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Challenges Faced by Lecturers in Adapting to Online Teaching During COVID-19: A Focus on the Community of Inquiry (COI) Framework

Nanthini Chandra Kanthan, Belinda Marie Balraj
Language Centre, National Defence University of Malaysia
Email: nanthini9825@gmail.com, belinda@upnm.edu.my

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Abstract
This study explores the impact of the Community of Inquiry (CoI) framework on teaching strategies employed by lecturers during online classes amid the COVID-19 pandemic. Using CoI as its foundation, the research focused on five lecturers as respondents, with interviews serving as the primary data collection method. The findings revealed that lecturers faced numerous challenges in maintaining student engagement, including difficulties in fostering social presence, ensuring cognitive engagement, and sustaining effective teaching presence. Despite these challenges, the study highlights the potential of CoI-informed strategies to create meaningful and interactive online learning environments, underscoring the need for enhanced institutional support.
Keywords: Community of Inquiry, Online Teaching, Covid-19, Teaching Strategies

Introduction

The COVID-19 pandemic, which emerged at the end of 2019, prompted an urgent transition from traditional classroom settings to remote learning worldwide. Educational institutions, ranging from schools to universities, were compelled to quickly adopt digital platforms in order to maintain continuity in education. Although online learning introduced the potential for greater flexibility and wider accessibility, it also brought to light numerous obstacles that undermined its overall effectiveness. These issues included challenges with technological infrastructure, uneven access to resources, the need for changes in teaching methods, and the impact on mental well-being. Each of these factors had significant consequences for students, educators, and institutions alike.

One of the primary challenges in online teaching during the pandemic was the digital divide. Access to reliable internet connections and appropriate devices was a significant barrier for many students, particularly in rural or underserved areas. A report by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2020 revealed that nearly 90% of the world's student population was affected by school closures, with millions lacking the

necessary tools for effective online learning (UNESCO, 2020). This disparity in access created inequities in educational opportunities, with students from lower-income families or remote locations being at a disadvantage compared to their urban or wealthier counterparts.

Another major challenge during this shift was the swift adjustment of teaching methods to suit the online environment. Many instructors, particularly those with limited experience using digital tools, found it difficult to adapt their in-person teaching styles to virtual settings. A study by Nouri et al. (2021) revealed that while some teachers quickly embraced new digital tools and teaching methods, others struggled with integrating technology and keeping students engaged in online classrooms. This transition pushed educators to rethink traditional teaching practices, incorporating online assessments, interactive resources, and promoting student participation in digital spaces. However, the steep learning curve, coupled with tight timeframes, made this adjustment particularly challenging for many. The emotional and psychological consequences of the pandemic had a profound effect on both students and educators. The abrupt transition to online learning occurred during a period of widespread anxiety, compounded by fears surrounding health, economic instability, and social isolation. Research revealed that both teachers and students faced elevated levels of stress, burnout, and fatigue (Jiang et al., 2020). For educators, the burden was not only personal well-being but also the responsibility of supporting students' mental health, often without adequate resources or proper training.

In conclusion, while online education provided a necessary solution to the disruption caused by the COVID-19 pandemic, it also underscored significant challenges that affected the quality and effectiveness of teaching and learning. To overcome these obstacles, continued investment in technology, professional development for teachers, and robust support systems will be essential to ensure that online education can be both sustainable and equitable for all students.

Literature review

Covid -19 and Online Teaching

Socrates held the belief that education plays a pivotal role in shaping individuals by equipping them with the knowledge necessary to comprehend and chart their course toward achieving goals and fulfilling their destiny. Contemporary education serves to instil social responsibilities, foster communication skills, nurture critical thinking abilities, and cultivate scientific understanding. At its core, education revolves around the fundamental principle of teaching and learning—a continuous process of acquiring knowledge or expertise through study, firsthand experiences, or instruction.

Moreover, education serves as a bridge connecting individuals to both nature and society, influencing their interactions, contributions, and overall engagement with the world around them. Events such as fires, wars, earthquakes, floods, or pandemics have the potential to disrupt teaching and learning for extended periods, ranging from weeks to months, even longer (Dohaney et al., 2020).

The COVID-19 pandemic caused the most extensive upheaval in education systems ever witnessed in human history, impacting approximately 1.6 billion learners across over 200 countries (Pokhrel & Chhetri, 2021). Shutdowns of schools, institutions, and other educational

venues lead to a paradigm shift in how educators were to deliver quality education for an unknown period. Switching from traditional face-to-face learning to online learning can be a completely different experience for both learners and educators, requiring adaptation with few alternatives available. The education system and educators have embraced "Education in Emergency" through various online platforms, often having to adopt a system for which they are unprepared (Pokhrel & Chhetri, 2021). This shift compelled teachers to work online, where they must design lessons, homework, assignments, and assessments suitable for digital learning. Many educators, who report having little or no training in technology, are experiencing a significant change in their practice (Winter & Costello, 2021).

Normally, change is implemented gradually, testing what works and what does not, but the rapid response required by the Covid-19 pandemic has not allowed for this gradual approach. As a result, the nature of educators' work changed drastically almost overnight, moving into uncharted territory without clear guidelines, where many effective in-person strategies may not translate well to online formats (Milman, 2020).

The implementation of appropriate and effective pedagogy for online education often hinges on the ICT expertise and exposure of both educators and learners. Some of the online platforms currently in use include unified communication and collaboration tools like Microsoft Teams, Google Classroom, Canvas, and Blackboard. These platforms enabled teachers to develop educational courses, training sessions, and skill development programs (Petrie, 2020).

Learning Management Systems (LMS)

A quick switch to online learning was required due to the closure of educational institutions around the world during the COVID-19 pandemic. Universities were able to continue offering courses in spite of the disruption thanks to the development of Learning Management Systems (LMS). In order to facilitate remote learning, platforms like Moodle, Blackboard, Canvas, and Google Classroom were widely used. This change brought to light the importance of learning management systems (LMS) in contemporary education as well as the difficulties posed by their abrupt and extensive adoption.

Initially, many universities opted for a "wait and see" strategy (Truu, 2020), however, the implementation of social distancing measures and prolonged quarantines compelled academics in higher education to swiftly transition into fully operational online instructors. As a result of this pandemic-induced upheaval in academia and higher education, changes that would have traditionally taken years to implement due to extensive administrative processes were promptly introduced within a matter of days. With 160 countries enacting closures due to the pandemic, the shutdown affected over 1.7 billion students globally, according to the statistics (UNESCO, 2020) .

According to estimates, COVID-19 affected at least 91% of students worldwide. At the same time, the recession has brought about both opportunities and challenges for technology use. However, it has also produced a wealth of information about how technology can change the educational landscape to one that is more sustainable, promote sustainable education, and enable students worldwide to learn through distance learning in a sustainable manner.

LMS is primarily utilised to enhance in-person teaching and learning, providing blended learning opportunities for students.

Community of Inquiry Model (CoI)

The Community of Inquiry (CoI) framework, introduced by Garrison, Anderson, and Archer in 2000, establishes that an effective educational experience emerges within a collaborative learning environment. Central to this framework are three interdependent components: **cognitive presence**, **social presence**, and **teaching presence**. These pillars are designed to foster meaningful engagement and effective learning.

- **Cognitive Presence** refers to the ability of learners to construct meaning through reflection and dialogue. The concept of cognitive presence, rooted in Dewey's (1993) model of reflective thinking, is pivotal for effective learning as it involves constructing and confirming meaning through reflective discourse. The Practical Inquiry (PI) model frames cognitive presence across four stages: triggering events, exploration, integration, and resolution. Despite its recognized importance, sustaining cognitive presence, especially beyond the exploration phase, remains challenging, particularly in asynchronous learning environments (Garrison et.al, 2001). Strategies like scaffolding and enhanced instructor facilitation are critical to fostering progression into the deeper phases of integration and resolution (Kanuka & Garrison, 2004).
- **Social Presence** involves creating a supportive climate for open communication and interaction. Social presence draws attention to three areas: the emotional component, open communication, and a sense of belonging within the group. This component is very important in building trust, lessening any form of transactional distance and in motivating interaction in discussions that take place in cyberspace (Swan, 2002). While it is beneficial to build affective communication and social bonds, it is vital for the group to feel safe communicating freely, and for the community to revolve around a goal or purpose in order to maintain sustainability (Thompson & MacDonald,2005). Social presence should be more than just establishing socio-emotional presence and building personal relationships. In order to achieve cohesion, we need intellectual focus (i.e., open and purposeful communication) and respect. e.g. Swan & Shih (2005), reported significant relationships between group cohesion and social presence, as well as perceived learning outcomes. Nonetheless, in large or more diverse groups, social presence may be lacking due to the size or the location of the group which calls for exciting new approaches like group work, video debates and use of affect (Lowenthal & Dunlap, 2018.
- **Teaching Presence** encompasses the design, facilitation, and direction of cognitive and social processes to achieve educational outcomes. he composition is divided into three sub-elements: planning and structuring learning experiences, moderation and active participation, and explicit teaching. Primary concern of this, teaching presence, is particularly important for creation and sustaining an effective CoI (Anderson et al., 2001). In this context, Shea et al. (2005) demonstrated that the strong value of perceived learning and satisfaction with the course were due to the great value of the teaching presence. However, some issues still exist concerning the proportions between the teacher and the student in the case of self-paced or self-directed modes of learning.

The element in this model that is most basic to success in higher education is cognitive presence. This term here is taken to mean the extent to which the participants in any

configuration of a community of inquiry can construct meaning through sustained communication. Although this is far from unproblematic even in traditional face-to-face educational settings, it is particularly worthy of attention when the medium of communication changes, as in the adoption of CMC for educational purposes.

Methods

The study focuses on five (5) lecturers from public universities across the region with the aim of capturing their perceptions of teaching during the pre- and post-pandemic periods. This group was chosen because public universities experienced significant teaching shifts, making their insights essential for understanding the broader impact of COVID-19 on higher education. Participants were given the flexibility to choose between online or face-to-face interviews to accommodate their schedules.

Online platforms such as Zoom, phone calls and Google Meet were offered as alternatives for remote interviews, ensuring convenience for those with time constraints or health concerns. Each interview lasted approximately 45 minutes, with questions tailored to explore their experiences and teaching adaptations during the COVID-19 period.

Findings

The transition to online teaching presented numerous challenges, ranging from technical barriers to maintaining student engagement. The lack of preparedness for online teaching was a major issue, particularly for those unfamiliar with digital platforms. Many lecturers faced technical difficulties, ranging from limited access to appropriate tools to a lack of training on how to use them effectively. Table 1 shows the results from the interview in relevance to CoI Framework.

Table 1
Challenges in Adapting to Online Teaching

Theme	Illustrative Example	CoI Element
Connectivity Issues	"Students in rural areas faced major internet problems" (MT)	Social Presence
Maintaining Engagement	"It was hard to tell if students were engaged with cameras off" (DR)	Teaching Presence
Digital Literacy Gaps	"Even I had to learn new platforms, and so did my students" (DF)	Cognitive Presence
Inequity in Access	"Some students lacked proper devices to fully participate" (DK)	Social Presence

a) Technical and Logistical Barriers

Respondents highlighted issues with internet connectivity and the steep learning curve for new platforms

- **SY** remarked, *"Poor internet access in rural areas was a major obstacle for both students and lecturers."*
- **DR** shared, *"Learning to navigate multiple platforms like MS Teams and Google Meet was overwhelming at first."*

Technical issues were among the most significant challenges. SY and DR cited unreliable internet access for both lecturers and students, particularly those in rural areas, as a major

obstacle. DF, despite a computer science background, struggled to adapt assessment methods for virtual platforms. This reflects findings by Chung et al. (2020), who noted that poor infrastructure hampers the effectiveness of online learning in developing countries.

b) Maintaining Engagement

Engagement emerged as a critical challenge. DK highlighted difficulties in motivating students to participate actively in virtual settings, a concern shared by DR. Garrison et al. (2000) argue that maintaining social presence is key to fostering interaction and trust in online environments—a component many respondents found lacking.

- **PS** stated, *"Getting students to actively participate was difficult. Most of them kept their cameras off."*
- **DF** emphasized, *"Online teaching felt like talking to a wall at times. It was hard to connect with students."*

Research by Martin and Bolliger (2018) suggests that maintaining social and cognitive presence is essential for fostering engagement in online learning environments. The lack of these elements in the online space made it more difficult for students to stay motivated and engaged.

c) Equity and Access

The digital divide was evident, as R5 noted disparities in students' access to devices and stable internet connections. This inequity aligns with research by Martin and Bolliger (2018), who emphasize that digital accessibility is critical for ensuring equitable learning experiences.

- **DK** noted, *"Some students didn't even have proper devices. Their learning was heavily impacted."*
- **DV** added, *"We had to make exceptions and extend deadlines for those struggling with access issues."*

The findings echo existing literature that highlights the challenges of engagement, technical barriers, and digital inequities in online learning environments (Chung et al., 2020; Martin & Bolliger, 2018). The Community of Inquiry (CoI) framework has proven to be a valuable model for understanding and enhancing the effectiveness of online teaching strategies employed during the COVID-19 pandemic. By emphasizing the interplay between social presence, cognitive presence, and teaching presence, CoI provides a structured approach for creating meaningful and engaging online learning experiences.

Conclusion

During the pandemic, lecturers were compelled to adopt innovative strategies to address the challenges posed by remote instruction. The integration of CoI encouraged practices such as fostering a sense of community through collaborative activities, leveraging diverse technological tools to enhance cognitive engagement, and employing clear, purposeful teaching methods. However, the rapid shift to online education revealed varying levels of success in implementing CoI components, influenced by factors such as technological access, digital literacy, and institutional support. Moving forward, it is crucial for educators and institutions to invest in professional development, digital infrastructure, and student support systems to optimize the use of CoI in online learning environments. This study highlights the need for sustained efforts to refine and adapt teaching strategies, ensuring resilience and quality in education in a post-pandemic world.

This research provides valuable insights into how the Community of Inquiry (CoI) framework can guide online teaching during times of crisis, such as the sudden shift prompted by the COVID-19 pandemic. By diving into the real-world experiences of lecturers, it sheds light on the practical struggles they faced such as keeping students engaged and managing the steep learning curve of digital tools. Theoretically, it deepens our understanding of how cognitive, social, and teaching presences interact in emergency education settings. More importantly, it underscores the need for supportive systems that empower educators and bridge the digital divide. Beyond its academic significance, this study serves as a beacon for educators and institutions striving to create inclusive, resilient, and meaningful online learning experiences, even in the face of adversity.

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