The Context Of Blended Learning Environments: Lessons We Have Learned

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Let us lay the context for our conversation: My senior level undergraduate nursing students, all of whom were doing their clinical experience at health care centres in Calgary, appreciated not having to travel to the University after their clinical day to have a face-to-face hour session with myself as their instructor. In previous years, we used a platform called Blackboard, and then Desire to Learn. Each student described what they had learned that day. When we had our face-to-face weekly session on non-clinical days, they reviewed their peer group projects. In providing course feedback, students emphasized that the online approach facilitated their peer group learning and enhanced their confidence in doing classroom presentations.

Teaching and learning activities are features of post-secondary education. The two most notable hallmarks of these features include content and context. Content describes the important concepts, facts, and theories to be taught, while context refers to the environment that helps the learner understand meanings. Recent studies on student learning in post-secondary education have focused on the relationships between characteristics of the learning environment and students' academic success (Gamlath, 2022; Miller et al., 2021). At the same time, post-secondary education has moved towards the increasing use of blended learning (BL), the use of which adds to the complexity of the learning environment. We posit that understanding the context in which BL occurs is key to promoting student learning specifically and quality education generally. In this article, we map the challenges inherent in the context of the application of BL and strategies to address them.

The Merriam-Webster Dictionary (2023) defined context as, "the parts of a discourse that surround a word or passage and can throw light on its meaning; Context now most commonly refers to the environment or setting in which something (whether words or events) exists." The term ''context-aware'' was introduced by Schilit and Theimer (1994) to refer to context as location, identities of nearby people and objects, and changes to those objects. Context is about the entire situation relevant to an application, in our case that of BL and its users.

Without understanding context and its ability to transform learning, we have little

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opportunity to ensure that post-secondary education is a learner-centered experience. Yet, in education, the influence of context is often ignored. We focus on what resides inside the context— the content. We assume that by acquiring a diversity of content, one will be able to successfully navigate the future.

Described as a mixture of technology-enhanced learning experiences combined with traditional learning experiences, BL entails integration of both face-to-face interaction and technologically mediated interaction between students, teachers, and learning resources (McGarry et al., 2015). Amenduni and Ligorio (2022) noted that BL "is not a simple juxtaposition of physical presence and technological mediation, but a well-studied alternation of the two, aiming to make the most of the various components and design effective work contexts for both students and teachers" (p. 1).

Anecdotal evidence, from several decades of blended online teaching, and supported by the literature suggests five contextual challenges to implementing quality BL education. These include the need to: (a) incorporate flexibility[1] (McGarry et al., 2015; Mirriahi et al., 2015; Namyssova, 2019), (b) stimulate interaction (Mirriahi et al., 2015; Money et al., 2016; Namyssova, 2019; Zhong & Feng, 2019), (c) facilitate students' learning (Jowey et al., 2020; Zhong & Feng, 2019), (d) foster a supportive learning climate (Jowey et al., 2020; Money et al., 2016; Tshabalala et al., 2014), and (e) promote instructor understanding of BL education (Smith & Hill, 2019; Tshabalala et al., 2014). A systematic literature review was conducted to address these challenges.

Method

A search in Educational Resource Information Center (ERIC) and Google Scholar was conducted in November 2022 and repeated in February 2023, using the search terms ["e-learning" OR "online learning" OR "blended learning" OR "hybrid learning"] AND ["strategy" OR "success" OR "satisfaction"] AND ["higher education" OR "post-secondary" OR "college" OR "university"], The search was restricted to articles published between 2013-2022. We recognized early that the search was driven by language choices. Writing styles differ in the choice of words and phrases. The number of retrieved citations was overwhelming, and we randomly selected 50 articles for full review. Only those articles available online with full text were reviewed. For each reviewed article, strategies for dealing with one or more of the challenges were identified by the researchers. Each strategy was mapped to a corresponding challenge.

Findings: Strategies for Success

An understanding of the strategies will help instructors to implement BL successfully in their courses. In the following sections, we provide a summary of our findings.

[1] Initially the word "adaptability" was used to describe the challenge; however, based on the review of the literature, the term "flexibility" emerged.

Incorporating flexibility. Reflecting about how learners and instructors think and learn is an important strategy to incorporate flexibility into blended education. Gelles and colleagues (2020) suggested that formative assessment methods such as discussions and group-based activities offered flexibility for instructors to adjust their teaching methods throughout a course. While Secil and Murat (2020) in their project to identify solutions for the problems encountered by instructors struggling to adapt to BL found that a community of practice produced new designs for adaptability.

Stimulating interaction. Cho and Tobias (2016) found that active instructor participation in discussions enhanced students' social presence online. The results are like findings from other studies in that social interaction with instructors and peers during the learning process helped learners feel socially connected to others. Levi et al. (2023) reported that the use of the chat box by instructors allowed them to encourage quiet students to participate in discussions. While Baxter and Haycock (2014) suggested the use of an online moderator to promote discussion among learners and instructors.

Facilitating student learning. This challenge incorporates structural elements, e.g., teaching methods, assignments, and online resources. Instructors should encourage learners to develop personal resources at their own level of understanding and interest so they are actively engaged in resource development to support their learning. By providing students with more control over their learning, they have autonomy to choose their learning practices, which stimulates critical thinking. While Ellis et al. (2016) reported that enhanced time and focus early in a BL course on students' understanding of the online environment was a useful strategy. They suggested an exercise designed to reveal learners' approaches to inquiry and online learning. In addition, Baldwin and Ching (2017) suggested incorporating story telling into BL would increase the learner's knowledge and retention of course content.

Fostering a supportive learning climate. Mirriahi, Alonzo, and Fox (2015) indicated that both a lack of an institutional definition of BL and instructor capacity to engage with BL caused difficulties for learners. They postulated that online instructional design should emphasize the establishment of a community. Online learners need to feel connected to the instructor, to their peers, and to course content. Diep, Cocquyt, Zhu, and Vanwing (2017) suggested that a sense of community, trust, and affiliation are significant social and affective factors proven to facilitate engagement, mutual support, collaboration, and relationship building among learners.

Instructors can use a variety of strategies to engage learners in collaborative activities in BL courses. Money et al. (2016) suggested that a collaborative learning climate could be fostered in alignment with learners' preferences through a mutual curriculum development. In online presentations, after a discussion of major concepts, instructors can ask learners to summarize the information presented to them. Dividing them into smaller groups via breakout rooms will encourage them to discuss concepts presented to them and come up with clarifying questions. This can help instructors to make changes in course delivery methods and identify learners who have not understood key concepts. This might help remove of a sense of isolation as learners

actively work with both instructors and peers on their day-to-day projects and assignments. This type of activity can promote a sense of collaboration and teamwork.

To enhance engagement and a sense of community in classes, instructors should build an inviting course website. They might send out welcoming emails prior to the beginning of a course and encourage learners to provide an introduction, as should the instructor. Failure to incorporate social connectedness can lead students to feel lonely, isolated, and disconnected from their peers, and instructors (Arslan, 2021).

The instructor's presence needs to be maintained during a course. Weekly discussion questions and posts on relevant content can help to maintain engagement, as can the use of real-life case studies and videos with guest interviews. It is important to provide comments on all online questions and assignments in a timely manner. Learners felt they received the most benefit from real life structured active learning based on application of the material. Examples shared by them included real-world case discussions, additional examples, and practice problems (Margolis, Porter, & Pitterle, 2017).

Promoting instructor understanding. Transition to a new form of teaching can create stress among instructors who had none or little experience in working with educational technology. Teaching hybrid, blended, or online courses requires knowledge of best practices, online teaching strategies, an understanding of online teaching methods, and expertise in web-based tools. BL will not succeed to achieve its goals without advice and support for faculty members (Cheawjindakarn et al., 2013). Several researchers have highlighted the significant role that understanding how to use technology has in the successful implementation of BL. Technological competency plays an integral role in BL because of the facilities, flexibility in delivery methods, and interactions available in BL environments. Professional development and training can ensure success for faculty members who are new to the online teaching modality. Adequate preparation of instructors will help in the course development process and help in creating courses that will contribute to an enhanced learning environment for students.

Implications of the Strategies for Post-Secondary Education

BL requires quality support at all levels: administrative organizational infrastructure, faculty development, and course evolution, as well as consistent learner support mechanisms. Post-secondary administrators must consider the modality for its impact on infrastructure needs, program development, and strategic planning. It must be implemented in a manner that resonates with the context of the post-secondary institution and aligns with its strategic goals. These elements require adequate investment of resources. However, with that investment comes with the need for an effective evaluation process—one that provides information that facilitates effective decision making at both the post-secondary and instructor specific levels.

BL requires instructors to re-examine their historically based assumptions about teaching and learning. They have the opportunity to capitalize on BL's potential for enhancing their ability to facilitate students' learning more effectively. There are numerous studies in which students have identified feelings of loneliness with online learning. This suggests the need to pay

attention to the mental health of learners and instructors. Resources should be available to help both groups cope with the challenges that we have identified. At the same time, students must re-examine their assumptions about how they will navigate the educational system and what is required of them in this environment that represents the confluence of technology and face-to-face learning.

Conclusion

Blended learning has the proven potential to enhance both the effectiveness and efficiency of meaningful BL experiences for learners and instructors alike. However, no matter how much we, as instructors, attempt to adjust the content of educational programs, if we ignore the context within which BL occurs, learner-centered education is unattainable.

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