

The Use Of E-Learning Tools in Education During The Covid-19 Pandemic: Literature Review

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ABSTRACT

This paper concentrates on the impact of the use of E-learning tools during the COVID-19 pandemic. In more detail, this study reviews the literature on the integration of e-learning strategies into universities or schools due to difficulties with face-to-face learning caused by the coronavirus. The results of the review indicate that E-learning applications have proven to be very useful for learners and educators since they allow them to continue with their learning and teaching. However, some issues have emerged from the use of technology in institutions such as technical issues and a lack of training. Some recommendations will be provided in this paper.

Keywords: COVID-19, E-learning, Online Learning and Technology.

INTRODUCTION

COVID-19 has affected teaching and learning processes in schools, colleges and universities as learners and their educators cannot attend classes or study face to face. As a result, technology is playing an essential role in education by providing virtual classes, which help the learning and

teaching processes to continue. The majority of nations around the world adopted technology in the education environment during the COVID-19 pandemic because technology has the ability to make teaching and learning easier and available to students all of the time (Alharbi and Lally, 2017). This paper presents studies conducted during this pandemic in order to highlight the role of technology in solving education issues.

Aim

This literature review examines the effect of applying E-learning tools to teaching and learning during the coronavirus pandemic. It provides a comprehensive review of recent papers published around the world about the impact of technology use during the pandemic.

LITERATURE REVIEW

This section will present the papers published during the pandemic. Haider and Al-Salman conducted a study in 2020 in four universities in Jordan. The primary goal of the study was to investigate the use of mobile learning, personal computers, laptops, iPad tablets and other devices by students before and after the pandemic. The sample study consisted of 775 students. The authors used a questionnaire to collect the data from the participants. The results of the paper revealed that the most popular tools used by learners throughout the pandemic were laptops (48.1%) and mobile phones (45.5%). However, only 2.5% of students used iPad tablets during the pandemic and just 3% used personal computers.

In addition, Husnul Khotimah, Husniyatus Salamah Zainiyati, Abdulloh Hamid and Abdul Basit (2020) conducted qualitative research to investigate the advantages of using E-learning Madrasahs as a method of distance learning during the COVID-19 pandemic in Kendari City, Indonesia. The data collection tools were interviews and opinion poll surveys created by Google Forms. They were distributed to teachers and students to gather their perceptions about E-learning Madrasah. These forms were sent to 204 participants via WhatsApp; 28 participants were teachers and 176 were students. The results show that E-learning is a great means of delivering lessons and communicating with students without the need for other applications.

It facilitates communication and monitoring between teachers and students as if they were in the classroom. It is an easily accessible tool for students in terms of learning materials. For example, they can use smartphones, gadgets or laptops to access E-learning Madrasah. Moreover, Mohamed Daffalla Awadalla (2020) carried out a cross-sectional study to assess medical students' perceptions of using E-learning during the COVID-19 pandemic. The study sought to focus on the difficulties that these students faced in the University of Gezira, Sudan when accessing online materials, such as a weak internet connection and limited E-learning resources. The results of the online questionnaire revealed that 87.7% of undergraduate medical students strongly agreed it was necessary to close the university and use E-learning during the pandemic in order to control the spread of the virus. Thus, the majority of the students had a positive opinion of online learning. The main difficulties experienced by the students with regard to online learning were a limited internet connection, a lack of familiarity with the online system, and technical support during exams. Thus, the author recommended that effective alternative strategies should be developed systematically in order to avoid these challenges in the future.

Another cross-sectional study was undertaken by Noreen et al. (2020) to assess the strengths, weaknesses, opportunities, and challenges of E-learning during the period of the COVID-19 pandemic lockdown at Rawalpindi Medical University (RMU). A mixed-method approach was used to collect data from members of the Faculty of Medicine and 400 undergraduate medical students completed a Google Forms online survey. The results indicated that RMU was fully equipped with important features to cope with distance learning during the lockdown period. In addition, the E-learning at RMU encourages students' self-directed learning. However, the participants mentioned some challenges related to E-learning, such as limited access to the internet and the need for professional isolation (library or office).

A further study was conducted by Awal Bahasoan, Wulan Ayuandiani, Muhammad Mukhram and Aswar Rahmat (2020) to examine the validity of E-learning in the midst of the COVID-19 pandemic. One hundred and fifteen undergraduate students studying management at the University of West Sulawesi completed an online questionnaire about their perceptions of online learning. The results of the online survey were in line with those of the previous studies which agreed that online learning is a valuable system. The participants added that online learning had been an effective system during the unforeseen circumstances of the COVID-19 pandemic. However, other responses indicated that online learning was inefficient because of network problems and the internet cost, which made the cost of E-learning higher than for offline lectures. Thus, the WhatsApp application was found to be the most suitable means of delivering E-learning because it is an inexpensive and user-friendly way of accessing online lectures.

Arfan Shahzad, Rohail Hassan, Adejare Yusuff Aremu, Arsalan Hussain and Rab Nawaz Lodhi (2020) conducted a study to examine the success of online learning during the COVID-19 outbreak in several Malaysian universities. This study also aimed to help Malaysian universities to design effective policies in higher education. Thus, this study compared male and female students' usage of E-learning portals. Surveys were created with Google Forms and sent to undergraduate and postgraduate participants. Two hundred and eighty responses were received from students from different universities in Malaysia. The study investigated the relationship between information quality, service quality, system quality, user satisfaction, system use and the success of online learning. With relation to the female students, the results showed a relationship between system quality and user satisfaction, and E-learning systems and user satisfaction. On the other hand, with male students, system quality had a strong relationship with information quality, and information quality had a direct relationship with user satisfaction. There is also a relationship between user satisfaction and E-learning portal success. Thus, in Malaysian universities, the usage of online learning by female students is more than males.

METHODOLOGY

Several search strategies were employed in this paper in order to locate relevant previous research. The first strategy was to search appropriate databases and websites such as conference proceedings, university libraries and Google Scholar. The key words used in the search included 'social media', 'technology', 'English language' and 'E-learning tools'. A check was carried out of the reference lists of all relevant papers in order to determine whether they also contained useful sources of information. The search was halted when the saturation point was reached and the researcher was unable to uncover any further relevant papers. Each relevant source of data was

inserted into a table with the details and summary of the paper. These research papers are those discussed in this paper.

ETHICS

There was no need for the researcher to seek ethical approval for this study as it did not involve actual participants but was rather a review of research that had already been conducted.

CONCLUSION AND RECOMMENDATIONS

This paper aimed to provide a comprehensive review of the role of E-learning in education during the COVID-19 pandemic. Papers published in peer-reviewed journals were reviewed and the results indicated that many nations have adopted E-learning tools in their teaching and learning processes. Furthermore, the review confirmed that E-learning plays an important role in providing suitable lessons and courses for educators and students, as, for example, they can use online libraries and resources, and teachers can use recorded lectures and online tests. Other key findings from the studies included the fact that E-learning applications and tools facilitate communication and monitoring between teachers and students as they can be used anytime and anywhere, and that E-learning materials are easily accessible by students.

This paper has a number of recommendations. Firstly, educators and students should be given suitable training, for instance, synchronous training and asynchronous training, hybrid training and knowledge-based training as this will help them to use technologies such as Zoom, Microsoft Teams, Google Classroom, the Blackboard System and MOOCs. These programs are the most useful ones for online teaching and learning. Secondly, instructors should develop and update their technical and pedagogical skills, as teaching through technology is completely different to using traditional methods. Furthermore, educational institutions should provide sufficient technical support to educators and students so that they are able to address any issues that they might encounter.

References

- Alharbi, O. and Lally, V., 2017. Adoption of e-learning in Saudi Arabian University education: Three factors affecting educators. *European Journal of Open Education and E-learning Studies*.
- Haider, A.S. and Al-Salman, S., 2020. Dataset of Jordanian university students' psychological health impacted by using e-learning tools during COVID-19. *Data in brief*, 32, p.106104.
- Awadalla, M., Mohamed, M., Ibrahim, O., Elhassan, M. and Mohammed, M. 2020. *Medical Students' Perception Towards E-learning During COVID 19 Pandemic in a high Burden Developing Country*.
- Bahasoan, A. N., Wulan Ayuandiani, Muhammad Mukhram and Aswar Rahmat (2020) "Effectiveness of Online Learning In Pandemic Covid-19", *International Journal of Science, Technology & Management*, 1(2), pp. 100-106.
- Husnul, K. & Husniyatus, S. Z., Abdulloh H., Abdul B., 2020. "E-learning application Madrasah online learning solution in the middle of pandemic Covid-19 in Ma Negeri Insan Cendekia, Kendari," *Technium Social Sciences Journal, Technium Science*, vol. 10(1).
- Noreen, K., Umar, M., Sabir, S., & Farooq, A. (2020). SWOC analysis of e-learning educational services at Rawalpindi Medical University in the midst of COVID-19. *Journal of Rawalpindi Medical College*, 24(Supp-1), 37-43.
- Shahzad, A., Hassan, R., Aremu, A.Y. 2020 Effects of COVID-19 in E-learning on higher education institution students: the group comparison between male and female. *Qual Quant*.