CHAPTER 15

# Navigating Online Teaching in Asia: Innovations and Challenges During the COVID-19 Pandemic

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This book includes a collection of reflections, conceptual chapters, and research chapters written by educators and researchers who were affected by the COVID-19 pandemic. Although online teaching and learning is not a new concept, many educators across Asia were challenged to leverage the technologies available to deliver online classes to replace the traditional forms of face-to-face and experiential teaching/learning. The pandemic has pushed us to think about the effectiveness of our teaching practices using a range of educational technologies, and rethink how we could transform the way we connect and engage students in learning as technologies continue to advance in the twenty-first century, in ways that we thought were not possible before the pandemic. The authors from Hong Kong SAR, India, Macau SAR, Malaysia, and Singapore shared

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M. So-Sum Wai-Cook et al. (eds.), *Online Teaching and Learning in Asian Higher Education*,
https://doi.org/10.1007/978-3-031-38129-4_15

their experiences in adopting a variety of frameworks, theories, and pedagogical approaches that they adopted to cope with online teaching in disciplines such as English Language, communication skills, community engagement, science, health, systems thinking, and students' mental well-being in online learning.

The four sections in this book deal with issues pertinent to online teaching in higher education during the pandemic: (1) Innovation in curriculum design and development; (2) Innovation in student engagement; (3) Innovation in assessment of students' learning; and (4) Innovation in the use of technology in the class.

## Innovation in Curriculum Design and Development

The introductory chapter outlines the experiences of higher education instructors in Asia as they transitioned to online teaching during the COVID-19 pandemic. It also acknowledges the pre-existing emphasis on technology and innovation in Asian education systems and the significant growth of online learning in the region prior to the pandemic.

In Chap. 2, Lee shared that microlearning units could supplement traditional teaching to support students' learning of career planning skills in a scalable manner. She concluded that the future of learning should shift from a push paradigm where content is assigned to a pull paradigm where students have control over what, how and when they learn (Hamilton et al., 2021). Using Dolasinski and Reynold's (2020) microlearning model and Khan's e-learning framework (in Corbeil et al., 2021), Lee suggested that the design and development of the microlearning material should be performance focused, interactive, bite-sized, and scaffolded systematically in three segments: Readiness (an activity to prompt their prior knowledge), Discovery (the main content segment on the learning outcome) and Reinforcement (a quiz, which should be followed by feedback). The inclusion of gamification features such as progress tracking, and automated feedback could also increase students' motivation to engage with the learning materials (Polasek & Javorcik, 2019).

In Chap. 3, Sathasivam shared her autoethnography research on how she transitioned from traditional in-person to online teaching as reflected on students' positive feedback throughout her online course in Science Education. In this process, she emphasised the importance of being able to flexibly adjust her own teaching to accommodate her students' ability to learn in times of uncertainty. More specifically, she described her change-in-action in accordance with Guskey's (2002) Model of Educator

Change in four stages: change in situation (pandemic-induced shutdown: move to remote teaching), changes in lecturer's practices, changes in student learning outcomes, and changes in lecturer's attitude and beliefs. Although the content and the integrity of the course should not change regardless of the delivery mode, lecturers must be aware of the possible challenges that students encounter in distance learning and adjust their pedagogies to provide students with appropriate learning autonomy, the content is relatable and relevant to students, and students can reach adequate competency (Ryan & Deci, 2000).

In Chap. 4, Huang, Oon, and Benson proposed a need to adopt a more student-centric pedagogical approach to promote deep learning (Choi et al., 2019; Marín, 2020) in an Asian school system. They argued that, while it is difficult to change the traditional educator-fronted method of teaching in an Asian school system, it is possible to begin the changes when the lecturers' model how a student-centric pedagogical approach can be used to facilitate student learning, particularly for the pre-service and in-service educators who have the potential to lead the changes in schools in the future. Very positively, the authors found that the use of learner-centred pedagogy and use of technologies (e-portfolios) increased students' motivation, enhanced students' engagement, and promoted deep enduring understanding of knowledge. The authors of this chapter also highlighted the need for educators to encourage more self-directed learning, leverage on technologies to facilitate teaching and learning, and closely support students by giving them sufficient feedback on their work to increase their understanding and improve their work.

## Innovation in Student Engagement

In Chap. 5, Sreenivasulu shared strategies to successfully overcome the challenges for both educators and students in online and hybrid classes conducted via Zoom. Sreenivasulu adopted the Technological Pedagogical Content and Knowledge Framework (TPACK, Koehler & Mishra, 2009) in his online classes on systems thinking, and suggested that educators must have sufficient technological, pedagogical, and content knowledge to be able to systematically scaffold concepts and create class/group activities to increase student engagement and promote higher order thinking and reasoning skills. He further proposed that, regardless of whether the lessons are conducted online, hybrid or face-to-face, educators play a critical role in student learning. Educators with sufficient content knowledge

can enhance students' knowledge and skills. Appropriate pedagogy can promote self-directed learning, increase student engagement, and create opportunities for students to collaborate. In addition, technologies such as the use of Zoom, e-whiteboards, and chat functions can create opportunities for discussions and provide platforms for collaborative peer interactions in small groups and receive feedback to reinforce their learning.

In Chap. 6, Ravindran, Lee, and Amini examined the shift from traditional face-to-face classrooms to online delivery mode in teaching of English as a Second Language (ESL) course. The authors shared that the instructors were not able to accommodate students' varying cognitive abilities and faced challenges such as students' inactivity, attention deficiency, and unresponsiveness when they shifted from face-to-face to online classes. However, despite the challenges in online teaching, educators must remain flexible to accommodate students' cognitive and social needs by planning of activities to enhance student learning, managing time well, and adjusting the pace of teaching to improve interactions in an online classroom. With these three considerations, educators will more likely be able to sustain students' enthusiasm and motivation for online learning and give them time and space to develop higher-order cognitive and critical thinking skills (Boling et al., 2012).

In Chap. 7, Xiong examined the Hong Kong university students' well-being in online learning during the pandemic, as well as their perceptions of environmental, technical, and pedagogical support from the university. Similar to the literature, students in this study reported they experienced physical challenges (Cao et al., 2020; Chandra, 2021), psychological difficulties (Carrillo & Flores, 2020), and poor living conditions which negatively impacted their learning. Xiong argued that universities and government authorities should support students' well-being by improving their learning environment and living conditions (Bisht et al., 2022). The author proposed that universities should provide timely and relevant professional development programs to equip educators with the necessary skills to prepare for emergency online teaching. At the course level, educators must accommodate students' well-being in online lessons by flexibly adjusting the pace and giving space for learners to cope with online lessons. The author ended the chapter by recommending educators to refer to both cultural and social cognition theories of change to better understand students challenges and best practices to nurture students in online lessons.

## Innovation in Assessment of Students' Learning

In Chap. 8, Lim, Chua, Avnit, and Wang introduce innovative assessment practices they adopted at Singapore Institute of Technology. This chapter described the success of introducing more authentic, continuous assessments in the curriculum that align more closely to the learning outcomes and industry practices. This, in turn, also increased the validity of the assessments. The authors argued that the key to successfully replacing traditional methods of assessments (e.g., exams and quizzes) with authentic assessments is to ensure a good balance between the assessment loads for students and faculty and have sufficient time and opportunities to provide timely feedback (Oli & Olkaba, 2020; Watling & Ginsburg, 2018). However, policy makers must adopt an open, consultative, and progressive approach when they implement the changes in the curriculum. Very importantly, too, success of the implementations depends heavily on the team's effort, guided by thoughtful leadership, and regular conversations with the educators on the ground.

In Chap. 9, Mekala, Sangeetha, Harishree, and Geetha provided a framework for implementing twenty-first-century skills in online English courses for engineering students in India. In alignment with the Indian National Educational Policy 2020s (NEP, 2020), this chapter provides a framework that inculcates well-rounded individuals to thrive in the twenty-first century. The authors proposed a pedagogical framework that aims to teach students English proficiency skills and four essential twenty-first-century skills for engineers in accordance with the ATC21S framework—problem solving skills, ICT skills, communication skills, and collaboration skills beyond students learning requisite core domain engineering knowledge. Specifically, the authors thoughtfully proposed a series of tasks that could be used to facilitate the teaching of the 4 twenty-first-century skills, the assessment criteria for the twenty-first-century skills, and the expected skill-based and language-based outcomes. This task-based language teaching framework can be adopted across different local contexts in India and beyond, and across both STEM and non-STEM disciplines to promote the students' twenty-first-century skills and their English language proficiency.

In Chap. 10, Wai-Cook offered a conceptual framework for teaching and assessing empathy by utilising experiential learning in an online communication class. The author argued that like any module that involve community engagement, the teaching of empathy in a communication

class must include both academic rigour and experiential learning opportunities. It is only through working with stakeholders in the communities that students have the opportunities to apply the knowledge/theories that they learn in class, and challenge them to cross physical, social, emotional, cultural, or identity borders (Hayes & Cuban, 1996). Although it is best to teach communication and empathy in a face-to-face environment, students' reflections showed they were still able to link theory to practice when they analyse case studies and listen to speakers in an online environment. This can only be achieved if there is an appropriate balance between cognitive, instructor, and social presences in the online class.

## Innovation in the Use of Technology in the Class

In Chap. 11, Bhati and Fink examined the impact of the pandemic on learning and teaching for college students at James Cook University in Singapore and Germany. The authors showed how they leveraged technologies to create a humane digital society with a self-managed, socialised digital landscape to foster digital citizenship (Fuchs, 2018; Wong et al., 2021). The digital platforms allowed colleagues to conduct academic conversations and share teaching practices in communities of practice (CoPs), and the e-collaborations allowed students to connect with academic staff to create and share ideas, communicate, and collaborate in CoPs.

In Chap. 12, Hall reflected on his experience as he transitioned from being an analogue to a digital educator. He advised educators to become "digitally extended" individuals (Parkinson et al., 2018), where they should leverage different e-platforms and utilise a range of tools for teaching and assessments, to move towards a more student-centric learning environment. In particular, he proposed that educators should use Kahoot, Mentimeter, Padlet, Quizzlet, and Slido to allow students to co-construct learning; and suggested that they should "mesh" a range of modalities in words, images, and audio in teaching to engage students in online lessons.

In Chap. 13, Firdaus and Shahid provided theoretical and practical guidelines for researchers and instructors to integrate the use of Telegram following a Community of Inquiry Framework in an online or blended-learning environment (Garrison, 2009; Garrison et al., 2010; Shea et al., 2012, 2014). The authors highlighted the importance of including social presence, cognitive, teaching presence, and learning presence in their Telegram-based community of inquiry (CoI). This will ensure students could be better engaged in the learning.

In Chap. 14, Mekala, Harishree, and Geetha highlighted the need to discuss how best to teach twenty-first-century skills to the engineering students, as employers consistently complained engineering students lacking twenty-first-century skills. The authors proposed a series of motivational strategies and tasks to inculcate four essential twenty-first-century skills, such as critical thinking, communication, collaboration, and creativity, to prepare engineering students for the workplace in India. They adopted a range of strategies such as group cohesiveness, expectancy of success, goal orientedness, and stimulated learning (Dornyei, 2001) to motivate students to participate in a range of thoughtfully designed task activities using a range of ICT tools.

## Final Words

As a result of COVID-19, many educators around the globe have had to swiftly shift their teaching to online delivery mode. Connectivity due to technological constraints and sustaining students' engagement in learning online have posed challenges for educators in online teaching and learning in Asia. This collection of scholarly reflective practices as well as conceptual and research papers have provided the higher education academic community with insights on the educators' challenges, lessons learned, and best teaching practices in four key areas: innovation in curriculum design and development; innovation in student engagement; innovation in assessment of students' learning; and innovations in the use of technology in the class.

Therefore, it is hoped that this book can provide both educators and researchers in the academic community insights into how teachers from different regions in Asia across various disciplines have adopted different pedagogical approaches in their online classes to effectively facilitate teaching and learning in Asian higher education. Furthermore, the discussions raised in this volume should prompt educators to think about how they could more effectively teach, assess, and engage students as we leverage different technologies to design tasks in a mix of online, hybrid, and face-to-face teaching modes in the twenty-first century.

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