The impact of COVID-19 on higher education in Egypt: A study of students' perspectives of distance learning

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ABSTRACT

In response to COVID-19 outbreak, the Egyptian ministry of higher education declared a closure of campuses and shifted to distance learning. This study examines university students' perspectives of distance learning in Egypt. A sample (n=366) of undergraduate students studying at Tanta University took part in the study 10 weeks after the suspension of on campus classes. The researcher used a close-ended questionnaire followed by a focus group discussion concerning the findings of the questionnaire and procedures the university should take when COVID-19 lockdown ends. The study results show there were no significant differences between students' majoring in arts and science, however significant sex differences were found and females showed acceptance of distant learning than the males did. Students reported that online learning helped them to shift attention away from the pandemic, however; multiple assignment during the lockdown decreased their motivation to study.

Keywords

Anxiety, COVID-19, higher education, distance learning, perspectives, Egypt

Introduction

In response to the outbreak of COVID-19 pandemic, most governments has endured civilization-altering consequences. Attempts to contain the pandemic have affected the processes and functions of the educational institutions worldwide. Many governments have adopted procedures of physical and social distance and quarantine, and most higher education institutions seemed to shift to online learning to serve as a panacea in the time of crisis (Dhawan, 2020). COVID-19 forced a different lifestyle, and students in particular faced new changes such as, dormitory and border closure, travel restriction, and quarantine, moreover such new experience affected the students' mental health as well as their motivation to attend online classes (Zhu, X & Liu, J 2020).

UNESCO 2020 has declared that the nationwide affected over 91% of world's student population. The Egyptian government declared the closure of all educational institutions in March 14th, 2020 as an emergency measure to contain the infectious disease, and online learning was implemented as the alternative method of education and learning. Both ministries of education and higher education suggested "suspending classes without suspending learning" and 27 million students were switched to different methods and modes of learning including distant learning using the schools and universities' portals for online classes.

Literature Review

Moving from conventional education to online and virtual learning was rapid which forced various obstacles and challenges at different levels such as limited technical resources, the availability of online learning materials, internet speed, students' financial status and their mental health during the pandemic and students' readiness for such a change (Toquero, 2020). The closure of public and private universities affected the lives and attendance of approximately 2 million active students at these universities in Egypt.

The rapidly developing technology have made distance learning feasible (McBrien et al., 2009). Distance learning can be described in various methods and levels, this paper nonetheless refers to it as using technology to support learning processes and interaction between students and teachers. This definition is aligned with the United States Distance Learning Association definition of distance learning in 1998 (Roblyer & Edwards, 2000) as "the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance (p. 192).

Distance learning proves to be successful in digitally advanced countries (Basilaia & Kvavadze (2020), and that developing countries, such as Egypt, face certain challenges including; technological infrastructure, insufficient digitalized educational materials and students' and teachers' readiness for the change (El-Zayat & Fell 2000). The COVID-19 pandemic is likely to force educational institutions, which were earlier reluctant to change, to accept modern technology (Wang., et al 220), and the sudden shift to distance learning to become a measure of organizational agility (Zhu, 2020).

The Egyptian ministry of higher education (MOHE) 2020 declared procedures to implement distance learning and to use diverse modes of assessment. MOHE has extended the use of The Egyptian Knowledge Bank (EKB) to all university students located in Egypt where they could have access by cell phones and computers, to various lectures and numerous E-books. The universities offered digital platform to the academic community to establish a communication Channel between students and teachers in order to facilitate the educational process. College of Education at Tanta University (2020), one of the governmental universities where higher education is free, offered 32 undergraduate programs and 329 graduate programs. The free online courses were available on the university portal.

The consequences caused by COVID-19 are unique so that some might argue that educational institutions are dealing crisis learning (Pace et al., 2020). The new normal era requires educational institutions to improve curriculum and to implement various modes of assessment (Favale et al., 2020). The increasing distances between people due to the health precautions procedures may also have a negative impact on students' mental health, for anxiety disorders are more likely to occur in absence of interpersonal communication (Xiao, 2020). Online classes could cause lack of interest to students who are tactile learners for classroom socialization is missing (Britt, 2006).

Recent researches have examined challenges and responses during pandemics (Salceanu, 2020). Researchers are examining the challenges and opportunities during current pandemic from the point of view of different stakeholders. Kaur (2020) points out that students' voices are important to be heard, and that the utilization of distance learning should consider students' inputs. The current study explores the student perspectives of distance learning to provide a baseline data and a reference to researchers working on developing policies and strategies on education during this pandemic period and beyond.

Objectives of the Study

This study aims to investigate the students' perspectives of distance learning they experienced while studying at college of education of Tanta University during COVID-19 pandemic. All participants were undergraduate students and online classes with total suspension of face-to-face learning was a new experience to them. The current study further examine whether students' perspectives would differ according to gender and study majors.

Method

Participants

1500 undergraduate students, ranging from 19-24, from college of education at Tanta University received the questionnaire by E-mail from 9 AM May 24 to 9 AM May 31, 2020. A total number of valid questionnaire (366) responses were received, and the size of female was (191) and male was (175). Students were informed by E-mail of the purpose of the study and the expected time it would take to complete it (10-15 minutes). They were also told that the information they provide would be confidential and their participation was voluntary and their consent to participate were collected accordingly. At the time of distributing the questionnaire, all participants were singles, residing in Egypt, and did not have a history of diagnosed psychiatric disorders. (see Table 1). The participating students were classified according to their majors and degrees: arts and sciences. History, foreign languages and geography the Art section, where science included

Mathematics, physics and chemistry. They were also divided according to gender (males/females)

Table 1 Demographics of participating students (n=366)

Gender	Males	175	Major	Arts	281
	Females	191		Science	85
Total		366	Total		366

Procedures

At the time of the study, all participating students were enrolled in remote online learning for the first time, and after the students agreed to participate, each was given an online questionnaire package to answer and fell in then email them to the researcher. The study used an exploratory mixed method research design where both quantitative and qualitative methods were used. It examined the students' perspectives of distance learning using a questionnaire (quantitative method) followed by a focus group discussion (qualitative method) to analyse the results drawn from the standardized scale used.

Students' perspectives of distance learning scale:

The author has designed a 16-item survey to cover the four-factor students' perspectives: 1- general beliefs about distance learning, 2- confidence in prerequisite skills, 3- self-direction and initiative, 4- desire for interaction. Each answer is based on 5 point Likert scale (agree= 5, somewhat agree=4, neutral=3, somewhat disagree= 2, disagree= 1). (See Table 2). The psychometric assessment for the instrument was achieved, internal consistency reliability (Cronbach's alpha = .85), and there was evidence for concurrent validity (r = .30 with Bernard effectiveness of online learning). Utilizing Pearson product moment correlation students' scores correlated significantly on the 4 factors (r= .579, p > .001). 12 experts in the field of educational psychology from Tanta University and Ajman University (more than 15 years of experience as independent psychologist and psychiatrists), were invited to participate in the present study. There were 92% overall agreement between the experts about the relevance of the instruments' items to measure students

perspectives of distance learning which provide evidence for content validity.

Table 2. Questionnaire items of students' perspectives of distance learning

ITEM	N (%)
1- I am comfortable communication electronically	
Agree	147(40.2)
Somewhat agree	151(41.3)
Neutral	33(9.0)
Somewhat disagree	18(4.9)
Disagree	17(4.6)
2- I feel that my background and experience be beneficial to my studies	
Agree	118(32.2)
Somewhat agree	156(42.6)
Neutral	44(12.0)
Somewhat disagree	31(8.5)
Disagree	17(4.7)
3- I possess sufficient computer keyboarding skills for doing online work	
Agree	93(25.4)
Somewhat agree	114(31.1)
Neutral	97(26.5)
Somewhat disagree	42(11.5)
Disagree	20(5.5)
4- No difference between online and conventional learning	
Agree	30(8.1)
Somewhat agree	30(8.2)
Neutral	50(13.7)
Somewhat disagree	121(33.1)
Disagree	135(36.9)
5- I feel it is a good chance to improve my computer skills	
Agree	59(16.1)
Somewhat agree	65(17.8)
Neutral	67(18.3)
Somewhat disagree	94(25.7)
Disagree	81(22.1)
6- I believe that learning on the internet is more motivating than a regular course	

Agree	25(6.8)
Somewhat agree	15(4.1)
Neutral	41(11.2)
Somewhat disagree	121(33.1)
Disagree	164(44.8)
7- I believe that a complete course can be delivered online	
Agree	26(7.0)
Somewhat agree	24(6.6)
Neutral	59(16.1)
Somewhat disagree	136(37.2)
Disagree	121(33.1)
8- I believe it is in vain to spend money on electronic learning	
Agree	67(18.3)
Somewhat agree	56(15.3)
Neutral	80(21.9)
Somewhat disagree	98(26.8)
Disagree	65(17.7)
9- In my studies, I set goals and have a high of initiative	
Agree	125(34.2)
Somewhat agree	140(38.3)
Neutral	57(15.6)
Somewhat disagree	21(5.7)
Disagree	23(6.2)
10- I could pass an online course without teacher's assistance	
Agree	84(23.0)
Somewhat agree	93(25.4)
Neutral	85(23.2)
Somewhat disagree	75(20.5)
Disagree	29(7.9)
11- It is easy to complete group projects/assignments digitally	
Agree	139(38.0)
Somewhat agree	103(28.1)
Neutral	74(20.2)
Somewhat disagree	35(9.6)
Disagree	15(4.1)
12- Face-to-face contact with the instructor is necessary for learning	
Agree	145(39.6)
Somewhat agree	102(27.9)
Neutral	63(17.2)
Somewhat disagree	32(8.7)

Disagree	24(6.6)
13- I can discuss with other students during internet activities outside of class	
Agree	144(39.3)
Somewhat agree	112(30.6)
Neutral	60(16.4)
Somewhat disagree	29(7.9)
Disagree	21(5.8)
14- I am motivated by the material in an internet activity outside of class	
Agree	90(24.6)
Somewhat agree	81(22.1)
Neutral	72(19.7)
Somewhat disagree	69(18.9)
Disagree	54(14.7)
15- I believe the material in online learning is better prepared than conventional class	
Agree	134(36.6)
Somewhat agree	125(34.2)
Neutral	49(13.4)
Somewhat disagree	39(10.7)
Disagree	19(5.1)
16- I believe assessment in online learning is not as accurate as in conventional class	
Agree	80(21.9)
Somewhat agree	109(29.8)
Neutral	116(31.7)
Somewhat disagree	45(12.3)
Disagree	16(4.3)
*Percentages based on the number of respondents answering the question	
*general average = 5	

Table 2 shows that students accepts distance learning as the general average of the survey (3.69), as for the second category of the survey to reveal acceptance extends from (3.41 to 4.20)

Focus group discussion:

A virtual Focus group discussion was the second phase of conducting the study. A zoom link was sent to 10 students to discuss the data collected in the first phase and to report their recommendation for the steps the university should take after COVID-19 ends, and the meeting lasted for 90 minutes. Based on the results drawn from the first phase analysis, 8 questions were prepared to

discuss in the focus group. The focus group discussion was used as a data validation and necessary recommendation for higher education after COVID-19.

Data Analysis

SPSS 21.0 software was used for the data analysis. Measurement data were expressed as mean and standard deviation (SD). And t-test was used to examine the study hypotheses.

Results

The findings drawn from the survey have been discussed further in the focus group to gather more in-depth information about distance learning. The results listed below are derived from the content analysis and are accompanied with quoted students' statement.

Positive aspects of distance learning during COVID-19:

The findings reveal that students believe distance learning could help them save time and money, which enable them to devote more attention to their study. They also noted that distance learning gave them the chance to study on their own pace and encourage them more to participate in the discussion. It also gave them the chance to continue their part time work and other commitments. They stated that the emotional support they received from their professors helped them through the pandemic period and enabled them to focus on their studies and therefore shifted their attention from the quarantine situation. They also reported that the educational materials used on the university platform were more organized and prepared than the ones used in conventional classroom, and that distance learning shows flexibility to study in any convenient location with an Internet connection (see Table 3).

Table 3. Positive aspects of distance learning during COVID-19

Code	Sub codes
Positive aspects of Distance learning During COVID-19	can save money. save time. can learn at one's own pace. Can study whenever, wherever. More active during discussion. Emotional support from the Professors. Better prepared educational Materials. Shift attention away from the Crisis of pandemic.

"... Saving money for sure, for now I do not have to pay for transportation or buy food while I am out" (student, 20 years old)

"... I believe it motivated me, because now I spend more time at home, I have no excuse not to study" (student, 23 years old)

"... I guess the fact that I can study anywhere anytime helped me a lot. As long as there is an internet connection, you can study wherever you are" (student, 22 years old)

Negative aspects of distance learning during COVID-19:

Regarding the negative aspects of distance learning, students revealed their concerns about the accuracy of their performance assessment. They have also stated that they found it difficult to concentrate while being in informal educational setting. They interpreted this lack of motivation as the consequences of being isolated at home during the quarantine period and the fact that they are experiencing a change in lifestyle in a sudden and unexpected manner.

A sense of isolation was also a negative aspect they listed and losing track of assignment deadline. They explained that being in class, they received constant reminders for the assignments from both their professors and colleagues, and while they can email their instructor anytime, they expressed their feelings of being detached when they pursue distance learning (See Table 4).

Table 4. Negative aspects of distance learning during COVID-19

Code	Sub codes
Negative aspects of Distance learning During COVID-19	technical difficulty lack of social interpersonal communication less motivational Easily distracted Home is a less effective learning Environment setting. Concerns about assessment accuracy. Distance learning requires self-motivation and time management skills

"...I have 5 younger brothers. I share my room with one of my brothers and I find it difficult to focus when he is in the room. If my little brother opens the door while I am logged into the online class, I get easily distracted" (student, 19years old)
"... I rarely get distracted while in the classroom, but online class bores me that I get easily distracted" (student, 22 years old)
"...I am not motivated to study while being away from the college. And staying at home, having more time to study and yet not being motivated to study makes me feel bad and guilty" (student, 19 years old)
"...in a regular classroom settings, my performance can be assessed through questions and answers. I think assessment for online class might not be as accurate" (student, 20 years old)

Positive aspects of distance learning after COVID-19:

Students who participated in the focus group stated that distance learning enabled them to use technology more frequently than they used to during regular classes on campus. They reported it was a good opportunity to adapt to a new and easy way of communication with both instructors and students and that using it for the future correspondence with the university college would be very preferable. They reported that universities could consider blended learning and digitalized educational materials when COVID-19 ends (See Table 5)

Table 5. Positive aspects of distance learning after COVID-19

Code	Sub codes
Positive aspects of Distance learning After COVID-19	increase of blended learning. the strategic plan of universities will consider online learning. a good opportunity to use technology in education

"...I believe that after COVID-19 education will change dramatically. Blended learning will be the choice of many universities and students" (student, 12years old)
"...there would be an increasing tendency to use technology in education. I think both students and universities will switch to the "new normal" with less resistance, and new normal will rely heavily on technology" (student, 24years old)

The study examined sex differences (male/female) and major differences (arts/sciences) in perspectives of distance learning. Two sample t-test reveals that there were significant differences in score between males (mean= 3.74) and females (mean= 3.86) and ($p \leq 0.005$) see Table 6.

Table 6. Summarized two sample t-test for comparing male and female students' perspectives

Gender	Size	mean (SD)	t	p value
Male	175	3.47 (0.66)	2.072	0.015
Female	191	3.86 (0.50)		

Where female students proves to be more accepting of distance learning, no significant differences on the survey scores were found between arts and sciences majors and that students of both majors shows similar perspectives on distance learning (see Table 7).

Table 7. Summarized two sample t-test for comparing arts and science sections of students' perspectives

Gender	Size	mean (SD)	t	p value
Male	281	3.78 (0.61)	1.281	0.267
Female	85	3.87 (0.51)		

Discussion

The quantitative and qualitative findings show that the changes in the students' lifestyle has affected their perspectives of distance learning. Moreover, lack of attention and motivation as well as well as challenges of experiencing remote learning during COVID-19 period have been affected by the changes occurred in students' life. The participating students show positive attitude towards distance learning as they saw it as a good opportunity to develop their communication with instructors and classmates electronically and to shift their attention from the pandemic as well as appreciating the emotional support they received from the university administration and professors. This findings confirm the results of (Comer, 2010) showing the importance of the emotional and psychological support students receive from their teachers at times of crisis, and that crisis management skills include emotional and ethical commitment.

Venkatesh et al. 2002 examined the impact of motivation on attitude towards technology in learning and they developed an integrated model of technology acceptance. The results of their study confirmed that both intrinsic (perceived enjoyment) and extrinsic motivation (perceived usefulness and ease of use) play a major role in driving students to accept technology. Thus, educational strategic plans are required to motivate students towards technology and to implement in their everyday life.

The findings of the current study reveal that various factors affect students' acceptance of distance learning such as lack of motivation.

Being demotivated to use online learning is related to the psychological state of the students during COVID-19 period, the duration of physical distance and the unpleasant family environment. These findings are consistent with the study of (Yudko et al. 2008) that reported similar reasons affected students' perspectives. Peacock et al., 2020 has suggested that the need for belonging is very important for all students to function well in distance learning. This finding may justify the lack of motivation during online classes especially in an Arabic speaking country of North Africa like Egypt where social interaction is an important cultural communication pattern, and hence being deprived of that communication would result in feeling of being lonely and not belonging (Jeffrey et al., 2014).

Limitations and Future Studies

The current study has limitation. Firstly, though it is the first study, to the best of the author knowledge, to examine students' perspectives of distance learning during the outbreak of COVID-19 in Egypt, the sample is still small. Future studies could develop the study design by recruiting more students from various universities located in different regions of Egypt.

Conclusion

Though the study results points out that there was no significant difference between students majoring in arts and sciences, significant sex differences were found and female students showed more positive attitude towards distance learning than male students did. These results are in line with previous research showing that females are more communication-oriented in an online environment, seeking interaction with others (Dang et al., 2017) and that computer self-efficacy could significantly influence female students' perceived accomplishment and enjoyment. Culturally speaking, gender roles differ in the Egyptian community. Men are likely to go out more frequently than women do and hence, compared to women, studying off campus, where no outdoor activities are offered, would be distressful and less motivating (Mensch et al., 2003).

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