


Please cite the Published Version

Chikwa, Gladson , Zhu, Xia, Al-Aufi, Asma and Aljaser, Anfal M. (2025) Time to (Re-)Think Online Learning and Teaching in Higher Education?: Towards the Enhancement of a Sense of Belonging and Student Engagement and Participation in an Online Context. In: Innovations in Pedagogical Practice and Curriculum Development in Higher Education: Contemporary Global Perspectives. Emerald Publishing Limited, pp. 3-16. ISBN 9781835495063

DOI: <https://doi.org/10.1108/978-1-83549-506-320251001>

Publisher: Emerald Publishing Limited

Version: Accepted Version

Downloaded from: <https://e-space.mmu.ac.uk/642085/>

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Additional Information: This is an author accepted manuscript of an article published in Innovations in Pedagogical Practice and Curriculum Development in Higher Education: Contemporary Global Perspectives, by Emerald.

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**TIME TO (RE-)THINK ONLINE LEARNING AND TEACHING
IN HIGHER EDUCATION?
TOWARDS THE ENHANCEMENT OF A SENSE OF BELONGING,
STUDENT ENGAGEMENT AND PARTICIPATION IN AN ONLINE CONTEXT**

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ABSTRACT:

Online learning and teaching continue to gain traction in the higher education landscape. The COVID-19 pandemic has been a catalyst for change in the way university educators across the globe approach learning and teaching activities. Anecdotally, higher education institutions worldwide have been compelled to embrace technology and offer their students an online learning experience. Some important questions have arisen regarding the effectiveness of online learning and teaching. For instance, how can we foster the development of a sense of belonging in an online environment? How can we promote student engagement and participation in online contexts? This chapter combines reflections of four educators (the authors) and ideas from extant literature to provide practical strategies for developing a sense of belonging and enhance participation in online contexts. Based on extant literature, the chapter discusses different principles derived from online design models including the Community of Inquiry, Gilly Salmon's 5 Stage model, and the Conversational Framework, that the authors consider to be critical for promoting student engagement and participation in online learning environments.

KEYWORDS:

1. Online learning and teaching
2. Online pedagogy
3. Sense of belonging
4. Student engagement
5. Student participation
6. Online design models
7. Online learning environment

Introduction

In the ever-evolving landscape of higher education, the conventional approaches to learning and teaching are being questioned and reevaluated. This includes a shift away from traditional learning environments like classrooms and lecture theatres, as well as established teaching methods. The COVID-19 pandemic, for instance, accelerated the adoption of online learning, signalling a significant change in educational practices across the globe. Understandably, online learning provides an opportunity to expand the learning environment for the diverse student population entering higher education (Keengwe & Kidd, 2010). The authors of this chapter are higher education educators who belong to the cross-institutional network called International Teaching and Learning Special Interest Group (ITLSIG) (visit: <https://itlsig.mmu.ac.uk>). The group acts as a community of practice (Lave & Wenger, 1991), and provides a platform for the sharing of good practice in teaching, learning, assessment and pedagogic research. The four authors worked in different universities during the COVID-19 pandemic, for instance, two of the authors worked in two UK universities, and the other two authors worked in two countries in the Gulf region, in particular, Kuwait and Oman. They all have had practical experience of teaching and assessing students in an online context during the COVID-19 pandemic, hence, they intend to share their experiences in those different contexts, and proffer some practical ideas related to the enhancement of the students' learning experience in an online milieu. It is anticipated that the ideas shared in this chapter can be harnessed by other educators to enhance online learning experience as well as supporting the development of teacher practice.

The chapter makes use of Driscoll's (2007) reflective model which is based on the three key questions: "What?", "So what?", and "Now what?". These questions provide a framework that facilitates a process of critical reflection which begins with a description of the experience ("what?"), an analysis of its significance ("So what?"), and culminates with a synthesis of learning and future implications ("Now what?"). In line with this, the authors intend to share their experiences of learning and teaching during the COVID-19 pandemic time, analyse their experiences in light of extant literature, and finally, reflect on how online learning and teaching can be enhanced during and beyond a time of crisis. Hofer et al. (2021) argue that the insights gained from the crisis are valuable and should be remembered, to serve as a guide for potential future emergencies. In addition, the lessons play a pivotal role in enhancing and refining online learning and teaching during normal times.

"What?": Reflections on emergency online learning and teaching

The COVID-19 pandemic has been an important catalyst for change in learning, teaching and assessment in the higher education institutions (HEIs) across the globe. According to Gurung and Stone (2023, p. 1): "the Coronavirus catalysed seismic changes as, seemingly overnight, instruction went remote". Reflecting on the rapid nature of the change, Baume (2021, n. p.) asserted that: "the great leap online induced by the COVID-19 pandemic is the biggest, most rapid and most global change that higher education has ever undertaken". Arguably, the pandemic has been a powerful catalyst for change in the way learning and teaching is organised and delivered across the higher education sector. Although we had e-learning prior to the pandemic, the pandemic provided HEIs with a rare opportunity to introduce digital learning at scale over a short period of time (Dhawan, 2020). The new changes affected many students across the globe who had entered University anticipating having an on-campus experience and face-to-face learning. Online learning had been challenging in general and could be even more challenging if it is new to students who were expecting a face-to-face learning experience. The sudden transition from face-to-face to online learning and teaching caught many educators and students unprepared. Murphy (2020) rightly refers to this time as the period of emergency online learning and teaching. Studies conducted in different parts of the world revealed

that a considerable majority of educators did not have any experience of teaching in an online environment (Chikwa et al., 2020; Hofer et al., 2021).

Reflecting on the situation in the Gulf region, the two co-authors of this chapter who worked in that region commented that prior to the COVID-19 pandemic, most of the teachers never taught their lessons online. A considerable majority of staff and students never considered online teaching and learning as a legitimate approach to use in schools and universities. When the pandemic started, both teachers and students had limited or no experience of teaching or learning in an online environment. These higher education institutions used different platforms such as Zoom, Google classroom or MS Teams to facilitate the continuity of learning and teaching. Reflecting on the challenges of adapting to online learning, the two authors from the Gulf region indicated that the pandemic presented an awkward moment for both teachers and students operating in that online environment. For instance, the students chose not to turn on their cameras to show their faces during lessons and during the examinations. This was due to several reasons including cultural factors, as well as lack of appropriate study spaces at home. It was also observed that some of the students were not even attending the scheduled online sessions, choosing to log into the session but with no proof that they were physically in attendance behind the screens. With the cameras turned off, it was difficult for the teachers to build any meaningful interactions and relationship with the students online. Anecdotal evidence shows that there was a lack of a sense of belonging, students did not feel that they were learning at University since they could not be on campus and were unable to see their peers and their teachers in person. They did not take the online education seriously. Some of them literally expressed to their teachers that they felt like they were on vacation by not having to attend the classes in person on campus. After the COVID-19 pandemic most of the learning and teaching activities went back to face-to-face sessions in classrooms in Oman and in Kuwait

On the other hand, similar experiences were observed in the UK universities. The transition to online learning and teaching involved the use of different technologies such as virtual learning environments as well as other videoconferencing software such as Zoom and MS Teams, among others. The use of these technologies provided an opportunity for the universities across the country to continue to deliver teaching despite the massive disruption caused by the pandemic. Academics had to design a mix of synchronous and asynchronous learning activities which meant that students had opportunities to work online with their peers and educators as well as opportunities to work independently in an online environment. Like the situation in Kuwait and Oman, a considerable majority of staff and students did not have an online teaching and learning experience prior to the pandemic. It was not easy for the academic staff to learn how to use the new technologies and to deploy the online learning and teaching pedagogy overnight. This was an additional layer of challenges to online learning. Similarly to the situation in the two Gulf countries, after the pandemic most of the learning and teaching activities went back to face-to-face teaching in the UK. However, in the UK, there was a lot of talk about the need to hold on to the lessons learnt during the pandemic. Some colleagues considered continuing with some aspects of online teaching they found useful, choosing to adopt a hybrid approach in the teaching of their subjects. This means maintaining some online sessions and mixing these with some face-to-face activities. Two main questions emerged from the authors' reflections:

1. How can students be supported to develop a sense of belonging when learning in an online environment?
2. How can student engagement and participation be enhanced in an online environment?

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Our definition of sense of belonging is taken from Goodenow (1993, p. 25) who describes a sense of belonging as comprising feelings of:

[B]eing accepted, valued, included, and encouraged by others (educators and peers) in the academic classroom [or in any learning environment] and of feeling oneself to be an important part of the life and activity of the class. More than simple perceived liking or warmth, it also involves support and respect for personal autonomy and for the student as an individual.

From the above definition, it can be seen that it is important for every student to feel accepted, needed, and valued in any learning environment. Every student has feelings of being connected to their peers, class, course or the university, or in the words of Matheson and Sutcliffe (2017), to all of these. Before turning to address these two questions, the following section focuses on the “So what?” question, that is, a discussion of what is currently known about the pedagogy of online learning and teaching in extant literature.

“So What?”: Online learning and teaching pedagogy

Urdan and Weggen (2010) provide a comprehensive definition of online learning stating that this encompasses a variety of terms, including web-based training, e-learning, distributed learning, Internet-based learning, web-based teaching, cyber learning, virtual learning, and net-based learning. These terms all relate to the educational methods that deploy the internet to teach and facilitate learning remotely. Arguably, online learning is not a new phenomenon, it existed several decades before the COVID-19 pandemic, however, as observed earlier, there was a dramatic increase in its use during the COVID-19 pandemic and there is an appetite to further develop its use beyond the pandemic. This mode of learning has become increasingly prevalent, offering flexibility and accessibility to learners worldwide.

Reflecting on the transition to online teaching in higher education, Lorenzetti (2004) suggests that educators transitioning to online teaching platforms need a period of adjustment to fully grasp the distinct roles and responsibilities associated with this mode of learning and teaching. During the pandemic, most of the students were unfamiliar with online learning, hence, they had to learn how to engage with learning materials, their educators, and peers in that new space. To deliver good quality lectures, tutorials and seminars, and other learning activities, technology had to be provided and academics had to master how to use the available tools effectively. Hofer et al. (2021) highlight that the effectiveness of educators in leveraging digital technology to design and provide meaningful learning experiences for students is influenced by a variety of factors, such as their understanding, proficiency, and disposition towards digital tools and platforms. Similarly, students had to learn and understand how to make use of the available tools to benefit their learning.

The authors’ individual experiences helped them to appreciate that the dynamics of online learning pedagogy are different from traditional pedagogy. For instance, the nuanced dynamics of formal and informal exchanges that occur naturally in in-person settings are challenging to replicate in virtual spaces. While digital platforms offer various tools to facilitate communication, the spontaneous and intricate aspects of physical interactions often do not translate seamlessly to online modalities. Yet, as Strayhorn (2012) observes, such interactions are vital for the development of relationships between the learners and their educators, as well as between the learners and their peers. In the online setting, it is essential for educators to guide students in cultivating skills that enable them to effectively

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communicate and collaborate with educators, peers, and to interact meaningfully with the learning materials. This orientation is crucial for fostering an interactive and engaging learning environment.

Garrison et al. (2000) emphasize the critical role of cultivating online communities, stating its significant influence on enhancing the quality of student learning. Such community building efforts can boost student participation and foster motivation within online learning environments. This underscores the value of interactive and supportive online spaces in contributing to the educational experience. Garrison et al. (2000) developed the community of inquiry model which is a theoretical framework that focuses on facilitating meaningful learning experiences through three presences: cognitive presence, social presence and teaching presence (Fiock, 2020). Cognitive presence refers to the learners' ability to construct and confirm meaning through sustained reflection and discourse. This means that students should be given opportunities to engage with regular assessment and feedback and should be provided with multiple representations of the knowledge they should learn including opportunities to engage with activities that help them to develop the desired skills, among others. Social presence refers to the ability to perceive others in an online environment as 'real' and the projection of oneself as a real person. This revolves around open communication, affective expression and group cohesion. Related literature advocate that within online environments, interaction between learners is of great importance to student success (Richardson et al., 2017). Educators can communicate with students through announcements, emails, videos and should offer optional office hours for students to ensure that students have the opportunity to clarify any questions they might have. Last but not least, teaching presence refers to the design, facilitation, and direction of cognitive and social processes for the realisation of meaningful learning. This involves the design and organisation of the course and learning activities, facilitation of the course and learning activities, and synchronous learning sessions. Educators should act as facilitators of students' learning, ensuring that students are provided with timely and constructive feedback. It is also important to ensure that students are provided with enough guidance in all learning activities. Akyol and Garrison (2008) assert that there is a relationship between the three presences and students' perceived learning, satisfaction with the course, satisfaction with the educator, actual learning and sense of belonging. According to Garrison et al.'s (2000) community of inquiry model, effective learning occurs at the intersection of social, teaching and cognitive presence. Arguably, for a successful transition from traditional to active online pedagogy, educators should change their approach to teaching used in face-to-face settings and embrace new skills to provide effective support to learners online as discussed above.

When teaching and supporting learning in an online space, it is important to be able to design learning materials and to prepare learning activities for both synchronous and asynchronous sessions. The authors found online design models such as Gilly Salmon's (2013) Five-Stage model and Diana Laurillard's Conversational Framework (1993) useful when designing and delivering online learning. Gilly Salmon's Five-Stage Model outlines a structured process that learners and educators can follow to ensure a successful online learning experience. The model consists of five stages:

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1. Access and Motivation: This initial stage focuses on ensuring that learners can access the online environment and are motivated to learn. It involves setting up the system, welcoming students, and providing technical support.
2. Online Socialisation: The second stage encourages learners to connect with their peers and educators, fostering a sense of community. Activities such as discussion boards can be used to promote interaction.
3. Information Exchange: At this stage, the focus shifts to the active use of learning materials and the exchange of information between learners and educators. Students begin to understand how to manage their learning and time effectively.
4. Knowledge Construction: Learners take control of their learning journey, actively engaging with content and participating in the learning community. Educators provide moderation and support to ensure learners are progressing.
5. Development: The final stage sees learners becoming confident in their online learning abilities. They engage in meaningful discussions and apply their knowledge to personal contexts, while educators offer additional resources to facilitate further development.

Through the use of Salmon's (2013) 5-Stage Model it is possible to give students the needed structured support and scaffolded learning, which are vital for constructive learning experiences online. To ensure effective application of a model like this, technical support should be provided to the educators who in turn should support their students to benefit from online learning.

Based on their experience, the authors consider that the Conversational Framework developed by Laurillard (1993) also provides useful guidance. It is a comprehensive model designed to support educators in creating effective learning experiences, particularly when integrating technology into teaching. The framework is grounded in the principle that learning occurs through conversation and structured interaction between educators and the learners. It encompasses four main components: Teacher's Concepts, Teacher's Constructed Learning Environment, Student's Concepts, and Student's Specific Actions. These components are interlinked through activities such as Discussion, Adaptation, Interaction, and Reflection, which facilitate a dynamic learning process. The framework also identifies six learning types including: Acquisition, where learners engage with content through reading, watching, or listening; Investigation, which involves exploring and researching; Practice, where learners apply new knowledge to reinforce skills; Discussion, which allows learners to articulate and challenge ideas; Collaboration, where learners work together to create shared understanding; and Production, where learners consolidate their learning by creating an output. These learning types are not only intuitive for educators to use but also resonate with various pedagogical approaches, including social constructivism and collaborative learning. The conversational framework integrates these learning types into a holistic approach to education, emphasizing the importance of a varied learning experience that incorporates different methods to suit different learning objectives and approaches. Arguably, if educators are supported to embrace these different learning types, they can diversify students' learning through effective use of various learning technologies. This chapter does not include a discussion of the different technologies that can be harnessed to support students' learning through these different activities, however, educators can harness the wide variety of learning activities, and must be encouraged to use the different tools available within their institutions to enhance students' learning.

One of the important considerations when designing and delivering these learning activities is to ensure inclusivity. The Universal design for Learning (UDL) model provides principles that aim to improve and optimize learning and teaching for all the learners, based on scientific insights into how

people learn (Capp, 2017). The UDL principles are guided by the belief that every learner is unique and educators should provide multiple means of engagement, representation, and action and expression to support the variability of learners. Engagement refers to the 'why' of learning, encouraging students to be motivated and interested in their education. Representation deals with the 'what' of learning, ensuring that information is presented in different ways to cater for diverse learners. Lastly, action and expression, the 'how' of learning, involves providing students with various ways to demonstrate their understanding and knowledge. For instance, the use of authentic assessments can be considered. These principles are designed to offer flexibility in the learning environment, remove barriers to learning, and give all students equal opportunities to succeed. It is of paramount importance to ensure that online teaching and learning fosters equitable and inclusive practices. The rationale for embracing inclusive learning and teaching practices is well-documented in literature (Capp, 2017; Hockings, 2010).

Challenges of learning and teaching in an online environment

As indicated earlier, some of the challenges faced by the authors when teaching and supporting learning in an online environment included lack of student engagement and lack of a sense of belonging. Their experiences resonate with findings in literature, for example, a study by Fox et al. (2020) which involved surveying 4500 educators from different universities, revealed that one of the major challenges that was faced by educators was how to keep students engaged online. In another study by Means and Neisler (2020) it was shown that students found it difficult to stay motivated during online learning. It is important to ensure that students learning online are supported adequately to develop a sense of belonging on the course. They should feel closely connected to their peers and educators and if this happens, research has shown that students with a sense of belonging are usually more motivated and engaged with their studies (Meehan & Howells, 2018; O'Keefe, 2013). Fostering a sense of community is crucial within any educational setting; yet, it takes on heightened significance in virtual learning spaces. Here, the challenges of isolation and loneliness can be more acute, making it essential to create an inclusive atmosphere that combats these feelings and promotes a connected learning experience. By doing so, educators can enhance student engagement and support their emotional well-being, which is vital for their success in an online learning environment. Researchers, for instance, Freeman et al. (2007) reported findings for campus-based students demonstrating a link between sense of belonging and improved academic engagement and achievement, increased self-confidence and self-efficacy. Although their study focused on campus-based learners, the same outcomes are also desirable for online learners, hence, every effort should be made to foster a sense of belonging to students learning online. The introduction and use of different technologies constitute a huge challenge to both learners and educators who should learn how to use these tools. Most of the problems identified in literature revolve around accessibility, affordability, flexibility, learning pedagogy, lifelong learning and educational policy (Murgatroid, 2020). For instance, some students do not have access to reliable internet connection and access to digital devices. Pokhrel and Chhetri (2021) mention problems including lack of conducive working spaces to different ways of learning at home. In the same vein, Sintema (2020) asserts that academic performance is likely to drop due to lack of contact time with educators in an online environment. While on one hand it can be celebrated that online learning allows physically challenged students more freedom to participate in learning in the virtual environment (Basilaia and Kvavadze, 2020), on the other hand, it can be argued that students with special needs require more support and may not be able to access this while working at home. In terms of participation, each one of the authors of this chapter observed that the majority of students were not confident to engage in online discussions. For instance, some of the students chose not to unmute and use their mics or write in the chat box, choosing to simply listen to the teacher and other students. Whittaker (2015) asserts that students

lack confidence about their academic skills especially when new to online learning, and they may become anxious when having to navigate through different learning materials or having to participate in group activities virtually. Understandably, there are several well-documented problems and challenges of online learning, however, this chapter seeks to discuss approaches that can be used to support the development of a sense of belonging and how to improve student engagement and participation. When students develop a sense of belonging, they will be motivated to learn, and literature also show that they are likely to perform better in their studies, as well as to be retained on the courses (Keengwe and Kidd, 2010; Thomas et al., 2014).

“Now What?”: Approaches to enhancing students’ sense of belonging, engagement and participation in an online environment.

Based on the authors’ experiences, many educators are grappling with lack of a sense of belonging and lack of student engagement and participation in an online environment, among other challenges. This makes it imperative to rethink the way online learning is designed and delivered. Consequently, the authors intend to share some of their practical experiences and ideas from literature that colleagues can adopt in their practice with the overall view to enhancing their students’ experience in their online learning journey. In contemporary educational settings, it is increasingly recognized that fostering a sense of belonging is essential to counteract the prevalent issues of isolation, marginalization, alienation, and loneliness among learners. The authors believe that the intentional cultivation of a sense of community can significantly enhance the educational experience and support students’ well-being. According to Vygotsky (1978), learning is a social activity, and in light of this, it becomes significantly important to create an atmosphere that connects students to the course, to their peers, to their educators and to the University. As argued by Garrison et al.’s (2000) community of inquiry model, it is important to ensure that the designing of learning activities provide students with opportunities to collaborate in an online space.

In the same vein, Moore (1989) suggests that there must be three important interactions in an online learning environment which includes: Teacher-Student interaction, Student-Student interaction, and Student-Learning materials interaction. If online learning sessions are designed to foster interactivity, for instance, teacher-student interaction and student-student interaction, this will help to develop trust, cohesion and a sense of community. The educators can facilitate communication through emails to students, setting drop-in sessions and/or by participating in discussions online. The use of discussion forums and other tools such as Padlet can help to encourage students to introduce themselves to their peers right from the onset of the course. Thomas et al. (2014) highlight the importance of developing a community through the use of induction activities. This might include ice-breakers such as map on the floor exercise which helps students to get to know each other and where they come from. Students can be invited to share their stories and experiences using videos if this is culturally acceptable, or by sharing short biographies in discussion forums in the virtual learning environments. For example, two authors from the Gulf countries could not ask their students to introduce themselves using videos due to cultural considerations. In such cases, use of short biographies in discussion forums is preferable. In line with Garrison et al.’s (2000) view of learning as a collaborative activity, educators can prioritise the use of group activities in online environments to ensure that students have opportunities to work closely together building relationships of trust and a sense of community. The use of breakout room facility in platforms such as Zoom and MS Teams is helpful for small group activities. Similarly, when designing assessments, educators can make use of group assessment activities to give students the opportunity to work together, and they should be flexible with the assessment submission dates and timings to foster the students’ sense of belonging (Greenland and Moore, 2014). The creation of tutor groups of smaller numbers of students and the

scheduling of regular synchronous interactive tutorials can help students to build relationships during the course with both their peers and the educators. Hopefully, these ideas can prompt you to think of other activities that can be harnessed to engender the sense of belonging to the course and/or to the university.

During the COVID-19 pandemic, student engagement and participation was facilitated by deploying different technologies such as discussion forums, breakout rooms and padlet, among others. To make the sessions interactive, the authors made use of different learning applications including Kahoot, Mentimeter, Padlet, Miro and Vevox, among others to ask questions and get most of the students to participate. These tools can continue to be harnessed to promote student engagement and participation. In addition, some techniques used in physical face-to-face environments to make lectures interactive, for example, the 'Think-Pair-Share' technique was adapted in an online environment to become 'Think-Group-Share' where students were asked to think individually before being put into breakout rooms for group discussions and back again in the main session for class-wide discussions. It was also useful to curate resources carefully and share these online to facilitate student engagement. In addition, the use of lecture capture tools was important and helpful in terms of facilitating inclusive learning in online contexts. Lecture recordings were shared with students in the virtual learning environments. As posited by Viera et al. (2014), students could access the lessons in their own time, at their own pace, as many times as they wish to consolidate their learning.

Conclusion

The landscape of higher education is dynamic, with traditional methods of learning and teaching being scrutinized and reexamined. Over the years, the adoption of online learning has been growing across the globe providing a transformative learning experience for students. As observed by Keengwe and Kidd (2010), the adoption of online learning can be a strategic move to stay ahead in the competitive educational landscape, ensuring that courses are more inclusive and reachable for an expanding, varied student body. This approach not only broadens the horizons of education but also caters for the unique needs of a diverse learner demographic, facilitating a more equitable access to knowledge and skills development. However, the transition from conventional teaching methods to dynamic online learning approaches brings its own set of challenges. This evolution in educational strategies requires careful navigation to overcome the inherent challenges that accompany such a significant change. As discussed in this chapter, it is a complex process that involves adapting to new technologies, rethinking the strategies for the development of students' sense of belonging, student engagement and participation, and revising assessment methods to ensure that the move enhances the learning experience rather than hindering it. Educators require training and ongoing support to embrace the online learning and teaching pedagogy to ensure that students can have a good learning experience. The chapter provides different practical ideas for fostering sense of belonging, for instance, being creative to provide students with opportunities to work collaboratively and to build relationships of trust with their peers and the educators. In addition, new skills are needed to adopt strategies that promote student engagement and participation in online learning and teaching contexts. For example, use of active learning techniques including providing group work learning and assessment activities and use of learning technologies that encourage active participation in discussions. The ideas shared in this chapter are not exhaustive, however, the authors hope that colleagues will be inspired to continue to adopt more innovative approaches in nurturing a sense of community among students, thereby enhancing their engagement and active participation in online learning environments.

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