University students' perception of online learning during Covid-19 pandemic: A review

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Abstract

Covid-19 pandemic has immensely impacted the educational system all around the globe. As a result, the conventional classroom setting has to be replaced by online learning activities (E-Learning) as the core method of teaching and learning to ensure learning is not disrupted. E-learning is the preferred method of teaching and learning as it is perceived to be a learner-centred pedagogy. This review paper will focus on students' perceptions and the challenges faced in online learning which are highlighted by the researchers from various background upon gathering the data via qualitative and descriptive studies. It will also bring to light the challenges faced by students as reflected in the relevant research and explore effective strategies and recommendations to overcome some of the challenges faced during online learning. In conclusion, the online learning is still favoured by the students during the pandemic. Also, the student's engagement during the synchronous learning is heavily depends on the learning activities and teaching pedagogies introduced by the educators.

Keywords: *Online learning, E- Learning, Collaborative learning, Covid-19, Social Presence.*

1. INTRODUCTION

The Covid-19 pandemic has brought disastrous effects to people all around the world. The effects are prevalent in almost every aspect of people's life, and education is not an exception as the educational institutions are instructed to be shut and all their physical teaching and learning activities are suspended. According to the United Nations, the pandemic has affected 1.6 billion learners in more than 190 countries in all continents (UN, 2020). It also resulted in a shift from a complete face-to-face or a combination of face-to-face and online learning to a wholly online learning setting as well digitalization of learning resources. According to Cojocariu et al., (2014: pg.1), "Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, blended learning, m-learning) have in common the ability to use a computer connected to a network, that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means". Therefore, educational institutions and educators begin to use a variety of learning platforms such as Google Classroom, Microsoft Teams, Zoom, Cisco Webex, Schoology, Edmodo, besides social media such as WhatsApp, Telegram, etc. to ensure learning (online) takes place without interruption.

Online learning is generally preferred and appreciated by both students and educational institutions owing to ease of use, learning flexibility, and controllable environment (Khan *et al.,* 2021). However, the sudden change to 100% online learning (E-learning) posed a great challenge for both students and educators. In addition, educational institutions were also faced with the challenge of providing sufficient training to the educators as not many of them were equipped with the relevant knowledge and exposure to online learning. The usage of learning technology in an attempt to support online teaching and learning activities is a major concern in maintaining the quality of learning (Rahman & Jamain, 2020). Although there have been numerous researches on the learning benefits of using social technologies in higher education, investigating further on the students 'perspective and challenges faced by them is crucial to ensure educational activities are tailored accordingly. In addition, it would also enable educators and educational institutions to design learning activities to increase student engagement, enhance students' learning experience, and improve learning outcomes.

2. RELATED LITERATURE

2.1 Students' Perceptions of Online Learning Activities

E-learning as a learning platform has long been in existence. However, it was only partially implemented by educational institutions besides the regular/traditional face-to-face learning. Only certain courses employed E-learning as the only method of learning especially for ODL (Online Distance Learning) programmes. Therefore, neither the lecturers nor the students would have a complete command or readiness to adopt E-learning as the principal method of learning, which has become a new norm during the Covid-19 pandemic.

To determine student's perceptions on online learning during the COVID-19 pandemic, numerous studies have been done globally, which have largely positive results (Agung et al., 2020; Febrianto et al., 2020; Coolican et al., 2020; Kalloo et al., 2020; König et al., 2020). In a study conducted by Agung et al. (2020) among the students of English Language Education Study Program at Pamane Talino revealed that they were actively involved in online learning mainly because of the effectiveness and availability of learning materials and the delivery although there were other challenges. Moreover, in a study by Anwar and Wahid (2021) among students in EFL classroom, the students displayed positive attitude towards online learning. Their reasons were flexibility, usefulness, great materials and delivery of lessons, and utilization of different instructional modes such as video conferencing, discussion board, chat forum, and electronic mails.

A survey among the students of Management and Informatics programs in Indonesia divulged that the students had positive perceptions and the main reason was the lecturers having good technical skills which is one of the main criteria for online teaching Rifiyanti (2020). Also, in a survey conducted by Agormedah et al. (2020) among the students in Ghana, the students generally had a positive attitude towards online learning although they encountered some challenges. Likewise, the undergraduate students from the Department of Library and Information Sciences in Nigeria demonstrated positive perception regarding online learning due to the positive experience they had, especially during the Covid-19 pandemic (Olayemi et al., 2021). According to Khan et al. (2021), the students from Delhi University, JamiaMillia Islamia (Central University) and Guru Gobind Singh Indraprastha University preferred E-learning since they were able to communicate

with their instructors and fellow students besides being able to access the lessons and materials at their comfort.

Lei and Amy (2021) discovered that the faculty members and students in higher education institutions of tourism and hospitality in Mainland China, Hong Kong, and Macau preferred online learning due to the effectiveness of the technology and learning platform in addition to active and dynamic participation and role of instructors. In contrast, although they were aware of the benefits of online learning during the Covid-10 pandemic, the students of Taif University, Saudi Arabia preferred asynchronous learning as opposed to synchronous methods of learning. Also, they favour in-class traditional learning once everything is back to normal (Al-Nofaie, 2020).

The students of higher education institutions in Albania were highly motivated largely due to the teacher's ability to make the E-learning process more attractive, interesting, and communicative (Xhelili et al., 2021). The health sciences students in Saudi Arabia were pleased with their lecturer's commitment to deliver well-prepared and timely lessons besides being able to provide immediate feedback (Aziz Ansari K et al., 2021). In addition, Razami and Ibrahim (2021) discovered varied outcomes as the respondents disclosed some benefits of online learning such as being flexible since they can attend classes and view materials and watch videos from anywhere, anytime, save money as they do not have to stay in campus or travel, learn technical skills, and also get immediate response from lecturers. In another survey, medical students from the University of the Philippines did not face many issues adapting to online learning, except for those who had limitations in terms of internet access, low academic stand, and number of hours spent online (Baticulon et al., 2021).

As Rana et al. (2021) did a survey among the nursing students of Lumbini Medical College and Teaching Hospital in Nepal, the students found online learning informative, interesting, useful, relevant, productive, and tailored to their needs. On the contrary, the undergraduate students of the dentistry study program at the Faculty of Dentistry, Universitas Indonesia provided a mixed reaction although generally they prefer online learning. The first-year students' preference to online learning was much higher than the seniors. According to Amir et al. (2020), the first-year students have only been exposed to theoretical lessons while the senior students have been undergoing both theory and procedural knowledge and skills which are learnt through dental laboratory works and practical lessons. Generally, medical and dentistry students require practical lessons to enhance and reinforce the theoretical lessons besides being able to consult the instructors directly. This was not possible due to the university closure during the Covid-19 pandemic.

2.2 Challenges Faced by Students

Although we may assume that the current generation of students are IT savvy, a number of them do face challenges to understand the materials and follow the lessons without physical contact with the lecturer. Arkorful & Abaidoo (2014) have outlined some of the predicaments lecturers and students face such as plagiarism and piracy, the ease of copy and paste, and excessive usage of some websites which leads to unforeseen costs both in terms of money and time.
Agung et al. (2020) highlighted the plight of learners as there were plenty assignments to be completed within a specific time limit. Besides, there were issues such as lack of electricity, lack of internet connectivity and signal especially in rural areas, in addition to incompatible gadgets. Moreover, Ghanaian students also face similar issues related to shortage of mobile gadgets due to

the students' low socioeconomic status, issues with internet access on top of their unpreparedness for online learning (Agormedah et al. (2020).

Xhelili et al. (2021) discovered some issues that students face in their online classes such as struggle to stay focused and understand the course materials, anxiety about their exams, and vision problems. The diploma students from UTM, Malaysia faced similar issues in addition to poor learning environments, lack of self-discipline, difficulty interacting virtually with fellow students and instructors, inability to adjust learning styles, and lack of motivation and focus (Razami and Ibrahim, 2021). Although the study by Al-Nofaie, (2020) implied some advantages of online learning, it did highlight some challenges faced by the students. Among the challenges were lack of IT related facilities and skills, distractions from the environment (home), absence of physical interaction, and inappropriate venue for exams (home).

Generally, IT and internet connection related challenges were more profound among the students. According to Anwar and Wahid (2021) internet availability and accessibility plays a major role towards the success of online learning. Students face many difficulties such as inability to interact with fellow students and teachers because of poor internet connection.

Rana et al. (2021) and Olayemi (2021) reported similar issues related to internet access and connection. Rana et al. (2021) also mentioned another hurdle as the students and parents need to pay more for a better internet coverage. As the students from Olayemi's (2021) survey were from Nigeria, they reported on the absence of alternative power supply, especially in rural areas where they have unstable electricity supply. In fact, distraction from social media among the students during learning was also reported by Olayemi.

While almost all the students face similar challenges, the plight of vocational education students were even more serious. This is mainly because unlike purely academic studies (Business, Marketing, Management, etc.) vocational education involves a combination of theoretical knowledge and practical lessons. Therefore, vocational lessons are more challenging to be implemented using solely online learning tools as they include laboratory, workshops, and hands-on mode, which are not possible during the closure of educational institutions during the Covid-19 pandemic.

According to Baticulon et al. (2021), among the issues faced by medical students of Philippines were psychological stress due to anxiety, exhaustion, isolation, and depression which made it hard for them to concentrate in studies. These were stemmed from uncertainties owing to Covid-19 pandemic such as online assessments (which is new), interruptions in medical training as it involves practical training, and safety of self and family. The students were also anxious about not learning the necessary clinical skills and practice which are an integral part of their course. Unfortunately, they are just learning through virtual clinical rotations, virtual case presentations, and online conferences which devoid the real-life experience and exposure. Amir et al. (2020) also cited similar issues among the dental students. According to them, adequate physical setting and learning and the relevant psychomotor skills cannot be replaced with online learning or simulations as the students need to be given hands-on training to become a skilled dentist.

2.3 Strategies and Recommendations

As the condition of the Covid-19 pandemic still forces educational institutions to be shut, effective methods to ensure learning takes place must be implemented by considering the different aspects and situations. It is worth considering all the parties involved such as students, instructors, parents, and educational institutions to ensure the success of teaching and learning activities.

First, suitable and relevant online learning platforms, applications, and educational resources must be identified to support online learning. These must be effective tools to assist teaching and learning for students, educators, and parents. Lecturers, on the other hand must incorporate the appropriate technology and ensure students are able to access them. They must consider three elements when designing the contents for online courses: theoretical materials, pedagogy, and technology. Efficient and high-quality teaching can only take place if these elements are perfectly combined. Simultaneously, lecturers require the relevant training and support to incorporate technology effectively into their teaching practices. Therefore, educational institutions should provide the relevant training to instructors on the use of digital resources for pedagogical practice.

Besides, an instructor's enthusiasm plays an integral part to develop positive attitude among learners (OECD, 2020). Also, the students should always be motivated and encouraged as they face isolation and lack of interaction from their peer and the instructor. According to Jonassen et al. (2019), teachers must prepare the right instructional strategies to engage learners in the learning process. Likewise, if the lessons can sustain the attention of learners, in turn it could boost their motivation as well (Razami and Ibrahim, 2021). According to Baticulon et al. (2021), educators must understand learners' needs, motivations, and past experiences to maintain engagement in an online curriculum.

To provide students interactive learning environment similar to in-class face-to-face learning, instructors could incorporate virtual meetings, live chats, video tutorials, case-studies, debates, discussions, experiential learning, brainstorming sessions, games, or drills. This will assist to create a physical face-to-face interactive setting that could help to maintain human connection, which makes the learning more reliable, efficient, and less stressful. Likewise, providing immediate feedback and comment would assist to keep students motivated and moving forward to lessons in future.

As availability of a suitable gadget together with internet access appears to be a barrier to online learning, efforts must be made to provide them to the deprived students. All students should not be left out due to any shortcomings. Therefore, they must be provided with free internet data to get similar opportunity to access course materials as the rest of the students (Ismail et al., 2020). Mahfouz and Salam (2021) suggest that all needy students, especially those living in remote areas be given free laptops and access to internet. These can be done via government grants or contributions from private institutions or individuals.

3. DISCUSSION

Due to the Covid-19 outbreak, online learning has emerged as the new trend and sought to be the most applicable approach in teaching and learning. It is apparent to all that the use of technology which was hitherto used as a secondary mode or usually combined with traditional,

face-to-face learning has become the primary source of learning. Besides being the principal source for teaching and learning, online learning is also preferred due to the advantages it offers; it is student-centred, flexible in terms of time and location besides allows a combination of different methods for learning such as text, auditory, and visual elements. According to Herliandry et al. (2020), among the positive effects of online learning are students are trained to be more responsible, creative, independent, and confident learners. Also, online learning offers advantages as everything that could be done face-to-face is also possible virtually with the assistance of technology.

Educators are expected to choose or adapt the right platforms and applications based on their students' needs to ensure an effective and efficient learning environment is created. The Albanian students prefer online learning since it is more comfortable, time-saving, and provides sufficient opportunity for learners to do self-study (Xhelili et al., 2021). This is of course possible because the educators opted the right platform and methods where the lectures or lessons were recorded which enable the students to review them as many times as desired to get a better understanding, which indirectly leads to improving student engagement. Al-Nofaie (2020) on the other hand suggests that intensive collaborative online tasks are effective to transfer the learning skills required for a particular subject and important for student engagement.

Baczek et al. (2021) reported that although online learning is effective to transfer and increase knowledge similar to face-to-face, but it was less effective to improve clinical and social skills for medical students. Although generally students favour online learning, various surveys and studies showed some dissatisfactions and challenges faced by them. Educators are at the best position to decide the suitable methods and platforms which are conducive for students to learn effectively. This is because educators are more experienced, knowledgeable, and directly involved with teaching and learning compared to stakeholders. However, the sudden outbreak of Covid-19 did not allow anyone to prepare in advance for a smooth transition of teaching and learning from traditional face-to-face or blended learning to online learning completely. Perhaps, if more preparation was involved, everyone concerned especially the educators and learners could have been more prepared and the transition would have been favourable for all.

4. CONCLUSION

In conclusion, the outcomes from various surveys and studies done across different groups of students in different countries revealed that the university students have both positive and negative perceptions towards the implementation of online learning, which was something crucial during the Covid-19 pandemic era. Although the students are aware of the importance of online learning during this difficult situation, issues such as technical and financial problems associated with it should be highlighted and discussed as well. This is because both educators and learners are lack of formal training and experience in e-learning platforms which directly affect their behaviour outcomes including engagement in learning, satisfaction, participation, motivation for learning, online work skills proficiency, self-directed learning, and efficacy in the use of e-learning devices and their academic performance.

Outcomes from the studies conducted can be utilized as a tool for everyone to develop programs that facilitate the advancement of online learning into an effective mode of teaching and learning to improve and advance educational delivery methods (Nguyen et al., 2021). Moreover, according

to Sawarkar, *et al*. (2021), while generally students prefer online learning, especially during the pandemic as it ensures no students face academic loss, traditional (face-to-face) teaching is still the best. At the same time, he stated that some students requested for blended learning methods in future as both methods have their own advantages.

Although no one was completely against the implementation of online learning during the Covid-19 pandemic, it requires sufficient mentoring and additional digital tools to support to develop flexible, innovative, and effective learning materials, methods, strategies, and techniques. The challenge, however, is to find techniques to integrate this technology into curriculum design and assessment to ensure student engagement to simulate learning. Implementing creative solutions to facilitate academic excellence and to better prepare our future leaders, both instructors and learners possess a shared responsibility. Therefore, with the collaboration of everyone, it is not impossible to create online courses and online learning activities which are dynamic, interesting, interactive, and effective.

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