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Conversations that count in online student engagement – a Case Study

Linda M Rowan and Ying Jin
Massey University

A challenge all teachers face is how to engage students meaningfully in their learning. The impact of Covid has made online learning in higher education more prevalent. While many students and teachers have readily adjusted to these new learning environments others have found the shift difficult. To enable students' adjustment to new ways of learning teachers and course designers should consider approaches which encourage and support positive experiences and attitudes towards online learning. Students' participation and engagement grows when good course design and a variety of learning activities are used and conveyed to them in clear communication that guides their learning processes. This case study looks at one teacher's intentions and actions to improve student engagement within a health science core course through collecting 'student voice', students' perspectives of what helped their learning and what could be improved to enhance their learning online.

Keywords: student engagement, student voice, learning interactions

Introduction

Creating meaningful student engagement in learning has long been a challenge in higher education. Frameworks on student engagement differ in focus from students' personal and study characteristics and behaviours, institutional approaches and provisions, curriculum design promoting active learning, to the interactions that occur between students, teachers, and content (Martin et al., 2020; Trowler, 2010). Successful student engagement in learning has been linked with purposeful course design for active participation, strategies that develop deep learning (Biggs & Tang, 2011), and improvements in student retention and outcomes (Krause & Armitage, 2014). There is consensus that student engagement is complex and requires a wide range or holistic understanding of all the characteristics that influence engagement and support the diversity of students in higher education (Leach, 2014). Nevertheless, the changes of the past few years have pushed the need for closer inspection of what online student engagement looks like. In particular, creating learning spaces within asynchronous and synchronous environments that enhance students' connections to their studies through building student, teacher and content interactions.

Online student Engagement

A shift to online study requires adjustments to teaching and learning practices associated with campus-based university learning environments (Redmond et al., 2018). Established in-class techniques for student success (such as collaborative learning) may not work in distance courses, as student's background characteristics including experience with and access to current technologies, and their previous online experiences can impact on opportunity and attitudes towards engaging (Dumford & Miller, 2018; Ferrer et al., 2022). In exploring disadvantages and advantages of online engagement, Dumford and Miller (2018) found previous experience with online learning environments important in the transition to fully online environments, with different student characteristics affecting their preferences for online learning and subsequent academic success.

Student's level of study, preferences and interest in online learning can also affect their emotional engagement, and consequently their participation and performance (Quigley et al., 2022). In adapting to new environments these students may require additional help with digital fluency, and motivation and self-management approaches to be incorporated into their course for them to be successful in their learning (Brown et al., 2015; Dumford & Miller, 2018). Building a community of learners helps learners to find support amongst their peers (Álvarez & Montes, 2021). Consequently, the learning and teaching interactions between students and with teachers in in virtual or online environments need to be specifically addressed.

To counter the issues of readjustment to new ways of learning, teachers and course designers should consider pathways that encourage and support positive attitudes towards learning (Cranfield et al., 2021). Indeed, the educator's own attitudes about what can be achieved in online learning environments and their participation in online activities becomes crucial. Students view and conclude teacher engagement with specific course activities aligns with the teacher's recognition of task relevancy to learning (Ferrer et al., 2022). Drawing on self-determination theory, Ferrer et al. (2022) found undergraduate business students with high extrinsic motivation or low internal motivation were at equal risk of being disengaged with learning online and require support to connect with knowledge and participate in learning tasks. Pathways that encourage positive attitudes towards learning help students make the connections between learning outcomes and their own goals. By reenforcing the interrelationships between different modes, the content is presented in, and teachers demonstrating their own comfort moving within the online learning space, students can be encouraged to engage (Ferrer et al., 2022). In addition, having a sense of control over the activities they can participate in, students' attitudes to online learning can be changed from negative to positive (Redmond et al., 2018). Thus, teacher to student communications need to clearly identify how interactions with content and peers can take place, and how learning tasks help students to reach their learning goals.

Redmond et al. (2018) proposed an online engagement framework with five communication points that need addressing to help all students adjust to learning in new online environments. Students' social engagement needs to be developed through the presence of activities that encourage student participation in building their learning community. While cognitive engagement is encouraged through teacher directed active learning strategies, students need to be able to relate to the necessity of developing multidisciplinary metacognitive skills such as critical thinking and inquiry. In creating opportunities for students to find relevance in subject content and learning tasks and communicating this relevance to their peers, behavioural engagement can be increased. Consequently, students are more likely to seek help or help their peers when required. This commitment to wider social and behavioural interaction helps to build students' emotional engagement and the development of positive attitudes towards learning and the online learning environment.

Studying student engagement during the shift to emergency online learning in Lebanon, India, and Japan Abou-Khalil et al. (2021) used Moore's interaction model to analyse the relationships 313 students perceived important to their engagement in the new learning conditions. They found students from diverse backgrounds and those facing technological barriers in study prioritized engaging with learning material under clear teacher guidance over peer interaction. In these situations, the communications which set students up for learning and learning interactivity become more important than the activities themselves. However, few studies consider the nature of conversations or communications which support these interactions. With the impact of Covid making online learning mainstream, we need to consider the conversations that count in teacher intentions and student responses to courses designed for active student learning. This qualitative case study uses Redmond et al (2018) and Moore's interaction model to report on one teacher's intentions in using asynchronous and synchronous online communication approaches to initiate student interactions with the teacher, their peers, and the course content, based on the students' perspectives of what worked well for their learning.

The study context

Flexible and blended distance learning approaches have been an integral part of the university's delivery of courses well before the covid pandemic (Brown et al., 2015). Health Science course materials, teaching, and learning interactions take place within the LMS linking to a wide range of asynchronous and synchronous learning spaces (including Kura Cloud, Zoom, Teams, Discord) to enable students to connect with course content, their cohort and teacher. Therefore, the shift to fully online learning has been for many academics and students a relatively straightforward transition. However, for full internal, campus-based students and teachers in some disciplines the shift was challenging as normal teaching-learning and peer-to-peer interactions of tutorials moved to unfamiliar environments. Face-to-face tutorials in an undergraduate core health sciences course that forms this case study were moved online (n=65 students in early 2020,) few changes to the fully online course offerings (n=166 students) were required. In 2021 and 2022 tutorials for all students were provided online (n=257 and n=200 respectively).

The teacher adjusted their practice to suit the change in environment. As part of course delivery in 2021, the teacher gathered ethics approved, mid-course, anonymized, qualitative student comments on the activities and interactions that helped their learning. The purpose was to understand what activities worked well for the students and what in course improvements the teacher could make to improve student engagement. In response to feedback changes were made; the same mid-course survey was conducted with the 2022 cohort. The teacher's

narrative of their teaching intentions and communication-based activities to support student learning pre-commencement and during the courses were inductively analysed generating the themes of presence, presentations, process, and participation (Table 1).

Table 1: Enhancements teacher could make to improve student learning

Theme	Student Feedback
Presence	More student presence in the discussion forums
Presentation	Wider variety of content formats including video, audio, subtitles or closed captions on videos. Visual images of content relationships suitable for dyslexic students. Summary of important points raised in discussion.
Process	Transparent connections between textbook and course materials. Better flow of weekly lessons. Online reminders of task progress.
Participation	Clearer indications of teacher office/tutorial hours. Tutorial options that suit parents

Results

Presence

Evidence of teacher and student presence (contribution) in online learning processes and activities are considered as an indication of their social engagement. The teacher prioritised relationship building as beneficial to students' learning in setting up and delivering their course. Consequently, they were present regularly throughout the course. The teacher-student path for interactions was formed from course commencement to gain students' trust, to create a safe learning environment, provide the opportunity for student inquiry and to facilitate learning. This interaction helped 2022 students find a sense of belonging and connection to learning opportunities as explained 'Our lecturer is super supportive, approachable and provides so many different learning tools each week to aid our learning' and 'excellent communication from (teacher) and she makes small bite sized parts, so I don't feel overwhelmed and have managed to keep on track'.

Online personalised teacher and Pacific learning advisor video introductions informed students on what they needed to do to get ready for learning. The actions taken by the teacher allowed students to know "who was behind the screen" (Álvarez & Montes, 2021, p. 231). Having modelled an introduction, students were invited to introduce themselves in a shared space. Modelling a task indicates to students that the teacher has an interest in what they have been asked to do (Biggs & Tang, 2011). As a student confirms 'I have found (teacher) has been excellent at communicating with us what is actually required from us for each task. It helped me focus on the right information'.

Student Discussion forums provided opportunities for students to respond to topical problems or issues initially posed by the teacher. The teacher then provided a fortnightly summary of students' responses from the forum in the end of week video, demonstrating that student voices had been heard and valued, 'talking about the study content makes it more relatable to life experiences, … the most successful learning'.

Presentation

The teacher believed the look and feel of the learning space was important to allow students to engage in learning processes. The content design required "careful curation" to be engaging, relevant, and organized sequentially (Álvarez & Montes, 2021; Ferrer et al., 2022, p. 333). Consistency of presentation (for example, use of e-books and step-by-step scaffolding for assessment) increased cognitive engagement in allowing students to easily navigate through the course to engage with content. Curation was enhanced with clear communication in expectations.

A key element was the rotating weekly newsletter on the course landing page. This contained messages on the tasks (content and learning activities) that needed to be achieved. The variety of media content encouraged interest in the course and therefore motivation (Álvarez & Montes, 2021). The opportunities for learning in self-paced interactive and noninteractive tasks helped one student to 'expand my lens over everything I choose to read or watch' resulting in '... more information to be retained and to be able to explore several directives of thought and not just the one.' The different learning formats helped another student to make connections to

'cement their learning' and to earn 'marks towards grades from alternatives to essays and exams'. Positively reenforcing the interconnection between different formats for materials emphasized the importance of the whole (Ferrer et al., 2022).

Process

Process communication, as clarity in conveying steps student need to take, increased opportunities for cognitive and emotional engagement. By reducing surprises students focused more on 'getting into a good workflow', which reduced the pressure on learning and helped them develop the 'valuable skills' necessary in their discipline. As a student explained, knowing 'the learning outcomes prior to each lesson have allowed me to focus my attention to ensure I am learning the essential components of the lesson'. Weekly workbooks and check-your-knowledge activities required students to study the content and to test this knowledge in a low risk but rewarding manner. This means the student 'can see if we missed a point – to go back and re-read or go our notes and check we've understood it fully'.

Using course progress tools where students tick-off tasks encouraged their progress towards the end goal. The clarity of progress instructions helped some students feel the workload was achievable - 'The completion indicator, progress bar and tick boxes provided a useful guide to how we were progressing! I'd love it if all papers had this tool'- however, other students found this 'annoying'.

Of particular importance to students were the weekly Friday Wrap-up personalised videos. In these the teacher summarized the week's key learning and activities, progress in the course and summarized students' postings from course discussion boards. These weekly reflections on learning process ended with a personal note and photograph from the teacher, reminding students of teacher interest in their progress.

Participation

Participation as a choice places the control of learning in the student space, intersecting with their motivation and self-determination characteristics. The teacher viewed participation in learning activities as a two-way process of engagement. Opportunity to participate must be present (Cranfield et al., 2021), as must encouragement from peers and teacher in collaborative engagement. This adds to a sense of belonging, as one student stated, 'I really enjoyed our zoom sessions, I learned a lot and enjoyed the class culture'. Self-paced learning and flexible delivery allowed the online students to adjust to the many competing demands on their time or attention. Multimedia delivery providing direction week by week, small set weekly tasks in workbooks helped students set their own learning pace. The end of week wrap-up of questions flowing out of asynchronous discussion and synchronous tutorials demonstrated the teacher was active in the course and valued students' input. However, it was the personal touches – teacher comments and photos of daily life that drew students back to the weekly wrap-up.

Implications

The use of student voice to determine what is effective for their learning is a critical part of development student engagement within online learning. Initiating conversations which help students build social, behavioral, and cognitive engagement online at the start of course takes time, skill and commitment. Within course opportunities for meaningful student interactions with the teacher, their peers, knowledge and learning activities need to be integrated. The significance of teacher presence and timely feedback needs to be recognised in staff resources and workload allocations (Ferrer et al., 2022). Institution and LMS messages are perceived by students as impersonal and distant which add to students' stress in new environments (Quigley et al., 2022) In contrast, this case study has shown that immediate and personable communication helps student both unfamiliar and familiar with online delivery to engage, make connections and belong in the course. It also shows the importance of gathering in-course student feedback on the effectiveness of teaching and learning activities. This feedback can provide confirmation of effective teaching practice as well as opportunities for improving student engagement in the reminder of the course or next delivery.

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