UNSTABLE GROUND: HOW MENTORSHIP ALTERED OUR VIEW OF EXPERIENTIAL AND ACTIVE EDUCATION ON STUDENT LEARNING

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We, as two instructors in Business and Education, sought to explore the research question: is student learning impacted when instructors engage in peer-to-peer mentoring focused on improving understanding of experiential education and active learning in the post-secondary classroom? Within a sociological intrinsic case study framework, we began by defining experiential education, active learning, and peer-to-peer mentoring to situate if instructor interaction in this mentoring model impacts student learning. The data was triangulated for validity between academic literature, thematic coding of instructor/researcher writing, and student surveys. Results revealed that, even though instructors did find some challenges in implementing active learning in their classrooms, there was indication of an overall positive impact on student learning based on the inclusion of these pedagogies as discussed in peer-to-peer mentoring.

We, as two instructors in Business and Education, sought to explore the research question: is student learning impacted when instructors engage in peer-to-peer mentoring when the mentoring process is focused on improving understanding of experiential education and active learning in the post-secondary classroom? This study is an independent project within a multi-faceted, long-term experiential education research project at a Canadian post-secondary institution.

To situate this research project, terms such as experiential education and active learning, need to be defined. When defining experiential education, Roberts (2016) speaks to the need to clarify terminology even if consensus as a field may be difficult to enact. For this project, experiential education is defined as cyclical teaching and learning, with no beginning or ending point, and includes the concepts of experiencing, reflecting, conceptualizing, and experimenting (Brooks-Harris & Stock-Ward, 1999; First Nations Pedagogy Online, 2009; Kolb, 1984; Kolb, 2014; Kolb & Kolb, 2005; Kolb & Kolb, 2017; Laurillard, 2012). It will be thought of as a broad, systematic pedagogical process with an underpinning of education and not "simply about how we learn experientially but rather how we create such moments through the systematic process of experiential *education*" (Roberts, 2016, p. 25).

Active learning, as a component of experiential education, is a pedagogical tool used in the classroom to make learning active and engaging for students. This pedagogical tool is crucial in connecting theory to praxis and keeps on-campus learning as relevant and important as real off-campus practicums and field placements (Roberts, 2016). Active learning seeks to weave together content and experience to engage and challenge students with real world issues in a collaborative, community-centered manner (Roberts, 2016; Shaw, n.d.). This active learning definition was the focus of how we implemented this approach in the research project.

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Whidden, C., & Main, C. (2022). Unstable ground: How mentorship altered our view of experiential and active education on student learning. *Papers on Postsecondary Learning and Teaching*, *5*, 51-58.

Aspiration to offer a significant learning experience at the post-secondary level was the rationale behind our experiential education and active learning focus. We recognize that in order to provide a rich learning experience, pedagogy in our classrooms must change. Pedagogical choices need to coincide with opportunities to apply, integrate, connect, develop, and ultimately learn how to learn (Bowen, 2012). Understanding active learning pedagogy will aid us, as instructors, in weaving together content and experience to engage and challenge students with real world issues rather than giving them a siloed, uniform, and disconnected post-secondary experience (Roberts, 2016). If we do not understand and implement these pedagogical stances, post-secondary education may become irrelevant and ineffectual in addressing ever-increasing complex demands (Doss, 2015; Wilson, 2002).

Methodology

To begin this research, we were paired through an institutional internal call by the principal researcher (Education instructor) for participants interested in a mentoring model, focusing on experiential education and active learning. Once paired, the two of us considered different mentoring models. We ascertained that to understand active learning pedagogy more thoroughly and its impact on student learning, engaging in a peer-to-peer mentoring model would be effective. We collaboratively chose this model because it: allows for the construction of a shared engagement in common practice; frames the opportunity to engage together in authentic work; and supports mid-career faculty in a career appropriate cross-disciplinary mentorship model (Calderwood & Klaf, 2014; Centre, 2016; Centre, 2017). These aspects resonated with us as individual instructors and our research query.

Case study was chosen as an inquiry framework of this contemporary post-secondary phenomenon (Dul & Hak, 2008; Ebneyamini & Sadeghi Moghadam, 2018; Ridder, 2017; Yin, 1994, 2009). This framing served to capture the particularistic, descriptive, and heuristic complexity of this single case to illuminate the impact that peer-to-peer mentoring may have on student learning. (Hancock & Algozzine, 2011, Ebneyamini & Sadeghi Moghadam, 2018; Yazan, 2015). Numerous variables such as instructor teaching experience, concept knowledge of experiential and active learning, and student engagement were considered. Within this case study framework, we were both participants and researchers (Chapman, 2014; Fleming, 2014). We were cognizant of the potential bias and dual position as insider researchers and utilized triangulation to ensure the research question, data collection, and data analysis were valid and objective.

Data Analysis

Data from researcher/instructor meetings, academic literature, and student survey responses were triangulated to determine if peer-to-peer mentoring impacted student learning in this case study. The data sources were as follows:

1. A one-hour, bi-weekly meeting between us, as researchers/instructors. Notes were taken during these meetings with comments being added in between meetings on a shared, online document. At the conclusion of the study, thematic analysis ensued based on the six phases of thematic analysis to seek trustworthiness in the research claims (Braun & Clark, 2006; Kiger & Varpio, 2020; Lincoln & Guba, 1985; Nowell et al., 2017).

2. Academic literature review defining experiential education, active learning, peer-to-peer mentoring model, and case study situated the results in existing scholarly definitions and frameworks.
3. From scholarly work, the inclusion of student voice is viewed as a valid contribution towards educational decisions (Cook-Sather, 2002, 2006; Fielding, 2010; Kehler et al., 2017; Lodge, 2005; Matthews et al., 2018; Mihans et al., 2008). Given this scholarly finding, surveys from students were included as a data source because student voice was deemed by us as imperative to discover if the active learning strategies implemented in our classes impacted their learning. A three-question survey was voluntarily completed by students at the end of each instructor's course. All questions consisted of a five-point Likert scale with the opportunity to respond to the same questions in an open-ended format. The survey questions focused on the effectiveness of the active learning strategies on content learning, ability to connect content to real world exemplars, and engagement with material during class time. Forty-eight surveys were returned (return rate of 94%). The Likert scale data was analyzed individually and collectively with open-ended responses being coded based on the six phases of thematic coding (Braun & Clark, 2006; Kiger & Varpio, 2020; Lincoln & Guba, 1985; Nowell et al., 2017).

Examples of Active Learning Strategies

In our peer-to-peer mentorship time, we shared, discussed, and analyzed active learning strategies such as:

- Teach your buddy: This partner strategy, completed in the first five minutes at the beginning of class, begins with one student orally teaching a fellow student a concept introduced in the last class or in a pre-reading assignment. This serves as a review of content for students in a small group scenario and an assessment tool for the instructor to ascertain understanding.
- KWL (What do you **K**now, What do you **W**ant to know, and What have you **L**earned) Chart: Usually done at the beginning of a new unit or concept, students, as individuals or a whole class, write down what they know about the concept, and what they wonder about the concept. At the end of the unit or concept, students then write down what they learned about the concept. This allows the instructor to assess pre-understanding, interest, and what was learned about the concept.
- Real world exemplars: Exemplars used in class are connected to real world situations, solidifying how applicable the concepts being learned are to the field of study. For example, in the business class, students were given the opportunity to ponder all financial aspects of starting a smoothie stand on their post-secondary campus. This partner discussion completed during class time allowed for immediate positive feedback, redirection, and assessment by the instructor.
- Thin and thick questions: This technique consists of posing thin questions (that can be answered directly from lecture notes) as well as thick questions (that require students to think beyond the lecture or specific content). The combination of questioning highlights student understanding, from simple recall to analysis and evaluation.

These strategies were implemented in our classes, with possible advantages and disadvantages to student learning noted in our shared research notes for future analysis.

Instructor View of Active Learning Strategies

Positive View

As active learning concepts were discussed, it became evident that how we viewed these concepts because of our peer-to-peer mentoring framework could impact student learning. For example, if we viewed mentorship as giving us space to support our shared goals of continuous improvement in the classroom, then our perception and presentation of active learning would be veiled within a positive light. These views were noted in the instructor notes and considered as positive and negative researcher views of engagement with the concept of active learning in this mentorship model.

The positive aspects of mentoring as noted in the instructor notes were threefold. Firstly, being exposed to new and different ideas from outside our respective content areas expanded our understanding of the pragmatics and theory of active teaching and learning. We were challenged to view this pedagogical framework without an expertise area lens, which made us both uncomfortable yet excited.

A second benefit that arose from this mentorship was solidarity in the knowledge that we both faced challenges when trying to include active teaching and learning in the post-secondary classroom. For example, when we were challenged to examine class content in a nontraditional way and not simply rely on previous presentations, it was reassuring to know that both of us found this difficult. We also commiserated that during class time we sometimes were unable to predict the students' reaction, conversation, or engagement. We understood that because of this shared experience, and through continuous improvement, we could learn which teaching methods provided students with the best classroom experience.

Finally, through this mentoring framework, we became aware of a teaching support and resource that is often overlooked: our fellow faculty members. Through our collaboration, we both improved as instructors on this experiential education journey. This improvement, arising from the peer mentoring experience, reiterates what a rich and authentic resource faculty is for colleagues at any stage of their career (Calderwood & Klaf, 2014; Centre, 2016; Centre, 2017).

Negative View

The possibility of negatively impacting student learning due to our engagement with this strategy in a mentorship model was also noted. The most significant challenge to partaking in this mentorship experience was time. Firstly, it was a challenge to find the time to research and compile active learning strategies to share at meetings during an already busy semester. Secondly, it was time consuming to learn about these newly shared strategies and subsequently plan for their inclusion in the classroom. The equal nature of this mentorship model allowed room for both of us to share concerns, that although we wanted to learn and incorporate different active learning strategies, student learning may have been impacted due to this negative lens.

Results

Through triangulation of our data sources, it was ascertained that student learning in our classes was positively impacted when we engaged in peer-to-peer mentoring focused on improving understanding of active learning strategies. Through our triangulated analysis, we discovered two major themes when active learning strategies were implemented in class: improved student engagement in class and improved content retention.

From the data sources, the theme of improved engagement in classes incorporating active learning strategies was prevalent. From our research notes, we determined student engagement was increased through active learning as those activities helped establish a classroom climate where students felt more at ease to speak in front of the class. This led to students being more comfortable asking fellow students and instructors questions which led to a better understanding of the concepts. It was also noted that students were less distracted by their laptops and cellphones during classes when active learning was utilized. On the student survey, 45 out of 48 responses rated the impact of the inclusion of active learning strategies on engagement between four and five with the average of a 4.5 on the Likert scale. Open survey responses focused on three significant ways engagement impacted learning. First, students perceived a positive impact on their learning when they were allowed and encouraged to learn from their peers in the classroom setting. Secondly, students found material easier to retrieve for assignments or tests after engaging with it in this manner as they had more connections with it. Finally, engagement through active learning strategies allowed for deeper understanding of material not obtained through traditional lecture style. These results are supported in the literature review which identifies engagement in class due to the implementation of active learning strategies as linked to increased student learning (Bowen, 2012; Roberts, 2016).

The theme of effectiveness of active learning strategies on content retention was our second major theme. On the student survey, 43 out 48 responses rated the effectiveness of the learning strategies in learning content concepts as either a four or five on the Likert scale with the average being 4.6. Open-survey responses focused on the following four aspects of active learning, as this approach: 1) helped to make personal, physical, or experiential connections to content which ultimately made the content easier to remember, 2) solidified foundational theories and enhanced understanding as concepts were continually reinforced in variety of ways, and 3) encouraged collaboration and communication with peers which led to deepened understanding of content.

Conclusion

Our case study revealed that, when we engaged with peer-to-peer mentoring focusing on active learning strategies, student learning was positively impacted. There appeared to be more engagement in class when we are willing to tread on unstable ground by incorporating new pedagogical ideas. It was due to a supportive peer-to-peer mentorship experience that we were able to delve into the theory and praxis of active learning as well as implement it in our classes. If we had not engaged in this mentorship model, we feel we would not have gone to the depth that we had in understanding and incorporating this experiential pedagogy. While more research could be undertaken comparing actual assessment results as further evidence of student learning, we feel that through this study, despite challenges, we buoyed each other up through peer-to-peer mentorship to positively impact student learning in the classroom.

This research has Medicine Hat Research Board of Ethics Approval (2019).

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