

Higher Education during COVID-19 Pandemic: Distance Education and Online Learning

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Abstract

In response to COVID-19 pandemic, higher education institutions implemented distance education. Online learning was adopted as the mode of delivery in instruction. With this sudden change, there were learning inequalities and barriers that occurred that affected the quality of education students received. This study is a literature review of the experiences of higher education institutions in implementing distance education through online learning during COVID-19 pandemic. The purpose of this study is to make an overview of the experiences of universities and colleges during the pandemic. Twenty-three journal articles from the Education Resources Information Center database with specific key ERIC fields in the search work were utilized and subjected to analysis. The study discussed the different challenges and issues in the implementation of distance education. Also, the struggles of students, faculty, and staff were presented.

Keywords: Higher Education; COVID-19 Pandemic; Distance Education; Online Learning

1. Introduction

Higher education institutions have to adapt with the emergence of COVID-19 pandemic. Without any preparation, there was a sudden change of educational framework from traditional to distance learning. Thus, it is necessary that students, faculty, and technical staff should collaborate in designing the educational framework for distance education (Mishra, Gupta, & Shree, 2020).

There were learning inequalities and barriers during the implementation of distance learning (Murphy, 2020). Inaccessible technology, inadequate infrastructure, abrupt paradigm shift, inappropriate teacher-student ratio, unpreparedness of faculty were some of the challenges higher education institutions faced. (Dubey & Pandey, 2020; Mishra, Gupta, & Shree, 2020). With the uncertainty of the situation, students had negative perceptions towards online courses (Rohaman, et al., 2020). They preferred traditional than distance learning (Ince, Kabul, & Diler, 2020). They lacked focus during online classes (Peloso, et al., 2020). According to Arora and Srinivasan (2020), there are students that are unfamiliar, unmotivated, and uncertain with virtual classes. These led to absenteeism of students and poor participation. Furthermore, students experienced anxiety and stress (Dutta, 2020). Mental health interventions should be provided to faculty and students (Mishra, Gupta, & Shree, 2020). Also, some students experienced difficulty in accessing distance education resources due to the unavailable internet connection in their respective areas (Dutta, 2020; Ince, Kabul, & Diler, 2020; Mishra, Gupta, & Shree, 2020). It is important that ICT facilities be readily accessible to faculty and students (Dubey & Pandey, 2020; Mishra, Gupta, & Shree, 2020). Thus, institutions should provide instructional support to all students by addressing the challenges they encountered in their respective setting (Mishra, Gupta, & Shree,

2020). The use of different strategies in providing education should be done to address these concerns. In addition, findings also show that faculty struggle in using technology (Ifiran, et al., 2020; Peloso, et al., 2020). Learning management systems were used for online classes. However, it still needs improvement in software capabilities that will support the different online courses (Ifiran, et al., 2020). The use of social media was a great help in maintaining communication between students and teachers (Al-Youbi, et al., 2020; Dutta, 2020; Mishra, Gupta, & Shree, 2020). Indeed, it is important that institutions should conduct faculty and student trainings in using technology for their online classes (Dubey & Pandey, 2020; Mishra, Gupta, & Shree, 2020; Peloso, 2020).

This study aims to discuss the challenges and issues of higher education institutions with the COVID-19 pandemic by analyzing existing publications in 2020. This is to make an overview on the experiences of different universities and colleges during the pandemic.

2. Methodology

This is a literature review focused on the findings of published journal articles on higher education during COVID-19 pandemic. This study utilized journal articles found in the Education Resources Information Center database which is sponsored by the Institute of Education Sciences of the United States Department of Education.

Table 1. Set of key ERIC fields in the search work.

Publication Date	2020
Descriptors	COVID-19, Pandemics, Distance Education, School Closing, Online Courses, Higher Education
Publication Type	Journal Articles
Educational Level	Higher Education

Journal articles published on 2020 about higher education during COVID-19 pandemic were utilized. Twenty-three (23) studies were systematically analyzed to gather meaningful data.

Table 2. Frequency of studies based on design

Qualitative	6
Quantitative	4
Mixed Methods	3
Narrative	5
Documentary	1
Commentary	4

The studies have different research methodologies. The qualitative studies (6) mainly focused on lived experiences of faculty and students during the implementation of distance learning. Narrative researches' (5) subject of interest were on their lived experiences as well but by telling their stories. Online surveys were conducted for quantitative studies (4). Important viewpoints and insights were discussed in research commentaries (4). For mixed methods (3), online survey and interview was done not to triangulate but to use the data in analyzing their situations. Lastly, the use of existing evidences like documents and reports were

utilized in the documentary research (1).

Table 3. Frequency of studies based on subject of interest

Faculty	4
Students	5
Literature	3
Faculty and Staff	3
Faculty and Students	8

The focus of interest of the different studies were on students, faculty, staff, and existing literatures that would give meaningful data for their conduct of study. Research findings were utilized for data analysis and as a basis for discussion on this literature review.

3. Results and Discussion

3.1. Education Framework and COVID-19 Pandemic

Higher education institutions should reflect on COVID-19 pandemic experiences- sudden closure of campuses, transition from traditional to remote learning, economic consequences, and uncertain educational plans- in constructing education frameworks (Bolumole, 2020). However, educational sectors did not only encounter the challenges of COVID-19 pandemic but also natural calamities (Brisbon III, Lovett, & Griggs, 2020). It is important that online learning should be planned carefully to achieve meaningful results (AlShamsi, Mohaidat, Al Hinai, & Samy, 2020; Anstey, et al., 2020; Daniel, 2020; Johnson, Veletsianos, & Seaman, 2020; Ochavillo, 2020; Parnia, 2020; Pham & Ho, 2020; Quezada & Quezada-Parker, 2020). Long-term solutions should be considered in the delivery of instruction to students (Johnson, Veletsianos, & Seaman, 2020). But a prompt response by providing accessible, efficient provisional learning support is necessary rather than creating a new educational framework to address immediately the current situation (Nissim & Simon, 2020; Prata-Linhares, Cardoso, Lopes-Jr, & Zukowsky-Tavares, 2020). Thus, engaging students in making the curriculum framework is necessary (Bryson & Andres, 2020). And, planning should include the community and stakeholders as well to address future challenges (Parnia, 2020).

3.2. Distance Education and Online Learning

Institutions should use variety of methods in instruction for student engagement and assessment procedure in online learning (Ozadowicz, 2020; Schweiker & Levonis, 2020). But parents, students, and faculty were not ready (Ochavillo, 2020; Prata-Linhares, Cardoso, Lopes-Jr, & Zukowsky-Tavares, 2020). Parents were having financial difficulties in supporting their children (Ochavillo, 2020). Thus, financial assistance program for students would help cater the demands of online learning (Brisbon III, Lovett, & Griggs, 2020). Furthermore, online learning support should be given to students, faculty, and staff (Ali, 2020; Alqahtani & Rajkhan, 2020; AlShamsi, Mohaidat, Al Hinai, & Samy, 2020; Brisbon III, Lovett, & Griggs, 2020; Daniel, 2020; Johnson, Veletsianos, & Seaman, 2020; Moluayonge, 2020; Quezada & Quezada-Parker, 2020; Richardson, 2020). It should be noted that faculty capability, interventions, student perceptions, and technological skills affect the delivery of online learning (Alqahtani & Rajkhan, 2020). ICT infrastructures and tools should be readily available to faculty and students (Ali, 2020; AlShamsi, Mohaidat, Al Hinai, & Samy, 2020; Johnson, Veletsianos, & Seaman, 2020; Moluayonge, 2020; Prata-Linhares, Cardoso, Lopes-Jr, & Zukowsky-Tavares, 2020; Ozadowicz, 2020). Alternative assessment strategies should be used in response to the different challenges encountered by students (Osman, 2020; Quezada & Quezada-Parker, 2020). And teachers should be

equipped with the necessary technological skills (Daniel, 2020; Johnson, Veletsianos, & Seaman, 2020; Pham & Ho, 2020; Osman, 2020). It is because students were more technologically inclined than them (Osman, 2020). Furthermore, successful academic performance needs positive outlook, dedication, and motivation from students (Alqahtani & Rajkhan, 2020; Anstey, et al., 2020; Osman, 2020). However, students experienced anxiety and stress (Ghazi-Saidi, et al., 2020). They were also unmotivated (Ghazi-Saidi, et al., 2020). Accordingly, uncertainty and stress affects students' perceptions towards distance learning (Ghazi-Saidi, et al., 2020; Nissim & Simon, 2020). This includes the availability of vaccine and stability of socio-economy (AlShamsi, Mohaidat, Al Hinai, & Samy, 2020). Students were not satisfied with the change of delivery in instruction (Ghazi-Saidi, et al., 2020). But it changed positively after how many weeks (AlShamsi, Mohaidat, Al Hinai, & Samy, 2020). Interventions were made to relieve anxiety and stress to students and teachers (Johnson, Veletsianos, & Seaman, 2020; Quezada & Quezada-Parker, 2020). Even though faculty experienced anxiety and stress, they still supported students to ease such feelings (Ghazi-Saidi, et al., 2020; Johnson, Veletsianos, & Seaman, 2020). Also, active participation in flexible and efficient online learning activities reduces stress among students (Anstey, et al., 2020). Students preferred traditional than online learning (AlShamsi, Mohaidat, Al Hinai, & Samy, 2020; Brisbon III, Lovett, & Griggs, 2020; Osman, 2020; Ritonga, et al., 2020). With the lack of technology, students experienced difficulties (Ghazi-Saidi, et al., 2020). Also, their familiarity of distance learning affected their performance (AlShamsi, Mohaidat, Al Hinai, & Samy, 2020; Ghazi-Saidi, et al., 2020; Parnia, 2020). Indeed, technology innovations should be an area of interest for research to improve instruction (AlShamsi, Mohaidat, Al Hinai, & Samy, 2020; Ozadowicz, 2020). Educational institutions should collaborate in research and technical trainings to address learning inequalities. (Brisbon III, Lovett, & Griggs, 2020; Daniel, 2020; Osman, 2020; Prata-Linhares, Cardoso, Lopes-Jr, & Zukowsky-Tavares, 2020)

3.3. Pedagogical Strategies

Online learning experiences should be extensive and intensive (Bryson & Andres, 2020). Student collaboration, discussion forums, interactive hypermedia, use of flexible synchronous and asynchronous sessions are pedagogical strategies of an effective online learning set up (Moluayonge, 2020). Synchronous and asynchronous sessions were used in online classes (Quezada & Quezada-Parker, 2020). Students found asynchronous videos more convenient than having text-based discussions. It provides greater student participation. Some students preferred searching in the internet and using technology in learning than teacher discussions (Ritonga, et al., 2020). It lessens student pressure compared to live discussions and is flexible to different situations (Ghazi-Saidi, et al., 2020). However, communication between teacher and students was more evident in synchronous than in asynchronous discussions (Lowenthal, Borup, West, & Archambault, 2020). Also, asynchronous activities were beneficial to working students (Ghazi-Saidi, et al., 2020). Online learning can provide an individualized learning experience to students (Ghazi-Saidi, et al., 2020). Online resources like learning modules (Bryson & Andres, 2020), social media (Ritonga, et al., 2020; Richardson, 2020; Bryson & Andres, 2020), and learning management systems- Google classroom, Google Meet, Google Docs, and other Google products (Moluayonge, 2020)- were utilized to promote active participation from students. Interestingly, students preferred blended learning as the mode of delivery in instruction (Ozadowicz, 2020; Pham & Ho, 2020).

4. Conclusions

Higher education institutions experienced different challenges in the implementation of education during COVID-19 pandemic. Online learning platforms were introduced to faculty and students to cater the demands of the new normal in education. This sudden change from traditional to distance education brought concerns as to the effectivity of the method. It is necessary that higher education institutions should meet the demands of online learning to eliminate barriers and inequalities in distance education. Research and technology

innovations should be done to address these situations.

5. Recommendations

This study is limited to journal articles published on 2020 that are found in Education Resources Information Center database with specific set of key ERIC fields in the search work. Thus, the use of journal articles aside from the database will give a more comprehensive understanding to the experiences of higher education institutions during COVID-19 pandemic. Also, the researcher is aware that the studies were conducted from different countries with different struggles during COVID-19 pandemic. With this, geographical representations should be considered to improve future studies.

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