

# Undergraduate Students' Perspective About Online Learning: A Case Study Of Hashemite University Students In Jordan

Mohammed M. Obeidat

*Faculty of Educational Sciences, The Hashemite University, P.O Box 330127, Zarqa 13133, Jordan*

*E-mail: moh.obai29@yahoo.com*

**Abstract:** *Introduction: The current COVID-19 pandemic caused a rapid shift from in-class to online learning in higher education. This shift created an educational environment that confused universities and faculty members. Since students are regarded as an axis around which everything revolves in the teaching-learning context, it is necessary to inquire into their views about this form of education. Therefore, the present study aimed to examine undergraduate students' perspective about online learning and the extent to which it influenced them positively or negatively in respect of psychological state, learning and skill acquisition, level of interaction, and financial state. It also aimed to explore their views about the pros and cons of online learning. Method: This study used a mixed method of research design. It used a questionnaire and questionnaire interview in order for the qualitative results to support the quantitative ones. One hundred and thirty-one students participated in the present study. Results: The study indicated that the psychological state of students was ranked first and their level of interaction was ranked last regarding the influence online learning had on them. It also indicated that the interviewees highlighted advantages for online learning, such as time and effort saving, ease of communication, lecture follow-up and feedback and disadvantages, such as lack of interaction, internet and electricity, and motivation. In addition, the study showed no significant differences in students' responses to the four categories or aspects due to gender, residential area, and the type school they graduated from. However, they revealed significant differences between Arts and Information Technology students' responses. Conclusion: These results may enlighten policy makers and university officials and make them improve the level of electronic services for students.*

**Key words:** *Undergraduates, Perspective, online learning, Jordan*

## 1. INTRODUCTION

Education has changed strikingly with the adoption of e-learning by which teaching is conducted from distance and on digital platforms. In response to considerable demand, many online learning podiums are now giving students the chance to approach their services for free. However, educational institutions confront many problems with the use of this learning method. These problems are related to internet access and the use of technology. That is, students often struggle to take part in digital learning because of the unreliable internet or technology access. There is a gap in this regard between them within and across countries. For the students who have the chance to use the right technology, learning can be more efficient. Some research reveals that students normally memorize 25-60% of the assigned material when learning online, whereas they memorize only 8-10% of this material in the

traditional classroom. This indicates that the students may be able to learn faster online (Li & Lalani, 2020).

One of the problems encountered by colleges and students is that they are not prepared for the lengthy closure of their campus during the pandemic. Despite the lack of preparation, college students keep dealing with the educational breakdown of this pandemic. Nevertheless, more students notify that they feel stressed and restless due to coronavirus, which has caused a digital divide among students and forced them to be homeless. Such a digital division portrays the gulf between those who are able to approach the internet and technological means, and those who are not (Dennon, 2020).

Educationists argue that the lack of experience with online education is a primary reason for the unfavorable view of online learning, and so the challenge calls for a recognition of two key points. First, online education demands completely different capacities in the teacher and students. Second, it is not easy to make a simple reflection of tangible classroom. However, there are five main reasons why institutions should commit themselves with online education even after the COVID-19 crisis comes to an end: (1) It may encourage teachers to adopt on-campus activities that stimulate active learning. (2) It will prepare students for life in general and for work in the digital age in particular. (3) It will enable institutions to respond to the emerging social needs of people. (4) It will increase students' individualized and resilient education options. (5) It will address the needs of those who are not afford to full-time education (Gasevic, 2020).

The teacher expects students to take four actions themselves each week. That is, they should check their learning objectives, accomplish their assigned readings, present assignments, and take part in the discussion boards. Educators identified seven major benefits for online learning. They are: giving students the opportunity to learn during work, helping students to manage time better and stay productive, enhancing students' self-motivation by demonstrating that they can gear many tasks together and adjusting to inconstant work conditions, helping students to decide upon the most appropriate communication practice, broadening students' perspective and enhancing their own cross-cultural awareness, making it easier for them to think critically, and helping them to learn new technical skills, particularly when they work on group projects and share files (Loeb, 2020).

All teaches use the online method of education with diversified levels of eagerness and interest. Therefore, it is important for them to consider the strengths and weaknesses of this method to prepare themselves better in encountering the defiance of working in this environment. Educators identified the strengths and weaknesses of this method of education which has become a common style of distance learning in higher education. With regard to points of strength, they state that online learning gives students the chance to take part in the class activity from any place through computer and internet connection, it is attainable at any time in the day, it allows an efficient reciprocity between the teacher and students and among the students themselves, it gives students sufficient time to elucidate responses in depth, it makes the teaching-learning environment more student centered, it allows to include experts or students form other situations, and it consolidates creative thinking. With respect to sources of weakness, educators declare that not all students are able to approach this learning environment, particularly those who live in rural areas, both the teachers and students must have sufficient computer knowledge in order to work successfully, technology is neither smooth nor reliable, it is inappropriate for dependent students, the facilitator may lack the essential online qualities, the faculty members who are not liable to work with technology often inhibit the process of online learning implantation, dialogue and interaction, particularly in large classes (The Board of Trustees of the University of Illinois, 2020).

Online learning cannot equip students with the forms of social interaction students have in the classroom. Educators ask about the way online courses can provide students with these forms

of informal interactions. They state that the current research provides us with some clues which may lessen the problems students suffer from in the online setting. However, online learning may be carried out in different forms. They can be executed in enormous open online courses, or in lectures where a great number of students watch a video online and are then asked to fill out questionnaires or take exams in order to investigate their views and the extent to which they have understood the content of the video. For example, most online courses in Florida adopt a style of teaching which is similar to that used in in-class courses. The teacher runs feasible discussion among the students, gives homework, and follows individual students (Loeb, 2020).

Most universities try hard to provide high quality of education during COVID-19 pandemic. In order to guarantee equal education, their teaching and learning centers have defined educational equity in higher education in general. In the U.S.A., Naffi, Davidson, Patino, Beatty, Gbelogio, Duponsel (2020), for example, used the Organization of Economic-Cooperation and Development's definition of educational equity to guide their research questions. They state that for equal education to take place at universities, all students should be able to achieve equal learning outcomes, to receive the necessary financial, social and academic support, and to be given access to the required resources, activities, interactions and assessments. As a result of their discussions with staff in centers for teaching and learning, Naffi, et al. revealed that there are eight priorities for centers to ensure equity among students during this pandemic. These priorities are: (1) creating accessible materials, (2) choosing suitable technological means, (3) ensuring accessibility to lectures, videos and audio content, (4) avoiding racism by designing learning experiences which suit all students of different races, (5) varying student participation and focusing on assignments, (6) ensuring financial support and equipment, (7) understanding student needs, and (8) providing equal experiences for all students.

*Aim and questions of the study:*

The present study aims at exploring students' perspective about online learning amongst COVID-19 pandemic at the Hashemite University. This study will be both quantitative and qualitative in order for the results of this study to support each other. That is, the study will investigate students' attitude towards online learning with regard to its academic, social, psychological, and financial effects, and whether there are statistically significant differences between their responses according to gender, residential area, faculty, and the school they graduated from. It will also examine their views about the advantages and disadvantages of online learning. Overall, the study seeks to answer the 4 research questions:

1. What are the students' attitudes towards online learning in general and in terms of its influence on their learning and skill acquisition, interaction, psychological state, and financial condition?
2. How do the students view online learning regarding its pros and cons?
3. Are there any statistically significant differences ( $\alpha= 0.05$ ) between the means of students' responses to online learning in general and to each category due to gender?
4. Are there any statistically significant differences ( $\alpha= 0.05$ ) between the means of students' responses to online learning in general and to each category due to residential area (Urban and Rural)?
5. Are there any statistically significant differences ( $\alpha= 0.05$ ) between the means of students' responses due to faculty (Arts, Educational Sciences and Information Technology)?
6. Are there any statistically significant differences ( $\alpha= 0.05$ ) between the means of students' responses due to the type of school they graduated from (Public and private)?

## 2. REVIEW OF RELATED STUDIES

Many studies were conducted on online learning in order to investigate its impact on students' learning and the problems resulted from its implementation. An increasing number of studies have been intensively carried out during the current pandemic-COVID-19. The majority of these studies were done in developing countries. Following is a set of studies which have been executed in the international literature on online or e-learning.

Zabadi and Al-Alawi (2016) examined the attitudes of 371 Saudi Arabian university students towards e-learning. The students were chosen randomly from four colleges and English language center at the University of Business and Technology. A questionnaire was developed by the researchers in order to achieve the aim of the study. The findings revealed that the students had positive attitudes towards e-learning. They also revealed significant differences between their responses with regard to gender, technology usage and skills.

Ullah, Khan and Khan (2018) investigated the attitudes of undergraduate students towards online learning in Pakistan. The researchers focused mainly on exploring the relationship between students' attitudes towards Technology Acceptance Model, with a special indication to online learning. A closed-item questionnaire with 5-point Likert scale was developed for data collection from 83 students. Results of the study indicated that there was no relationship between students' concern in computer, utility of computer to students, and easiness in using online learning.

Yunita and Maisarah (2020) conducted a descriptive study to explore students' perception on the execution of the learning process during CPVID-19 pandemic at the graduate program of English education of the University of Bengkulu. The study involved two classes comprising 34 students each. The data were collected by using a 5-point Likert questionnaire and semi-structured interview. The findings of this research revealed that the students had a positive perception of the application of the learning process during the pandemic. They also showed that the majority of students' responses in the interview gave positive responses to online learning conducted at the program.

Nambiar (2020) carried out a survey to explore college teachers' and students' perception and interest regarding online education in the pandemic of COVID-19. Seventy teachers and four hundred and seven students from colleges and universities in Bangalore city took part in the study. The data were collected through Online survey method. Results of the survey indicated that the areas which were regarded by the teachers and students important are: quality and appropriate interaction between student and professor, availability of technical support, organized online modules, and execution of practical classes.

Amir, Tanti, Maharani, Wimardhani, Julia, Sulijaya, and Puspitawati (2020) evaluated students' perspective of distance learning compared to classroom learning in a densified study program at Universitas Indonesia. The research instrument used was a questionnaire, which was sent to students online at the end of the semester. Three hundred and one students participated in the study. Results of the study indicated that the duration of study affected student preference. Higher number of first-year students preferred distance learning over classroom learning. The results also indicated that students preferred classroom learning for group discussion. In addition, the results revealed that only 44.2% of the students preferred distance learning over classroom learning, although they confessed that distance learning used a more effective learning method (52.6%).

Muhammad and Kainat (2020) investigated Pakistani undergraduate and postgraduate students' attitudes towards distance learning implemented in university courses amid COVID-19 pandemic. The students were surveyed to discover their perspectives about the adoption of online learning in the country. The findings of this research showed that online learning cannot achieve desirable results in developing countries like Pakistan. The reason lies in the fact that a vast majority of students cannot access the internet because of technical

as well as financial matters, lack of face-to-face interaction with the instructor, response time, and the absence of classroom socialization.

Agung, Surtikanti, and Op (2020) conducted a case study to examine the perceptions of 66 students on online learning during COVID-19 pandemic. The students were involved in an English Language Education Study Program at Pamane in Pakistan. Their perceptions were recorded through a survey in respect of students' participation, reachability, material and assignment submission, and the use of e-learning podiums. The study identified three main obstacles in using online learning in the program. They are: obtainability and sustainability of internet connection, attainability to the teaching mass communication, and the harmony of tools to approach the media.

Blizak, Blizak, Bouchenak, Yahiaoui (2020) investigated the perception of 380 Algerian university students concerning the sudden move to online learning during COVID-19 pandemic. To achieve the aim of this investigation, an online survey questionnaire was distributed to chemistry and Hydrocarbon students at the University of Boumerdes. Results of the study revealed that the students had not a positive perception of online learning. That is, they are hesitant about digital education and prefer in-class learning.

Unger and Meiran (2020) explored 82 undergraduate students' attitudes towards the quick shift from in-class learning to online learning during the current epidemic crisis. The researchers examined the students' position on inaccurate information in media, concern towards distance learning, knowledge of the sudden start of the disease, and level of readiness for this disease. The findings showed that the majority of students (91.5%) indicated that online learning would not be similar to in-class learning. They also showed that 98.8% of the students had viewed some inaccurate information on COVID-19 in media. In addition, 75.6% of the students responded that they had somewhat anxiety towards the rapid shift of the disease towards online learning.

Nachimuthu (2020) conducted a study whose purpose was to determine student teachers' attitude towards online learning during COVID-19 crisis. The researcher used a modified online attitude scale as a tool for data collection. He mainly took the scale from the studies done by Voorveld et al. (2018) and Roy et al. (2016). The sample consisted of 130 students, who were chosen randomly for the population of the study. The independent variables were gender, type of institution (public and private), and group of student teachers (Arts and Science). Data analysis showed that normal classroom practice did not influence students' attitudes towards online learning. It also shows no significant difference between the attitudes of male and female students, between private and public students, and between Art and Science ones.

It is obvious from the literature above that the majority of studies conducted on online learning during this current pandemic showed that it is not effective in the view of the teacher and students. The results obtained from these studies indicated that the students suffered a great deal from internet access, lack of interaction, lack of socialization, and technical support. A few of these studies were conducted in Jordan, particularly at the university level. Keeping in mind students' views all the time according to the contemporary approaches to teaching, the researcher has decided to investigate their perspective about the online learning process during Coronavirus pandemic at the Hashemite University.

### **3. METHOD**

This study used a quantitative and qualitative research design. That is, the study used a questionnaire and structured interview as research instruments in order to triangulate its results. Due to the problems resulted from the pandemic of COVID-19 in 2020, universities in Jordan adopted online learning instead of in-class learning so that they can avoid infection among the students. The Hashemite University, for example, is now using Microsoft Teams

and Zoom as main platforms for teaching and Microsoft Forms as a means of developing exams. This pedagogic orientation created a new situation to universities, which try hard to accommodate themselves with online learning. Students and teachers complain about this method of teaching, and so researchers start conducting studies in this regard. Therefore, the present study investigates students' perspective about online learning in terms of its impact, advantages, and disadvantages in order to fill a gap in the literature related to this method of education, particularly in developing countries.

*Instrument:*

The researcher used a 4-point Likert questionnaire and structured interview in order to examine university students' perspective about online learning. The questionnaire comprised 26 items, which were divided into four main categories or domains related to students' psychological state, learning and skill acquisition, level of interaction, and financial state. These items were distributed randomly throughout the questionnaire. That is, items 3, 4, 5, 21, 25 are connected with the psychological state; items 1, 2, 6, 7, 8, 9, 10, 12, 13, 16, 18, 19 are linked to learning and skill acquisition; items 11, 17, 22, 24, 26 are relevant to level of interaction, and items 5, 14, 20, 23 are related to financial state. In addition, four main independent variables were investigated in the questionnaire. They are: gender, residential area, faculty, school. The open-ended questions included in the interview were used to elicit 15 students' reactions to online learning with regard to its pros and cons. In order to ensure the validity of the questionnaire, it was handed to three colleague referees, requesting them to make any modifications and/or comments on the questionnaire in terms of format, layout, and clarity or relevance of items. As soon as the copies of the questionnaire were received, all the comments stated by the referees were taken into consideration. In order to find out the reliability factor of the questionnaire, it was distributed to 25 students, who were not involved in the study, through their university e-mails in the Microsoft teams. Three weeks later, the questionnaire was distributed again to the students. The results of the test-retest way of analysis showed that the correlation coefficient was found to 0.81. In addition, the Cronbach Alpha coefficient test was executed for the internal consistency of the items relevant to each domain in the questionnaire and for all items. Results of the test showed that the alpha value was found to be 0.79. The final copy of the questionnaire comprised 26 items. These items had four alternatives: agree, strongly agree, disagree, and strongly disagree so that the students can read accurately and put a tick next to each item. Consequently, the questionnaire was distributed by the researcher through their e-mails at the university and interview data was collected via live and recorded interviews in the Microsoft teams.

*Participants and Data Collection:*

The sample of the study consisted of 131 students, who were chosen randomly from three faculties at the university. Forty-two of these students were English Language majoring students selected from the Faculty of Arts, forty-eight were from the Faculty of Educational Sciences, and forty-one were from the Faculty of Information Technology. Study-year had not been paid attention since online learning was new to the vast majority of students. With regard to the qualitative part of the study, five students from each faculty were interviewed via Microsoft teams.

**4. DATA ANALYSIS:**

The data obtained from the questionnaire items were analyzed by using means, standard deviations, the t-test, and One-way ANOVA. The means and standard deviations were used in order to arrange the categories of the questionnaire according to students' responses. The t-test and One-way ANOVA were used to show whether they were any statistically significant differences between the means of students' responses to the questionnaire items. On the hand,

the data obtained from the interview questions were analyzed by categorizing students' answers into topical or thematic forms, called "categories".

**5. RESULTS:**

*Results related to the first research question:*

The results relevant to the first question "What are the students' attitudes towards online learning in general and in terms of its influence on their learning and skill acquisition, interaction, psychological state, and financial condition" reveal that the psychological state of students was ranked first and their level of interaction was ranked last in terms of the influence online learning had them. This indicates that online learning affected negatively and greatly students' psychological state and it did not provide them with the opportunity to interact and exchange ideas with their fellow students (Table 1).

Table 1. Means (M), standard deviations (SD) of students' responses to each category and to all together

Category	M	SD
Psychological state	2.76	.456
Learning and skill acquisition	2.65	.371
Financial state	2.55	.384
Level of interaction	2.39	.501
Total score	2.59	.226

*Results related to the second research question:*

The results connected with the second question regarding the pros and cons of online learning reveal that the students' responses to each aspect focused on themes, which facilitate their learning. With respect to pros, these responses were categorized into four themes. They are: time and effort saving, lecture follow-up and feedback, ease of communication, and method of teaching. Concerning the first theme, ten students reveal that online learning saves their time and effort to study well, to manage time better, and to avoid the transportation problems resulted from living in remote areas. As four students state:

Online learning gives time and opportunity to study at home.

...ease of time management. ...ease of access to lectures.

Online learning saves time due to not going to university.

...Saves time to attend lectures because transportation and the

...distance from the university to the place of residence is a problem.

With reference to lecture follow-up and feedback, nine students declare that online learning gives them the opportunity to pursue their lectures and receive feedback. As they state:

Online learning makes it easy to review lectures.

...Give an opportunity to return to the lecture because it is recorded on the video.

It gives the students the opportunity to receive continuous feedback because lectures are recorded.

...The possibility of students accessing any information through recorded lectures.

As regards ease of communication, five students state that online learning makes it easy for them to communicate with either the teacher or their fellow students. As three of them proclaim:

...The possibility of communication between the teacher and students

at any time and with ease.

... Ease of communication with students and teachers

... Ease of access to students and teachers for a variety of communication means.

In respect of method of teaching, two students state that online learning gives them the opportunity to receive lectures through different platforms. As they state:

...It uses multiple methods of teaching through platforms such as Microsoft Teams or groups on social media

...The use of multiple education platforms to facilitate effective teaching and learning.

In terms of the cons of online learning, students' responses were categorized into five themes. These themes are associated with interaction, internet and electricity, motivation, understanding, and isolation. Regarding the first theme, eight students indicated that online learning does not encourage interaction, dialogue, or discussion either between the teacher and students or between students themselves. As they report:

The absence of dialogue, discussion and interaction between students themselves and students and teachers.

Loss of student-teacher interaction and loss of sign and body language.

....weak direct interaction between students and the teacher and focuses on the cognitive aspect.

Absence of dialogue between students.

Concerning the second theme, seven students reveal that bad electronic education is present in the internet, electricity, and lack of infrastructure of these bases, and of the availability of computers. As they state:

Sometimes the internet or the electricity is cut off, especially during exam times.

The inability of some students to continue e-learning for reasons including poor network.

There is no infrastructure in terms of availability of computing devices and internet.

The internet is not available to everyone.

With respect to the third theme, seven students declare that online learning decreases their motivation and influenced negatively their creativity. As they write:

...Reduces students' motivation to learn and causes boredom

...Decreased students' motivation to learn

...Low level of creativity among students.

...Decreased level of student creativity.

With reference to the fourth theme, two students state that they suffer a lot from understanding the lectures due to some technical problems they encounter during class time. As they claim:

...Insufficient understanding of the lectures due to the circumstances that occur during them, such as opening the mic by some students.

...insufficient understanding of the lectures.

With regard to the fifth theme, two students report that they suffer from isolation because they take lectures in a separate room, or because they do not know their fellow students.

The student may feel isolated because he does not know his fellow students.

Tendency to isolation and decline in communication with others.

*Resulted related to the third research question:*

The results connected with the third question "Are there any statistically significant differences ( $\alpha=0.05$ ) between the means of students' responses to online learning due to gender?" indicate that there are no statistically significant differences between male and

female students' responses regarding learning and skill acquisition and psychological state. However, they indicate statistically significant differences regarding level of interaction, in favor of females and financial state, in favor of males. Finally, the results reveal no statistically significant differences between students' responses to the four categories together (Table 2)

Table 2. Mean (M), standard deviation (SD) and t-test results of students' responses due to gender

Categories	Gender	N	M	SD	T	df	Sig. (2-tailed)
Learning and skill acquisition	Male	55	2.72	.327	1.749	129	.083
	Female	76	2.60	.396			
Psychological state	Male	55	2.71	.414	-1.115	129	.267
	Female	76	2.80	.483			
Level of Interaction	Male	55	2.23	.494	-3.306	129	.001
	Female	76	2.51	.474			
Financial state	Male	55	2.65	.381	2.423	129	.017
	Female	76	2.48	.375			
Total score	Male	55	2.58	.198	-.166	129	.868
	Female	76	2.59	.246			

\* Significance value at  $\alpha=0.05$

*Results related to the fourth research question:*

The results related to the fourth question "Are there any statistically significant differences ( $\alpha=0.05$ ) between the means of students' responses to online learning due to residential area?" show no statistically significant differences in students' responses to each category and to all together according to the area of students' residence (Table 3).

Table 3. Mean (M), standard deviation (SD) and t-test results of the due to residential area

Categories	Residential area	N	M	SD	t	df	Sig. (2-tailed)
Learning and skill acquisition	Urban	96	2.64	.383	-.581	129	.562
	Rural	35	2.68	.340			
Psychological state	Urban	96	2.77	.426	.074	129	.941
	Rural	35	2.76	.535			
Level of Interaction	Urban	96	2.40	.489	.325	129	.746
	Rural	35	2.37	.537			
Financial state	Urban	96	2.52	.397	-1.785	129	.077
	Rural	35	2.65	.333			
Total score	Urban	96	2.58	.229	-.406	129	.686
	Rural	35	2.60	.221			

\* Significance value at  $\alpha=0.05$

*Results related to the fifth research question:*

Post Hoc results related to the fifth question "Are there any statistically significant differences ( $\alpha=0.05$ ) between the means of students' responses to online learning due to

faculty?” indicate that there are statistically significant differences between Faculty of Education and Information Technology students’ responses to the category “learning and skill acquisition”, in favor of Information Technology students. The results also indicate statistically significant differences between Arts and Information Technology students’ responses to the influence online learning has on their psychological state, in favor Arts students. In addition, the results reveal statistically significant differences between the responses of Arts and Faculty of Education, Arts and Information Technology, and Information Technology and Faculty of Education students to level of interaction, in favor of Arts and Faculty of Education students. The total score of results show statistically significant differences between Arts and Information Technology students’ responses, in favor of the former group of students (Table 4).

Table 4. One-way ANOVA results of students’ responses according to Faculty

Categories	Faculty	Faculties	Mean Difference (I-J)	Std. Error	Sig.
Learning and skill acquisition	Arts	Education	.19	.075	.050
		Information Tech.	-.10	.078	.438
	Education	Arts	-.19	.075	.050
		Information Tech.	-.29(*)	.075	.001
	Information Tech.	Arts	.10	.078	.438
		Education	.29(*)	.075	.001
Psychological state	Arts	Education	.04	.086	.915
		Information Tech.	.47(*)	.090	.000
	Education	Arts	-.04	.086	.915
		Information Tech.	.43(*)	.087	.000
	Information Tech.	Arts	-.47(*)	.090	.000
		Education	-.43(*)	.087	.000
Interaction	Arts	Education	.32(*)	.085	.001
		Information Tech.	.76(*)	.088	.000
	Education	Arts	-.32(*)	.085	.001
		Information Tech.	.44(*)	.085	.000
	Information Tech.	Arts	-.76(*)	.088	.000
		Education	-.44(*)	.085	.000
Total score	Arts	Education	.10	.045	.076
		Information Tech.	.19(*)	.047	.001
	Education	Arts	-.10	.045	.076
		Information Tech.	.08	.046	.183
	Information Tech.	Arts	-.19(*)	.047	.001
		Education	-.08	.046	.183

\*Significance value at 0.05

*Results related to the sixth research question:*

The results associated with the sixth question “Are there any statistically significant differences ( $\alpha= 0.05$ ) between the means of students’ responses to online learning due to the type of school they graduated from?” show that there are statistically significant differences

in public and private school students' responses to the category "learning and skill acquisition", in favor of Private school students. However, the results show no statistically significant differences between students' responses regarding the influence online learning has on their psychological state, learning and skill acquisition, level of interaction, and financial state (Table 5).

Table 5. Mean (M), standard deviation (SD) and t-test results of students' responses due to school type

Categories	School	N	M	SD	T	Df	Sig. (2-tailed)
Learning and skill acquisition	Public	82	2.59	.380	-2.724	129	.007
	Private	49	2.76	.330			
Psychological state	Public	82	2.80	.490	.982	129	.328
	Private	49	2.71	.392			
Level of Interaction	Public	82	2.41	.467	.748	129	.456
	Private	49	2.35	.555			
Financial state	Public	82	2.53	.406	-.927	129	.356
	Private	49	2.59	.345			
Total score	Public	82	2.57	.240	-1.298	129	.197
	Private	49	2.62	.198			

\*Significance value at 0.0

*The pre-sent questionnaire*

Dear student:

You are kindly requested to complete this questionnaire, which has been developed for the purpose of investigating students' attitude towards online learning amid COVID-19 pandemic. Your viewpoints about this style teaching is of paramount importance since you are the axis around which the teaching-learning revolves. These viewpoints will be treated confidentially and will be used for research purposes only. Therefore, feel free to answer each question frankly.

Name: .....(Optional)

**Put a tick ( √ ) where applicable**

**Gender:**       Male                       Female

**Faculty:**     Arts (English language students)  Educational Sciences     Information Technology

**Residential Area:**     Urban                       Rural

**School you graduated from:**     Public                       Private

Here is a list of aspects related to the online learning process during COVID-19 pandemic. Please, Put a tick ( ✓ ) in the block , which shows your attitude towards each aspect.

No.	Item	Agree	Strongly agree	Disagree	Strongly disagree
1.	Online learning enables me to memorize the assigned material faster than the traditional classroom.				
2.	Online learning makes learning in general more efficient due to the use of Microsoft teams.				
3.	Online learning makes me feel stressed because of the lengthy closure of the university amid COVID-19 pandemic.				
4.	Online learning makes me feel inferior in front of the instructor and my fellow students because I cannot access the internet.				
5.	Online learning helps me learn from home because I cannot afford to full-time education.				
6.	Online learning gives me the digital skills necessary for my future jobs.				
7.	Online learning increases my individualized learning options.				
8.	Online learning helps me learn new technical skills while sharing files and working on group projects.				
9.	Online learning helps me understand the teaching material well because I have the ability to better manage my time.				
10.	Online learning gives me the opportunity to learn while working.				
11.	Online learning allows me to interact and exchange ideas freely with my fellow students.				
12.	Online learning gives me the opportunity to study on my own and feel more independent.				
13.	Online learning adopts the lecture method as the method used in classroom, and this makes me incline to rote learning.				
14.	Online learning helps me access the required materials for free because I cannot afford to buy all of them.				

No.	Item	Agree	Strongly agree	Disagree	Strongly disagree
15.	Online learning makes me anxious about using computer all time for learning.				
16.	Online learning enlightens me better how useful computers can be for learning in general.				
17.	Online learning enhances equity of interaction, either between the instructor and students, or among the students themselves.				
18.	Online learning displays well-organized teaching materials to make it easy for the students to learn them adequately.				
19.	Online learning is inclined towards practice rather than theory while teaching.				
20.	Online learning makes my family suffer from financial problems, providing the internet and its equipment.				
21.	Online learning still makes me hesitant or confused about digital education and prefer in-class learning.				
22.	Online learning gives me the opportunity to work in groups and communicate to do homework assignments.				
23.	Online learning makes me turn to use neighbors' or relatives' internet during lectures for financial reasons.				
24.	Online learning lessens my relationships and genuine interactions with my fellow students.				
25.	Online learning causes me frustration because I do not have a teacher before me.				
26.	Online learning gives me the opportunity to exchange ideas and interact with my fellow students through group and bilateral projects.				

1. What are the main advantages of online learning?

2. What are the main disadvantages of online learning?

## 6. DISCUSSION:

This study examined students' attitudes towards online learning regarding its academic, social, psychological, and financial effects. It also examined whether there were statistically significant differences in students' responses according to gender, residential area, faculty, and the type of school they graduated from. Additionally, the study explored their views about the advantages and disadvantages of online learning. In order to achieve these aims, the

study answered six research questions through the results presented above. However, this section will discuss the results of each question.

With reference to the first research question related to students' attitudes towards online learning and its academic, social, psychological, financial effects, results showed that online learning affected negatively and greatly students' psychological state and it did not give them the chance to interact with their fellow students. That is, online learning, for example, caused frustration to students because they did not have a teacher before them due to COVID-19 pandemic and did not give them the opportunity to interact and exchange ideas with their teachers and fellow students. These results cohere with those obtained by Dennon (2020) with regard to the psychological impact of students. His students notified that they felt stressed due to coronavirus and forced them to be homeless. The results also cohere with those obtained by Unger and Meiran (2020) that 75.6% of the students had somewhat anxiety towards online learning due to the rapid shift of the disease. With regard to students' low level of interaction and exchange of ideas with the teacher and fellow students, the results do not agree with the strengths of online learning highlighted by the Board of Trustees of the University of Illinois (2020). They argue that online learning allowed efficient interaction and exchange of ideas between the teacher and students and among the students themselves. It also gave them the chance to take part in the class activity from any place. In addition, the results do not agree with what was found by Amir, et al. (2020) that over half of the students acknowledged that distance learning used a more effective learning method, which helped the students to benefit a lot from the teacher and students. Finally, the results do not agree with one of the benefits of online learning stated by Gasevic (2020), who claims that online learning enhances students' self-motivation by demonstrating that they can perform many tasks together and conform to incompatible work conditions.

With respect to the second research question about the pros and cons of online learning, the results showed that the main advantages of online learning highlighted by the interviewees are related to saving time and effort, lecture follow-up and ease of feedback, ease of communication, and method of teaching. They also showed that the main problems the students encountered by using this strategy of learning were associated with interaction, internet and electricity, motivation, understanding, and isolation. Regarding the first part of these results, it seems that the students preferred online learning in order to avoid transportation problems and due to the remote areas they live in. They also preferred online learning to pursue their lectures easily and to receive feedback quickly. In addition, they prioritized this form of education due to the variety of communication tools that can be used with the teacher and students and to the variety of teaching methods. These results do not go along with what was stated by Muhammad and Kainat (2020) in respect of feedback. They claimed that online learning cannot achieve results because of response time on the part of the teacher and students. The results do not also cohere with what was argued by Agung, Surtikanti and op (2020) that one of the obstacles of using online learning is the harmony of tools to appropriate media, which normally inhibit successful communication even between the teacher and students, or among the students themselves. However, these results agree with my point view that online learning facilitates the matter for the students by providing them with different platforms, such as Microsoft teams, Zoom, and skype. Concerning the cons of online learning, it sounds that the students suffered a great deal from the lack of interaction with the teacher and students, from the internet and electricity, from isolation, and from the low level of motivation. For example, Nambiar (2020) argued that the teacher and students regard the quality and appropriate interaction, which takes place between them and between the students themselves, important for successful learning. The results agree what was contended by Agung, Surtikanti and Op (2020) and Muhammad and Kainat (2020) that sustainability of internet connection in general and the accessibility of internet with the

instructor in particular are important obstacles or problems for online learning. Additionally, Muhammad and Kainat (2020) and Loeb (2020) stated that the absence of classroom socialization and the lack of the forms of interaction students commonly have in the classroom are reasons for unsuccessful online learning. Finally, the results obtained in this study agree with those taken out by Blizak, et al. (2020) that the students were hesitant about digital education. They also agree with what was found by Unger and Meiran (2020) that the majority of the students had somewhat anxiety towards online learning.

With reference to the third research question related to whether there were any statistical significant differences in students' responses according to gender, results revealed no significant differences in respect of the four categories together. These results cohere with those obtained by Zabadi and Al-Alawi (2020) and Nachimuthu (2020). It was anticipated that the results would be in favor of females and they would be less affected by the demerits of online learning and more flexible in dealing with it due to their future aspirations. The reason lies in the fact that studying at the university and obtaining the certificate might be considered the main way that secures them from the difficulties of life.

In respect of the fourth research question about whether there were any significant differences between students' responses to online learning due to the area of students' residence, the results showed no significant differences in their responses to each category and to the four categories together. It was expected significant differences in their responses, in favor of those who live in urban areas. That is, it was contemplated that the students who live in cities were less negatively influenced by online learning than those who live in villages. However, living in rural areas was considered by educators as one of the weaknesses of online learning since not all students are able to approach this learning environment (The Board of Trustees of the University of Illinois, 2020). That is why the students who live in villages were anticipated that they would be more negatively influenced by online learning.

With regard to the fifth research question related to whether there were any significant differences in students' responses to online learning according to faculty, the total score of results revealed significant differences between Arts and Information Technology students' responses, in favor of Arts students. These results do not agree with what was found by Nachimuthu (2020) that there were no significant differences between the attitudes of Art and Science students.

Concerning the sixth research question about whether there were any significant differences between public and private school students' reactions to online learning effects, the results in general indicated no significant differences between their responses in this regard. That is, there were no differences between public and private students' attitudes towards the impact online learning had on their psychological state, learning and skill acquisition, level of interaction, and financial state. It was anticipated that there would be significant differences between their responses, in favor of private school students. The reason lies in the fact that private schools normally provide students with better technical facilities, and so they would regard online learning normal and would be less negatively affected by it in general. However, these results cohere with the results obtained by Nachimuthu (2020). He found no significant differences between private and public students' attitudes towards online learning.

## **7. CONCLUSION:**

Online learning has become a common method of education everywhere. Its adoption is resulted from the rapid spread of coronavirus in every country in the world. This has caused and is still causing problems not only to people's health, but also to their education, either at the school or university level. Students are the segment of society that has been affected the most by this epidemiological situation. As a result, the researcher conducted the present study to investigate undergraduate students' perspective about online learning and the extent to

which this learning environment influenced them. This may fill a gap in the literature related to online learning in Jordan and in the Middle East as a whole. Therefore, researchers in this region should conduct research studies on this form of education in their settings. The results obtained from these studies may enlighten policy makers and university officials and make them improve the level of electronic services for students.

## REFERENCES

- [1]. Agung A, Surtikanti M, OP C. Students' perception of online learning during COVID-19 pandemic. A Case study on the English students of STKIP Pamane Talino. *Journal of Social Science and Humanities*. 2020; 10(2): 225-235. [Ojs.pnb.ac.id/index.php/SOSHUM/](http://Ojs.pnb.ac.id/index.php/SOSHUM/)
- [2]. Amir L, Tanti I, Maharani D, Wimardhani S, Julia V, Sulijaya B, Puspitawati R. Student perspective of classroom and distance learning during VOVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. *MBC Medical Education*. 2020; 20(392). [Bmcmededu.biomedcentral.com/articles/10.1186/s12909-020-02312-0](http://Bmcmededu.biomedcentral.com/articles/10.1186/s12909-020-02312-0)
- [3]. Blizak D, Blizak S, Bouchenak Q, Yahiaoui K. Students' perceptions regarding the abrupt transition to online learning during the COVID-19 pandemic: Case of faculty of Chemistry and Hydrocarbons at the University of boumerdes-Algeria. *Journal of CHEMICAL EDUCATION*. 2020; 97(9): 2466-2471. DOI: 10.1021/acs.jchemed.oc00668
- [4]. Dennon A. Coronavirus impacts on students and online learning. *Best Colleges*, 19 October 2020. [bestcolleges.com/blog/coronavirus-impact-on-students/](http://bestcolleges.com/blog/coronavirus-impact-on-students/)
- [5]. Gasevic D. COVID-19: The steep learning curve for online education: MONASH University, 20 February 2020. [lens.monash.edu/@education/2020/04/26/1380195/covid-19-the-steep-learning-curve-for-online-education](http://lens.monash.edu/@education/2020/04/26/1380195/covid-19-the-steep-learning-curve-for-online-education)
- [6]. Li C, Lalani F. The COVID-19 pandemic has changed education forever. This is how. *WORLD ECONOMIC FORUM*, 29 April 2020. [Weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/](http://Weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/)
- [7]. Loeb S. How effective is online learning? What the research does and doesn't tell us. *Education Week-December*, 20 March 2020; 4. [Edweek.org/ew/articles/2020/03/23](http://Edweek.org/ew/articles/2020/03/23)
- [8]. Miller K. The benefits of online learning: 7 advantages of online degrees. *Northeast University Graduate Programs*, 25 September 2019. [Northeastern.edu/graduate/blog/benefits-of-online-learning/](http://Northeastern.edu/graduate/blog/benefits-of-online-learning/)
- [9]. Muhammad A, Kainat A. Online learning amid the COVID-19 pandemic.: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*. 2020; 2(1): 45-51. [eric.ed.gov/?id=ED606496](http://eric.ed.gov/?id=ED606496)
- [10]. Nachimuthu, K. Student teacher's attitude towards online learning during COVID-19. *International Journal of Advanced Science and Technology*. 2020; 29(6): 8745-8749. [Sersc.org](http://Sersc.org)
- [11]. Naffi N, Davidson A L, Patino A, Beatty B, Gbelogio E, Duponsel N. (October 1, 2020). Online learning during COVID-19: 8 ways universities can improve equity and access. *The CONVERSATION, Academic rigour, Journalist flair*, 1<sup>st</sup>. October 2020. [Theconversation.com/online-learning-during-covid-19-8-ways-universities-can-improve-equity-and-access-145286](http://Theconversation.com/online-learning-during-covid-19-8-ways-universities-can-improve-equity-and-access-145286)
- [12]. Nambiar B. The impact of online learning during COVID-19: students and teachers' perspective. *The International Journal of Indian Psychology*. 2020; 8(2): 783-793. DOI: 10.25215/0802.094

- [13]. The Board of Trustees of the University of Illinois. Strengths and weaknesses of online learning. ION professional eLearning programs. University of Illinois Springfield, 2020. Uis.edu/ion/resources/tutorials/onine-education-overviews/strengths-and-weaknesses/
- [14]. Ullah O, Khan W, Khan A. Students' attitude towards online learning at a tertiary level. PUTAJ-Humanities and Social Sciences. 2018; 25(1-2): 1-6. C:/Users/Mohy/Downloads/Online learning-Obaid.pdf
- [15]. Yunita W, Maisarah I. Students' perception on learning language at the Graduate Program-Education of English amidst the COVID 19 pandemic. Linguists. December 3 2018; 6(2): 107-120. DOI://dX.doi.org/10.29300/ling.v6i2.3718
- [16]. Zabadi A, Al-Alawi A. University students' attitudes towards e-learning: University of Business & Technology (UBT)-Saudi Arabia-Jeddah: A Case study. International Journal of Business and Management. 2016; 11(6): 286-295. DOI: 10.5539/ijbm.v11n6

### **Appendix (optional )**

#### **Advantages:**

**S 1:** 1. Online learning saves time due to not going to university. 2. Online learning makes it easy to review lectures.

**S 2:** 1. Online learning reduces time and effort. 2. Give an opportunity to return to the lecture because it is recorded on the video.

**S 3:** 1. Provides sufficient time to follow up lecture requirements. 2. Saves time to attend lectures because transportation and the distance from the university to the place of residence is a problem.

**S 4:** 1. Provides enough time for those who live in remote places. 2. It uses multiple methods of teaching through platforms such as Microsoft Teams or groups on social media. 3. It give the students the opportunity to receive continuous feedback because lectures are recorded.

**S 5:** 1. Saves time and effort. 2. Facilitates the presence of students in lectures.

**S 6:** 1. The possibility of communication between the teacher and students at any time and with ease. 2. Provides time for students to study their subjects. 3. The possibility of students accessing any information through recorded lectures.

**S 7:** There are absolutely no benefits to e-learning.

**S 8:** ...ease of time management. ...ease of access to lectures.

**S 9:** 1. Ease of communication with students and teachers. 2. The possibility of reviewing lectures at any time because they are recorded.

**S 10:** Ease of access to students and teachers for a variety of communication means. 2. The presence of feedback that enables students to re-attend the lecture and take notes.

**S 11:** Online learning gives time and opportunity to study at home.

**S 12:** 1. Online learning saves time and effort for the learner if he lives in a remote area. 2. The use of multiple education platforms to facilitate effective teaching and learning.

**S 13:** 1. Online learning increases communication between students. It saves time and effort for students.

**S 14:** There are no advantages

#### **Disadvantages:**

**S 1:** 1. Decreases in the motivation of students. 2. The absence of dialogue and discussion.

**S 2:** 1. It may harm health and eyes as the student stays for a long time in front of the screen. 2. Sometimes the internet or the electricity is cut off especially during exam times. 3. Insufficient understanding of the lectures due to the circumstances that occur during them, such as opening the mic by some students.

**S 3:** 1. Reduces students' motivation to learn and causes boredom. 1. It does not give students sufficient time to answer exam questions.

**S 4:** 1. Decreased students' motivation to learn. 2. There is no direct interaction between the teacher and students. 3. Low level of creativity among students.

**S 5:** 1. Absence of dialogue between students. 2. Lack of motivation to learn and feel bored.

**S 6:** 1. The absence of dialogue, discussion and interaction between students themselves and students and teachers. 2. The inability of some students to continue e-learning for reasons including poor network.

**S 7:** ...insufficient understanding of the lectures.

**S 8:** 1. High material cost. 2. The internet is not available permanently. S

**S 9:** 1. The disconnection and weakness of the internet. 2. Decreased level of student creativity.

**S 10:** There is no infrastructure in terms of availability of computing devices and internet.

**S 11:** 1. The internet is sometimes not available. 2. Sufficiency in purchasing a computer.

**S 12:** Loss of student-teacher interaction and loss of sign and body language.

**S 13:** 1. The student's lack of confidence in the achievement he gets. 2. Lack of interaction during lectures.

**S 14:** 1....weak direct interaction between students and the teacher and focuses on the cognitive aspect. 2. Tendency to isolation and decline in communication with others. 3. Difficulty of expressing opinions and ideas in writing. 4. Lack of motivation and feeling of boredom.

**S 15:** 1. Loss of dialogue between the teacher and students during the class time. 2. The internet is not available to everyone. 3. The student may feel isolated because he does not know his fellow students.