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Peer Support and Pedagogical Conversations: Keys to Building Faculty Capacity in a Digital Age

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Peer Support and Pedagogical Conversations: Keys to Building Faculty Capacity in a Digital Age

Abstract

With the COVID-19 pandemic, post-secondary institutions pivoted to providing hybrid or fully online courses and recognized the need to mitigate the challenges faced by faculty in navigating this shift. This study was conducted at one Western Canadian university and followed a Design Based Research approach that included three phases and utilized mixed methods (interviews and surveys). The purpose of this research was to build faculty capacity for online teaching and learning. Overall, findings indicated that while the need for capacity building and improving collective practice was heightened during the pandemic, it remains a persistent need because faculty are continually faced with adjusting to ongoing complexities related to teaching and learning. One of the areas identified to build faculty capacity in this study was ongoing professional development emphasizing peer support and collegial conversations to aid faculty in adjusting teaching practices to various modalities including online learning. This study is significant for post-secondary institutions and researchers interested in building faculty capacity and improving collective teaching practices.

Avec la pandémie de la COVID-19, les établissements d'enseignement postsecondaire se sont tournés vers les cours hybrides ou entièrement en ligne et ont reconnu la nécessité d'atténuer les difficultés rencontrées par les enseignants et les enseignantes pour composer avec ce changement. Cette étude a été menée dans une université de l'Ouest canadien et a suivi une approche de recherche basée sur la conception qui comprenait trois phases et utilisait des méthodes mixtes (entretiens et enquêtes). L'objectif de cette recherche était de renforcer les capacités du corps enseignant en matière d'enseignement et d'apprentissage en ligne. Dans l'ensemble, les résultats ont indiqué que si le besoin de renforcer les capacités et d'améliorer les pratiques collectives s'est accru pendant la pandémie, il demeure un besoin persistant car les enseignants et les enseignantes doivent continuellement s'adapter aux complexités permanentes liées à l'enseignement et à l'apprentissage. L'un des domaines identifiés pour renforcer les capacités du corps enseignant dans cette étude est le développement professionnel continu mettant l'accent sur le soutien par les pairs et les conversations collégiales pour aider le corps enseignant à adapter les pratiques d'enseignement à diverses modalités, y compris l'apprentissage en ligne. Cette étude est importante pour les établissements d'enseignement supérieur et les chercheurs et chercheuses qui souhaitent renforcer les capacités des enseignants et des enseignantes et améliorer les pratiques d'enseignement collectives.

Keywords

higher education, online learning, hybrid learning, blended learning, professional development; enseignement supérieur, apprentissage en ligne, apprentissage hybride, apprentissage mixte, développement professionnel

With the COVID-19 pandemic, post-secondary institutions pivoted to providing hybrid or fully online courses. Faculty were faced with adapting in-person courses to hybrid or blended modes of delivery, with many of them having limited previous experience doing so. Yet this challenge brought with it an opportunity to re-examine pedagogical approaches as faculty shifted to teaching online. Strengthening online learning was identified as one of the top issues in post-pandemic futures (Grajek & Brooks, 2020). There is value in prioritizing capacity building to improve collective practice for online teaching and learning (Harris, 2011). Remote modes of higher education will continue in the post-pandemic future, and the continual need for flexible socially and emotionally supportive online instruction will persist (Pelletier et al., 2021). As well, since 2020, many aspects of social and professional life have become remote. Students will need to learn new skills and literacies to be successful in these contexts. However, for online learning to successfully grow, post-secondary faculty need to understand both the value and challenges associated with this approach as well as how to successfully design online learning opportunities.

Literature Review

Community of Practice

A community of practice is formed by people who collectively partake in a learning endeavor where knowledge is shared through interaction with others (Wenger, 1998). In higher education this learning community can be comprised of faculty, staff, and students who share membership, objectives, and opportunities for interaction (Baker, 1999). A community of practice incorporates three main domains: mutual engagement, domain of practice, and a shared repertoire (Wenger, 1998; Farnsworth et al., 2016). Mutual engagement refers to interactions that lead to the creation of common meaning for questions or problems (Wenger, 1998). Domain of practice suggests members of a community are engaging in the same practice while working on different tasks in different teams (Farnsworth et al., 2016). Even with this separation, members can still learn together. Shared repertoire refers to the common materials and language that participants use to negotiate meaning and foster learning (Li et al., 2009). A community of practice occurs when these three elements exist in a community that allows for the co-construction of knowledge to be cultivated (Wenger, 1998). Communities of practice can encourage faculty and staff to participate in professional development opportunities (Chun & Williams, 2021) and support sustained professional development in higher education (Soto et al., 2019; Warr Pedersen, 2017).

Professional Development

Professional development (PD) is a well-known strategy to support improving teaching practices. Darling-Hammond et al. (2017) notes effective professional development: “(1) is content focused, (2) incorporates active learning utilizing adult learning theory, (3) supports collaboration, typically in job-embedded contexts, (4) uses models and modelling of effective practice, (5) provides coaching and expert support, (6) offers opportunities for feedback and reflection, and (7) is of sustained duration” (p. 1). Given the wide range of skills needed for teaching identified in a recent study on professional development in Canada, Campbell (2017) recommends providing a diverse range of PD experiences. Guskey (2009) pointed out the importance of evaluating the effectiveness of PD and recommended incorporating core elements of effective PD such as collaboration rather than seeking best practices with a one size fits all approach. Others note

evaluating the effectiveness of PD and designing PD should be linked to student learning outcomes (Campbell, 2017; Guskey, 2002) and to teaching standards (Darling-Hammond et al. 2017). In higher education, creating structures and spaces such as virtual communities of practice can support PD where colleagues learn with and from each other (Soto et al., 2019). In a recent study, faculty satisfaction was higher when faculty needs and experiences were identified before developing objectives and activities for PD (Muammar & Alkathiri, 2022). Cordie et al. (2020) found that mentoring relationships formed through co-teaching experiences served as effective PD for faculty. Moreover, some argue for professional learning rather than professional development to emphasize approaches that foster sustained or ongoing inquiry into professional practice (Campbell, 2017; Timperley, 2011).

Inquiry

The community of practice model can be used to conduct inquiry (Chun & Williams, 2021). Inquiry is “the study into a worthy question, issue, problem or idea” (Galileo Education Network, 2022). It is authentic, real work, and can be used to explore personal contextual curiosities, to create or build knowledge, and to design action plans. For instance, Adams et al. (2021) followed seven school leaders in Alberta, Canada completing an inquiry exploring how the implementation of professional development for school leaders influenced their sense of efficacy. By formulating questions based on relevant and context-specific problems, participants recognized the power of inquiry to engage in solution-seeking, create actionable plans, and positively impact their learning communities.

Inquiry can be collaborative in design and used as a professional development strategy with university professors (Adams, 2006). For instance, Chun and Williams (2021) followed a faculty inquiry group ($n = 7$) seeking to advance accessibility in online and traditional classrooms in higher education for students with diverse abilities. The group met four times for professional development related to technology integration for accessibility. Afterwards, participants were interviewed about their experiences. Results identified that participants shared experiences and perspectives concerning accessibility, developed a deeper understanding of students with disabilities, and learned how to integrate assistive technologies in future course offerings. Similarly, Deni and Malakolunthu (2013) followed a collaborative learning teacher inquiry community in a private higher education institution seeking to improve the professional capacity of language teachers. Thirty learning sessions occurred over a one-year period, and covered topics such as instructional techniques and assessment strategies. Findings indicated evidence of higher levels of empathy towards students and integration of new pedagogical approaches, including student-centered and inquiry-based learning (Deni & Malakolunthu, 2013). The study concluded that the collaborative learning model could serve as a viable mechanism for the teachers’ professional development.

Online Learning

Emerging in the 1990s, online learning has become an integral component of education, with the majority of higher education institutions providing some form of online course delivery (Bacow et al., 2012; Johnson, 2019; Perry & Pilati, 2011). The Canadian Digital Learning Research Association, for example, reported in 2019 that 76% of participating Canadian universities and colleges offered a form of online learning (Johnson, 2019). Designed and planned

in advance of instruction, online learning involves the use of approaches and techniques of digital pedagogy to intentionally develop “a robust and sustainable learning experience” (Boltz et al., 2021, p. 1378). Online learning design often includes synchronous and asynchronous approaches through the use of video conferencing tools and a learner management system (LMS) (Irvine, 2020). A variation of online learning is blended learning, in which in-person and online-mediated learning are thoughtfully fused together with purposeful design to integrate synchronous communication with asynchronous components (Garrison & Vaughan, 2008). Online learning is different from emergency remote teaching (ERT) experienced during the COVID-19 pandemic. ERT occurs when instructional delivery is temporarily shifted quickly to alternate remote delivery solutions due to a crisis, returning to its original format once the crisis ends (Boltz et al., 2021; Hodges et al., 2020). While this research was prompted due to ERT and COVID-19, researchers of this study enacted professional development that focused on tenets of online learning pedagogy.

Numerous advantages to online learning have been reported, such as convenience and flexibility with time, place, and location of learning (Song et al., 2004). This flexibility builds self-discipline as students set their own schedule and must complete work independently (Newstex, 2020). In addition, use of an LMS allows for easy access to digital course materials, such as recorded lectures, videos, and course readings, which can be shared and viewed multiple times (IntelligentHQ, 2021). Further, from an institutional standpoint, online learning has low financial overhead, making it economically appealing (Bacow et al., 2012; Johnson, 2019; Meyer, 2014).

There are several challenges and issues related to teaching and learning online. First, an opinion that online learning is an inferior form of learning exists, with critics citing deficit perspectives such as perceptions of student isolation, skepticism about student outcomes in online learning environments, low student interactivity, lack of prestige, fear of change, lack of community, concerns about the reliability of technology, and instructor workload issues (Bacow et al., 2012; Betts & Heaston, 2014; Dow, 2008; Dumford & Miller, 2018; McQuiggan, 2012; Perry & Pilati, 2011; Stewart et al., 2010; Wingo et al., 2017). Yet, online course offerings will persist as they provide revenue to institutions and increase student access to educational opportunities (Bacow et al., 2012; Johnson, 2019; Meyer, 2014).

An additional challenge to online learning is the need for professional development and support for faculty development. Institutions have offered professional development opportunities that emphasize one-time training opportunities, and different faculty have different perceptions about what is valuable to them (Meyer & Murrell, 2014). Faculty development programs for online teaching are provided at many institutions, but there is varying support available and with some faculty dissatisfaction depending on the institution (Herman, 2012). Other scholars suggest faculty development for online teaching address the use of technology and how to integrate technology effectively (Morrison & Shemberger, 2022). Moreover, there is value in providing ongoing and sustained professional learning (Campbell, 2017; Timperley, 2011).

Research Design and Purpose

Design Based Research (DBR) is an iterative research process in which researchers engage directly with practitioners in the design process to evaluate and refine an innovative intervention while also producing design principles to guide similar research (Amiel & Reeves, 2008). The process used in this study consisted of three phases: (1) investigation/analysis; (2) design/prototyping; and (3) evaluation/retrospection (McKenney & Reeves, 2012). The study aimed to build one university’s capacity for online teaching and learning, and reports on all three

phases of a DBR study. One overarching research question was used: how might universities build collective capacity for online teaching and learning? The purpose of this research was to ascertain perceptions from faculty and staff about how to build capacity for online teaching and learning and contribute to theory and practice related to online teaching and learning.

Phase One

The study began with an initial phase of investigation/analysis in Winter 2021 following institutional ethics approval. A literature review was generated to gain theoretical understanding of the challenges of online teaching and learning in post-secondary settings (Hartwell & Thomas, 2021).

Method

Phase One data were collected through semi structured interviews. This method was chosen due to its flexible nature, so researchers could authentically respond both to new ideas and the emerging worldview of the respondent (Brinkmann, 2018; Merriam, 1988). Interview questions were designed based on definitions and criteria from the literature review. Each 30-minute interview was conducted in-person and included the following questions:

- What are some of the challenges/issues faculty are facing in pivoting online?
- What strategies are supporting faculty in building capacity for online teaching and learning?
- What strategies can we employ to build capacity for online teaching and learning?

To maintain researcher neutrality pertaining to respondent knowledge (Creswell & Creswell, 2018), an interview guide was used.

Participants and Procedure

During Phase One, data were collected from faculty and staff at the selected university. Potential participants were contacted and invited to participate through their institutional email. Institutional ethics approval was obtained prior to recruitment and commencement of the study. Faculty chairs, members of the teaching and learning committee, librarians, and IT with previous experience in supporting faculty in pivoting to online teaching and learning ($n = 16$) were invited to participate. Those who agreed to participate ($n = 8$) were interviewed to gain deeper insight into the present issues facing faculty and building capacity for online teaching and learning. After interviews were transcribed, content analysis included thematically analyzing the transcripts with two rounds of coding and then categorizing them into emerging themes (Miles et al., 2014). Inter-rater reliability was established by having both the PI and the RA engage in analysis, which increased the confidence level in the themes that emerged.

Phase One Findings

Findings for Phase One are presented according to interview questions. For each interview question, a corresponding infographic was created to share findings with study participants.

Challenges/Issues Faculty are Facing in Pivoting Online

Four challenges were identified during content analysis. The first was familiarity with technology. Faculty had varying levels of comfort with technology, making it difficult to move courses online. A second challenge was the need for technical assistance when teaching in online platforms such as Zoom. Whether the course was fully online or hybrid, faculty found it challenging to manage technology while teaching and noted the need for support with this. A third challenge was the pedagogical shift in teaching approaches needed for teaching online. This included difficulty in translating course designs and teaching practices into online or hybrid modalities. Fourth, faculty noted difficulty with engaging students in online contexts. Specifically, faculty felt challenged with finding ways to promote positive interactions to foster connections both with the instructor and their peer.

Strategies are Supporting Faculty in Building Capacity for Online Teaching and Learning. Content analysis revealed several strategies supporting faculty in pivoting online and building their capacity for online teaching and learning. First, the theme of technological capacity was identified. Study participants described capacity of both the IT department and their peers. The IT department provided support for faculty by helping to record lectures, troubleshooting technology challenges, and answering questions to support online classroom setup and design. Additionally, as some faculty were familiar with technology, their skill in this area was perceived an asset and resource for peers in pivoting online. Second, a theme of pedagogical support was identified, including conversations with colleagues, sharing resources, and attending workshops. This supported faculty in redesigning and adapting courses for online or hybrid modalities. Third, faculty collaboration was recognized as valuable for both sharing ideas for online teaching and contributing to social connectedness amidst a socially isolating time in the pandemic.

Strategies to Employ to Build Capacity for Online Teaching and Learning. The third interview question asked faculty and staff what strategies could be employed to build capacity for online teaching and learning. Three findings emerged related to this question: (1) professional development, (2) instructional design and support, and (3) student engagement. First, analysis indicated ongoing and varied professional development opportunities that included faculty collaboration, resources, workshops, and training sessions were considered important moving forward. Second, faculty needed instructional design support, either from consultants or by creating a designated position where an individual could coach faculty in instructional design. Third, faculty noted that to build capacity for online teaching and learning, there was a need to seek out ways to promote student engagement online, strengthen positive interactions when learning online, and solicit feedback from students on how to support their engagement

Phase Two

Drawing on analysis from Phase One, the second phase of this study involved the design and prototyping of strategies for building capacity in online teaching and learning.

Method

During Phase Two, one survey questionnaire, including both open and closed ended questions, was administered during the Winter 2022 semester to engage participants in consultation around the design of prototypes for institutional supports. The survey took approximately 15 minutes to complete. Questions asked participants to share their perceptions on online teaching, strategies that were supporting faculty, challenges facing faculty, and what strategies could be employed moving forward.

Participants and Procedure

Nine participants who gave consent to participate in the study were invited to engage in survey consultation, and five individuals completed the survey. Data were analyzed both quantitatively and qualitatively. Descriptive statistics were used to organize quantitative findings, and were integrated with qualitative findings obtained through the open-ended responses. Inter-rater reliability was established by having both the PI and the RA engage in the integrative analysis to identify which prototype strategies to test during Phase Three.

Phase Two Findings

Survey results were limited in number as there were only five responses. However, the purpose of this phase was to identify prototype strategies that could be tested to determine if they would support building faculty capacity for online teaching and learning. The following section is organized by survey questions answered by study participants.

Perceptions on Teaching Online or Courses During Fall 2021 and Winter 2022 Terms

The survey asked participants their perceptions on how teaching online or blended had progressed during the Fall 2021 semester and was progressing during the Winter 2022 semester. Participants responded using a five-point Likert scale, where one represented very challenging and five represented excellent. One participant selected “5” for excellent and three participants selected “4” indicating these participants perceived teaching online or blended courses had been progressing well for faculty. However, one participant selected “2” indicating the perception that teaching online or blended was challenging for faculty. While this is not statistically significant due to the small number of responses, data highlighted varying perceptions amongst faculty. That is, there were likely some faculty who were managing well and others who were struggling to teach online or blended courses. It also pointed to a need to support faculty in building capacity in this area.

Strategies Supporting Faculty Teaching Online or Blended Courses During Fall 2021 and Winter 2022 Terms

Participants were also asked what strategies were supporting faculty teaching online or blended courses during Fall 2021 and Winter 2022. Ranked as the top two strategies by all participants were conversations with colleagues and sharing resources (Table 1). Ranked as second by participants were: technological support and Moodle webpage.

Table 1
Strategies Supporting Faculty

Survey Item	Ranking (1-5)
Sharing Resources	5
Conversations with colleagues	5
Technological Support	3
Moodle Webpage	3
Student Feedback	1
August PD Breakout Session	1
August PD Plenary Session	1

Note: This table highlights the strategies supporting faculty in Fall 2021 and Winter 2022 when teaching online or blended courses.

Challenges Faculty Faced During Fall 2021 and Winter 2022 Term Teaching Online or Blended Courses

Participants were also asked about challenges faced during Fall 2021 and Winter 2022 terms when teaching either online or blended courses. Several challenges were made evident in responses to this open-ended question and pointed to ongoing issues such as course design, experiential learning online, Zoom fatigue, the need for opportunities to connect with colleagues, and the difficulties with the unknown or constant changes due to COVID-19 protocols. Individual responses are outlined in Table 2.

Table 2
Challenges Teaching Online or Blended Courses

Open-ended Survey Response
It is difficult to replace hands-on laboratory experiences.
Not sure, heard little feedback.
My biggest challenge was teaching in the afternoon for both classes that were online – it would have been nice to have at least one of the classes in the morning so I could have had the students when they were more cognitively engaged.
Connecting with colleagues had to be more intentional and formal.
When discussing concern for students this created an extra barrier.
Consistent shifts from one another. Student competency with tools. Faculty awareness of tools.
Not always knowing what was happening and when, to whom.

Note: This table highlights the challenges faced by faculty in Fall 2021 and Winter 2022 when teaching online or blended courses.

Suggested Strategies to Build Faculty Capacity

A final survey question asked participants what strategies they thought should be employed to build faculty capacity. Eight selections were provided for participants to choose from, which had emerged from Phase One analysis. One of the options was “other”, however, no one selected this. Table 3 shows the remaining responses per selection.

Table 3
Suggested Strategies

Survey Item	Ranking (1-5)
Opportunities for faculty to work with their peers	5
Opportunities for faculty dialogue in course delivery approaches	4
Instructional design support	4
Peer support with different modes of teaching	4
Student Feedback on how to foster student engagement online	4
Ongoing professional development	3
Seek ways to promote student engagement online	2

Note: This table highlights the strategies suggested to build capacity for teaching online or blended courses.

Upon review of data, researchers noted several of the responses that elicited higher responses related to faculty working together collaboratively and engaging in dialogue with peers pertaining to pedagogical possibilities and obtaining instructional design support; these responses also related to the first selection of offering ongoing PD opportunities. Soliciting student feedback was also a commonly-selected response, highlighting that an important part of designing online learning and teaching is to find out how to support the student experience when learning online or in blended courses.

Phase Two Design and Prototyping of Strategies

Following analysis from Phase One and insights gained around what strategies to employ moving forward, the research team collaboratively reviewed Phase Two findings to consider possible strategies to prototype for professional learning in building capacity for online teaching and learning. As noted in Phase One findings, offering ongoing professional development opportunities was identified as a strategy to employ moving forward. This included finding ways to support faculty working together collaboratively, promoting dialogue between faculty around pedagogical possibilities, and providing instructional design support. The following professional learning sessions were designed by the research team to address strategies identified in Phase One for supporting building faculty capacity: (1) Pedagogy Workshop Series and (2) Coffee and Pedagogy Conversations. Both professional learning designs aimed to create a continued space for dialogue focused on strengthening teaching and learning, regardless of modality. These sessions were designed to facilitate conversations with the use of protocols and guiding questions, collaboration, and peer coaching around pedagogical approaches for different modalities (e.g., online, blended, in-person), including considerations for technology enabled learning.

Pedagogy Workshop Series

This professional learning series was scheduled to occur in a blended format during Spring and Summer of 2022 semester. This format was chosen to support faculty in attending online or in person. The goal of the workshop series was to facilitate faculty collaboration through generative conversations around pedagogical possibilities and develop individual action plans for individual inquiry. The series included four independent sessions informed by Adams et al. (2021) inquiry model that faculty could choose to attend weekly during the month of May:

- Session 1: Reflect on what we've learned from our experiences teaching online or in a blended delivery format – celebrations, challenges, and lessons learned.
- Session 2: Share an area that you've identified for pedagogical inquiry.
- Session 3: Share potential strategies, evidence, and resources for your pedagogical inquiry.
- Session 4: Develop an action plan for your pedagogical inquiry (to commence Fall 2022).

In August 2022, a professional development session was held for participants to review and adjust their pedagogical inquiry action plan. As well, dates were selected for bi-monthly coffee and pedagogy conversations.

Coffee and Pedagogy Conversation

These sessions were scheduled for Fall 2022, and were hosted semi-monthly (September / November). The purpose of these events was to create a sustained space for dialogue around strengthening teaching and learning, regardless of modality. Conversations were guided by generative dialogue drawing on Adams et al. (2021) questions:

- What is the nature of your pedagogical inquiry and what strategies have you implemented since we last met to further your work about this inquiry?
- What have you learned about teaching in general and your teaching practices in particular as a result of your inquiry?
- What data have you gathered that is evidence of this learning?
- What will you undertake in the next 30 days to further pursue answers to your inquiry?

Phase Three

Phase Three involved evaluating preliminary designs from Phase Two that were implemented in between May - November 2022.

Method

Data were collected through one online survey composed of five open-text questions. The survey was designed to take approximately 20 minutes. Questions were written to inquire into participant perspectives on the enacted professional learning designs, and included the following:

- What area in your teaching practice did you identify to work on during this professional learning series?
- How did this professional learning series support you in your professional inquiry into your teaching practice?
- What have you learned from this professional learning series? Where do you see yourself going next?
- What strategies did you identify during this professional learning series to further your work into your professional inquiry?
- What activities could be implemented to support your ongoing professional growth and inquiries into your teaching practice?

Participants and Procedure

Faculty who participated in one or both professional learning designs were invited to participate in this phase of the study ($n = 7$), and those who gave consent to participate in this phase ($n = 4$) were sent a survey to complete. Qualitative data analysis from open-ended questions included content analysis with two rounds of coding and identifying emerging themes using thematic analysis (Miles et al., 2014). Inter-rater reliability was established by having both the PI and the RA each engage in a separate round of coding and then meeting to review emerging themes using thematic analysis.

Emerging Themes from Phase Three

Themes emerging from participant survey responses illustrate participants' perspectives on the prototyped strategies in the learning series to support building faculty capacity for teaching and learning. Question one asked participants what their chosen area of focus was during the professional learning opportunities. Three participants identified assessment practices and one identified a focus on classroom community building. These focus areas, while emerging from ERT experiences, extended to any teaching modality (e.g. online, blended, ERT, in-person). Question two asked how the professional learning supported study participants' practice. All participants ($n = 4$) perceived opportunities to engage in collaboration and reflection as supporting their practice. For question three, participants were asked what they learned from the professional development offerings and where they saw themselves going next. While responses to this question varied, each participant articulated goals that included adjusting their teaching practices, whether that was through new skills acquired or by revisiting ideas they had not previously considered. Again, these goals applied to any teaching modality. Question four asked participants to identify areas they would like to further their work in. Participants noted academic readings ($n = 1$), formative assessment ($n = 2$), and professional networking ($n = 1$). The final question asked participants what activities could be implemented to support their ongoing professional growth and inquiries into their teaching practice. Three of the participants indicated collaborative time and one suggested providing resources to support their ongoing professional growth. Data has been summarized in Table 4.

Table 4*Phase Three Survey Themes, by Participant*

Survey Question	Theme	P1	P2	P3	P4
Area(s) of focus for pedagogy series (Q1)	Assessment		X	X	X
	Community building	X			
Benefit(s) of pedagogy series (Q2)	Collaborative opportunities	X	X	X	X
	Reflection on teaching practice(s)	X	X	X	X
What did you learn? Where are you going next? (Q3)	Adjust current teaching practices	X	X	X	X
Strategies to further work/learning (Q4)	Academic readings	X			
	Formative assessment		X		X
	Professional networking			X	
Activities for ongoing support (Q5)	Collaborative Time	X	X		X
	Resources	X			

Note: This table summarizes the emerging themes from each of the five survey questions. P represents participant.

Discussion

This DBR began exploring how to build faculty capacity for online teaching and learning: *How might universities build collective capacity for online teaching and learning?*

Sustained Faculty Capacity Building for Teaching and Learning in Varied Modalities

Building faculty capacity for teaching and learning is an ongoing need for post-secondary institutions, and a key challenge moving forward from the pandemic is improving online learning experiences (Pelletier et al., 2021). Findings from this study illustrated that faculty experienced numerous challenges when pivoting to online teaching and learning environments, or more specifically ERT, during the pandemic. Post-secondary institutions can support faculty in overcoming such challenges (Kebritchi et al., 2017). Through a DBR, this research inquired and piloted strategies to support faculty in adjusting instructional design for online or blended contexts. Interestingly, the challenges and strategies were not limited to teaching online, and were relevant regardless of the modality (e.g. online, blended, ERT, in-person) and the pandemic. There is a need for prioritizing sustained capacity building to improve collective practice (Harris, 2011) in teaching and learning at post-secondary institutions. While this need was heightened during the pandemic, it remains a persistent need for improving collective practice and adjusting to ongoing complexities and shifts related to teaching and learning.

Faculty Professional Development

One of the ways to improve collective practice is through ongoing PD which was a strategy noted in the literature review as a means for supporting online teaching (Kebritchi et al., 2017) and during the initial phase of this study it was identified by faculty and staff to mitigate challenges pivoting online during the pandemic. Faculty have various perspectives on the types of PD that are beneficial to them (Meyer & Murrell, 2014), and in this study the nature of PD noted as helpful in

pivoting online during the pandemic included faculty collaboration and pedagogical conversations with peers. de Rosa dos Santos et al. (2018) noted that peer support or collegial support played a central role when instructors were experimenting with different types of teaching practices and this “impacted instructors by creating a bridge to new instructors, serving as a safety net” (p. 149). Similarly, Cordie et al.’s (2020) study affirms the role peers play in providing mentorship through co-teaching experiences for improving teaching practice. Peer support was also noted as a strategy in this study to employ moving forward, and these findings influenced the prototyped strategies designed during Phase Two. Two different sessions were designed, implemented, and tested during Phase Three with the goal of promoting faculty collaboration and pedagogical conversations with peers. Findings showed these sessions supported faculty collaboration and reflection on teaching practices. These sessions also resulted in faculty articulating different next steps, but all related to adjusting their teaching practices based on the evolution of their individual practice.

Conclusion

While the original goal for this study was to seek ways to build faculty capacity for online teaching and learning, engaging in design-based research resulted in a shift in focus to building faculty capacity for teaching and learning regardless of modality. At this point, there is a need for sustained capacity building with an emphasis on improving collective faculty teaching practices. PD is a recognized strategy for improving collective practices and moving forward it is recommended to continue to offer varied PD opportunities that include faculty collaboration and pedagogical conversations between peers to support reflection on teaching practices and adjusting teaching practices to improve teaching and learning. A recommendation emerging from this research is to review institutional wide initiatives such as institutional-offered PD days, resources and support. Limitations of this study include the small sample size and the focus on one post-secondary institution. Even so, the findings from this study are informative for universities about what strategies they might employ to improve collective practices moving forward. Another study with a larger sample size including multiple institutions would be beneficial. Further research could be conducted to find out additional ways to improve collective practices to support faculty capacity building. Additionally, it would be beneficial to explore how other post-secondary institutions are building faculty capacity and what they are doing for PD that is improving collective practices in teaching and learning.

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