Imperatives of Online Learning in Tertiary Institutions During COVID-19 Pandemic

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Abstract

The COVID-19 pandemic precipitated a seismic shift in the global educational landscape, compelling tertiary institutions to swiftly adopt online teaching and learning as a critical imperative. This abstract explores the multifaceted imperatives that drove this transformative change. Firstly, the pandemic necessitated the continuity of education, prompting universities and colleges to transition to online modalities to mitigate learning disruption. Second, online learning emerged as a means to bridge the digital divide, enabling access to education for students in remote or underserved areas. Furthermore, online education contributed to safeguarding the health and well-being of students and educators by reducing physical interactions and adhering to safety measures. Flexibility became paramount during the pandemic, and online learning provided a versatile platform. It allowed for varied instructional approaches, synchronous and asynchronous learning, and adaptive strategies to cater to diverse student needs. The pandemic also accelerated the development of digital literacy skills among both students and educators, preparing them for an increasingly technology-driven future. Lastly, the imperative to foster innovation in education emerged, as educators and institutions explored new pedagogical techniques and technology tools to engage students effectively in the online realm. In conclusion, the imperatives of online teaching and learning in tertiary institutions during the COVID-19 pandemic encompassed ensuring educational continuity, addressing digital disparities, prioritizing health and safety, offering flexibility, enhancing digital literacy, and stimulating innovation. These imperatives have reshaped the landscape of higher education, leaving a lasting impact on the future of teaching and learning.

Keywords: Online Learning, Tertiary Education, COVID-19 Pandemic, Digital Literacy

Introduction

The COVID-19 pandemic, which began in early 2020, necessitated a rapid and widespread shift from traditional face-to-face education to online teaching and learning across the globe. This abrupt transition introduced both teachers and students to new challenges and opportunities within the online education landscape. This explores the evolving perceptions of teachers and students concerning online teaching and learning during the COVID-19 pandemic. It delves into their experiences, advantages, disadvantages, and the potential long-term implications of this educational transformation. Teachers faced a range of challenges during the sudden transition to online teaching. These challenges encompassed technical difficulties, adjustments in pedagogy, and an increased workload (Hodges et al., 2020). Many teachers reported feeling overwhelmed and

stressed during the early stages of online teaching (DarlingHammond et al., 2020). Adequate professional development and support significantly influenced teachers' perceptions of online teaching. Those who received training and assistance displayed higher levels of confidence and effectiveness in online instruction (Dhawan, 2020). The importance of ongoing professional development for teachers to continually adapt to online teaching is emphasized in the literature (Li et al., 2021). Online teaching offered teachers the opportunity to explore innovative pedagogical methods, integrate multimedia resources, and customize instruction to individual learner needs.

Some educators appreciated the flexibility and creativity that online teaching allowed and began to consider the potential for hybrid teaching models (Cavanaugh et al., 2020). Students encountered difficulties related to engagement, isolation, and the digital divide during online learning. Many expressed a preference for traditional, in-person instruction and reported challenges in maintaining motivation (Lack & Tinnon, 2020). The absence of face-to-face interaction and the unequal access to technology were significant factors contributing to these engagement challenges. Some students thrived in the online learning environment, where they were required to take greater responsibility for their education. Online learning encouraged greater autonomy and self-directed learning, which some students found empowering (Zhang et al., 2020). The pandemic exacerbated existing educational inequalities as the digital divide became more pronounced. Students from underserved communities faced greater challenges accessing online resources and technology, highlighting concerns about equity in online education (Hodges et al., 2020). The pandemic has accelerated discussions about the potential of blended learning models, which combine online and in-person instruction.

Many educators and students recognize the advantages of blended learning, such as flexibility and personalization, and anticipate its continued development (Bates & Sangra, 2021). The pandemic underscored the importance of digital literacy skills for both teachers and students. Educational institutions are increasingly focusing on integrating digital literacy into curricula to equip learners with the necessary skills for the digital age (El Mansour & Mupinga, 2021). The pandemic's impact on mental health, particularly for students, has become a significant concern. Educational institutions are recognizing the need for comprehensive support systems to address the emotional challenges associated with online education, emphasizing the importance of wellbeing (Son et al., 2022).

Application of Online Learning Theories amidst COVID-19 Pandemic

1. **Constructivism**: Constructivism posits that learners actively construct knowledge by building upon their prior experiences and interacting with their environment (Piaget, 1954; Vygotsky, 1978). In online learning, constructivism emphasizes learner-centered approaches, active engagement with course content, and collaborative activities that enable learners to construct meaning (Duffy & Jonassen, 1992).

2. **Connectivism**: Connectivism acknowledges the role of digital technologies and networks in learning, emphasizing the importance of making connections and accessing information in a networked world (Siemens, 2005). In online courses, connectivism suggests that

learning occurs through networked connections, information retrieval, and participation in online communities (Siemens, 2005).

3. **Social Learning Theory**: Social Learning Theory, developed by Albert Bandura, emphasizes the role of observation, imitation, and social interactions in learning (Bandura, 1977). Online learning can incorporate social elements through discussion forums, collaborative projects, and peer interaction, facilitating knowledge acquisition through observation and interaction (Anderson & Dron, 2011).

4. **Cognitive Load Theory**: Cognitive Load Theory focuses on the cognitive capacity of learners and suggests that learning is more effective when cognitive load is managed efficiently (Sweller, 1988). Online courses should be designed to minimize cognitive overload by presenting information in a structured manner, providing clear instructions, and reducing extraneous cognitive load (Sweller, 1988).

5. **Andragogy (Adult Learning Theory):** Andragogy, proposed by Malcolm Knowles, highlights the distinct characteristics of adult learners, including their self-directedness and need for relevancy (Knowles, 1984). Online courses for adults should cater to their autonomy and experience, offering opportunities for self-directed learning, problem-solving, and immediate application of knowledge (Knowles, 1984).

6. **Community of Inquiry (CoI) Framework:** The CoI framework, developed by Garrison, Anderson, and Archer, emphasizes cognitive presence, social presence, and teaching presence as essential elements for meaningful online learning experiences (Garrison, Anderson, & Archer, 2000). Instructors can create a community of inquiry in online courses by fostering cognitive engagement, facilitating social interactions, and maintaining effective teaching presence through guidance and facilitation (Garrison, Anderson, & Archer, 2000).

7. **Behaviorism**: Behaviorism focuses on observable behaviors and external reinforcement as the primary mechanisms of learning (Skinner, 1957). Online courses can apply behaviorist principles by offering immediate feedback, clearly defined learning objectives, and structured learning experiences to enhance motivation and learning outcomes (Skinner, 1957).

The aforementioned theories provide a foundation for understanding how online learning works and how instructional design and pedagogy can be tailored to optimize online learning experiences. Educators and instructional designers can draw from these theories to create effective and engaging online courses.

Imperatives of Online Learning during COVID-19 Pandemic

Online learning became imperative during the COVID-19 pandemic due to the need to ensure the continuity of education while adhering to safety measures and social distancing. Below, are the imperatives of online learning in the context of the pandemic.

1. **Ensuring Continuity of Education:** The pandemic forced the closure of schools and universities worldwide, disrupting traditional learning. Online learning emerged as an essential means to ensure the continuity of education despite physical restrictions (UNESCO, 2020).

2. **Mitigating Learning Loss:** Extended closures of educational institutions raised concerns about learning loss among students. Online learning allowed students to continue their studies remotely and reduce the impact of disrupted learning (Kuhfeld et al., 2020).

3. **Providing Access to Educational Resources:** Online learning provided a means to deliver educational content and resources to students, especially those in remote or underserved areas with limited access to traditional educational facilities (World Bank, 2020).

4. **Ensuring Safety and Health:** To minimize the spread of COVID-19, educational institutions shifted to online learning, reducing the need for physical gatherings and ensuring the safety and health of students and educators (CDC, 2020).

5. **Flexibility and Adaptability**: The pandemic underscored the importance of flexibility in education. Online learning allowed institutions to quickly adapt to changing circumstances, offering a mix of synchronous and asynchronous learning to meet varied needs (Hodges et al., 2020).

6. **Enhancing Digital Literacy:** The pandemic highlighted the need for digital literacy skills. Online learning encouraged the development of digital literacy among students and educators, preparing them for a more technology-driven future (El Mansour & Mupinga, 2017).

7. **Fostering Innovation in Education:** The necessity of online learning spurred innovation in educational technology and pedagogy. Educators explored new tools and approaches to engage students and improve the online learning experience (Bates & Sangra, 2011).

Conclusion

In conclusion, the COVID-19 pandemic made online learning a critical imperative to ensure the continuity of education, mitigate learning loss, provide access to resources, prioritize safety, enhance flexibility, foster digital literacy, and encourage innovation in education. Similarly, the pandemic prompted an abrupt shift to online teaching and learning, reshaping the perceptions of both teachers and students. While educators faced initial challenges, many adapted and recognized the benefits of flexibility and innovation. Students encountered engagement and equity issues, but some found opportunities for greater autonomy.

The long-term implications include a potential shift toward blended learning, increased emphasis on digital literacy, and a focus on mental health and well-being. These imperatives have reshaped the educational landscape and may continue to influence the future of learning beyond the pandemic. Further research is necessary to explore these evolving perceptions and their impact on the future of education.

Acknowledgements

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