

A Review on E-Learning During Covid-19 Pandemic Situation

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SUBMITTED: 19 June 2022; REVISED: 8 July 2022; ACCEPTED: 10 July 2022

ABSTRACT: As a result of the novel coronavirus (COVID-19) outbreak in Mexico, there has been a pressing need to rethink how pupils receive their education. Students were required to keep a social distance from their peers and families, but they also had to adapt to online study. To avoid the spread of the dangerous disease, remote learning has become the standard. Educators around the world were obliged to transition to online instruction, particularly at the university level, due to the unexpected spread. There are some pupils that are open to the idea of online education. It's true that some people have reservations about the transition from traditional to online learning. There appear to be a number of ways in which educators might contribute to improving the quality and efficiency of virtual education. The following are summaries of a number of publications discussing ways to improve online teaching and learning. In the vast majority of studies, it has been shown that adapting to remote learning was a wise decision. However, a study found that some students dislike online learning because of personal and technological concerns. The stress and worry that students experience as a result of distance learning is another concern. According to current studies, online learning may also have psychological effects in conjunction with a difficult learning process. It highlights significant academic articles, recognizes ideas, and points to areas in need of additional research.

KEYWORDS: E-learning; COVID-19, pandemic, challenges, new technology.

1. Introduction

The World Health Organization then declared it a global pandemic (WHO). As a result, the entire country was put on lockdown. People have been granted permission to leave their houses for essential activities, such as shopping for basic goods or seeking medical attention. The deadly and contagious Corona Virus pandemic, also known as COVID-19, has had a significant impact on the worldwide economy. It's safe to say that the crisis has already had a significant impact on the education industry, but it's projected to continue to grow. It was specified that all programs, including those from high schools and colleges, should be transmitted electronically. COVID-19's pandemic necessitated the temporary closure of numerous educational institutions. Numerous institutions of higher learning have ceased to conduct classroom instruction in person. According to the findings of the study, returning to physical education at any time is highly problematic. The COVID-19 dilemma would force institutions

that had previously resisted modern technology to change their ways and adopt new ideas. The positive aspects of online education and teaching would come to light in this circumstance. e-learning emerges victorious from the chaos. Online education, on the other hand, is the subject of various criticisms [1, 2]. Many countries have utilized various measures to keep children in school during the outbreak. Many educational institutions are looking for solutions. We know the demands on academic institutions under these conditions. Online learning and teaching is a simple definition. A learner far from a teacher or instructor can obtain learning materials via technology. Students communicate with their instructor and peers using electronic devices, and the instructor provides guidance [1, 3]. Distance learning has gained popularity due to the widespread usage of ICTs in schools (ICT). In this trying time, the question is not whether distance teaching and learning can provide quality education, but how educational institutions can adopt e-learning so widely. Therefore, educational institutions must quickly migrate from traditional to online learning. The lockdown or "movement-controlled order" must be well-prepared and well-built [4,5]. This literature study evaluates successful teaching and learning activities during the pandemic. Then, a literature analysis will highlight students' online education challenges. After introducing the challenges of online education, the psychological implications are discussed. Despite the government's efforts to limit COVID-19 cases, public anxiety will cause mental instability. The coronavirus might make some patients feel helpless and stigmatized. This section examines how the pandemic and learning style modifications have affected student stress. Students' acceptance of the new "e-learning" instructional style is another concern [1,6]. The paper also highlights problems with student acceptance under COVID-19.

2. Methodology

Several databases were consulted in the selection of references for this literature study. The first sample of articles accessible was taken using Google Scholar. There was a need to begin with broad search phrases in order to compile a list of relevant primary sources and peer-reviewed studies. Online learning, e-learning, and the pandemic's impact on online learning were among the many terms and phrases that Google Scholar users looked up during COVID-19. Keywords in English were used to gather the data. Searches were then carried out on specialized databases such as Springer, Elsevier, Web of Science, and EBSCOhost. Using other databases, it was possible to select more precise wording. As a result, articles from ResearchGate, ScienceDirect, and SAGE were also included in the selection process. Secondary data sources include reports, search engines, academic articles, research papers, and other publications in academia. Analyzing and dividing the sources was accomplished through the use of tables in conjunction with subtopics found in the papers that were collected. In the publications I've gathered, the most relevant information has been found. The associated sources of earlier investigations have been considered in this literature review study.

3. Findings and Discussion

3.1. Online teaching and learning

The study review indicates that online learning is a flexible and beneficial source of learning during a time of crisis, but it also has significant drawbacks. In the opinion of students, online learning is both relaxing and effective. Almost unanimously, they agreed that students benefit

greatly from having access to educational resources around the clock, asynchronously, at any time of day or night. There's evidence to back up the idea that online learning gives students 24/7 access to course materials. Furthermore, it promoted self-learning, in which the student is actively involved in the learning process. Because students do not have to pay for transportation or other out-of-pocket expenditures while they study online, it is more affordable than traditional classrooms. Students also gained new experiences, such as time management and self-discipline, as a result of their education [6-8]. Having to undertake previous face-to-face university classes online was an immediate and unanticipated challenge. Online teaching and learning necessitate a variety of strategies for expanding learning opportunities and creating unique learning environments, all of which can be made possible thanks to digital technology. Students' perceptions of their educational experience are reflected in their level of satisfaction. According to recent studies, the complexity of the educational setting and a lack of preparation and organization are two of the most common issues noted by university teachers when it comes to web-based courses. The COVID-19 dilemma has resulted in a plethora of advice for instructors. Most of the advice is about tools and methods that teachers can use instead of meeting with students in person [7,8].

3.1.1. Lecturer perception

Before COVID-19, the vast majority of respondents stated that they were proficient in the use of computers. IT skills are essential in a technology-based learning environment, and this ability assisted the faculty in conducting online sessions. However, previous research found that professors valued face-to-face instruction over online learning more than any other kind of instruction. When teaching in person, you're able to engage your students in conversation and provide them with a more personal level of support. It encourages pupils to participate and has a favorable impact on their academic performance. More than one study has shown the same problems: a lack of face-to-face interaction between students and teachers; difficulties in offering guidance; a lack of teaching skills; and a lack of encouragement for learners while they are enrolled in online courses. Some of the educators said they expected no shift in the need for formal or face-to-face education, a rise in the need for online learning environments, no need for formal education, and equal opportunities for all students through online education. Online teachers, on the other hand, showed that they could deal with the patterns of distance learning despite their minimal experience in online education, such as technological abilities, time management, expertise, and attitude. As a result of their concerns about a recurrence of a pandemic like COVID-19, Indian educators feel that, by 2020, precautions will need to be made to prevent a new epidemic [9-11].

3.1.2. Student perception

To avoid micro-scaffolding, students were told that they should be more self-reliant in their ability to recognize orientation signals. Online teaching necessitates more extensive evaluation due to the use of effective communication and the promotion of better student involvement. Taking control of their education and growing in self-reliance is an important part of the student's responsibility. A number of researchers have underlined the value of interaction. You can't expect students to be successful in web-based learning unless you put in the effort up front and involve them in the process. Self-efficacy is a critical component of both academic success and overall well-being for students. Students who have a high level of self-efficacy don't see

tough tasks as obstacles to be overcome, but rather as an opportunity to learn and improve their abilities, which may lead to greater satisfaction with the results they achieve. Previous studies, when compared to more recent ones, seem to reveal a significant link between the individual and technology. In addition, because of the convenience and adaptability of the online course, they found that students who were enrolled learned more than those who were enrolled in the face-to-face version [3,10,11].

3.1.3. Infrastructure

Support from administration, technological support systems, and a course management system (CMS) or procedure are only some of the foundational components that must be in place before an online program can be built. From a post-digital perspective, online education has created a chasm between material, technology, and individual experience. Management and instructional practices are critical to maximizing the benefits of online educational systems. Infrastructural assistance is not always guaranteed or sufficient when using remote emergency education offered by COVID-19. Non-expert online teachers received a major portion of their first support and guidance based on the technology tools available at each school, which were deemed adequate to enable them to transition to online teaching. The number of e-learning platforms has increased significantly as more people get their hands on mobile devices. Students will be more engaged in their education if virtual communities and online learning are combined via a mobile platform. Students, school administrators, and government authorities can benefit from this perspective's advice on resolving the situation [12, 13].

Online training is an important component of practical preparedness, but it isn't the only one. In order to keep their professors up-to-date on the most effective ways to use online technology, institutions should take a more active role in their faculty's professional development. Online learning will continue to develop in higher education, and schools will work together more closely to take advantage of the most advantageous aspects of technology-based education. In e-learning contexts, the educator's reviews and comments are critical because there is no direct or person-to-person contact. It is time to change the focus from self-efficacy to technology to students' confidence in their abilities to perform, communicate, study, and complete a full online course in an online environment. In the previous study, it was discovered that student happiness and their perceptions of learning were strongly influenced by their level of self-efficacy in online learning, their connection to the subject, and their communication with their teachers. The findings also highlight the impact of online learners' belief in their own abilities [13–15].

It appears that there are many different ways in which educators might help to improve the virtual education experience. Making learning more self-directed by giving students access to or locating useful resources is one way to increase student motivation and independence. Aside from the core message, teachers are urged to develop extra channels of communication in order to keep students engaged in the learning process because their desires and the ability to express them are always expanding. Therefore, teachers should slow down their speech in online teaching to ensure that students are able to retain the most important parts of the course material. Online learners' tendency to drift off focus necessitates slowing down the pace of instruction in order to maintain their attention spans. One of the drawbacks of online education is the lack of face-to-face interaction, which can have a negative impact on students' feelings of contentment and fulfillment. E-learning systems' personalization features are beginning to

alleviate this problem. When learning materials or media are tailored to each student's intellectual ability, self-efficacy scores increase both the student's degree of satisfaction and their level of achievement. Researchers have found that student engagement goes up when things like problem-centered learning, consistent presentations, peer interaction, active learning, easy access and excitement for teachers, and the use of relevant course resources are linked together [6,7,12,16].

Cloud storage services can be used to deal with the increasing number of internet users and files. Cloud computing provides enterprises with the ability to expand their IT capabilities without making a large investment in infrastructure or apps. One of the benefits of cloud computing is that it enables low-cost and extensible storage, but the disadvantages include the necessity for high-speed and stable internet connectivity, as well as security and confidentiality. The variables that drive cloud computing usage in educational technology are convenience, utility, and security. It is the goal of the Fully Online Learning Community (FOLC) to create learning environments in which students can form personal connections with one another, to promote distributed accountability for knowledge refinement through conflicting feedback, and to encourage innovative approaches to problem solving. On top of that, FOLC provides well-known ways for selecting and utilizing digital affordances to support completely online group learning. Due to the logistical and technological difficulties, teachers of various backgrounds had to work from home, even if they didn't have the proper technical aid. To be successful in online education, students and educators alike must recognize the significance of the medium and the many online platforms and have faith in them. [17-19]

3.2. Challenges

Many higher education institutions have faced major hurdles due to the COVID-19 epidemic. Educators in this country have decided to implement a comprehensive digitization of education in order to better meet the needs of today's youth and their technologically enhanced futures. The COVID-19 pandemic drove institutions and education to participate in this transition unexpectedly and suddenly [8]. Laptops, tablets, and cell phones are just a few of the digital tools students have at their disposal to help them learn on the go. Opportunities and challenges abound for those who have access to mobile devices, but for those who do not, mobile learning can be a hindrance to their ability to study. Many educational tools are available. However, they can be difficult to use at times. Students, lecturers, and content concerns all face challenges in the e-learning environment. Changing from a physical to a virtual mode, adapting instructional methods and managing time is difficult for teachers. However, previous studies explored that during their online learning activities, most educators encountered some issues, anticipating some improvements in educational practices after the occurrence of COVID-19 and believing that important steps need to be taken in the educational system to combat another possible virus outbreak in the coming years [10,11].

3.2.1. New technology and adaptation

Online learning, in its whole, is dependent on technological gadgets and the internet. Instructors and students with weak internet connections are vulnerable to being denied access to online learning. The reliance of online learning on technological equipment, as well as the provision of that equipment, posed a significant barrier for institutions, staff, and learners. People's willingness to accept new technologies is influenced by factors such as their hopes and

expectations of success, as well as the conditions in which they can be used effectively. Other types of technology-restraining factors can be found, all of which work against the widespread adoption of new technologies. Intentions to use systems and information are harmed by the following factors: ubiquitousness, effort repetition, network instability, information overload, unnecessary information requests, and manipulation. The adoption of online learning is directly related to its compatibility. Acceptance is also influenced by the technology's efficiency and the absence of uncertainty in its application. Students and teachers must work together to identify workarounds for the many problems that online learning will face during COVID-19 [12,13].

Digital technology has a wide range of problems and issues, including issues with downloading, installing, and logging in, as well as issues with video and audio. Consistency, quality assurance, the creation of e-resources, and the distribution of e-content are lacking. There are a number of technological issues that could cause a mission to be disrupted or delayed. An online mode has its own set of rules. Synchronous mode's main drawback is that it largely relies on the consistency of the Internet connection speed for instructional conveyance performance. Having a bad link can cause disruptions during live sessions, which can have an impact on how well the course is delivered. Students in rural locations or those who can't afford expensive subscriptions to network plans and must instead rely on a typical Internet pay-as-you-go SIM card network plan face the most hardship in this regard. This problem needs to be fixed right away so that everyone can use e-learning to get a high-quality education [20,21].

In today's challenging times, it is critical to ensure digital equity. Teachers and students cannot use their Wi-Fi or digital devices on either the wireless networks or the Wi-Fi. There will be a lot of problems if there aren't enough digital materials, no Internet access, or Wi-Fi connections, because many students will miss out on learning possibilities. Furthermore, many higher education faculty and students think that the results of the current study are unreliable because of the lack of an adequate internet connection. Teachers have become accustomed to traditional teaching approaches in person-to-person lectures, and therefore they refuse to consider any modification. At this point, they have no choice but to adapt to the new environment and embrace change. It would be beneficial in terms of education and could lead to a slew of new developments. In addition, e-learning delivery methods will move from synchronous to asynchronous learning in the future. Synchronous learning necessitates the use of video-conferencing technologies. However, most applications only offer the barest essentials as a free trial. Disruption to student engagement activities was a major setback due to the inability to use the Internet at all times. [10,21]

3.2.2. Socio-economic factor

The inability to maintain one's concentration while learning online is a common issue. There are instances when it is difficult to ensure two-way communication between students and teachers. A tiny minority of students also indicated that they were unable to purchase a communication device or a laptop due to a lack of funds. If pupils don't put what they've learned into practice, the learning process won't accomplish its goals. An examination of virtual learning environments has revealed that students aren't well-prepared to balance the demands of work, family, and social obligations with their academic obligations. Students, on the other hand, have been shown to be lacking in several educational e-learning skills and competencies. Using e-learning tools isn't as widely accepted as it should be among students. One of the most

pressing issues for students is the fact that their daily routines have been completely altered due to online learning. For the student who relies on social interaction with fellow students for relief, there are now few possibilities [22,23].

Some of the students found the online learning content recordings uninspiring. In addition, people with family responsibilities had difficulty focusing on the changes that occurred. As a result, students who live in circumstances that are more difficult to access and may not be conducive to learning and achievement may find this abrupt shift to online education more difficult. However, unless the college is prepared to pay the cost of operating under the limits of an affordable internet plan, some students will not be willing to pay for full access to synchronous learning video conference apps. He also found that the obstacles students encounter in online education are the lack of communication and engagement that encourages them to loneliness; test anxieties; and traditional educational practices, as well as an abundance of assignments and management skills. The change from face-to-face learning to full virtual learning environments [23,24] had an effect on students' well-being, motivation, ability to focus, and even their ability to connect to the Internet.

An online education difficulty or obstacle was noted as a lack of internet connection and communication with classmates, lecturers, and faculty members. For students, the COVID-19 epidemic is particularly difficult to deal with. Students agree that e-learning is hindered by a lack of engagement, technological challenges, and difficulties in interpreting educational objectives. Students who lack access to all digital technology should not be ignored or forgotten. When classes are held online, these kids may not be able to participate since they are less well-off and come from households where people are less technologically competent. Digital devices and data plans might be prohibitively expensive for many people. Inequality gaps will expand as a result of this disparity in income. It's clear that synchronous online learning's sudden rise in popularity, prompted by an epidemic, was unwelcome for many students, notwithstanding the positives listed above. The new learning standards required them to be more competent and conscientious in their techniques of learning [20,21,24].

3.2.3. Impacts on human

Previous studies have shown that illness epidemics have a negative impact on people's mental health and well-being. It addressed a number of potential dangers. This global medical crisis has a significant impact on people's mental health as well as their physical well-being. There will still be community concern, resulting in erratic behavior, despite the proactive measures taken by the authorities that rule the nations impacted by the outbreak to decrease COVID-19 viral transmission. In addition to the risk of illness and death, this pandemic brings with it the risk of mental health issues for people around the world. Women were found to be more stressed, anxious, and depressed in the first two weeks of the outbreak than men. Academics are interested in e-learning to enhance and maximize the virtual learning outcomes of students while fighting the reduction in resources in higher education. Since the outbreak of the COVID-19 epidemic, university lecturers and staff have been under increasing pressure and work burden to migrate online, which has made it more difficult for them to combine their teaching, study, and employment duties. Students' emotional responses to global health concerns, such as anxiety, fear, and insecurity, can be seen in their expressions of discomfort, apprehension, and uncertainty [25-27]. Despite this, the growing number of patients and confirmed cases, as well as the expanding list of nations affected by the outbreak, have aroused fears that the world

will be infected by this pandemic, raising anxiety, tension, and worry among people everywhere. In the wake of the COVID-19 outbreak, governments and educational institutions are working hard to identify viable alternatives to online learning. There was 32% misunderstanding among 646 male students and 17% difficulty in using online platforms, according to a poll conducted by the College of Education, while 438 female students out of 1625 expressed their concerns regarding online learning. According to the research, the greatest source of anxiety for students is the uncertainty they feel about tests, the conclusion of the semester, and their grade. As a result of this uncertainty, people may suffer from psychological anguish, which can worsen the symptoms of posttraumatic stress disorder (PTSD). Unpredictable events might leave people feeling confused about their current status and about their long-term prospects [23,26-28]. There are many other factors that contribute to stress, including the frequency and difficulty of tests and major courses; parental pressure; loneliness; and anxiety about the future. Reduce your aspirations in order to feel less anxious. Due to the viral epidemic and its accompanying lockdown, students will be forced to adapt to current methods of learning while coping with their own psychological effects. There is a need to assuage students' fears in many ways in order to ensure that they may also actively and definitively participate in e-learning as a result of the rapid introduction of this online teaching "migration" during the outbreak of COVID-19. The problem will worsen if they are prohibited from leaving the house without engaging in physical activity or interacting with their peers. Boredom, depression, fear of infections, incorrect information (hoaxes), and worsening financial situations for the family can all contribute to this state of mind. When there is no direct engagement, anxiety ensues and worsens [26, 28].

Due to academic, financial, and social concerns, remote learning has also been linked to increased stress. Uncertainty, particularly economic uncertainty, is linked to stress-related disorders and suicide. Uncertainty has been found to be more difficult to deal with than knowing that something bad is going to happen. Anxiety and despair are both exacerbated by a sense of ambiguity. Student deprivation was exacerbated by the COVID-19 crisis because of a lack of stability in household income, which can be explained by increased economic and social stress. Earlier research has shown that people, particularly those from low-income families, were concerned about their future jobs during the COVID-19 outbreak, which supports this. Data from a previous study on internet quotas for grievances should be used for e-learning purposes. Due to the social distancing policy that permits their guardian or parents to remain at home to control their income, students are anxious about their guardian's income. Students whose parents have the means to afford an online education are ultimately governed by their access to it. Because they cannot pay an access quota, students from low-income families feel anxious. This is because they are concerned about how their education program will be evaluated. Equipment is the subject here. As can be seen from the lack of any association, mental health issues such as depression, anxiety, and stress are not solely dependent on a family's financial resources but also on the socioeconomic standing of that family. There are signs that people with a higher socioeconomic status have better access to resources, which makes them less likely to experience psychological harm [21,28,29].

The virus's novelty and unpredictable character, as well as the uncertainty of when the situation would be entirely under control, have put people under excessive stress. As a result, we're losing face-to-face interactions. All humans are biological, psychological, and social beings, and learning takes more than just these factors to be effective. As a result, online

education alone cannot meet all of a student's educational demands. As the COVID-19 pandemic spreads from country to country, universities around the world can take a variety of measures to help minimize the negative psychological impact on their students. These include providing their students with access to online academic advisors and psychological counseling for their mental well-being. While taking into account the viewpoints and successful learning of their students, professors should be taught how to use new appraisal methodologies and incorporate technology. The COVID-19 pandemic necessitates a solution-oriented approach to the psychological impacts [12,26,28].

3.3. Advantages

Despite the benefits of online learning in terms of flexibility, interactivity, and self-paced learning opportunities, universities are increasingly turning to it as a means of combating the COVID-19 pandemic and preserving the academic calendar. In response to the epidemic, universities and other educational platforms have quickly digitalized their educational activities. If online learning lessons are asynchronously recorded at any moment of the day, students can access the learning materials at a time that is convenient for them [11,14,21]. Another reason why students are encouraged to participate in the learning process is that online learning places more emphasis on the students themselves (self-paced learning). Moreover, students said that online education helped them learn new things. If online learning lessons are asynchronously recorded at any moment of the day, students can access the learning materials at a time that is convenient for them. Since online learning places more emphasis on student learning, it encourages students to actively participate in their own education (self-paced learning). Students have also stated that online education has allowed them to expand their knowledge base and develop new abilities. gained abilities and knowledge [23,30].

4. Conclusion

The report identifies causes for adoption, continuation, and learning outcomes in an online world and offers research guidelines for educators and management to properly integrate technology on online platforms. The educator's job is to encourage, guide, and support each student according to their needs; conduct formative and summative evaluations; ensure that pupils make progress; motivate them; and help them apply what they've learned. This illness outbreak has proved that digital literacy and technology in school are no longer options, but requirements. To improve learning delivery and student participation, online instructional delivery and interactive learning tools must be improved. All instructors should update their pedagogy to meet the difficulties. Institutions, instructors, and students should seek various settings to repair COVID-19's disturbances to learning routes. No matter what internet tools or programs are employed, we should be careful not to spark a wider problem when addressing an educational question. When ensuring a student's academic success, we shouldn't disregard the psychological and social or socio-emotional elements of learning. When trying to address an educational issue, we should be careful not to create a bigger problem, regardless of the online resources or services used. To ensure a student's academic success, we also need to consider the psychological and social components of learning. Future studies may compare wholly online and blended courses to compare results. Future outcome comparisons should incorporate student demographics. When seeking to assure a student's academic success, we shouldn't disregard the psychological and social or socio-emotional elements of learning.

During the COVID-19 outbreak, learners' e-learning behaviors should be studied to advance online learning research. Since online learning during the pandemic doesn't produce the same results as before the outbreak, Parallel studies on school issues should be done on learning during the coronavirus outbreak. Such studies may show which topics are best for online learning. Further research may study ways to improve students' interaction and design methods. Further research should focus on system preparedness and student demands at different levels. Video streaming providers that offer many formats and quality can help. Future studies should evaluate the consequences of the COVID-19 epidemic on education and acquire scientific information on how schools can respond to another outbreak. For evidence-based mental health strategies during emergencies, longitudinal evaluations of depression and anxiety are needed.

Competing Interest

Author declare no financial interest.

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