

Online Learning's Effect on Education

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Abstract

This research paper, titled “Online Learning’s Effect on Education,” delves into the multifaceted impact of online learning on the educational landscape. It investigates how online learning influences students, educators, and institutions, exploring its effects on learning outcomes, pedagogical strategies, and the evolving nature of education itself. This study offers valuable insights into the potential benefits and challenges associated with online learning, shedding light on its continuously developing role in the educational sphere. The surge of online learning has fundamentally reshaped the way we learn, impacting students, educators, and institutions alike. Educators have had to adapt their teaching strategies, embracing multimedia presentations, fostering virtual discussions, and providing real-time feedback through online platforms. Students, in turn, leverage the power of these platforms to access a vast array of learning materials, collaborate with peers asynchronously across geographical boundaries, and engage in personalized learning experiences tailored to their individual needs and learning styles. Online education has emerged as a powerful tool for democratizing access to knowledge, transcending geographical barriers and socioeconomic limitations. Whether pursuing formal degrees, acquiring new skills for career advancement, or simply seeking personal enrichment, learners of all ages and backgrounds can benefit from the flexibility and personalized approach offered by online education. It is crucial to recognize that online learning is not merely a temporary response to global crises; it represents a fundamental shift in the way education is delivered and consumed. As we navigate this dynamic landscape characterized by continuous advancements in technology and evolving pedagogical practices, fostering collaboration among students, educators, and institutions remains paramount. By working together, we can ensure that online learning continues to evolve as a powerful tool for enhancing educational equity, accessibility, and effectiveness on a global scale.

Keywords: Education, online, benefits, challenges, learning, platform, career

INTRODUCTION

The 21st century has witnessed a significant transformation in education, marked by the widespread integration of online learning. As technology progresses, online learning has become a crucial element in the educational landscape, challenging traditional teaching methods. In our paper titled “Online Learning’s Effect on Education,” we delve into a thorough examination of this phenomenon, aiming to uncover the diverse impact of online learning on various aspects of education.

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Commonly known as e-learning, online learning has revolutionized the acquisition and sharing of knowledge. This goes beyond the confines of physical locations and time constraints, providing learners with unprecedented access. This has opened doors to diverse learning styles and preferences, leading to its widespread adoption in academic institutions, corporate training programs, and lifelong learning initiatives. The shift toward digital learning environments prompts important questions regarding its implications for students, educators, and educational institutions [1].

LITERATURE REVIEW

The COVID-19 pandemic caused by the novel coronavirus not only threatens the immune system and can be fatal but also causes widespread anxiety with psychosocial effects such as shortness of breath and dizziness [2].

Online learning, also known as e-learning, incorporates various pedagogical methods delivered via digital technology. This incorporates visual graphics, text, animations, videos, and audio. Additionally, online pedagogy supports collaborative learning experiences and instructor guidance within specialized fields. In the context of our research, online learning is characterized as a cooperative teaching and learning approach utilizing diverse digital platforms such as WhatsApp, Zoom, and Google Classroom. It extends beyond immediate instruction to include assignments or activities provided by teachers through online channels [3].

Within the digital era, Information and Communications Technology (ICT) has played a critical role in imparting essential skills to students in the 21st century. Specifically, amid the challenges posed by the COVID-19 pandemic, online learning has emerged as the optimal means of ensuring the uninterrupted continuity of students' education. This underscores online learning as a viable pedagogical alternative in an age of technological advancement and communication, underscoring the imperative for students to adapt to this evolving educational landscape.

The application of technology-based teaching and learning techniques within educational institutions is encouraged with an emphasis on meeting the requirements of digital learning. Various educational technologies should be employed to maintain student engagement and address discrepancies between online and face-to-face learning experiences [4].

Online learning promotes proficient self-directed learning, empowering students to determine the timing, content, and trajectory of their studies. This establishes a secure learning space, mitigating the potential embarrassment associated with asking questions. Additionally, young children, particularly those belonging to Generation Y and Z, demonstrate adeptness in utilizing ICT resources for online learning, engaging with age-appropriate pictures, videos, YouTube, games, and digital applications. The dynamic realm of educational technologies, encompassing distance learning, further enables the worldwide distribution of information and knowledge [5].

METHODOLOGY

This study adopts a case study design, chosen for its relevance in collecting rich data on specific events affecting individuals' reactions and behavioral changes. Given the sudden shift in teaching and learning methods, this unique situation offers insights into how individuals adapt and modify their behavior in online learning settings, an aspect for which limited evidence currently exists regarding its effectiveness [6].

To evaluate the efficacy of online learning and grasp the obstacles it presents to students' learning capabilities, a survey questionnaire is crucial. Employing this method facilitated the collection of firsthand information from respondents, shedding light on their encounters, experiences, and perspectives on the subject. The questionnaire adopted a five-point Likert scale and revolved around two central facets.

1. Delving into students' viewpoints on the effectiveness of online learning, and
2. Pinpointing the challenges associated with online learning resources. This questionnaire was meticulously crafted and distributed with the guidance and assistance of the class teacher [7].

This research concentrates on examining a cohort of 99 students, aged between 22 and 24, selected from an Master of Computer Applications (MCA) college affiliated with a university in Mumbai, India. This study employs the convenience sampling technique, acknowledging that its objective is not to test

a research hypothesis for general applicability to a wider population. Instead, the focus is on gaining insight into students' perspectives regarding the effectiveness of online learning and the hurdles tied to their online learning resources [8].

Every participant involved in the study was actively enrolled in full-time online learning, a format reintroduced from October 2022 to November 2022. This timeframe offers a specific and recent context, enabling the exploration of the intricacies of online learning experiences shaped by the ongoing influence of the pandemic.

FINDINGS AND DISCUSSION

The data were quantified according to the program and the level of the college. The Sign Test was employed to compare the ratings provided by both teachers and students, revealing a notable similarity in their assessments. This similarity implies consensus between the two parties. From these findings, it can be inferred that e-learning is a promising online tool that can facilitate effective teaching and foster quality learning. This aligns with the positive outcomes emphasized in various literature sources [9].

Both educators and students expressed a collective request to establish an assessment scoring system for online student work. They also emphasized the need for mechanisms to verify the authenticity of course projects, quizzes, and assignments submitted through platforms such as Google Classroom. Furthermore, teachers communicated a desire for additional workshops or training sessions in instructional design to stay abreast of emerging e-learning software applications. Conversely, students sought orientation and specialized workshops, including a timetable for the online portal.

The principal aim of this study is to investigate students' perspectives on online education by relying on their encounters with online learning. In addition, the factors shaping these experiences were closely examined. The research outcomes were categorized into two distinct groups: positive experiences reported by students and negative experiences encountered by students [10].

Students reported positive experiences with online education, highlighting aspects such as flexibility, cost efficiency, access to electronic research resources, and ease of internet accessibility.

On the other hand, students identified negative experiences with online education, including delayed teacher feedback, challenges with teachers offering technical support, difficulties in maintaining self-regulation and self-motivation, and a sense of isolation.

Several factors contribute to a positive student experience in the realm of online education. These include are as follows.

Flexibility to choose class times and engage in independent learning. The cost-effectiveness of online teaching coupled with access to e-research materials enhances the overall learning environment. A well-structured course layout contributes to a positive experience, similar to easy internet connectivity. Navigating the online teaching interface with ease and familiarity with the lecturer further contributes to positive aspects of online learning.

Several factors contribute to negative student experiences in the realm of online education. These include are as follows.

Negative student experiences in online education often arise due to various factors. These include delays in receiving feedback from tutors, insufficient technical support from teachers, challenges in self-regulation, and self-motivation, leading to a sense of isolation, monotonous teaching methods, and course content design that may be perceived as unreasonable.

Positive Experiences and Influencing Factors

Flexibility

Adaptability inherent in online education is widely perceived to be advantageous. The pivotal element contributing to a positive experience, as highlighted by the participants in this study, was the flexibility of class time. All individuals involved emphasized the convenience of sidestepping campus visits and having the autonomy to organize work and study schedules according to their timelines. A significant departure from this research is the temporal flexibility offered by online courses, which allows students to log in at their convenience. For instance, a full-time mother underscored the necessity of online courses given her demanding responsibilities, expressing frustration with the systemic challenges hindering access to traditional university attendance. Another non-traditional student, juggling a full-time job, considered online courses the sole viable option at present. She expressed strong sentiments about sacrificing her family to support her pursuit of higher education, emphasizing the benefits of more online courses in minimizing time away from the family.

This study also revealed positive experiences related to independent study flexibility. Participants appreciated the autonomy to determine when instructors delivered essential content, deeming it particularly advantageous for those working full-time or managing familial responsibilities. Expressions such as “working at my own pace,” “managing my time efficiently,” and “having the flexibility to schedule tasks” were indicative of the empowerment felt by the participants. Moreover, online classes were perceived as enjoyable and free from instructor and peer pressure, creating an environment conducive to learning. The participants highlighted the convenience factor, citing the absence of distractions, peer scrutiny, and freedom from rigid schedules or mandatory attendance at instructor lectures.

Cost-effectiveness

All participants concurred that online education is a cost-effective alternative. In direct comparison to expenses associated with commuting, textbooks, and meals, coupled with the often-required “special course fees,” participants expressed a clear preference for online courses to mitigate these additional financial burdens. One participant highlighted the savings achieved through online courses, remarking, “I believe you can cut costs by opting for online courses. Eliminating the need to commute to campus has significantly reduced my car-related expenses.” Another participant noted a reduced demand for textbooks in online courses, leading to cost savings for educational materials. Consequently, there is no expenditure on items such as backpacks, notebooks, parking stickers, and fines. Participants universally expressed a sense of increased financial efficiency, emphasizing how online courses allow them to allocate their funds more judiciously.

Ease of Connection to the Internet

The third positive experience identified in this study revolves around the ease of connecting to the internet. The ready availability of computers and internet connectivity serves as a catalyst, fostering students’ keen interest in regularly accessing their online courses. With the convenience of access from home or the dormitory, it is not necessary to commute to campuses or schools to attend online classes. Some participants even mentioned the potential for discounts on internet access because of their enrollment in online classes. Quotes from participants such as “This online program, accessible over the internet, enables degree completion,” and “Having internet access in our dorms makes it easy to access courses anytime,” underscore the significance of this easily accessible online infrastructure. The affordability of internet services at universities further contributes to an overall positive experience.

Negative Experiences and Their Factors

Delay in Teacher's Feedback

The primary factor influencing scholars’ negative experiences with the quality of online education is the delay in educator feedback. Scholars expect timely responses from instructors regarding discussion posts, exams, tests, and submitted assignments. However, feedback is often not immediately provided,

leading to dissatisfaction. One participant expressed that “Feedback is not immediate. To date, I have not received any feedback. I believe there is ample room for improvement in terms of educator feedback.” Scholars have emphasized the importance of regular feedback on exams, discussion posts, and primary communication channels. Additionally, scholars anticipated quick responses to emails or voicemails, and instances of delayed or non-responsive communication with instructors were noted. One participant highlighted the challenges faced by educators in providing feedback on computer-related issues and suggested seeking help from peers with computer expertise. To address these issues, scholars have suggested a simplified approach to assignments and proposed the implementation of training or workshops to enhance educators’ proficiency in online instruction.

Lack of Self-regulation and Self-motivation

While online learners appreciate the flexibility and convenience afforded by online education, they bear the responsibility for cultivating their discipline. The self-directed and hands-on nature of online courses necessitates that scholars regulate and motivate themselves for success. However, challenges arise when scholars struggle to manage assignment deadlines or remember test dates owing to a lack of self-control. One participant recounted an instance in which a missed deadline led to attempts to contact the educator for a chance to retake the test, but the absence of communication exacerbated the negative experience. Participants acknowledged the need for genuine self-discipline and focus and expressed concerns about becoming easily distracted and procrastinating. Some lamented the absence of a structured environment, stating, “It’s easy to not complete tasks when there’s no set time for completion.” They also highlighted the benefits of traditional classes, where interactions with classmates facilitated reminders about assignments and test deadlines. Scholars in the study faced challenges in juggling household responsibilities, childcare, and other commitments, sometimes even forgetting that they were enrolled in an online course due to the absence of regular class sessions. Despite these challenges, some participants recognized the need to control and motivate themselves, acknowledging instances where distractions and time-consuming activities required better management.

DESCRIPTION OF TABLE

As per the survey findings, a significant majority of the students (90%) expressed a positive inclination toward online learning, while only 7% held opposing views. Of the respondents, 70% perceived online learning courses as easier than traditional courses, and 5% chose not to provide a response. An overwhelming 86% of students consistently engaged in notetaking and recording practices to enhance their learning preparation. Furthermore, 90% of the students found online learning convenient. Regarding the temporal aspect of online learning, only 7% of students reported feelings of anxiety or impatience, whereas the majority (70%) did not share these sentiments.

Economically, 75% of students contend that online learning is more cost-effective than attending physical classes, as it eliminates expenses such as bus fares, lunch, and clothing. In terms of participation, 68% of the students actively engaged in discussions during online learning sessions. Impressively, 75% of the students expressed greater confidence in learning online than in traditional in-person settings. Consequently, 60% of the students believe that online learning contributes positively to the quality of their studies.

The survey also sheds light on teachers’ considerations during the online learning process, with 70% of teachers reporting consistently demonstrating attentiveness and consideration toward students. Overall, the survey results underscore the predominantly positive perceptions and experiences associated with online learning among both students and teachers, as shown in Table 1.

In response to inquiries about “problems that arise during and after online learning,” 80% of students highlighted issues related to internet signals, particularly prevalent among those residing in villages.

Table 1. The result of students' questionnaire (Data retrieved from Google Forms).

S.N.	The result of the students' questionnaire					
	The questionnaire items	1	2	3	4	5
1.	You find online learning intriguing.	-	4%	3%	90%	3%
2.	Engaging in online classes is more convenient than attending traditional in-person classes.	-	5%	15%	70%	10%
3.	I consistently get ready for online learning by either taking notes or recording the content.	-	-	10%	86%	4%
4.	Online learning is convenient for me.	-	-	30%	70%	-
5.	The timing of online learning does not cause any disturbances or make me feel rushed.	-	33%	60%	7%	-
6.	The expenses associated with online learning are more economical compared to the costs incurred by attending classes on campus.	-	10%	20%	70%	-
7.	I consistently participate in discussions related to the course topics.	-	5%	20%	65%	10%
8.	I feel active and confident when engaging in online learning.	-	-	3%	77%	20%
9.	I believe that high-quality learning is achievable without the need for face-to-face interaction with teachers and fellow students.	-	15%	20%	65%	-
10.	Teachers adapt to online learning.	-	-	25%	75%	-

Addressing the concern of short and content-limited lessons in another survey, where students were asked about problem-solving, 70% indicated that they resolved issues using materials provided by their teachers. Furthermore, when inquiring about feedback on submitted videos or assignments, 65% of students reported that their teachers consistently provided feedback. The researchers posit that this observation suggests that students with more mature and well-developed self-directed learning skills are better suited to the challenges of online learning.

CONCLUSION

Thus, the potential for rapid shifts in teaching methods cannot be ignored. While conventional wisdom once favored traditional teaching, the advent of technology has brought about a transformation. Teachers need to remain adaptable and creative, and continually explore effective teaching approaches. In particular, online learning has demonstrated a positive influence on student performance, offering several advantages over traditional methods. Despite the cost associated with personal internet usage, many students appreciate online learning for its flexibility.

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