facebook
- ○ Group Zoom
- ○ Microsoft Teams or Microsoft Forms
- ○ Youtube
- ○ Skype
- ○ What'sApp
- ○ Others

10. Which electronic device do you use in E-Learning?
- ○ Laptop
- ○ Desktop
- ○ Mobile phone
- ○ iPad
- ○ Other

11. How do you rate online teaching?
- ○ Very poor
- ○ Poor
- ○ Fair
- ○ Average
- ○ Good
- ○ very good
- ○ Excellent

12. Do you think instructors are well-prepared for online teaching?
- ○ Agree
- ○ Disagree
- ○ Neutral

13. Do you think students are prepared for online teaching?
- ○ Agree
- ○ Disagree
- ○ Neutral

14. Do you think online learning is successful?
- ○ Yes
- ○ No
- ○ Maybe

15. If your answer is no, why do you think eLearning is not successful?
- ○ Lack of preparation
- ○ Internet interruption
- ○ Area is not covered by internet
- ○ No laptops or desktops
- ○ University's servers do not work properly
- ○ Others

16. Is online learning difficult?
○ Yes
○ No
○ Maybe

17. If yes, why do you think online-teaching is difficult?
○ Too much homework
○ Subjects are not well explained by the instructors
○ Subject requires classroom or lab interaction
○ Unclear instructions for assignments
○ Others

18. Which is better for students' interaction?
○ Online learning
○ Classroom Learning

19. The content or the material is better presented in…
○ Online Learning
○ Classroom Learning

20. Which assessment tools do you think best suit you?
○ Research papers
○ Quizzes and exams
○ Projects
○ Assignment

21. If you are one of the students who call for automatic pass for all students, list the reason(s) for this call.

22. Please add or comment on any point related to the sudden shift to online learning.