

Complexities Of Digital Learning for Higher Education: Reflections About Planning and Applying Digital Assessment and Feedback Design

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The accelerated move to online learning at the onset of the COVID-19 pandemic undoubtedly brought many creative opportunities for innovation and rethinking learning; it also presented concerns in online academic integrity and ethical engagement in and with virtual spaces. This practice brief explores the practical teaching and learning design experience of an instructor and a teaching assistant in a hybrid post-secondary classroom in Canada. In this setting, learning occurs synchronously (in person) and asynchronously (in digital spaces). We highlight the risks of content sharing in digital learning and teaching environments and discuss the complexities of using open class-based digital tools - discussion boards as formative assessments to facilitate students' learning. From our unique perspectives, the conditions of digital learning, including the idea of "group think" and independent and creative thoughts, are discussed. This practice brief shares how we addressed the concern through evidence-based formative assessment instruction that promoted student digital learning and citizenship. We explore the importance of a shared set of norms or expectations in hybrid learning spaces, using digital formative assessment and being flexible in pedagogical approaches to embrace novice and experienced learners. We hope this brief can offer a critical perspective as we continue to shape the future of digital learning and teaching in Higher Education assessment literature.

Keywords: Digital learning, Hybrid classrooms, Formative assessment, Academic integrity

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Online discussion boards have long been used as an important pedagogical tool in post-secondary classrooms (Carr, 2020; Douglas et al., 2020). Compared to traditional face-to-face discussions, online discussion boards provide students with sustained opportunities to reflect on their lived experiences and discuss their thoughts with peers (Alebaikan & Troudi, 2010; Chen & Looi, 2007; Hrastinski, 2008; Hussein, 2016; Ishtaiwa, 2010). The pandemic

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prompted a rapid transition from in-person to online education (Casalino et al., 2022), impacting the frequency and purpose of online discussion boards in learning contexts. With the pandemic making online teaching and learning more mainstream (Husain, 2021), online discussion boards may become another source of assessment data for educators, providing opportunities to evaluate students' written communication skills, collaboration, teamwork, and engagement in reflective thinking (Ningsih & Mulyono, 2019). In this practice brief, we aim to share our experiences of using online discussion boards as formative assessments in a hybrid learning context.

Working through the pandemic, online discussion boards served as a formative assessment tool in our classes and provided opportunities for creative and critical thinking in a virtual space, allowing for continued classroom dialogue and the generation of new ideas and reflections. However, this learning design also exposed students to “borrowed ideas” that result from either, where students think similarly due to standard content and information, or academic misconduct, where students use others’ ideas as their own to convey their own learning outcomes. For instance, in classrooms with a pre-set syllabus and reading list, students may engage with their peers' writing in academically unethical ways, whether knowingly or unknowingly. This is distinct from classroom discussions facilitated by the instructor, as this online discussion served as a formative assessment. In this case, it is critical to reconsider assessment and feedback design in this hybrid learning context. We reflect on our experiences with online discussion boards with the goal of assisting in the facilitation of intentional, well-designed, and valuable digital assessment tools to enhance learning experiences for students in hybrid learning spaces.

Teaching practice description

Our teaching context is a hybrid, undergraduate-level education course designed to provide students with a foundation in learning and teaching theories. A hybrid mode of learning of this course design combined in-person interaction (inclusive of lectures and group discussions) with digital components (online discussion boards, polls, and responses). Integrating the online discussion boards as formative assessments in this class provided a space for students to reflect on and apply course content while communicating their thoughts with instructors and TAs (Lai, 2015; Rennie & Smyth, 2019). A weekly prompt was shared in online discussion boards to facilitate this process, encouraging students to curate relevant content and reflect on their experiences. Reflective online discussion as formative assessment provides a unique opportunity to bring readings, theories, and concepts to life by inviting students to share their thoughts, ideas, and questions. By participating in this exercise, students can engage with the course content on a deeper level, which in turn allows them to articulate their developing understanding of themselves as learners and pre-service teachers. By incorporating online discussion boards as formative assessments and promoting active participation, our goal was to align the course with assessment and feedback practices that facilitate student learning and foster engagement by synthesizing their learning while considering their own identity and relationship to the field of study as they engaged in group activities (Rennie & Smyth, 2019). The prompts given to students were based on a series of prompts related to authentic or real-world educational experiences and their relationship to course outcomes. Additionally, this means of formative assessment provides an avenue for students to consider the needs of their future students as the course progresses, ultimately helping them become more effective educators in the long run.

Moreover, during the sharing process, multiple levels of feedback from the instructor and TA were provided in the form of constructive feedback to foster positive opportunities for exploratory and participatory learning among students; there was a formal cycle of inquiry (Thoms & Eryilmaz, 2015). As the course unfolded, the prompts for online discussion boards evolved to foster higher-level cognitive thinking in students' responses (i.e., Blooms taxonomy). Such formative assessment in hybrid learning design enabled students to share and deliberate on content in greater detail, thus promoting active engagement and personal meaning-making (Calderon, & Sood, 2020).

As a formative assessment, the online discussion board also promotes student engagement and collaboration. Students reviewed the prompts at the beginning of each week, and by the end of the week, they were expected to post their responses. This assessment procedure allows their peers to engage in meaningful discussions by reading and responding to each other's posts based on their specific knowledge-building groups. Online discussion board activities in hybrid learning allowed the students to share their ongoing thoughts related to weekly content prompts while engaging with their peers. The use of knowledge-building groups enhances collaboration and fosters a deeper learning environment.

Online discussion boards served as a means of formative assessment, where the criteria (see Appendix A) elicited students' understanding of the content, the connections drawn to their own lives, and how students used visuals and imagery to support their thoughts and application of ideas.

Challenges

While online discussion boards as digital assessments in our hybrid learning design have affordances for student learning, they also present challenges. During our teaching, we observed

that knowledge sharing via discussion boards runs the risk of generating shallow responses (Lane, 2014). The course online discussion board approach allowed students to post at varying times, which provided the opportunity for individuals to read their peer's posts in their knowledge-sharing group prior to or after their own submission. Inadvertently, the content they read could influence their perspective as they absorbed the course information and crafted their own response as they communicated the articulation of the learning. For example, given the bounded scope of the topics and available learning resources,, there was a tendency for students to repeat some of the main themes discussed on the discussion boards in their initial responses. In other words, students sometimes used similar content in their discussion posts to express their understanding of the subject matter. In these learning instances, how to avoid "group think" is an important consideration for instructors and students alike. "Group think," as part of academic integrity, can manifest as students borrowing each other's ideas due to the relatively static nature of the curriculum.

During our adaptive teaching practices in using online discussion boards as formative assessments in a hybrid learning context, we observed that instructors and TAs play essential roles in portraying the right model for academic integrity (Alias et al., 2019). Ensuring there were weekly discussions with the class on how to prevent academic integrity issues and relay their own learning in an authentic way helped to support students' constructivist learning in an introductory course setting. According to the constructivist learning theory, individuals actively create knowledge through their own experiences and reflections rather than simply receiving information passively (Garmston & Wellman, 1994). To address this challenge, in this course, students were given timely feedback on their posts related to the criterion for success. Each

student was also provided with detailed comments and suggestions to explore their own understanding of the content and apply course materials to their lived experience (Lane, 2014). Moreover, as discussed earlier in this paper, prompts and how students could access the weekly responses to ensure they were meaningful and relevant to the students were prioritized in the first class of the week and then subsequently reviewed the day prior to their deadline (Lane, 2014). This process helped mitigate "group think" and some of the implications to academic integrity because it provided opportunities for students to personalize their weekly posts and connect more with class content (Cho & Tobias, 2016; Murphy & Fortner, 2014).

Even though measures such as carefully designed prompts and feedback from the instructor and TA were taken, as Lane (2014) asserted, there were still incidences of academic integrity lapses. Although few in frequency, this served as an opportunity to further inform our formative feedback approaches from week to week. There certainly exist tensions in going from theory to practice, particularly in an introductory level course; however, as reiterated in the literature, integrating concrete strategies for students and facilitating conversations about academic integrity as a learning opportunity is essential (Golden & Kohlbeck, 2020). Although students might unintentionally copy and paste others' ideas into an online discussion board, it is problematic. This behaviour not only constitutes plagiarism, which is unethical and considered academic misconduct, but it also indicates a lack of critical thinking process. By failing to engage in thoughtful analysis of weekly prompts and interpreting them within their own context, students miss out on valuable learning opportunities and fail to develop their understanding. Consequently, they are unable to contribute meaningfully to the intellectual discourse. Recognizing the harm caused by these incidents in assessments, we gave feedback to the students when we encountered them. Through the individual feedback, students wholeheartedly

acknowledged the misstep, and they were provided with the opportunity to resubmit their work to make the most of the learning opportunities. With constructivist learning theory as an underpinning, engaging in dialogue with students related to the prevention of academic misconduct and providing resubmission opportunities can build a culture of high morale (Gamage et al., 2020). Through a continuous commitment to assessment and feedback design, instructors can create a learning environment that encourages students to avoid academic misconduct during digital assessment, ultimately leading to the development of a strong culture of ethical conduct (Ayoub/Al-Salim & Aladwan, 2021; Garg & Goel, 2022).

Conclusion

Although using online discussion boards as formative assessment in hybrid learning and a pre-set course resource list can result in limited innovation for responses linked to the content, rich feedback based on students' lived experiences can be presented to enrich discussions. Providing opportunities for students to receive feedback and utilizing probing questions in online discussion boards as formative assessments in a hybrid learning context can create a natural scaffold for students to communicate their learning effectively. Moreover, the integration of digital assessments and platforms in in-person learning provides students with the opportunity to advance their understanding of the course content on a weekly basis and incorporate their own lived experiences in a visually representative way. Online discussion boards can undoubtedly provide a platform for critical and creative thinking (Wang & Li, 2022), as well as for the building of a community of learners that supports like-minded (Lane, 2014) and divergent thinking. Moreover, the benefits of collaborative learning, such as enhancing learning experiences in higher education (Dahal, 2022) and the advancement of critical and creative thinking, cannot be emphasized enough in the application of an online discussion board.

Once the parameters are set, considerations should be given to instructions and the identification of a progression of learning prompts for students to respond to each week. This should include where students are at in their own cognitive processing abilities and how to support those with limited lived experiences or content depth to apply learning at higher levels to avoid possible academic misconduct.

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Appendix A. Criteria for assessment of learning task 1: Discussion Participation

Due to the personal articulation of your learning journey for this exercise, your participation will be marked based on completion. You will receive one mark for each completed and required engagement, as such:

D2L Reflection post: Mark out of 1 (10 reflective posts over the term - Week 1-13)

Total: 10 marks

Note: For your own practice, a completion mark means it is still evaluated based on criteria but not in relation to comparative content. The criteria are as follows:

- Reflective post connects and aligns with the question or reflective prompts.
- Reflective post shows an integration of lecture, textbook, class discussion, and video content.
- Reflective post uses text as well as a variety of visual representations to show personal contemplation and learning
- Reflective post embeds elements of the content and citations are used where necessary