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How College Faculty Experience Designing Blended Courses They Teach

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This is to certify that the doctoral dissertation by

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Abstract

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MEdPh, Walden University

MAEd, St. Francis Xavier University

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Blended learning has been growing and evolving in higher education since the early 2000s. Despite extensive quantitative research examining blended course use and exploration of how students experience blended-courses, more situated, local research about faculty members' experiences was needed. The purpose of this qualitative study was to develop a deeper understanding of faculty members' experiences during the decision-making process in designing blended courses they teach. The conceptual framework was grounded in Engeström's activity theory to allow an exploration of individual agency within a specific community setting. Faculty members' decision-making experiences and perceptions were explored using an interpretive description methodology. A diverse group of 12 faculty members was purposefully selected from a single public college in Ontario, Canada to participate in semistructured individual interviews. The data were collected and analyzed using a two-cycle coding plan that revealed three key themes and two subthemes. The five findings showed (a) a common understanding that blended courses include a dominant face-to-face and passive online part, (b) design decisions occur on a student-self and value-cost continuum, (c) course ownership is central to agency, (d) the myth of experience exists, and (e) a major disruption causes reassessment of decision-making influencers. As a result of this exploration, positive social change is possible in that institutions may recognize that faculty members need more time and quality professional development to design and teach rich blended courses for learning, while faculty members may gain understanding of how to enhance learner engagement and success through blended-course design.

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Dedication

I wish to dedicate this dissertation to all those higher education faculty members who design and teach courses, figuring out how to engage students in meaningful learning. Your passion and commitment to learning and teaching is what makes this study worthwhile. I would especially like to recognize my close colleagues, those whose love of learning is deeply rooted and enthusiastic; this list includes Kathlyn with whom I discussed technology-mediated design for learning and the merits of activity theory—you left this life too early.

I also wish to dedicate this dissertation to my parents. You instilled a love of learning in me from an early age. You always encouraged me to study what excited me, to pursue further studies when I wanted to know more, and to finish anything I started. Thank you and much love always—know that future visits will no longer involve me taking over the kitchen table.

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Chapter 1: Introduction to the Study

Technological advancements and pedagogical shifts in recent years have led to the incorporation of more computer-facilitated learning, including, for the past 2 decades, blended learning in higher education (Chen & Yao, 2016; Graham, 2019; Lee et al., 2017). Several wide-ranging definitions of blended learning exist (Halverson et al., 2017). For this study, the working understanding is that blended-learning courses bring together traditional face-to-face classroom or group-based settings with computer-mediated individual-focused instruction and learning in a single course (Graham, 2006). In the blended setting, at least 21% to 70% of instruction is delivered face-to-face or 30% to 79% is delivered online (Allen & Seaman, 2013). Even with this wide understanding of blended-course design, adoption and implementation of blended approaches to courses have remained ad hoc and predominantly driven by individual educators or administrators, rather than being strategically initiated and supported by institutions (Johnson, 2021b; Smith & Hill, 2018; Spring et al., 2016).

In higher education venues that do not have full professional design teams, decisions about blended-course design depend on varying levels of institutional support and individual faculty member pedagogical and technological knowledge and curiosity (Alammary et al., 2014; Mackay & Devitt, 2021). According to Smith and Hill (2018), given that blended learning remains a specialty in higher education institutions, there is a need for "more qualitative, holistic and longitudinal research into the beliefs, attitudes and motivations of those engaged in blended learning" (p. 392). Spring et al. (2016) noted the need to explore the nature of and consider barriers to blended-learning practice

and research to support growth of the blended-learning field. The need for a deeper contextual exploration of how faculty make decisions in the intersecting realm of people and technology was identified by Brown (2016). Thus, in this study, I explored how college faculty members experience designing blended courses they teach.

This chapter continues with the background section, which introduces research related to agency and how faculty members understand their experience of designing for and teaching in blended-learning settings in higher education. This section also establishes the need for additional research to acquire a deeper understanding of the faculty member experience in the decision-making process in designing blended courses they teach. In the problem statement, I present the need for this deeper exploration based on current and relevant evidence. Then in the purpose of the study, I outline the intent of this study, situated in the qualitative paradigm. Three research questions are presented before I present the conceptual framework, wherein I explain how the study was situated in the third-generation activity theory perspective as outlined by Engeström (2000). The nature of the study was qualitative, and I proceeded using an interpretive description approach with interviews of college faculty members who design and teach blended courses. Finally, I discuss definitions, assumptions, scope and delimitations, limitations, as well as significance of the study, which might support future efforts to facilitate student learning in blended settings.

Background

Blended learning combines the use of online and traditional face-to-face approaches within a single course, typically focusing on place (a classroom plus a

location of the learner's choosing) and time (synchronous and asynchronous delivery) for design and practice (Norberg, 2017). Even though the COVID-19 global pandemic has blurred understanding and application of education delivery modes (Johnson, 2021b; Mackay & Devitt, 2021), blended learning approaches have grown in popularity in higher education (Johnson, 2022b; Pelletier et al., 2022; Ustun & Tracey, 2021). In this study, Graham's (2006) definition that "blended-learning systems combine face-to-face instruction with computer-mediated instruction" (p. 5) was used. Such a functional definition of blended learning remained useful given the high variability in individual course blending and design, while also capturing the reality that technology figures into both the face-to-face and online portions of blended courses. Not immediately apparent in Graham's definition, yet critical to course design decision making, was the notion that even though college blended courses are designed to maximize the learning of groups of students in the face-to-face setting of classes, the online component of blended learning is designed to be an individual engagement activity for each student (Alammary et al., 2014; Vella et al., 2016). The challenge of designing one course to meet two different learning environments requires the active design focus in the face-to-face portion to be on live, in-person interactions, while the online portion requires an active design focus on how the learner engages with the material (Graham, 2006). An exploration of how educators plan and design for this dichotomy, maximizing active learning in class and creating online activities that promote learning over performance, was needed (Luna & Winters, 2017).

A complex blended-learning setting requires faculty educators to make decisions about course design while considering many factors. Some decision making is based in preexisting requirements such as curriculum or scheduling, while other decisions relate to the educator's personal experience, motivation, academic workload, technology comfort, or individual biases (Brown, 2016). Spring et al. (2016) described educators as designing and adapting blended courses to meet learning goals that enhance student learning. When educators combine these decision-making influences with new information connected to designing blended courses, they frequently end up in a frustrating cycle of renegotiation and reorganization of the decisions they have made or are about to make (Shambaugh, 2009). Whereas Graham (2006) noted that educators involved in blended-course design typically make decisions about the nature of the blend and how to incorporate what elements, Ikpeze (2016) found that educators also need to know that their design experiments and efforts are supported by their institutional administrations. With so many factors influencing the decision making during blended-course design, exploring how faculty members see themselves as agents of blended-instruction design in their roles as educators was needed (Vaughan et al., 2017).

Evidence has shown that the comfort educators have with technology, including prior training and on-the-job learning and doing, directly connects to their sense of agency in blended-course design (Ikpeze, 2016). In college settings, educators often first self-identify as content experts and seek learning support around technological weaknesses (Mourlam, 2017). Findings from studies conducted by Galvis (2018) and Ginsberg and Ciabocchi (2015) revealed that organizational direction and support are

critical for faculty members who design and teach blended courses. Although Paul (2017) found that the complexities of blended learning involve a wide group of stakeholders beyond faculty, including librarians, academic support staff, and accreditation bodies, other research findings have suggested that faculty involved in blended-course design may not receive enough institutional support (Ibrahim & Nat, 2019; Mackay & Devitt, 2021; Porter et al., 2016). Beyond these findings, various authors have noted that still more research was needed about the pedagogical and technological understanding and approach used by educators in blended-learning instruction (Mourlam, 2017; Rasheed et al., 2020; Zhang & Zhu, 2017).

When planning courses, faculty members typically take the lead on the nature of the blend (Graham, 2006), determining how to situate goals and outcomes of an individual course within the parameters defined by the discipline, program, and department. After the initial conceptualizing, educators might seek institutional support through professional development opportunities or a learning-teaching service to acquire and follow design principles to help create "a meaningful learning environment" (Eagleton, 2017, p. 206). An important factor undermining the use of available resources to enhance blended-course design is that despite the previously outlined general definition of blended learning, there is no standard for the quality or specific details of any given blend (Hrastinski, 2019b), nor for the nature or purpose of the blend (Picciano, 2009). Thus, blended-course designs range widely among educators within and across institutions (Park et al., 2015; Smith & Hill, 2018).

Educators who are keen to improve their practice often pursue social and informal learning opportunities, whereby they gradually acquire and extend skills and knowledge that are then reflected in changing practice (Smith, 2021). However, it was not known how the extension of skills and knowledge transformed faculty decision making as connected to design efforts. Although Farrell (2017) proposed that learning management system analytics could be used for technology-focused recommendations to plan course design and redesign, Anderson (2017) and Park et al. (2015) stated that the experience of faculty members had to be captured to complement LMS analytics. Brown (2016) underscored the need for research to examine the situated faculty decision-making process as critical to understanding how educator-designers process and connect individual and institutional motivators and drivers that are fluid and subject to change. Thus, the relationship educators have with technology and the way their attitudes, abilities, and expectations vary based on experience should be explored more deeply.

Although ample research has outlined various pedagogically grounded, subject-appropriate approaches to blending courses (see Hack, 2016; Lai et al., 2016; Su & Endersby, 2018), more research that focuses on the educator experience in deciding how to design blended-learning courses was needed (Graham, 2019; Smith & Hill, 2018; Spadafora & Marini, 2018). Noting a steady growth in technology use in higher education settings, Brown (2016) proposed that research into faculty decision making was needed to examine the individual contexts, experiences, and reflections on how educators approach blended instruction. In a study exploring educator perspectives in course design, Goradia (2018) concluded that further research was required “to evaluate

how participants know [which] technologies and pedagogies best suit the purpose" of enhancing learning (p. 57). In short, this research exploring how faculty members' experience designing blended courses that they teach resulted in findings and suggestions that might provide faculty with more consistent technological, pedagogical, institutional, and policy support, which in turn could improve blended-course design and thereby enhance the student academic journey.

Problem Statement

Despite the explosive growth in the use of blended instruction, especially at the college level, not enough was known about how faculty members make decisions about blended-course design. Smith and Hill (2018) proposed that more qualitative research was needed to explore institutionally situated educators' "beliefs, attitudes and motivations" (p. 392) around blended-learning design and decisions. In an examination of local- and evidence-based practice, Hrastinski (2019a) underscored the need for more local evidence as a complement to contextualizing and situating research evidence. Spadafora and Marini (2018) concluded their mixed research into fourth-year student self-reports on blended-course evaluation and reflection with a recommendation for investigations to explore professor perspectives across more levels. In a study examining challenges in blended-learning design, Boelens et al. (2017) identified the need for research to examine how educators determine where to place learning objectives in the face-to-face or online portion. Culminating a large study involving 111,256 students and 151 modules, Rienties and Toetenel (2016) recommended that more research into student and teacher perceptions would help with understanding the complex relationship between

learning design and the learning process. Brown (2016) emphasized the need for research into how institutional infrastructures, including the emergence of expectations and standards, influence design decisions. Finally, Anderson (2017) also identified the need for a greater understanding of the educator experience vis-à-vis pedagogical and technological understanding and application in designing blended-learning courses that support students in developing lifelong learning skills and inclinations (see also Alammary et al., 2014; Ginsberg & Ciabocchi, 2015).

The literature has also shown that more needs to be known about how faculty members make decisions about blended-course design for courses that they teach. Halverson and Graham (2019) examined factors that indicate learner engagement in blended settings but noted a need for research to occur in real time with an objective of reviewing assorted blended-learning designs, so that educators, designers, and researchers will be able to "better understand how engagement indicators are affected by human and by machine interaction" (p. 163). Park et al. (2015) conducted research at a Korean higher education institution with about 22,200 students and 1,000 fulltime faculty, studying and analyzing blended-course offerings. Whereas their findings revealed limited diversity in online activities in blended classes, with students focused on evaluation-based activities, they also suggested that further research needed to occur at higher education institutions in other cultural areas that considered varied pedagogical models and academic disciplines. Smith and Hill (2018) researched blended learning across the globe and noted that more research needed to occur in nations beyond Australia, the United States, and the United Kingdom; they noted that Canada, the site of my study, was

one of the underresearched countries. In this same study, recommendations for more descriptive and qualitative studies included studying longitudinal development of blended perspectives to determine the nature and timeliness of professional-development support for educators.

Thus, as blended learning is increasingly integrated into face-to-face program delivery (remote or in-person) in higher education, more research is needed. Stein and Graham (2014) emphasized that well-designed blended courses should maximize strengths and minimize weaknesses present in the distinct online and face-to-face class segments. More recent research has suggested the global pandemic has substantially changed and blurred the face of blended, online, and traditional education for educators, students, and institutions (Brown et al., 2020; Johnson, 2022b; Mackay & Devitt, 2021). Educator-designers have unique experiences in their faculty member experience and how they make decisions about course design in this complex setting is based on a wide range of factors, which needed further exploration.

Purpose of the Study

The purpose of this qualitative interpretive description study was to develop a deeper understanding of how college faculty members experience the decision-making process of designing blended courses they teach. Because the knowledge that each educator brings to the instructional situation is unique (Mourlam, 2017) and specifically situated in a sociocultural system where motivation is both individually and communally driven (Engeström, 2000), more information about the faculty member experience in deciding how to design blended courses that they teach was worth pursuing (see Graham,

2019; Smith & Hill, 2018). That is, even though many studies have examined student perceptions of blended learning (e.g., Kleinpeter, 2018; Luna & Winters, 2017; Spadafora & Marini, 2018), and much has been written about best practices in course design (e.g., Farrell, 2017; Lee et al., 2017; Rienties & Toetenel, 2016), how educators design, implement, and engage in blended courses remains highly individualized (Alammary et al., 2014; Hrastinski, 2019a; Miller, 2014). In blended settings, educators must decide how they are able to meet student learning outcomes across two separate settings for a single course: face-to-face, where many students construct meaning together; and online, where students work independently in a more-isolated manner (Anderson, 2017). In this complex blended setting, a study that explored faculty members' experiences related to decision making in the design and implementation of courses was needed (Brown, 2016; Graham, 2019).

Research Questions

In this exploratory study, I was guided by three research questions (RQs):

RQ1: What are faculty members' experiences during the decision-making process of designing the blended courses they teach?

RQ2: How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process?

RQ3: How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process?

Conceptual Framework

In this study, I explored how faculty members experience the decision-making process when they design blended courses that they teach. Blended courses bring together face-to-face and computer-mediated instruction and learning (Graham, 2006), two historically separate approaches, into a single setting. Further, Allen and Seaman (2013) defined that 30% to 79% of blended courses is delivered online, while the remainder is delivered face-to-face (p. 7). In settings where faculty members design and teach their own courses, this dual delivery setting can be considered a complex system, implying that educator designers must grapple with technology choices that fit their individual comfort, pedagogic, and unique subject needs while meeting institutional guidelines (Mourlam, 2017; Vásquez Astudillo & Martín-García, 2020). With this understanding, the conceptual framework was situated in activity theory.

According to Engeström (1999), the third generation of activity theory combines Vygotsky's notion of people acting on and being influenced by their cultural settings and Leont'ev's work examining the historical division of individual and collective labor. By bringing these two generations of activity theory together, the result is a view of human action and interaction as a much more complex and interconnected endeavor that is very much situated in a particular context (Engeström, 1999). Because this study explored educator approaches to blended-course design decisions, several factors needed to be considered from the individual context and experience of each participant (see Sannino & Engeström, 2018) to any localized as well as broader departmental and institutional influences and requirements. This kind of interconnected setting with different elements

interacting with, being affected by, and influencing one another directly and indirectly forms the essence of third generation activity theory (see Engeström, 1999).

The complexity and individuality inherent in designing and teaching blended classes made the use of activity theory ideal as a frame for examining educator perceptions, beliefs, and values that influence actions and behaviors between and within those factors (see Karasavvidis, 2008; Shambaugh, 2009; Vásquez Astudillo & Martín-García, 2020). Because blended learning involves content delivery and learning in both online and face-to-face settings, the system involves the relationship educators have with and about content, pedagogy, and technology knowledge across two distinct delivery and learning modalities (Papanikolaou et al., 2017). Using Engeström's (1987) third-generation interpretation of activity theory to create the framework for this study captured the diverse influences interacting in this type of college setting. As further elaborated by Engeström (2001), in activity theory, "a collective, artifact-mediated and object-oriented systems, seen in its network relations to other activity systems, is taken as the prime unit of analysis" (p. 136). Thus, activity theory was useful in providing a practical framework to underpin research that contemplated dynamic, people-based, activity-centered problems and challenges. It also helped with analysis of the cultural and historical location of a specific activity and aided in the observation of patterns, analysis, and synthesis of findings (Hashim & Jones, 2007).

Activity theory is multivoiced and was useful for analysis in this study. As Engeström (2001) outlined, activity theory makes room for and gives value to individuals involved in the activity as well as to those influencing the individual. The activity at the

center of a given study is situated in individual histories and defined by contradictions where unique experiences lead to new or divergent approaches. Taken together, this condition enables opportunities for transformation. Consequently, the uniqueness of each individual experience could be effectively examined via activity theory and then studied for similarities, differences, and patterns with other experiences because of the relational nature of the system (Sannino & Engeström, 2018). Vásquez Astudillo and Martín-García (2020) found that designing blended courses for delivery across two modalities of learning and teaching, each with different approaches to technology use and engagement with the content, was complicated and required continuous review and reevaluation, supporting the use of activity theory for study purposes. For example, exploring learning in math classrooms, Batiibwe (2019) successfully used activity theory to explore how the incorporation of technology could be used to facilitate or bridge the gap in teaching for transformation. In higher education, Lee et al. (2022) used activity theory to understand how pandemic-induced changes impacted educators' pedagogical experiences while Paul (2017) used activity theory to frame a comprehensive and complex evaluation of a blended-learning implementation. Those research studies and others (see also, Karasavvidis, 2008; Shambaugh, 2009) have demonstrated that activity theory can be used to gain insight into complex problems not unlike this study, where I explored what influenced faculty members to make course design decisions for blended courses.

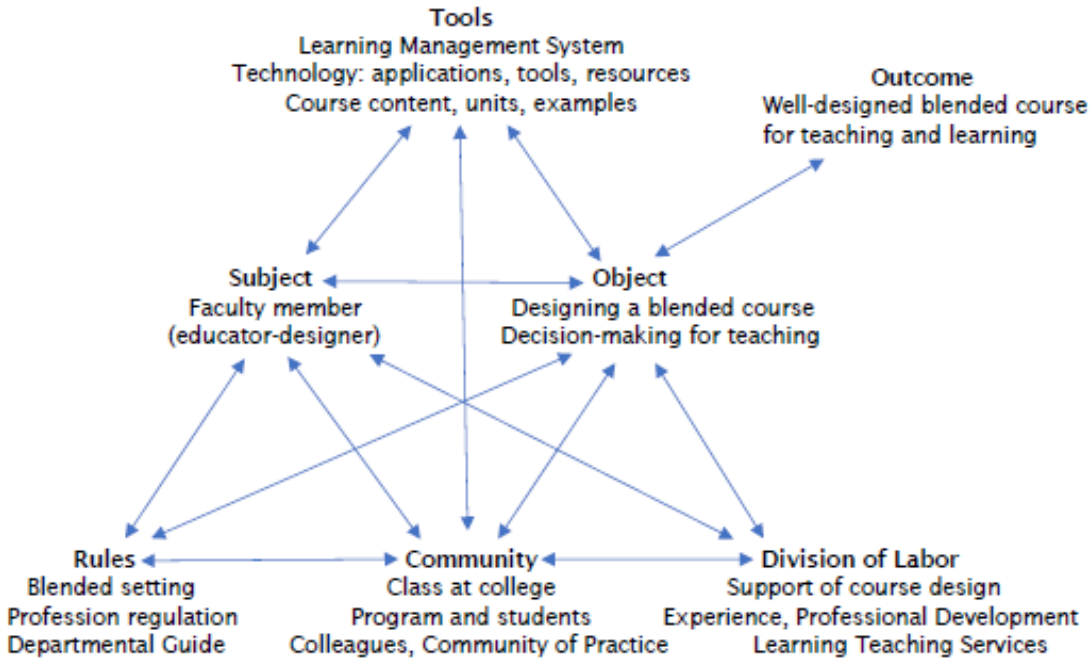
Conceptual Framework Applied

As shown in Figure 1, based on the general model of an activity system (Engeström, 1987, p. 78), the exploration in this study focused on the experience, or

activity, that the *subject*, or faculty member/educator-designer, underwent in creating an *object*, designing a blended course, by using *tools*, such as technology and the course content, in a *community*, or broader social context such as a blended college class within the college as a system. Figure 1 identifies the nodes of subject, object, tools, and community as the most critical elements in generating the activity *outcome*, a well-designed blended course for teaching and learning. All the nodes in the figure are connected by a series of two-way directional arrows, indicating that each node acts upon and is acted upon by other nodes. Because the arrows point both ways, the subject, or faculty member/educator-designer, influences and is influenced by all elements including the tools, the object, the community, the rules, and the division of labor. Likewise, the object, or designing a blended course, also influences and is influenced by the subject, as well as the tools, the community, the rules, and the division of labor. In addition, the tools, which include the LMS, the technology interface (hardware and applications), the course content, and the usability of all these elements, influence and are influenced by the object, the subject, and the community.

Figure 1

Activity Theory Applied to Blended Course Design



Note. Figure 1 is adapted from *Learning by Expanding* [digital]. (1987) by Y. Engeström.

The community is the setting of the activity; it provides a critical reference to the other five elements in the diagram, both influencing and being influenced by the subject, the object, the tools, the division of labor, and the rules. On the community node level of the figure, two related elements are included: the rules and division of labor. On one corner, the rules, which minimally include any college guidelines, profession-specific regulations, and department-determined parameters, both influence and are influenced by the subject, the object, and the community. By contrast, the division of labor reveals the role of support underpinning course design, including existing college supports, plus individual experiences and professional development in the two-way interaction between this node and the subject, the object, and the college community.

Because this study occurred at one college setting, over a single period in time, some possible overlap in community, tools, rules, and division of labor may have existed among the participants in that they all had experience designing blended courses that they taught at a common location. However, each individual subject or faculty member had different understandings, experiences, motivations, and constraints around the process of designing blended courses that they taught. Whereas participants were selected based on having created blended courses and other criteria described in Chapter 3, their approaches to decision making varied. Therefore, it was critical to gather their perceptions, understandings, and application of agency as related to the rules, tools, community, object, and division of labor. The unique context of creating blended courses (objects) that meet the needs of student learning (outcome) both in the multiperson face-to-face setting as well as in the individualized online setting, while using rapidly changing technology, was relevant and required further exploration (Berry, 2019; Shea & Bidjerano, 2011).

The decisions surrounding the framing of this research, elaborated more fully in the review of the literature in Chapter 2, directly benefited from an approach situated in activity theory. That is, from interview design through data collection, the planning and interpretation of findings were operationalized against and within activity theory, where "human beings are seen as situated in a collective life perspective, in which they are driven by purposes that lie beyond a particular goal" (Sannino et al., 2009, p. 3). This research adds to the knowledge of blended-course design, enhancing the overall

understanding of faculty decision making in blended courses they teach. Thus, this study adds to the body of literature about structuring effective learning environments.

Nature of the Study

This study was qualitative, focusing on how faculty members individually experienced the decision-making process in designing blended courses they teach. Data were collected through 12 individual participant interviews. Working in an interpretive and constructivist epistemology, I was unable to separate my knowing from myself. That was complemented by my ontological view of the nature of social reality, believing that meaning and understanding are constructed from and through experiences and interactions with the world (see Burkholder et al., 2016). Given this set of beliefs, through the study, I explored experiences and perceptions of faculty members who design blended courses that they teach in the individually directed and community situated teaching and learning environment at a college.

Setting this study in a college was a good fit with an interpretive description methodology (see Thorne, 2016), which required the study to be driven by theory while remaining pragmatically situated. There was no intent to develop a new theory through this research, but rather to expand understanding and application of existing theory vis-à-vis blended-course design while allowing "design variations according to the specific features of context, situation, and intent" (Thorne, 2016, p. 30). This higher education setting, where faculty members are educator-designers, made for a potentially complicated and complex teaching and design experience. Park et al. (2015) found no systematic institutional approach to blended-class design, concluding that design is

typically curriculum- and educator-determined. In that same study, great variability in LMS and technology use as well as in pedagogical approaches used in blended-course instruction was also revealed. As Thorne (2016) argued, the inevitable tension between theory and research in an applied setting means the relevance of pure description is secondary to exploring the meaning underlying participant decisions as required by interpretive description. Based in the qualitative paradigm, this approach still allowed me to interpret the data and translate the experiences and perspectives of the participants (see Ravitch & Carl, 2016) while uncovering themes, building understanding, and developing an emergent and inductive sense-making of the findings (see Merriam & Simpson, 2000; Saldaña, 2016).

The key concept explored in this study focused on the faculty members' experiences during the decision-making process of designing the blended courses they taught. Graham (2006) explained a notable challenge of designing for blended learning stemmed from planning to teach across two modalities, face-to-face and online, within a single course. Making decisions does not happen in isolation, so in this study, I also explored how faculty members perceive their personal agency and the instructional environment as influencing elements during the blended-course design process. Sannino and Engeström (2018) noted the value in exploring personal understandings of how objects are created through activity because each participant's experience "depend[ed] on the personal history of the individual and his or her position in the division of labor within the activity system" (p. 46). Vásquez Astudillo and Martín-García (2020) argued that activity theory provided an appropriate and effective framework for researching "the

complexity and multidimensionality of new realities. . . [such as] the possibilities offered by the BL [blended learning] modality in learning" (p. 452).

The target population for sample selection consisted of faculty members in a publicly funded college in Ontario. There are 24 such colleges in Ontario, and faculty members at each have varying levels of experience in higher education designing, implementing, and teaching blended courses. Participants were selected by following a simple criterion-based purposeful sampling and snowball sampling strategy (see Creswell, 2010; Rubin & Rubin, 2012) and did not include any faculty members for whom it might have appeared that I had any supervisory, social, or other influencing capacity. Data gathered from the interviews with faculty members were annotated and combined with researcher reflexive journaling to capture positionality and biases (see Ravitch & Carl, 2016). When data are discussed, analyzed, and presented in Chapter 4, they are handled in such a way that individual identities are masked. Moreover, throughout the study, and especially in conducting the analysis, I maintained reflexive practice to consider and address biases and positionality (see Ravitch & Carl, 2016), which are addressed briefly in the limitations section and more fully in Chapter 3.

Definitions

Activity theory: Rooted in cultural historical activity theory and commonly referred to as activity theory, Engeström (1999) proposed that the current or third generation of activity theory views activity systems as driven by a complex and dynamic interaction of subjects (i.e., people) creating objects (i.e., a course) using tools (i.e., technology) in a specific community setting (i.e., a college) where rules and the division

of labor also matter. In the process, contradictions and opportunities surface that allow for transformative interventions for practitioners in social and historical contexts.

Agency: The way in which individuals see their abilities to act and control their actions in a particular setting is seen as agency (Bandura, 2001).

Blended learning: "Blended-learning systems combine face-to-face instruction with computer-mediated instruction" (Graham, 2006, p. 5), where the course proportion being delivered online is accepted as 30% to 79%, with the remainder being delivered face-to-face (Allen & Seaman, 2013, p. 7). Although the term blended learning is used more commonly in research (and in this study), the term *hybrid learning* is often used. Hybrid learning is the preferred term at the study site, and it surfaced frequently in the data collection and participant comments.

Design: In course design, individuals analyze a setting and consider the learning objectives, instructional requirements, and program fit before creating, implementing, and revising said course. In blended settings, design ideally focuses on student-centered learning, involves more than translating face-to-face approaches to online, and should be based in pedagogy over technology (Caulfield, 2011).

Face-to-face: Traditionally, face-to-face time refers to the specified hours (a portion or the entirety of a course) that students complete on campus in large groups, in a physical class setting (Caulfield, 2011). With the global pandemic altering many aspects of daily life, the face-to-face delivery of courses has shifted to include synchronous live teaching via video conferencing platforms such as Zoom (Serhan, 2020).

Learning and teaching services (LTS): Higher education institutions frequently have departments, an LTS, dedicated to supporting faculty members with pedagogy and new technologies.

Learning management system (LMS): An LMS is a comprehensive software application used by educators for delivering, documenting, and tracking (activities, attendance, downloads, etc.) course-based content and engagement (Pappas, 2017). Faculty members are often required to use an LMS as the main repository for course content, posting content, collecting student work, and recording grades in this forum.

Online: Historically, understanding of this term with respect to online teaching and learning has varied dramatically, and the reality of the pandemic has exacerbated and complicated any widely accepted definition (Johnson, 2021b). For this study, online refers to educational courses where the "primary delivery mechanism is via the Internet (Bates, 2018).

Assumptions

A core assumption underpinning this study is that participants provided open and honest responses during interviews. In addition, there was an assumption that online and blended education offerings would continue to grow in Canada and the United States, making the exploration of the faculty experience in course design relevant and valuable. Uncertainty and transition have become central to defining and understanding blended learning, in large part due to the COVID-19 pandemic, which has led to global changes to education beyond any institution's or nation's control. Individual participants described environmental conditions as both opportunities and constraints. However, the pandemic-

influenced environment was assumed to not affect faculty member decision making related to blended-course design in a substantially atypical manner. The local setting encompassed enough diversity to ensure that the target population was well-represented and reflected in the sample participant group and gathered data. Finally, another critical assumption relevant to the meaningfulness of this study was that the collection and quality of data would not be negatively influenced by political circumstances or changes in college policies and expectations during the pandemic.

Scope and Delimitations

The scope of this qualitative interpretive description study was focused on acquiring a deeper understanding of individual faculty member experiences as they design blended courses that they taught. The specific aspects explored in this study included the faculty members' perceptions of personal agency around perceived control of course design and their perceptions of the instructional environment. Extensive research has considered the student experience in blended courses; however, fewer studies have focused on the faculty experience (Graham, 2019; Smith & Hill, 2018). Capturing the faculty member experience across widely varying subjects and programs as each made decisions about blended-course design has revealed awareness of and planning for the distinct and yet connected dual-learning settings contained within a single blended course.

Because blended-course instruction requires design and delivery across two different modalities, blended-course instruction is inherently part of a complex system, making the study well suited to have been grounded in activity theory (Engeström, 1987).

This decision supported exploring how faculty members experienced blended-course design decision making based on perceptions of their individual agency, as well as perceptions of the college setting. The focus on the faculty member experience as an individual and as part of different communities meant activity theory offered a better fit than other popular theories associated with blended teaching and learning, such as community of inquiry (CoI) or technology, pedagogy, and content knowledge (TPACK). These and other theories that are often associated with blended learning are discussed further in Chapter 2 and in subsequent data analyses and syntheses.

For this study, Graham's (2006) definition of blended learning was used because it described blended learning as combining face-to-face group or class-based learning with online independent technology-mediated engagement with content. Also, the concept of blended courses was further delimited such that 30% to79% of a blended course had to be offered asynchronously online while the remainder was delivered in a scheduled face-to-face synchronous class on a regular weekly basis (see Allen & Seaman, 2013). Although global events rapidly changed much of how higher education institutions delivered content, particularly between 2020 and early 2022, with far reaching implications for teaching and learning (see Brown et al., 2020; Johnson, 2021b; Mackay & Devitt, 2021), blended courses are expected to continue taking on expanded roles in higher education (Johnson, 2022b). That is, the remote delivery of face-to-face components of blended classes that are delivered synchronously in group or class-type settings have been interpreted as part of the blended environment, as students must still complete asynchronous elements independently.

The participants for this study were drawn from 1 of the 24 publicly funded colleges in Ontario, Canada. All participant faculty members had experience in designing blended courses that they had taught. This study did not focus on the college's institutional direction for course delivery nor the support available to assist faculty with course design. Themes related to study site policy and practice surfaced during the interviews and analysis of the data and are shared in the findings and discussion. The findings should be relevant across other higher education institutions where blended courses are designed and delivered by faculty where the influences affecting design decision making are similar.

Limitations

There were several potential limitations to this study. A significant potential limitation was related to the effects of COVID-19, also known as the COVID or global pandemic. The delivery of higher education at bricks-and-mortar locations has rapidly been changing, and the longer-term impact on modality and delivery may influence participant perceptions. Also, the remote delivery required through the pandemic has blurred lines around the previously distinct parts of blended courses and emphasized the need for design training (Mackay & Devitt, 2021; Ustun & Tracey, 2021). That is, the synchronous live and asynchronous online delivery elements were all designed and delivered remotely, something that may not readily be repeated in the postpandemic era.

Another potential limitation is connected to the study design. As I was solely responsible for data collection, analysis, and interpretation, researcher bias had to be addressed. A purposeful sampling approach complemented by snowball sampling

required participants to have blended-course design and teaching experience. Participants received the required informed consent information before participating in interviews. After I reviewed the transcripts for accuracy, participants were invited to member-check them as well. Once I completed the data analysis and summarized the content, participants had another opportunity to complete member checks of the findings, analysis, and recommendations (see Merriam & Simpson, 2000). Data saturation was achieved through the study design, which was planned and organized to acquire quality data (see Thorne, 2016). In the interviews, individual general experiences, plus participant perceptions related to agency and views of the college instructional environment as connected to decision making in designing blended courses were gathered and reviewed to ensure the RQs were answered. Every effort was made to ensure the findings were not only dependable but also repeatable through detailed recording of all stages of the study from design through data collection and analysis, capturing modifications, cross-checking the findings, reflexive journaling, and triangulating the data for consistency.

One further potential limitation unfolded as I planned to call for study participants. In Ontario colleges, a single collective agreement guides work conditions for fulltime and some parttime academic employees across all 24 institutions. On September 30, 2021, the agreement expired, and talks were largely stalled. By December 2021, faculty were in a work-to-rule situation and faced with the real possibility of a full work stoppage or strike; I was worried about timing related to data collection. However, approval of the process and granting of ethics approval coincided such that I was able to

collect data between semesters at the study site. In my effort to mitigate against a strike possibility, data collection happened in a short period, and no faculty members withdrew or did not finish participating in the study after having been invited.

Significance of the Study

This study addressed a gap in the literature around blended-course design regarding how faculty members make design decisions for courses they teach. The study built upon the empirical work of researchers, including Brown (2016), Rienties and Toetenel (2016), Spadafora and Marini (2018), Farrell (2017), Anderson (2017), and Smith and Hill (2018), who identified the need for further qualitative research to explore faculty perspectives as connected to blended-course design. This limited sample of studies reflected a research gap and outlined a need for this study.

With an expanded understanding of how faculty members make decisions about designing and teaching blended courses, this study might support the development of high quality, pedagogically sound, institutionally supported, blended-course design that complements the steady growth of blended learning in higher education. Such improvements in advancing knowledge about effective blended-course design (Ginsberg & Ciabocchi, 2015; Lai et al., 2016; Ustun & Tracey, 2021) could provide insight into the considerations that faculty give to student learning. Also, with more understanding of effective blended-course design, faculty members might become more aware of how to structure effective blended-learning environments, which in turn might create the potential for significant student learning experiences (see Fink, 2013). There is an added potential that this research may lead to an increased institutional awareness of educator

needs around direction and support in designing blended courses (see Brown et al., 2020; Graham, 2019; Van Hees, 2018).

As a result of this exploration, several elements of positive social change are possible. Faculty members and other course developers may gain more understanding of how to engage learners better in the dual communities of inquiry. Addressing specific design elements for group face-to-face and individual online knowledge creation in blended courses may lead to improving course design in blended instruction. Key college leaders may realize there are benefits to a defined institutional approach to adopting and supporting quality design in technology-mediated courses like blended courses. Finally, through the application of the potential findings from this study, blended-course design might improve, and students may gain access to a deeper understanding of their learning, a self-directed learning-to-learn skill that should last beyond college.

Summary

In this interpretive description study, I explored how college faculty members experienced decision making in designing blended courses they taught to extend the existing understanding of blended-course design and teaching, which should help fill a gap in the research. By discussing the general topic of situating the faculty member experience in designing blended courses in higher education and outlining the potential social implications of the study, the importance of this research was established. In the background section, I outlined current and seminal research related to blended-learning course design and previewed the relevance of activity theory to this study. Later in Chapter 1, I introduced the problem statement, purpose of the study, RQs, and conceptual

framework. The nature of the study, definitions, assumptions, scope and delimitations, limitations, and significance of the study rounded out the rest of the chapter. The remainder of this study includes Chapter 2, the Literature Review; Chapter 3, the Research Method; Chapter 4, Results; and Chapter 5, Discussion, Conclusions, and Recommendations.

Chapter 2: Literature Review

Numerous studies exist related to blended learning in higher education. However, more needs to be known about how faculty members experience the decision-making process in designing the blended courses they teach. The purpose of this study was to develop a deeper understanding of the faculty member experience as they make decisions while designing their blended courses. In this study, I used Graham's (2006) definition of blended learning that a single course is used to deliver traditional face-to-face classroom teaching and learning with computer-mediated individual instruction and learning.

Various researchers have noted the need for a deeper understanding of the faculty member experience in blended-instructional design (Brown, 2016; Graham, 2019; Smith & Hill, 2018; Spadafora & Marini, 2018). Understanding the faculty member experience in blended-instruction design appears to be especially relevant to higher education institutions that do not typically have full design teams, leaving blended-course design in these locations largely dependent upon the unique contributions of individual educators (Mackay & Devitt, 2021), which can vary dramatically (Alammary et al., 2014; Park et al., 2015). Based upon observations of the great variety of individually driven designs for blended-learning classes, Brown (2016) proposed that the faculty decision-making process needed further exploration, especially in specific contextual settings. Spring et al. (2016) conducted a wide-reaching global study of blended-learning educators and researchers and concluded that more exploration of existing collaboration and barriers among those interested in blended-learning practice was needed. Two separate studies, one by Goradia (2018) and another by Anderson (2017), recommended that future

research needs to explore the connection between higher education academics and their experiences with technologies and pedagogies, and how those experiences translate to decision making about what is incorporated and how courses are designed.

In a systematic review of the literature on blended-learning research, Smith and Hill (2018) found that qualitative or descriptive research studies were less common than large-scale quantitative studies, and that of those, research focused on learners and what they preferred or found engaging. Thus, Smith and Hill proposed that research should explore faculty perspectives, beliefs, and values, and that such exploration should be locally situated. Hrastinski (2019a) also suggested local research would aid in developing a better understanding of unique situations that influence educators. Beyond situational understandings, Ikpeze (2016) proposed that research needed to explore educators' sense of agency and relationship to their institutions, as that identity and perceived support, freedom, and encouragement underlie an educator's effectiveness.

In this chapter, I discuss how the research into the literature unfolded in the literature search strategy. Next, the conceptual framework includes a discussion of the theoretical foundation and introduces the major elements of activity theory. Using Engeström's (1987) third-generation activity theory as my foundation, I explore how activity theory provided the ideal framework for capturing details that facilitated a deeper understanding of how faculty members experienced the decision-making process of designing blended courses that they taught.

The chapter continues with an extensive discussion of the literature review related to key variables and concepts. This section is organized into several subsections, where I

consider assorted schools of thought related to blended learning, course design, agency, decision making, and the specific context of Canadian higher education. The trajectory of this section reveals how the study was built upon existing research and extended the research related to blended instruction and educator-based decision making around designing courses they taught. This section also includes a justification for the selection of the variables and concepts, briefly identifying alternative theories as well, before concluding with a summary and conclusions.

Literature Search Strategy

In my research, I was guided by my general interest in blended instruction and blended learning in higher education. For the initial literature research, I used the Walden University Library system, including EBSCO, ERIC, references, and dissertations, to find articles on the phenomenon and to focus on peer-reviewed journals. Recommendations for seminal texts to broaden my base knowledge in online and blended learning, course design, and technology use in education were provided by my committee chair. In addition, I searched the study site library system to access Canadian journals and research that I could not find at Walden. I also accumulated and reviewed several articles, conference proceedings, books, and dissertations connected to blended-learning research. Beyond this, I scanned the resources of books, articles, and dissertations that referenced particular concepts or quotes that were relevant or intriguing; accepted recommendations from colleagues and professors; followed suggestions from assorted higher education news feeds and blogs (i.e., AAUP, CAUT, ISTE, *Chronicle of Higher Education*, *Inside Higher Education*, *Times Higher Education*, and *Contact North*); and perused and

collected items from sharing sites based on my previous reading and downloads (Academia, Researchgate, and Mendeley). Whereas much of the searching and discovery of new items became intuitive and naturally unfolded as time progressed, initially, the phrases on any given topic or concept were very precise.

Very early in the research, key search terms and combinations included *higher education or university or post secondary or postsecondary*, *blended learning or e-learning or hybrid or elearning or online or distance learning or technology,* and *perceptions or attitudes or opinion or experience or view or reflection or beliefs or impact or influence*. When I shifted my focus from students in this setting to educators, I included the terms *faculty or instructor or professor or college teacher or educator* and *course design or class design or curriculum or instructional design*. In early stages of the research, recommendations to consider assorted theories came to the fore and additional search parameters expanded to include *communities of practice*, *communities of practice in education*, *TPACK or technological pedagogical content knowledge*, *cognitive load theory and educational technology*, *cognitive load theory, learning difficulty, and instructional design*, *transactional distance,* and *technology in higher education*. These phrases were used in combination with the previous terms, which also meant other elements were excluded. A final major shift occurred with the decision to situate the study in activity theory, which required further searching based on *activity theory or cultural historical activity theory or CHAT* as well as combinations involving technology such as *human computer interaction*.

Throughout the process, if I found something engaging, enlightening, or intriguing, I often also searched the terms via Google Scholar and selected to have images or videos revealed while searching on Google, Safari, and DuckDuckGo. The journey of discovery was intensely satisfying and frequently led down paths that yielded nothing tied to this study but let me learn about another way of thinking or doing. Of course, there are many elements relevant to blended or hybrid learning, from theories and best practice related to instructional design and course delivery, to theories that examine factors that may influence how and why faculty members make decisions, all of which are explored in the coming sections.

Conceptual Framework

Before launching into the conceptual framework and how it was operationalized in this study, it is important to recall that the phenomenon examined was how faculty members experienced decision making related to designing the blended courses that they taught. Evidence for the problem statement indicated that blended learning, where a single course is delivered across two modalities incorporating face-to-face and online components, has become a common feature of regular programming on campuses in higher education. In addition, the problem statement identified the need for a deeper understanding of the faculty member experience in this context. Many studies have examined blended learning in higher education (e.g., Alammary et al., 2014; Anderson, 2017; Graham, 2006), numerous others have examined instructional design of blended courses (e.g., Eagleton, 2017; Smith & Hill, 2018; Spring et al., 2016), and several have addressed faculty and learner roles in blended courses (e.g., Boelens et al., 2017; Brown,

2016; Park et al., 2015). However, an incomplete understanding of how the educator-designer's experience, knowledge, and skills are transformed to designing for blended-course teaching remains (see Halverson & Graham, 2019; Park et al., 2015; Smith & Hill, 2018). Because each faculty member brought a unique perspective grounded in subject-specific content, pedagogy, technology, student interactions, as well as departmental, professional, and college priorities, the individual decision-making process was an experience worth capturing. In exploring the individually lived realities of faculty members as they made decisions related to designing blended courses that they taught, the literature should be extended, and practitioners of blended-learning course design and teaching should benefit.

Where college faculty members are responsible for designing courses, design decisions occur before, during, and after a course is constructed; that process can be intensified when designing for the blended modality (Mackay & Devitt, 2021). Because blended courses are delivered across both face-to-face and online settings, questions about how to achieve course learning requirements, meet pedagogical goals, engage students, use and integrate technology, and incorporate lessons learned must be addressed for both parts of the course. The complex interplay of elements that makes up the blended teaching and learning experience lent itself to being studied via activity theory that supported deep analysis and understanding (Hashim & Jones, 2007).

A variety of studies in educational research have used activity theory. Vásquez Astudillo and Martín-García (2020) explored blended-learning design incorporating digital media with consideration of historical developments; Ikpeze (2016) studied

agency related to independent control and use of technology in teaching; Hora (2012) conducted a study of instructional decision-making constraints and supports using an activity-theory lens; and Russell and Schneiderheinze (2005) examined innovative decision making in education. In studies focused on technology, activity theory has been used to lead an improved and pedagogically based approach to managing content in e-learning environments (Mwanza & Engeström, 2005), guide the development of a fully online program (Shambaugh, 2009), and better understand and prepare the way for introducing a university-wide blended-learning initiative (Paul, 2017). Although human-computer interaction is not unique to education and is more broadly concerned with how people design and use technology, the cultural context of technology and how human development is linked to technology make the research by Kaptelinin and Nardi (2012) pertinent as well. Finally, using activity theory to examine how learning happens in blended settings, Shukor and Hammond (2018) found generally positive perspectives around outcomes, tool use, and scheduled activities. Therefore, using activity theory in this study to explore how Canadian public college faculty members made decisions about blended-course design was appropriate and well-supported in the literature.

The understanding of cultural historical activity theory, typically referred to as *activity theory*, that grounded the conceptual framework for this study was based in Engeström's (1987, 1999) third-generation interpretation. Briefly, Engeström built upon Vygotsky's cultural-historical approach, and Leont'ev's modified and situated version of Vygotsky's work (see Havnes, 2010; Sannino & Engeström, 2018). Deeply rooted in educational psychology, Engeström's activity theory emphasized both the situational

location of an activity as well as the individual's agency in the activity (Havnes, 2010). Engeström (2001) underscored that "individual and group actions [are] embedded in a collective activity system" (p. 134), which was firmly seated in the complex interrelationships individuals have in their immediate work, social, or learning community. This understanding was foundational to the current study, and so an activity system formed the basic unit of analysis, providing a means to visualize and develop an understanding of the outcome of an activity as derived from a subject creating the object (e.g., a faculty member making blended-course design decisions) within a defined setting.

The construct of Engeström's interpretation of an activity system was useful in this study because it supported an examination of elements that interacted in a specific system. Faculty members' experiences in decision making as connected to the design of blended courses suitable for teaching toward effective student learning fit an exploration via activity theory. The elements interacted in many ways, which reinforced existing approaches but also revealed conflict or contradictions. According to Engeström (1999), such interactions lead to the possibility of change as practitioners make sense of their experiences and challenges. In turn, this opens the way for expansive learning. The process of learning and change occurs as individuals contend with uncertainties, facing clashes within themselves and in their immediate settings (Engeström, 1999; Hora, 2012). In part, this unplanned, multidimensional process that forms the essence of expansive learning made this study worthwhile. Being situated in a particular cultural-historical setting where individuals must produce blended courses that they teach in a college environment, this study addressed a gap in the literature related to the individual

experience of faculty members. Such a multidimensional process was best understood by examining the relationships of the main elements of the activity system representing blended-course design.

The core elements of an activity system are subject, object, tool, and community, and they all act upon one another. According to Havnes (2010), an activity system is an integrated and complex system that is object-oriented, tool-mediated, and socially situated. Engeström (1999) explained that the outcome of an evolving system of object-oriented actions would be a complex, intricate, and transformative process of interactions because the subject interprets and makes sense or meaning of the activity multiple times. Building on this, Russell and Schneiderheinze (2005) noted that "[a]n activity system contains a variety of different elements including viewpoints, or voices, as well as layers of historically accumulated artifacts, rules, and patterns of division of labor" (p. 39). Thus, the subject (e.g., a faculty member) generated a desired object (e.g., design for a blended course) using available tools (e.g., digital technologies), guided or constrained by the rules (e.g., professional regulation) and a division of labor (e.g., instructional design support and experience) within a culturally mediated community (e.g., local college setting). For these reasons, the complex, intricately connected, and ever-changing nature of an activity theory system provided a useful framework for examining the many factors affecting a faculty member making decisions while designing a blended course for teaching. In this study, I employed three RQs to explore faculty member experiences in decision making for blended courses they taught within the whole activity system, faculty

member perceptions of personal agency in this process, and faculty member perceptions of the influence of system elements.

To develop a deeper understanding of the subject (faculty member) experience and perceived control in the blended-course design decision-making process, an understanding of individual perceptions of personal agency and the instructional environment were key. Perceptions of agency are complicated, presenting overt and implicit challenges as well as competing priorities for faculty members as they make decisions (Schultz et al., 2018). Broadly speaking, the way individuals see their ability to act and control actions is seen as agency (Bandura, 2001). For this study, agency was understood as the ability of faculty members to control their decisions and actions in a culturally specific setting, which both supports and restricts individual control (Emirbayer & Mische, 1998). That is, individual perceptions of agency might include the influence faculty members felt they have vis-à-vis tools or the technology and delivery of course content, with respect to designing the object or blended course for delivery in the study site instructional environment. At this point, it became clear that decision making connected two major concepts of this study: the activity system nodes (elements) and a faculty member's agency.

According to the conceptual framework, for the subject (faculty member) to complete the object (design a blended course), the faculty member made blended-course design decisions based on experience and other considerations. Exploration in this study included considering the nature and occasion of such decisions as a reflexive, conditioned response or one that used experience and reasoning (see Engeström, 1987). Given that

blended courses are neither purely synchronous and delivered in face-to-face classes nor fully asynchronous or delivered online, but rather delivered across both modalities, decision making occurred around type and location of content delivery. Faculty members also prioritized and reassessed existing knowledge, experience, and blended-design understanding with new information (Brown, 2016; Hora, 2012). The recursive nature of activity theory suggested that an individual's experience with technology, a recent change in content requirements, or existing levels of confidence might shape decisions in designing blended courses for teaching. Insofar as two-directional arrows connected the nodes, it was critical to consider perceptions and articulations of how the subject influenced, and was influenced by, the object, just as the object was influenced by, and influenced, the tools.

In the framework guiding this study, the tools were broadly identified as including technology and content. To start, technology tools included the LMS, which faculty members must minimally use to house their courses. Faculty members then made further decisions about other tools, such as program-specific technology-based interfaces or applications available on the LMS. Other tools could also include individual participant uses of technology (e.g., applications, etextbooks, and hardware) and required bandwidth for student access to these features. As for the content aspect of tools, exploration of how fixed subject-content influenced participant decision making about content delivery and design to suit the two modalities of the blended course is outlined. Given the ubiquity of technology in education, exploring participant attitudes and implementation of which technologies were implemented in which portions of their blended courses could provide

exciting insights that could extend the existing literature. Revelations about tool use was also important in gauging how participants understand their instructional environment.

The community selected for this study was a publicly funded college in Ontario. Although the broad community was the entire college where the strategic direction set by leadership matters in overall attitudes and potential manager and learning-teaching supports for blended-course design and adoption, subjects provided more nuanced perspectives on their subject-specific communities. Participants belonged to provincial or national groups that influenced their approaches and identified narrower community boundaries, such as class and program compositions. Noncollege events and conditions, including those triggered by the pandemic, and cyclical community occurrences, such as province-wide mobilizing around contract negotiations also affected perceptions. Further, partnerships with local industries or other educational institutions also potentially influenced a subject's perception of the community. In addition to exploring how participants perceived and experienced their community, perceptions and experiences around the remaining rules and the division of labor nodes were also investigated.

Although the four activity system nodes just explained—the subject, object, tools, and community—were central to my application of the conceptual framework, two additional nodes, the rules and the division of labor, also applied. The rules included content and department particulars, as well as requirements surrounding the nature of the blend. Whereas college policy provided broad operating guidelines, more narrow definitions were professionally regulated. The division of labor was also experienced uniquely by each of the participants, with some adopting more ownership of the design

with less access of institutional professional development. Whatever the basis and individual experience in the instructional environment, subjects were asked to share their understandings and perceptions to help develop a deeper understanding of the underlying problem to learn more about how faculty members made decisions about designing blended courses that they taught.

Components of the phenomenon explored in this study have been extensively researched beginning with blended-course use and design in higher education. Graham's (2006) general definition, that blended courses involve a synchronous, face-to-face portion plus an asynchronous, online portion, was used in this study even though blended educational designs continue to evolve to meet new learning needs (Anderson, 2017; Eagleton, 2017). Course design for blended learning has been studied and analyzed extensively with diverse priorities highlighted. Familiar and trusted design models can be found via texts such as Caulfield (2011), Garrison and Vaughan (2008), and Stein and Graham (2014), or even more recently in open-text resources, such as Su and Endersby (2018). Alammary et al. (2014) and Graham (2019) found that the addition of an online component to face-to-face learning, spawning blended learning classes, resulted in an improved pedagogical model, although details of the faculty experience and how design matters still needed to be studied. Recent research also identified concerns about support educator-designers received in blended course design and teaching (Brown et al., 2020; Mackay & Devitt, 2021). The value offered through blended classes to learners has been corroborated in several studies (Farrell, 2017; Luna & Winters, 2017; Vella et al., 2016); however, these studies have been primarily quantitative and examined student access and

success rather than faculty perspectives. Research into the value of blended instruction has also revealed a need for greater understanding of individual educator motivations, perspectives, and experiences to examine how decisions were made in the blended-design process and practice of blended teaching (Boelens et al., 2017; Brown, 2016; Park et al., 2015; Smith & Hill, 2018). In exploring the way design decisions were made, research has shown the process as complex, highly individualized (Galvis, 2018; Shambaugh, 2009), and situationally specific (Hrastinski, 2019a).

The research has, thus, provided ample evidence that this phenomenon was worth studying, while also underscoring the need for further investigation, which shaped the RQs for the current study. By exploring perceptions of agency and the related sense of control individuals perceived they had over design, as well as perceptions of the instructional environment and how that affected design, this study provided a valuable and needed deeper understanding of the faculty member experience (see Smith & Hill, 2018) during the decision-making process of designing blended courses that they taught (see Brown, 2016). Having used the RQs of this study to identify and describe the network of concepts being used to interpret the unique reality of this study, attention now turns to a discussion of the variables and concepts relevant to this study.

Literature Review Related to Key Variables and Concepts

The first RQ for this study focused on examining faculty members' experiences during the decision-making process of designing blended courses they teach. Within this question, five key supporting themes were evident: learning theories supporting instructional design, blended-learning course design and instruction, educator agency in a

college context, decision making as an integral component of blended-course design, and the community setting, which was the instructional environment in Canadian higher education. The study purpose and RQs were designed to help me develop a deeper understanding of the identified phenomenon and were used to organize an understanding of the literature. They were interconnected in that developments, studies, accepted practice, and identified gaps in the blended-learning course design and instruction setting both shaped and were shaped by faculty members' decision making around design. To understand decision making as related to blended-learning course design and instruction, individual perceptions and experiences about agency and the instructional environment were identified and examined to see where research gaps persisted. In discussing these themes, it was possible to develop a broader context for understanding the study goals, seeing how they provided a context for the RQs and supported the study of blended-learning course design from the perspective of the individual decision-making experience.

Learning Theories Supporting Instructional Design

Several learning theories are frequently considered and discussed in the context of course design. In the context of this study, the decision making involved in designing blended courses is the object being created. More narrowly, blended-course designers or subjects may seek and apply one or more theories in planning technology use in and across the two parts of a blended class using tools that fit and support learning in each community setting. Although educator-designers may have used elements of these theories with or without knowledge of their names and principles, it was valuable to

identify some theories that might have been applied by the informed blended instruction designer and teacher. Although not a comprehensive list of possible theories used in relation to blended-course design, the following sections introduce TPACK, cognitive load theory (CLT), CoI theory, and transactional distance (TD) theory. These identified theories might assist in providing contextual richness to the exploration of how faculty members experienced designing blended courses.

TPACK

The complex interplay of three primary forms of knowledge, TPACK, provides a framework identifying the nature of decision-making knowledge needed by educators to integrate technology into their teaching (Koehler, 2012). Given that blended learning involves content delivery and learning in both online and face-to-face settings, the relationship an educator has with content, pedagogy, and technology knowledge was inherently relevant (Papanikolaou et al., 2017). For example, Marcelo and Yot-Domínguez (2018) found in their research across a group of university educators in Spain that an educator's decision to integrate and use technology in course work was dependent on experience, confidence, and fit to content (both by subject matter and based on assignment size), rather than only learner needs or abilities.

Research has shown that technology in higher education blended-course instruction has not been supported or used as effectively as possible (Garrison & Vaughan, 2008; Waldman & Smith, 2013). This challenge was especially noted in terms of pedagogical and content-appropriate integration (Blin & Munro, 2007; Fink, 2003) while meeting both learner needs and educator goals (Graham, 2006). Herring et al.

(2016) posited that this problem was connected to “a prevailing sentiment among higher education faculty members that subject matter knowledge is sufficient for college-level teaching” (p. 215). Therefore, higher education faculty members faced challenges in understanding, applying, and receiving professional development support connected to pedagogical content knowledge, especially as related to relevant and suitable technology knowledge (Herring et al., 2016). In another independent study, Mourlam (2017) examined the use of TPACK in higher education and found that faculty members tended to be confident in their content knowledge but less so in their technological knowledge. Thus, further situationally based research was needed to examine faculty access of institutional support. Blended-course design decisions extend beyond a faculty member’s self-perceptions of TPACK to include how faculty members have tried to support student learning through cognitive-load management.

CLT

CLT is concerned with “the acquisition of domain-specific, secondary knowledge and that emphasis applies to e-learning procedures as well as other forms of instruction” (Sweller, 2020, p. 4). From a design perspective, educators could rely upon the theory in considering ways to minimize extraneous load (e.g., reduce distractions or unnecessary extra instructions) and manage intrinsic load to leverage germane load (e.g., present new, complex information simply in a way that builds on existing knowledge). In computer-mediated settings, Kalyuga (2011) emphasized the importance of managing cognitive load for “effortful” (p. 107) learning through design such that learners would not be overloaded with extraneous cognitive load, which could cause negative learner

experiences, leading to frustration and an unwillingness to struggle through the instructional activity. Although Miller (2014) noted, “the distinction among the three types of cognitive load can be fuzzy, and cognitive load is difficult to measure with precision” (p. 83), the general principles of managing cognitive load in a pedagogically sound way by reducing distractions could include adding labels on diagrams and separating technology skills from content (Clark et al., 2006; Mayer, 2009). Thus, I investigated how faculty members made design decisions that considered learner capacity and managing cognitive load in their blended courses.

For educator-designers in the blended setting, the challenge of increasing learning efficiency or germane cognitive-load interactions is complicated. Because decisions about content teaching and learning involve where the concepts and reinforcement of knowledge are delivered, design decisions must consider if content is presented face-to-face, online, or in a dual delivery mode. Maintaining that education is unlike instinctive knowledge that people acquire effortlessly through listening and speaking, Sweller (2017) underscored educator work is in the domain of noninstinctive knowledge instruction, irrelevant of the specific setting. Following cognitive-load principles, explicit course and lesson design should lead instruction, so that the working memory of learners is not unduly strained; further, redundant or unnecessary information should be eliminated from instruction. The complication in blended courses is that faculty members must also make decisions about where and how to introduce new content, build on existing knowledge, and reinforce concepts.

Sithole (2019) found that instructional design that systematically addressed matters of cognitive load in an accounting program benefited learners and recommended that further research explore instructional design that incorporates cognitive learning-compliant materials in other subjects to determine how the learning process might be better facilitated and student satisfaction increased. In another study, Çakiroğlu and Aksoy (2015) found that extraneous cognitive load resulted from both how materials were delivered, as well as the distinct design features of multimedia materials, recommending that future studies examine outcomes related to other synchronous and asynchronous platforms beyond Adobe Connect. In a study focusing on delivery modality and cognitive load Leahy and Sweller (2016) reported on the transient effect of knowledge. That research revealed that lengthy, complex auditory statements, when combined with visual presentations, can effectively reverse the advantage of audio-visual information sharing because the working memory is overloaded. Therefore, in this study, it was valuable to explore how educator-designers deliver live and recorded lessons and see what kind of instructional approaches are used to promote and not undermine knowledge development.

CoI Theory

In CoI theory, Garrison et al. (2000) stated the need for three interactive elements in online learning settings: cognitive presence, social presence, and teaching presence. For the educational experience, the academic interest should define and develop the community purpose in such a way that learning progresses recursively, with problems identified and solved as part of the inquiry process (Garrison & Vaughan, 2008). For

social presence to exist in the CoI, students must feel safe and be able to communicate openly, develop a sense of group cohesion, and be able to make personal, emotional connections. To support cognition, learners must commit to learning, activate affective domain engagement, deliberately engage, and be authentic in efforts to construct new meaning with others via communication. Potentially, cognitive presence sits as the most critical component of a CoI and, especially in the online portion of blended courses, can positively provide students with a processing advantage, reducing cognitive load (Garrison & Vaughan, 2008).

The concept of teaching presence in CoI implies that faculty members who both design and teach their own courses must also be present in a CoI. Initially, teaching presence occurs when the curriculum is established. After this point, educators create opportunities that encourage and support student achievement of the learning outcomes, maintaining an integration between the online and face-to-face aspects of the blended class. Ideally, faculty have participated in professional development on blended-learning course design that helped them consider blended learning from a student perspective and thus informed their appreciation of student-centered design (Garrison & Vaughan, 2008). Whether a course is fully or partially online, as in blended courses, the three-element CoI structure has been found to support how students learn, construct new meaning, and share understanding (Garrison et al., 2010). However, Anderson (2017) observed that social presence and the need for collaborative knowledge construction via CoI may impede individualized learning.

As technology use has become more and more of a regular feature of face-to-face class activities in higher education, the implications for CoI have also grown (Martin et al., 2022). A notable and consistent finding in Anderson's (2017) study revealed that challenges in CoI surfaced around technology issues, including how students engage with technology in formal learning settings and how an absence of any of the presences, but especially the teaching presence, can complicate learning. Adding to the perception that technology use in higher education can harm the teaching-learning process, an Ontario college-focused report by Mackay and Devitt (2021) confirmed earlier findings (Mackay, 2014) that had examined how the shift in Ontario colleges to more blended and online course offerings was problematic for learners and educators. Bates (2018) also noted that the adoption and implementation of blended courses across Canadian higher education has remained widely varied. As institutions struggle to adapt to the postpandemic period, they are seeking to clarify concepts and terms such as blended teaching and learning as distinct from online and remote (Johnson, 2021a). Simultaneously, faculty and students appear more interested in online and blended options (Johnson, 2022b). Thus, the global shift in education that involved emergency remote teaching is likely to have long-lasting effects.

In Ontario colleges, the early approach of imposing versus collaboratively adopting blended courses was coupled with recommendations about creating learning CoIs, yet paired with inadequate professional development support (Mackay, 2014; Pelletier et al., 2022). Even where educator-designers did not balk at adopting blended teaching and willingly designed and supported CoI settings, students may have faced

challenges. Bleazby (2012) argued that the easy access to extensive information online, and the way that people read and selectively consume online information, potentially undermined development of higher-order thinking, meaning-making, and community-building for students in blended classes. With the presences of CoI potentially not maintaining equitable importance in blended design and teaching (see Martin et al., 2022), other evolutionary CoI considerations also needed to be examined.

The centrality of social presence in education suggests that CoI studies needed to focus on and reexamine the social aspects that educator-designers built in and maintained for class interactions and content socialization, so that community was developed and lived experiences could be shared (see Armellini & De Stefani, 2016). Costley (2019) also found that a social presence was critical in the learning process, and that germane cognitive load for learners should be considered rather than cognitive presence. Unlike the theoretical argument presented by Bleazby (2012), Costley (2019) found a positive relationship between social presence and germane load. These arguments presented further complications for CoI, notably the feature of blended-learning design which focused on the ability to individualize learning, allowing learners control over some elements of place and time. Educator-designers who created settings using a CoI lens might also consider other factors when designing blended courses, such as TD.

TD Theory

The theory of TD describes a pedagogical concept that learners and educators are separated by space and time which, for learners, manifests across structure, dialog, and self-directedness/autonomy (Moore, 1993). In the current study examining how faculty

members made decisions about blended-course design, decisions about the felt or perceived social interactive distance of exchange between educators and learners was considered for both face-to-face and online content and activities. In research focused on blended settings, Best and Conceição (2017) found that students experienced TD in their online discussions and interactions with classmates and teachers, which was mitigated somewhat by the sense of community students felt in the face-to-face part. Further, in research related only to online course delivery, Weidlich and Bastiaens (2018) determined that the required use of technology for education and communication in online classes could present significant barriers in how students interacted with their teachers and course content. In the current study, it was interesting to explore how educator-designers placed content to mitigate TD to a greater or lesser extent. Even though blended-learning course design and instruction represented a core focus of this study, educator-designers still made individual decisions drawing out elements across theories and incorporating features to meet perceived needs and priorities.

Applicable Commonalities Among Learning Theories

College faculty members who are educator-designers of blended courses may or may not intentionally make use of learning theories commonly associated with learning that involve digital and online aspects, such as TPACK, CLT, CoI, and TD. Each of these theories acknowledges and addresses the role of technology in education. However, each theory also emphasizes distinct aspects of the learning-teaching, knowledge-creation process. Dominantly, these theories outline the role of educators in supporting learners in

terms of how readily learners can achieve outcomes; sometimes educators choose elements from multiple theories as they design blended courses.

In a study blending the TPACK and CoI frameworks, Papanikolaou et al. (2017) found synergies when it came to designing blended courses, especially as the challenge of online cognition was greater than in face-to-face settings, and educator digital literacy influenced the learning environment. As with other CoI research, this study found that teaching presence, especially as reflected in regular and ongoing moderation of online activities, was critical as that engagement enhanced and supported the potential for cognitive development of learners. It could be important, then, to examine how and where faculty members focus their teaching presence and if there are priorities for ensuring learner success and mastery of learning outcomes (Papanikolaou et al., 2017). Beyond intentionally blended frameworks, it was valuable to recognize highlights and key features of these theories as related to blended-learning course design.

In TPACK, the focus is on an educator's abilities and skills to integrate and manage technology knowledge, pedagogical knowledge, and content knowledge effectively to support learner progress. Likewise, in applying CLT, the educator strives to remove extraneous load from the design so that learners can maximize their educational experience, building new schemas or ways to organize information via germane load without being overburdened by the intrinsic cognitive load associated with a new topic. Similarly, in TD the emphasis on the distance between educators and learners requires educators to design and deliver courses in such a way that they actively address and reduce learners' perceptions of physical and digital distance as creating barriers to

learning. However, in CoI, there is a sense that learners and educators must both participate intentionally, with learners bringing forward their cognitive presence, educators providing a teaching presence, and much of the interaction being nurtured in the social sphere where new knowledge is constructed collaboratively. Although these select learning theories are commonly associated with blended and online learning, faculty members' experiences in making decisions during the design process was also explored.

Blended-Learning Course Design and Instruction

Many online sites and blogs, excellent books, localized faculty learning-teaching supports, and other resources are available to support individual educators with their blended-course design efforts. Consideration is given to pedagogic principles and college directives when it comes to technology use in both the face-to-face and online portions of blended courses. Other tools are also available to support student-centered design and to assist educators as they navigate technology and other challenges. It was worthwhile to explore these factors further, with a focus on blended-course technology use and design options.

Technology Use in Blended Education

How faculty members use technology within a college setting to make blended-course design and teaching decisions was central to this study. The process of object creation has been complicated by the dual modality feature of blended courses, where face-to-face teaching requires synchronous teaching and learning with a class of students, while online teaching supports multiple asynchronous individualized approaches to

learning (see Alammary et al., 2014; Garrison & Vaughan, 2008; Vella et al., 2016). Course design and instructional efforts were further influenced by the ubiquitous presence of technology in higher education, which has become an accepted, expected, and regular feature (see Brown, 2016; Ikpeze, 2016; Zhang & Dang, 2020). Some technology use is required by institutions, independent of individual faculty member (or learner) comfort, ability, or preference. Frequently, these requirements are mandated by college policies and typically include the use of an LMS, conferencing tools, and content-compatible software (Bates, 2018; Mackay & Devitt, 2021; Pomerantz & Brooks, 2017). Many faculty members use technology for much more than mandated minimums, incorporating technology use in a myriad of teaching and evaluation activities, from delivering new content to providing exercises to reinforce understanding, to creating and administering assessments to determine learner progress to introducing innovative, program-specific, or institutionally required approaches (Teach Online, 2020). Exploring the use of tools in blended-course design included the subject's perceptions of agency and perceptions of control in course design and application in the instructional environment. Whereas educator-designers exercised control and decision-making agency around some technology use, such as which applications to use in which delivery mode of courses, it was clear that technology dominated tools (see Mwanza & Engeström, 2005; Vásquez Astudillo & Martín-García, 2020) and remained a big part of the rules supporting the activity system.

A variety of technology use in blended-course design was due to many factors, including the typical functions of each of the two portions: the face-to-face, synchronous,

in-class component usually maximizes group learning; while the online, asynchronous, outside-of-class portion tends to emphasize a solitary activity for learners (see Alammary, et al., 2014; Bates, 2019; Vella et al., 2016). For many advocates of this dual delivery modality, a key driver of course design and the incorporation of technology has rested on the understanding that "blended learning is framed by an inquiry approach to learning" (Garrison & Vaughan, 2008, p. 112). However, in Ontario colleges, administrators typically have assigned the courses faculty members teach and have assigned the delivery modality (Mackay, 2014). Whether an educator has self-selected or been assigned to deliver in blended modality, the individual's familiarity and comfort with technology may have led and then determined the success around the nature and extent of integration (Brown, 2016; Teach Online, 2020; Vaughan et al., 2017). The differences around technology incorporation in blended-course design and teaching matter because of technology's pervasiveness in education, but many other concerns related to technology use of and by educators remained.

One complication confounding faculty incorporation of technology in the face-to-face mode of blended courses has related to technology reliability and predictability of intended benefit. Brown (2016) found that educators more readily integrated technology tools into their face-to-face or synchronous blended instruction based upon personal familiarity with technology, perceptions of workload impact, and limited or no requirements for tool configuration. When faculty were comfortable with tool use in class, they more readily built in the use of tools whether function-based such as Excel for mathematical functions or other live technology-based learning via proprietary

applications such as Kahoot! quizzes or Padlet poster boards. However, Zydney et al. (2019) noted that disruptions to learning due to technology glitches during the face-to-face in-class portion of blended courses resulted in a heightened need for information technology support and challenged full technology integration in classes. Barriers facing faculty around successful incorporation of technologies into their blended-course designs were also tied to inadequate educator-designer skills and insufficient recognition of learning and planning time needed (Vaughan et al., 2017). Significant shifts in educational technology during the pandemic have also led to increased faculty expectations and use of technology during the synchronous parts of courses, which might translate to increased technology use for in-person teaching when campus classes resume (Johnson, 2021b). Even with wide ranges of additional technology use during the synchronous portion of blended courses, technology use has been and continues to be a cornerstone requisite of the online asynchronous portion of blended courses.

Instructor engagement in the online component of blended courses was expected by students who like the flexibility of self-regulating their asynchronous learning schedules (Halverson & Graham, 2019; Spadafora & Marini, 2018; Vella et al., 2016). Because the online environment is not time- or space-restricted, group learning and games were typically replaced with individual quizzes or discussion boards that support reflection over collaboration (Garrison & Vaughan, 2008). As Eagleton (2017) proposed, blended learning presents a paradigm shift that should be maximized because instructional design has moved “from the step-by-step instruction which revolves around when and how students learn to what and whether students learn” (p. 203). In this

context, expanded technology integration in blended design extended student control in choice and independence, introduced more multimedia aspects in programs, and led innovative technology use in practical programs such as apprenticeship and nursing (Teach Online, 2020; Zhang & Dang, 2020). That said, individual institutions usually require faculty members to maintain courses within the prescribed college LMS.

An LMS is a comprehensive online repository of courses, sufficiently customizable to support professor-led teaching and learning components, as well as capture learner data for institutional tracking. Institutional guidelines might require faculty members to post certain elements in a course shell on the approved LMS, although a wide range of blended-course design persists (Teach Online, n.d.). Pomerantz and Brooks (2017) found that faculty members had not notably changed their use of and satisfaction with institutional LMSs since the technology had been introduced. In Ontario colleges, where meaningful faculty consultation did not always precede LMS adoption or course modality changes, the associated increase in workload related to technology use resulted in mixed to negative reception and attitudes (Mackay, 2014).

As elsewhere in the world, Canadian higher education educators have increasingly expected their LMSs to be user-friendly and to accommodate easily accessible multimedia options (Peters, 2021). Prior to the COVID pandemic, over 75% of faculty members primarily used the LMS to post the syllabus, distribute course materials, update the gradebook, as well as post and collect assignments, whereas fewer than 50% used features such as discussion boards (Pomerantz & Brooks, 2017, p. 19). The lack of diverse activity use of LMS features was also supported by findings from a large

institution-wide study conducted by Park et al. (2015). Because technology is often presented as a potential panacea for learners by developing skills, enhancing engagement, and supporting individualized learning (Miller, 2014; Peters, 2021), it was valuable to investigate how educators used the LMS in this study.

On the granular course level, educators usually design and deliver content, promote learner engagement, and use LMS features to track progress through views and activities that meet and support certain learning objectives (Pappas, 2017; Peters, 2021). Despite the increasing variety of features available through an LMS, pedagogical and instructional design approaches supported by research should guide blended-course design and instruction to best meet stated outcomes (Farrell, 2017; Garrison & Vaughan, 2008; Su & Endersby, 2018). Even though college faculty members can access LMS analytics to review student access, engagement, and use patterns related to time spent on activities within courses for future designs, faculty perspectives should be incorporated to complement analytics and ensure fulsome blended-course designs that meet learning outcomes and contribute to learner success (Anderson, 2017; Park et al., 2015). In addition to knowing what technology faculty members use and how they use technology in their blended courses, it was critical to consider approaches to blended-course design.

Approaches to Blended-Course Design

For the subject or faculty member, many approaches exist for designing blended courses (Eagleton, 2017; Stein & Graham, 2014; Su & Endersby, 2018). Depending on individual academic freedom as well as perceptions and realities of agency, educator-designers may choose or be required to incorporate or prioritize certain approaches into

their blended-course designs. For example, higher education institutions might focus on individualized learning, require universal design for learning, or support sustainable design. If no specified requirement is mandated, educator-designers might choose to design to manage cognitive load (Clark et al., 2006; Sithole, 2019), design for learning (Sims, 2014), and design for significant learning (Fink, 2013), as opposed to design for general instruction (Hoffman, 2014). Although no single master blended-learning design framework exists (Halverson & Graham, 2019), ample affordances and characteristics of successful blended-learning designs abound and continue to be investigated and updated (Pelletier et al., 2022; Ustun & Tracey, 2021; Venkateswari, 2022). Among design approaches that are common in blended-learning settings, it was important to consider how faculty members experienced the design process. An important consideration required exploration of individual perceptions of agency and perceived control over design decision making, as well as perceptions of the instructional environment and how that influenced design decision making.

In an extensive study reviewing blended-course designs, Boelens et al. (2017) identified four key challenges or contradictions that face instructional designers who were intent on facilitating explicit and implicit learner needs and goals. The study revealed that blended-course design required flexibility be incorporated, interaction be facilitated, students' learning processes be facilitated, and an affective learning climate be fostered (Boelens et al., 2017). When flexibility was built into blended courses, educator-designers determined and prioritized among assorted elements that presented students with options for time and place, especially as manifested in the asynchronous and

individualized learning aspect. That is, faculty designers made choices about which elements of design mattered and were addressed, and in which order. Not all the options could be accommodated, so contradictions surfaced.

Faculty members made decisions how to enhance learner engagement and include flexibility around the nature of the blend for the student (diversified learning paths, see Halverson & Graham, 2019), how to approach the course (low-, medium-, or high-impact; see Alammary et al., 2014), and where to locate which aspects of the learning (independently via the asynchronous portion; see Anderson, 2017). The design challenge in facilitating interaction required planning for the distinct types of learning settings in a blended course that might include student-student or instructor-student interaction and that involved emotional, cognitive, and social engagement to support a sense of belonging (Anderson, 2017; Garrison & Vaughan, 2008; Halverson & Graham, 2019). The challenges related to facilitating learning processes required educator-designers to examine the profile of their learners and accommodate skill levels; potentially they nurtured or supported independent study skills; they may have provided clear, nonoverwhelming, scaffolded lessons and objectives; and they may have managed the distinct learning environments in a way that the two delivery portions were integrated for a cohesive, successful experience (Anderson, 2017; Boelens et al., 2017; Caulfield, 2011; Graham, 2019). Additionally, it remained important to explore how educator-designers perceived their agency as they thought about and prepared their approaches to blended-design courses, while observing guidelines or requirements provided by their institutions.

Educator Agency in a College Context

The concept of agency concerns an individual's view of self and associated ability to act in certain settings. For this study, the concept of agency, as articulated by Bandura (2001), maintained that people are "agents of experiences rather than simply undergoers of experiences" (p. 4). The subject's agency vis-à-vis object creation of a blended course, comfortable and competent use of tools, and agency within the community setting required careful exploration. Schultz et al. (2018) noted that important agentic aspects for educators connected to their perceptions of self-efficacy or what they believed they could influence. This built on earlier findings where Emirbayer and Mische (1998) contended that agency is both enabling and constraining and is culturally situated. Additional considerations of agency were examined for this study as related to research based in higher education college environments as linked to blended-course design and teaching.

The role of faculty members is more than designing blended courses for teaching. Archer (2004) argued that "our continuous sense of self is. . . ontologically inviolable, [whereas] our personal and social identities are epistemologically vulnerable" (p. 2). This way of describing an individual's agency as tied to how people see their identities based on perceptions and related to their ability to act in different environments, such as a work setting, proved relevant in this study. Agentic individuals would not just respond to external stimulation, they investigate, adapt, and influence their environments as well (Bandura, 2001). Thus, in this study, I explored if and how faculty members translated and were influenced positively and/or negatively by their other college responsibilities, interactions, and perceptions. Investigation also included perceptions of agency, which

might be altered or affected in the online part of blended-course design and teaching, where a sense of isolation for faculty members and students was often heightened (Samuel, 2020). The concept of agency for college educators who design and teach blended courses presents individuals with potential conflict around interpreting situations and prioritizing actions.

Exploring the implicit tension an agentic individual experienced aligned with the conceptual framework based in activity theory. I sought insights from faculty members who directed their energies toward creating objects or designing blended courses, based on language indicating context as well. Activity systems are complex, consisting of dynamic interactions among all the elements, with actions and influences proceeding in multiple directions and confronting other systems. The interconnectedness of a system leads to and generates points of stress and possible contradictions for the subject who had to reflect and rethink the object (Igira & Gregory, 2009). In turn, this may have led to redesign of the object or exploration of new options, such as, reconsidering the use of assigned tools. Therefore, educators revealed, in some cases, that their sense of agency was further complicated beyond the blended-course conceptual framework of this study due to other roles and actions they had undertaken at the college and were managing in their personal life situations.

Logically, another aspect of agency concerns the complex integration of time on an individual's thinking and actions. According to Emirbayer and Mische (1998), agency is "a temporally embedded process of social engagement informed by the past. . . but also oriented toward the future. . . and toward the present" (p. 963). Bandura (2001) also

emphasized that agentic individuals act with intentionality, forethought, self-reactiveness, and self-reflectiveness. The fact that educators found and expressed agency beyond their role or capacity related to teaching was demonstrated through intentions and actions requiring judgment based in values and based on context (see Hadar & Benish-Weisman, 2019; Imants & Van der Wal, 2020). Making choices about how and when to act and to enact changes, agentic individuals variously reflected, reevaluated positions, and pursued professional or other types of development. Curiously, the shift to remote teaching due to the COVID pandemic amplified the priority differences among educators, revealing how some faculty members embraced the opportunity to explore new pedagogies and technologies to address design and learning concerns (Teach Online, 2020). In addition to considerations of time, intentionality, and reflection, explorations of agency also examined where individuals were situated socially and structurally.

Although people operate across natural, practical, and social realities (Archer, 2004), the current study explored how participants perceived their realities and how that potentially exacerbated or benefited perceptions of agency on campus. That is, even though all participants have designed and taught blended courses at the study site, their experiences, beliefs, interests, and competencies beyond working at the college influenced their view and authentic understanding of agency. Because educators belong to bigger networks, Hora (2012) noted that design and teaching was not truly independent, as interactions with others shaped and modified individuals' self-perceptions, making them inextricably bound by and to the "socio-cultural and physical systems in which they operate" (p. 209). Another complication to agency was presented

by Bandura (2001) who explained that the perceptions and attitudes held by agents influenced how they responded to and managed fortuity, also known as the chance events, that people encountered and experienced. Still, the basic idea that individuals were agentic when acting with control persisted and, in some cases, included both acting alone and with others in a collective.

Faculty members are frequently organized by programs, departments, or perhaps cross-sectionally, based on core requirements (i.e., English or math) for several programs or a full department. Thus, agentic educators, whether working individually or collectively, were "*interacting with* and *within* specific contexts" (Imants & Van der Wal, 2020, p. 2, emphasis in original). Agency and associated context entailed both opportunities and challenges for faculty members, on the individual and collective level. In this study, I investigated perceptions of agency as individuals or as participants in a collective where there was a potential growth capacity that resulted in intentional actions (see Hadar & Benish-Weisman, 2019). Time also factored into this dialogic understanding of agency, as individuals, whether acting alone or within a collective, were inevitably at different agentic levels of development (Emirbayer & Mische, 1998). In a study that only considered one educator instructing other teacher educators about literacy in a blended course, Ikpeze (2016) found that many factors figured into a teacher educator's sense of agency, including technology comfort, institutional support, and recognition of existing skills. Building upon the trajectory of the research in the area of teacher agency in blended-course design, I also explored how educator-designers'

perceived agency and how perceptions of the instructional environment affected their decision making when they designed blended courses in a college setting.

Decision Making as an Integral Component of Blended-Course Design

The participants for this study were college faculty members who typically did not have professional instructional design or pedagogical training, meaning that they each brought their unique personal histories of how they had learned their content specializations and how they were now practicing designing and teaching. As subjects designing objects or blended courses, the faculty members were involved in a recursive cycle relying on experiences, skills, knowledge, preferences, and perceived agency within the community college setting. Mitigating as well as confounding the decision-making process was the defined setting in which each participant was situated and bounded by actual and perceived professional, institutional, departmental, technological, and program-based content requirements. Decision making was a critical and key activity related to the object of the activity system conceptualizing this study. The outcome of a well-designed blended course yielded varying degrees of satisfaction as decision making was more intentional at times. As the subject navigated the full activity system, decisions were made while appropriate tools were used, the community was mediated, and the rules and division of labor affecting the design of a blended course were addressed.

Engeström (1987) posited that decision making was of two key types connected to learning for individuals: *automatic responses* or reflexive actions were based in conditioning and tied to "environmental properties" (p. 55), while *reasoning* involved decision making based on longer-term thinking about stored information and experiences.

For March (1991), experience was also important in decision making; however, rather than it always being the result of an individual weighing alternatives or calculating consequences, appropriateness in the moment helped an individual manage ambiguities around the known past and unknown possibilities. In a study focused on understanding innovation decision making in education settings, Russell and Schneiderheinze (2005) emphasized the importance of examining the perspective of the individual and considering the influence of the setting. They explored each individual's approach to technology integration in the classroom and found that decision making is an individual process that becomes complicated because of social and pedagogical interactions.

Because decision making is not always a deliberate, careful, and reflective process, it can be the result of convenience or heuristics developed by individuals to move a process along. Kahneman (2011) summarized the different ways people think and make decisions as being of two distinct natures: *fast* or System 1 and *slow* or System 2. When System 1 is used, thinking is fast, and occurs automatically, often based on heuristics. When more deliberate or slower thinking occurs, as in System 2, options get compared, and the mind engages reflectively. Faculty members think and make decisions in a fast or slow manner, for different reasons and with varied consequences. Further, many factors figure into faculty member perceptions and the resulting actions and decisions manifest individually.

In a detailed study across three disciplines at a single institution, Hora (2012) explored the different structural and sociocultural factors that shape faculty member perceptions that in turn result in decision making related to instruction. That study

revealed that several constraining and enabling factors influenced faculty decision making, including perceptions of how freely they could or could not implement different pedagogical approaches. In a review of literature on blended instructional practice, Brown (2016) found that decision making in blended settings frequently resulted in design and teaching decisions where student engagement was prioritized over other factors. That study also showed there were no clear patterns for decision making as resulting from or influenced by external or institutional factors versus an educator's instructional philosophy. However, efforts to get students to engage has been well-documented as part of a course design decision-making process and this element is frequently listed as a reason that drives educators to spend time on meaningful work that links to students (see Imants & Van der Wal, 2020; Samuel, 2020; Schultz et al., 2018). Beyond the mechanics of decision making in blended-course design, I explored educator-designer perceptions of personal agency and how this affected their perceived control of decision making when designing to extend general understanding in the literature.

Community Setting: The Instructional Environment in Canadian Higher Education

The instructional environment for this study was a Canadian college, where educators were also responsible for designing their own courses. In Canada, education is constitutionally assigned as a provincial jurisdiction, meaning there is no federal or national single system. In Ontario, the most populous province, there are 21 public universities and 24 public colleges; approximately 30% of all postsecondary enrollments or 217,000 fulltime students attend college (Ontario Colleges Library Service, 2021). Historically, since their creation in the 1960s, colleges were focused on vocational or

trades programs. In the meantime, colleges across Canada, including those in Ontario, have expanded programming to include substantial white-collar offerings focused on health care, technology, and business education. Students can choose career-ready options from 2-year and 3-year programs, and more recently options including full bachelor's degrees (Usher, 2020). Another development since the Rae Report on postsecondary education was delivered to the provincial legislature in February 2005 (by former Premier Bob Rae turned advisor to Ontario's Premier McGuinty), has seen successive Ontario governments demand institutions increase overall sustainability, accessibility, and global competitiveness (Young et al., 2017). These conditions were important factors in considering the instructional environment of college faculty in Ontario, but the specific work conditions of college faculty warranted review as well.

Difficulties exist around accurately capturing, recording, and reflecting higher education workloads. Commonly, fulltime student enrollment numbers to academic staff ratios have been used to calculate assigned workload. Questions about the use of this ratio as an accurate measure of workload or an institution's sustainability and efficiency persist, as do concerns about the growth in adjunct or casualized faculty use versus fulltime or tenured professors at postsecondary institutions (Fu, 2020; Shanahan et al., 2015; Usher, 2020). Educators also often have different priorities when they are parttime or fulltime faculty members, although over 53% of parttime postsecondary academics would prefer transitioning to fulltime faculty member status (Mackay & Devitt, 2021, p. 26). In addition, the precarity associated with parttime employment has not diminished (Karimi, 2020). In Ontario colleges, certain categories of faculty members are unionized

(all fulltime academic staff and those scheduled to teach 7–12 hours of classes per week are protected and obligated by a province-wide collective agreement), but all classifications can, and do, teach across the delivery modalities.

Working in a unionized setting imposes certain constraints on workload that can be assigned to college faculty. Legally, administrators are required to meet the principles of natural justice and follow procedural fairness in employment decisions (Shanahan et al., 2015). Whereas many academic employees see benefits in working in a unionized setting, not all are enamored with this reality, especially given that collective agreements expire every 2 to 4 years, and the threat of strike and potential interruption to teaching and learning can be highly disruptive (Karimi, 2020). It was valuable to capture voices of both fulltime and parttime faculty members as their perceptions and experiences were different. Managers use a formula for calculating workload, with the onus of reporting inadequate or incorrect time allocations for work assigned resting on faculty members. The increasing use of technology and parttime faculty in education means that capturing accurate workloads is exacerbated (Mackay, 2014); it also underscored the value of capturing individual faculty member experiences.

The Ontario college system produces about 62% of all Canadian short-cycle postsecondary graduates, with a focus on nonbachelor's degree, vocationally oriented, career-ready programming (Skolnik, 2020). Faculty members in colleges are, therefore, expected to create courses that provide practical, vocational, and employability-ready experiences to learners. This mandate has had a wide-reaching impact on how postsecondary institutions approach student recruitment and retention. In turn, faculty

members have seen their workload expand steadily, as they have increasingly been expected to participate in activities such as recruiting at open-house sessions or teaching and supporting student success through remedial exercises and even off-cycle courses. Moreover, the requirement for sustainability has also led colleges to seek new students elsewhere, which has manifested in enhanced international student numbers (Mackay & Devitt, 2021; Usher, 2020). With growing downward pressure from senior college administrators through managers to educators to support all learners, including those paying premium fees from abroad, faculty members have been required to design and teach their courses for increasingly diverse audiences.

Participant-subjects for this study were all based at the same 1 of 24 Ontario publicly funded colleges. Individuals brought unique subject experiences and varying levels of pedagogical experiences to designing their objects and teaching their blended courses. As in many higher education institutions, no requirement for pedagogical training was required to become a professor at this Ontario college (see Mooney, 2018). To teach in a college, individuals require relevant subject-matter degree credentials, plus a combination of subject-based work and postsecondary teaching experience. With most colleges offering classes all year long, and traditional course renewal and development times gone (Mackay & Devitt, 2021), the responsibility of finding time and inclination to participate in professional development learning and teaching opportunities was left to individual faculty members.

Program quality is critical for colleges; nevertheless, the onus of learning how and when to integrate which technologies to suit the content, pedagogy, and learners' needs

remains a decision individual faculty members make. In a national survey on the status of Canadian postsecondary online education, nearly half the respondents noted their lack of technological competence was largely due to inadequate resources, identifying a "lack of specialist learning technology support staff as a barrier" (Bates, 2018, p. 13). As college faculty members had a range of pedagogical understanding, technological comfort, and available time, adoption and use of evidence-based approaches to design also varied greatly. According to Mooney (2018), despite higher education institutions typically having strategic priorities in teaching excellence and mandates for learning, teaching centers to support faculty have been consistently underaccessed. According to Johnson (2021a), the pandemic led to a shift in faculty attitudes about using technology in teaching such that "[m]any faculty are interested in continuing to integrate technology into their teaching practices, which may lead to increased [blended] offerings post-pandemic" (p. 4). At the study site, with no full instructional design team, faculty members remained responsible for learning about pedagogical and technological options, accessing support through LTS, and then designing their own courses. Thus, the overall Canadian, and narrower, Ontario higher education scene was both exciting to explore and revealed great complications. Another consideration in the community setting concerned college approaches to adopting blended courses.

Blended-Learning Course Design and Instruction in Ontario

Ontario colleges used to focus only on face-to-face delivery; however, starting in the early 2000s, online and blended course components were introduced in most programs (Bates, 2018; Mackay, 2014). Blended-course delivery has been adopted and

normalized across the province, although educator-designers have had a wide range of experiences. Waldman and Smith (2013) reported that 68 blended-delivery courses were introduced at one Ontario campus during Fall 2011 to Winter 2012, in a weekly 1-hour online to 2-hour face-to-face format. Following similar formats of a 2:1 time split, blended courses were introduced at the study site in pilot initiatives in the early 2000s, where I designed and delivered blended courses as early as 2004.

In Ontario-based higher education, adoption of blended learning revealed positive results where the institution intentionally initiated, strategically supported, and financially contributed to the adoption and implementation of blended learning (TLSS, 2016; Waldman & Smith, 2013). However, in many Ontario colleges, where consultation with faculty was limited, professional development support was lacking, and adoption speed was pushed, the results and reactions to blended and online teaching adoption were inconsistent and weakly accepted (Mackay, 2014). Independent of any underlying reasons for noninstitution-wide adoption, where blended learning has been left to individuals or departments on a campus, the results can vary more dramatically (Alammary et al., 2014; Park et al., 2015; Ustun & Tracey, 2021). According to Donovan et al. (2019), only 19% of Canadian academic leaders were confident that blended courses offered stronger learning outcome possibilities than face-to-face instruction, as compared to 30% of American academic leaders (p. 9). It was unclear whether such a concern around blended courses factored into the fragmented, multiple starts approach adopted at the study site. Still, educator-designers have made planning decisions based on their immediate mandate, requirement, experiences, and perceptions.

Course modality and delivery decisions have usually been prescribed and not left to individuals in Ontario college settings (Mackay, 2014). In the context of the individual educator-designer setting, questions about individual agency have arisen (Waldman & Smith, 2013), including whether a course was being converted from a traditional to blended format and if so, to what extent, or if the blended course was a new design (Alammary et al., 2014; Miller, 2014; Stein & Graham, 2014). Where conversions occurred, best practice guidelines recommended faculty members return to the learning objectives rather than just add asynchronous elements to ensure a thoughtful approach to the face-to-face and online components (Alammary et al., 2014; Garrison & Vaughan, 2008). Where faculty members were able to begin a course design fresh and select their learning supports, the options were almost limitless.

As in many other higher education regions, there is a strong learning community for teaching and learning support among higher education practitioners in Ontario. Perhaps one of the most versatile and accessed sites, supported through and maintained by the government-funded eCampus Ontario initiative and hosted on Teach Online, is a nationwide higher education institution-based searchable directory, providing access to over 80 teaching and learning centers across Canada (Contact North, n.d.). Nonetheless, a common concern expressed by faculty members surrounded the need for more institutional support for blended-learning (and other) teaching-related initiatives (see Ginsberg & Ciabocchi, 2015; Mackay & Devitt, 2021; Vaughan et al., 2017).

Blended design is shaped by many factors. For example, departmental and institutional guidelines may create parameters on how educators approach their practice.

These expectations and restrictions could influence the individual levels of confidence educators bring to using technology or experimenting with new approaches in physical or virtual classrooms. Several authors noted that more research was needed into educator perspectives to develop and advance understanding of how blended courses are designed for teaching and learning, thereby supporting the need for this study (see Brown, 2016; Smith & Hill, 2018; Waldman & Smith, 2013).

Because blended-course designs tend to be individualized, even within single institutions, and because inexperienced teachers face the greatest challenges (Alammary et al., 2014), it was valuable to include newer faculty member insights and examine their perceptions of agency in this study. In a study focused on seeking expert opinions on blended-learning implementation in higher education, Bruggeman et al. (2021) found that teacher confidence was a factor of time and experience and not just acquired with new skills or pedagogical training. Thus, whereas novice faculty members normally receive institutional support around pedagogy, class management, and the use of basic technologies, including LMS use, the design and teaching of a blended course can be very challenging, especially in addressing in-class surprises such as technology failure. Supporting concerns about teaching experience and blended-learning design and implementation, Pomerantz and Brooks (2017) found that faculty members with experience developing and teaching online were more comfortable in blended settings because they were more confident about the added value they could bring to their traditional face-to-face approaches. However, when faculty were worried about technology working reliably in face-to-face settings, the pressure tended to be more

intense and frustrating than in asynchronous settings and could be especially overwhelming for novice teachers (Zydney et al., 2019). Notwithstanding the many factors educators address in the process of creating objects or blended courses within the college community while using technology tools, further exploration into understanding how and why faculty designers make decisions around technology use, group and individual activities, and other aspects of blended-course design was needed.

Summary and Conclusions

The literature review presented in this chapter related how faculty members experienced decision making when designing blended courses that they taught. Initially, I explained my process of searching the literature for this study. In the conceptual framework, I discussed how activity theory provided the theoretical foundation for the study and how the activity focus of object creation (designing a blended course) led and underpinned the activity system for this study. The variables and concepts relevant to the study were explained with five key themes identified and explored: blended instruction, design theory, agency, decision making, and the instructional environment. Throughout, connections were made showing how the current study built on existing research, extending and deepening the understanding within the extant literature. The unique perspective of study participants, combined with the Ontario public college setting provided a broader understanding for the study purpose and research goal. As faculty members who designed blended courses that they taught used tools within the college setting, they went through iterations of decision making. This process needed to be explored to acquire a deeper understanding of the educator-designer perspective.

In Chapter 3: Research Method, I explain interpretive description, which is based in the qualitative paradigm and adopted for this study. The use of a simple criterion-based purposeful sampling approach for participant invitation and selection is also defended. Data collection via semistructured interviews is explained and supported. Further, the data analysis process employing two cycles is described in detail before issues supporting study trustworthiness are thoroughly detailed.

Chapter 3: Research Method

The purpose of this qualitative interpretive description study was to develop a deeper understanding of how college faculty members experienced the decision-making process in designing blended courses they taught. The phenomenon of interest for this study, the experience of college educators during the decision-making process, was examined and analyzed in the practical work setting, making it well-suited to interpretive description. As Thorne (2016) noted, the lived and perceived real world is worth exploring, making the challenge for me to distill a specific question from the field of interest that was amenable to research. That is, interpretive description encourages the pragmatic situating of a study such that theoretical integrity can be maintained while addressing "the 'so what' that drives all applied disciplines" (Thorne, 2016, p. 36). In a study intended to provide insights valuable in other contexts yet not meant to be generalized, Mooney (2018) explored how LTS met and served the needs of faculty members at a large Canadian college, using an interpretive description approach. According to Mooney, "[a]s a methodology, interpretive inquiry emphasizes the *situated individual*, uses relatively small sample sizes, and requires that the particular meanings reported by participants be set within their contexts" (pp. 41-42, original emphasis). For these reasons, interpretive description was selected as the methodology for the current study.

Set at a publicly funded Canadian college, this study explored the lived and perceived world of faculty members as related to their experiences in making blended-course design decisions. Ample evidence has shown that blended-course design is often

highly individualistic, based on educator priorities and preferences (Alammary et al., 2014; Park et al., 2015; Smith & Hill, 2018). Other factors such as curriculum requirements, institutional support, and learner needs also vary significantly, and, consequently, influence design decisions. Thus, exploring the experiential context of the phenomenon in practice is valuable to many in education and may add substantively to the literature of the field.

In this chapter, I outline the value of using an interpretive description design because the study focused on the central concept of exploring how college faculty members make decisions in designing the blended courses they teach. Following this introduction, the research design and rationale presents how elements of other qualitative approaches are selectively incorporated. The centrality of reflexive practice is identified and discussed under the role of the researcher in terms of researcher biases, relations, and consideration of ethical issues. The methodology presents sufficient detail to facilitate the replication of the current study, outlining participant selection logic, instrumentation, procedures for participant recruitment, participation, and data collection, as well as the data analysis plan. The issues of trustworthiness include these subsections: credibility, transferability, dependability, confirmability, intracoder reliability, and ethical procedures. The chapter concludes with a summary section.

Research Design and Rationale

As identified in Chapter 1, in this exploratory study, I answered three RQs:

RQ1: What are faculty members' experiences during the decision-making process of designing the blended courses they teach?

RQ2: How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process?

RQ3: How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process?

The questions allowed a focused exploration of the individual's perceptions of agency and the instructional environment that in turn linked directly to the conceptual framework based in activity theory. In applying Engeström's (1999) activity theory to this context, subjects or faculty members are object-oriented in designing blended courses while using tools such as technology and course content within a community, or the college setting, which is organized by accepted rules and a division of labor. Thus, to understand the faculty member decision-making experience in designing blended courses in the college sociocultural system, individual and communal influences effecting decision making needed to be explored (see Engeström, 2000). Because this study was situated within the qualitative realm, it was important to acknowledge that, epistemologically, people make meaning and develop understanding when constructing knowledge based in real-life experiences and interactions with the world (see Burkholder et al., 2016; Patton, 2015). As the researcher, I was also involved in knowledge construction, and my preference for pragmatic solution-oriented approaches led me to adopt an interpretive description design.

While theory is valuable and should underpin research and analysis, the exploration of theory must have a purpose beyond expounding theory, namely, to inform

and solve day-to-day real-life problems. The pragmatic situating of the study at a college where faculty members are designing blended courses that they teach works with interpretive description for generating knowledge in applied research fields such as education because it "provides a grounding for the conceptual linkages that become apparent when one attempts to locate the particular within the general, the state within the process, and the subjectivity of experience within the commonly understood and objectively recognized conventions " (Thorne et al., 2004, p. 3). Moreover, Sandelowski and Barroso (2007) emphasized that the iterative and recursive nature of working in the qualitative tradition requires researchers to revisit work written and discussed in earlier stages continuously. Researchers working in applied settings should also be mindful that in their pursuit of new knowledge they may trigger changes because the research is introducing an opportunity for reflection and deeper thought among practitioners (Thorne, 2016). Therefore, as the researcher, I needed to regularly review and reassess the project for alignment, ensuring theory anchors the study.

Thorne (2013) asserted that general knowledge provides a practitioner with an understanding of what might be expected in any given experience without providing a template of exactly what might occur in applied fields. Whereas the juxtaposition of these core research elements fit well with the study's conceptual framework based in activity theory, the decision to emphasize individual voices drew on other qualitative traditions, too (see Thorne, 2016). That is, the decision to use an interpretive description design for the current study allowed for the inclusion of specific traits from other qualitative designs.

A community setting is central to ethnographies and to this study. A researcher using an ethnographic approach applies an exploratory lens based in the common cultural situation shared by the participants to explain their perspectives and behaviors (Creswell, 2014; Patton, 2015). Because those involved in this study all shared the common cultural experience of being postsecondary educators employed at the same Ontario college, there was a commonality to the work environment. Insofar as community being a key node of the conceptual framework, the individual faculty member's situated experience and perceptions of agency and control around blended design for courses they taught needed to be explored. Not only did this interpretive description study benefit from the inclusion of ethnographic features, but there were also merits to be found in exploring the phenomenon.

In phenomenology, the research focus is to understand the meaning, or the essence, of the lived experience associated with a phenomenon (Creswell, 2014; Patton, 2015). That is, making sense of a given experience both on an individual and group level drives phenomenological studies (Thorne, 2016). However, the purpose of this study required more. By using an interpretive description design to address a real and situated problem, making sense of the phenomenon for the sake of better understanding the phenomenon was only part of the deeper exploration of faculty member experiences. In addition to combining selected features of ethnographic and phenomenological studies to explore the common setting associated with each unique meaning-making experience of individual faculty members, elements of case study were also relevant to the design.

A case study is typically bounded in some way over time and place, obtains focus through the use of a unit of analysis, and includes more than one method of data collection. The present study drew on case study design features as the unit of analysis centered on the faculty member experience of designing blended courses at a single site over a set period. Additionally, multiple data-collection methodologies were not used in this study, but multiple unique cases were collected as the data.

The roots of interpretive description are based in the pragmatic realm, where research aims to "extend beyond mere description and into the domain of the 'so what' that drives all applied disciplines" (Thorne, 2016, p. 36). Thus, this study remained best suited to an interpretive description design. Exploring individual experiences in context and interpreting the data helped develop a deeper understanding that may benefit future blended-course educator-designers and may provide practical insights while addressing the gap in the research literature identified earlier. The conceptual framework provides a lens for exploration of the phenomenon and fits well with the interpretive description design. The use of theories that are already commonly associated with blended learning and course design also fit in this qualitative approach. Insofar as the researcher is indispensable to a qualitative study, it is now useful to examine the role of the researcher.

Role of the Researcher

In qualitative research, the role of the researcher is central to a study in large part because researchers are the data-collection instruments (Patton, 2015) and are implicitly involved in the meaning making process. Throughout this study, as Ravitch and Carl (2016) advised, I identified, established, and updated my positionality to ensure biases,

assumptions, and guiding ideologies were addressed. Because any understanding of what can be known is tied to an epistemology outlining how we know what we know, objectivity of approach is limited (Burkholder et al., 2016). This reveals the simultaneous appeal and the risk of qualitative methods (Patton, 2015). Although the limits on objectivity are not problematic, they do need to be acknowledged. With a well-designed interview protocol, thorough data collection, reflexive journaling, and triangulated approaches to analysis, I mitigated concerns around objectivity and inspired confidence in the reporting (see Patton, 2015). However, because this study was pragmatic in nature and of personal importance, I heeded Thorne's (2016) advice that interpretive description researchers exercise additional care.

The importance of reflexive practice through all the research stages was critical. Thorne (2016) advised qualitative researchers to "subjectively and conceptually" (p. 119) track and record levels of engagement and changes in thinking throughout the study. Well before designing the instrument for collecting data, reflexive practice was part of my active and evolving research plan. With new discoveries and experiences, I revisited and resynthesized my work maintaining alignment through the problem, purpose, and RQs. Reflexive journaling ensured that I continued to practice openness, striving for neutrality, and being open to emotion (see Patton, 2015). These practices were continued into data collection and analysis, ensuring that the project achieved trustworthiness.

Because I had a relationship with the phenomenon of study, I accepted that I was a participant-observer (see Babbie, 2017) and was cautious to avoid tainting the data by sharing or comparing practice with participants. That is, although I have a personal bias

for using education to effect change and am vested in learning about the experiences other faculty members had as they made decisions in designing blended courses they have taught, I focused on hearing participant experiences as shared. It is possible that the participants knew me or had known of me prior to the study because I have worked at the study site for 2 decades. However, no concerns about power relationships arose because I had no supervisory role vis-à-vis other professors at the college.

Throughout the study, I maintained transparency of the research goals and processes, ensuring I stayed observant and intentional about adjustments based on change happening around me and within me. Following each interview, I completed journal notes reflecting on my reactions to the interviews, noting repeating or unexpected data, and commenting on how participants engaged, observing what they may or may not have shared. Ravitch and Carl (2016) stated that a dialogic and recursive approach to research was needed, and so, I thought about positionality while listening, reading, writing, and reflecting throughout the interviews and the note-taking process. This awareness and declaration provided further context and meaning to the field notes and postinterview notes. In all aspects of the study, from reviewing the literature, to designing data collection and analysis, I examined and acknowledged researcher bias. In this way, participant experiences were honestly captured, reflected, and interpreted.

Methodology

In this study, I built on existing knowledge to deepen understanding of how college faculty members experienced decision making in designing blended courses they teach. With a core view that knowledge is constructed as individuals interact with their

environment (see Burkholder et al., 2016), the qualitative approach made sense. Philosophically, qualitative research is based on the premise that "[k]nowledge acquisition is inductive, value-laden, [and] contextually unique" (Moon & Blackman, 2014, p. 3), as opposed to objectively verifiable. Locating the study in an applied setting with a high value on individual experiences and perspectives meant that an interpretive description design was the best fit (Thorne, 2016). Sandelowski (2000) reminded qualitative researchers that inquiry is followed by description and interpretation. Interpretive description design studies are more focused on advancing scholarship in practice by seeking patterns in shared realities (Burdine et al., 2020).

In practical fields such as research in education, Thorne (2013) underscored that theory is used to solve challenges and take action rather than just to build theory. As the sole researcher of this study, I let theory drive the process from design through data collection and analysis. In exploring the complex realm of how educators experienced designing blended courses that they taught, insights and possible tensions between theory and practice were exposed. Supporting my role as the researcher, the participant selection logic, instrumentation, procedures for recruitment, participation, and data collection, followed by the data analysis plan are discussed next.

Participant Selection Logic

The population, or target group, of interest for this study was significant and consisted of educators who designed blended courses that they were teaching and had taught at a publicly funded college in Ontario, Canada. Although many higher education institutions have dedicated instructional design teams who lead course-design work, such

is not typically the case across the 24 publicly funded colleges in Ontario (Bates, 2018). Thus, this study was concerned with faculty members who were responsible for designing and teaching their own blended courses and while content experts, they may or may not have had formal pedagogical training (see Mooney, 2018). Although there are several hundred faculty members at the college research site, data were collected from a smaller sample. Thorne (2016) reminded researchers that to ensure alignment of the study purpose through the RQs, data collection, and analysis, participants need to be intentionally selected and invited to participate in the data-collection process.

Potential participants were drawn from the broad group of faculty members who had blended-learning course design and teaching experience. This purposeful participant selection approach supported the study methodology, as the inherent "logic and power of purposeful sampling lies in selecting *information-rich* cases for in-depth study" (Patton, 2015, p. 264, original emphasis). That is, the target group was filtered to a participant sample to explore the RQs of the study.

Qualitative data saturation benefits from a holistic approach, taking a working understanding of saturation beyond a strict participant count. Thorne (2016) posited that other factors in a study including the purpose, the overall design, as well as the skill and discipline of the researcher must all be considered when assessing data saturation. Given the practical concern of study feasibility and constraints for time and predictability, it was prudent to factor participant count into the study design. Of the initial candidates identified as eligible for the study, a sampling frame of 30-40 individuals was targeted as

appropriate to enable purposeful sorting such that 12 volunteering individuals were invited to participate in semistructured interviews.

In this way, the participant sample included the right information-rich participants in the study (see Patton, 2015). To address the phenomenon of faculty members' experiences in designing blended courses they teach, faculty members with varying levels of experience, including those with limited teaching and blended-course design experience (see Alammary et al., 2014) were included in the study. The participant sample also reflected departmental and gender variability (see Vella et al., 2016; Zydney et al., 2019). The participant recruitment criteria table (Appendix A) summarized the key criteria, rationale, evidence of compliance, and supporting consideration related to participant selection described above.

Potential participants self-identified from the target population by responding to an open-call recruitment invitation posted to the study site daily electronic newsletter (Appendix B). The recruitment notice identified me as the solo researcher. Based on the purposeful criterion that participants had to be experienced in designing and teaching blended courses, I selected 12 respondents to receive the invitation e-mail (Appendix C) and consent form attachment. Participants were sent procedural directions about scheduling a Zoom interview and were provided time to review the voluntary nature of the study commitment. They were also assured that the study received both Walden's IRB approval (12-16-21-0975299) and the study site's research and ethics board approval. Finally, participants were advised that they could freely withdraw from the study at any point. All potential candidates save one met the criteria for participation

within the expected timeframe. The volunteer who did not meet the design criterion received the thank you for your interest e-mail (Appendix D).

Instrumentation

To collect the data needed to address the RQs of this study, an interview protocol was developed. The interview instrument was researcher-developed and designed based on the supporting literature and conceptual framework for the study. Planning for the data collection began with an understanding of the type of data needed.

For this study, the interview protocol was designed to collect a wide range of data to provide opportunities for acquiring insights on faculty member perceptions while remaining grounded in the theory related to the phenomenon of the study and underpinning the conceptual framework. This strategy fit well with Thorne's (2016) reminder that researchers should examine and consider the types of knowledge required to meet the needs of a study from its purpose through the RQs and not to be trapped in "the 'either/or' position on subjective and objective knowledge" (p. 138). Using the interview protocol as a guide supported the recognition and collection of the correct types of data and data specific to the needs of the study.

Interview Protocol

The individual personal interview, based on a semistructured format, was used to guide the collection of data for this study. As recommended by Jacob and Furgerson (2012), the interview questions were determined based on the RQs for the study. The interview protocol (Appendix E) highlights the literature used to create each question and identifies the types of expected data. During the actual interviews, prompts were

interviewer-generated and employed as deemed appropriate or necessary; however, predetermined probing prompts were prepared and intended as suggestions to ensure participants provided the data needed (see Rubin & Rubin, 2012).

The interview protocol listed seven interview questions and corresponding probing prompts. The questions and prompts all aligned with the three RQs, and the full protocol included literature support and expected types of data to be collected. The interview guide (Appendix F) was simplified and included only the seven interview questions and prompt suggestions. For the interviews, this briefer guide plus a column noting the data expected was used as the primary reference. The interview questions were designed to take advantage of the approximate 60 minutes with each participant to respect the voluntary commitment per individual and to maximize effective and efficient data collection.

Procedures for Recruitment, Participation, and Data Collection

Beyond a general commitment to transparency and audit trail tracking, the credibility of the study was enhanced through certain study design features. All data were collected from a single site, at one Ontario college, by me, the sole researcher. From the initial respondent group, follow-up participation invitations with interview day and time details were distributed. Ultimately, 12 participants contributed to the study through single individual semistructured interviews. All data collection was completed within a 2-week period. Throughout the data collection, I communicated with my advisor and made decisions based on the richness of the data collected.

Participants were provided an opportunity to respond to each of the seven interview questions exploring their perceptions about decision making related to designing blended courses that they had taught, especially as connected to their views of agency and instructional setting. Probes were used both to provide clarifying support and to return participants to the desired discussion. I collected objective data identifying faculty member gender, experience designing and teaching generally as well as designing and teaching blended courses, and groupings of subject area specialization. Background related to education and professional development, preferred theories or pedagogical approaches to blended-course design, and preferred technologies were collected throughout the interviews, as well. Complementing the collection of objective data was the collection of detailed subjective knowledge concerning individual perceptions of agency and the influences of the college environment on design decisions.

The data-collection plan was designed to develop a deeper understanding of the complex phenomenon at the heart of this study. All interviews were conducted and recorded to my personal computer through the online video application, Zoom. All interviews were transcribed through Temi – Record and Transcribe, a machine-based transcription software program. The transcriptions were reviewed and corrected for accuracy and shared with participants for member-checking. When I reviewed the digital recordings, I added comments on nonlingual elements such as a participant's incorporation of laughter, pauses, or sighs, as well as other body language displays. In the audit trail, I captured all major changes in thinking and study developments. Recordings were labeled, stored securely in two password-protected locations on my personal

computer and on an external drive. All research materials have been archived according to IRB requirements, to be stored for 5 years and then destroyed.

When individual interviews ended, participants were thanked, provided a copy of the transcript for checking, and informed of next steps plus expected timelines related to my review of their contribution in the context of the study. Employed as a member-checking process, participants were invited to speak with me to hear my interpretations and share their feedback again later in the study process. Once drafts and revisions were completed, and Walden provided study approval, participants and interested stakeholders received a 1–2-page summary of the study. Participants might also have a sense of satisfaction knowing that they contributed to this study exploring blended-course design and teaching during a time when education was undergoing significant change.

Data Analysis Plan

For this study, data analysis involved an exploration of the objective and subjective data that had been collected, trying to develop an understanding of relationships among the data that could help me respond to the RQs. The plan involved adding my reflexive journal notes and data analysis memos into the computer-assisted qualitative data-analysis software (CAQDAS), being sure to keep all files separate. After all the data were collected and collated, a two-cycle coding plan was used to begin finding connections and patterns in the data.

Although Word or Excel would likely have sufficed as effective organizational tools for coding the collected data (see Rubin & Rubin, 2012; Saldaña, 2016), I took advantage of the CAQDAS to ensure depth and consistency of analysis potential. Among

the advantages of using a CAQDAS were assurances that all the research would be organized in a single database. The advantages of using a CAQDAS such as MAXQDA, NVivo, or Taguette (an open-source free option) were related to the vast database-management and manipulative capabilities available when analyzing the research data. Using a CAQDAS allowed me to keep multiple types of study data together for organizing, annotating, indexing, marking text, categorizing, displaying easily for analyzing, and searching (see Patton, 2015; Ravitch & Carl, 2016). I added my journal notes and data analysis memos directly into the program, as separate transcriptions to avoid any confusion about source and to help me in my analysis. Using a CAQDAS from the outset, first Taguette and then NVivo, allowed me to build a rich archive and support the research process of working with coded data to explore and test hunches, which were important to the selected interpretive approach.

Qualitative study analysis involves a recursive and iterative process. Because this study was an interpretive description design, I maintained a focus on the theoretical underpinnings throughout the analytic process. An advantage of the interpretive description design is that researchers seek to highlight patterns that will be valuable for education stakeholders (Burdine et al., 2020). During early coding stages, even after initial groupings were created based on the RQs, I remained receptive to options for "confirming the reasoning" (Thorne, 2016, p. 175) for naming patterns and following relationship hunches within the data. All interview responses and researcher remarks were reviewed in the broader context of "what else is happening" (p. 134) to support a rich and thick understanding of the data. Overall, the potential of this approach was that

greater attention was given to the individual experience while developing a deeper understanding of how the phenomenon of blended-course design and teaching might be more fully understood and aid practitioners.

First Cycle Coding Plan

The coding planned for this study included multiple cycles beginning with generic, open coding based on the study's research goals, the conceptual framework, and the literature. Ideal for achieving such goals were the structural coding method and descriptive coding method (see Saldaña, 2016). In this first cycle coding, I returned to the RQs to find structural-code possibilities, such as decision making in blended-course design, perception of agency related to decision making in blended-course design, and perception of instructional environment related to decision making in blended-course design. According to Saldaña, structural, or question-based, coding is especially effective for studies where there are multiple participants and semistructured interview protocols, as it "both codes and initially categorizes the data corpus to examine comparable segments' commonalities, differences, and relationships" (p. 98). For me as a novice researcher, descriptive, or topic, coding was a valuable early cycle process as it helped me build a vocabulary of consistent nouns to identify what was being discussed by participants. As descriptions are central to qualitative inquiry, descriptive coding was critical in helping readers see and hear the data as they were seen and heard by me.

Finding anomalies or discrepant cases in the data and determining themes were possible as I adopted an immersive and reflexive approach. While coding initially occurred on an interview and transcript per participant basis, I maintained a view to the

complete data set. Thorne (2016) noted the value in maintaining such a dual view of data, recommending a careful first cycle sorting of data into groups, and simultaneously ensuring data integrity by returning often to the original transcripts. In addition, this early deductive coding approach was combined with inductive or emergent coding such as *in vivo* or literal coding to capture the terms and language used by the participants. By noting the exact terms used during the interviews, I was able to explore any unique site-based language use, especially when combining codes with my reflexive journal and analytic memos before moving into second-cycle coding.

Second-Cycle Coding Plan

Second-cycle coding typically involves categorizing or theming the initial coding. I used the focused coding method (see Saldaña, 2016) to group clusters of similarly coded first-cycle data into process or gerund categories. In these new groupings, I was able to compare and explore participant data to find fit and transferability. I also maintained a reflexive journal and completed analytic memos throughout the analytic process. These other data elements were also entered into the CAQDAS, which eased the process of exploring the data for patterns and spotting anomalies.

A theoretical coding method (Saldaña, 2016) was applied in this second cycle to sort initial codes by theories. As identified in Chapter 1, the conceptual framework was grounded in activity theory, and as discussed in Chapter 2, there are many views around blended-learning course design. The initial codes were explored and categorized to see how participant responses might explain the phenomenon explored in this study as represented by established and previously discussed theories. In this way, thematic

exploration brought focus to the individual "participant's psychological world of beliefs, constructs, identity development, and emotional experiences" (Saldaña, 2016, p. 200). By re-sorting the first-cycle codes into theoretical groupings, I was able to rearrange the data to find concepts of hierarchy, relation, and structure.

Throughout the analysis process, as Ravitch and Carl (2016) emphasized, I used an iterative approach because coding is not linear. As Rubin and Rubin (2012) recommended, I also explored for deeper meaning, possible themes, and grouping concepts as exhibited through participant tension (e.g., body language versus words spoken) or shifts in how an experience was discussed (e.g., choice of language to describe a situation or event). I also returned to the raw full dataset to review coding in the broader overall context to ensure I had captured commonalities and discrepancies, such that the data were construed as intended.

Issues of Trustworthiness

The trustworthiness of this qualitative interpretive description study was enhanced by the detailed recording and accounting of all planning, modifications, supporting literature, and methodology including the data collection and data analysis stages. As the research plan unfolded, I maintained a reflexive journal tracking my thinking and rationale, recording key elements into an audit trail of key study developments (Appendix G). During the data collection and analysis processes, I continued to take field notes, make analytic notes, and write in my journal to ensure accuracy and reflection. The core elements of trustworthiness are discussed under credibility, transferability, dependability, confirmability, and intracoder reliability (Guba, 1981).

Credibility

In qualitative studies, credibility includes using established methods, familiarity with the tradition, triangulation, transparency around recruiting, and open discussion of findings. The qualitative research method was appropriate for this study exploring how faculty members experienced designing the blended courses that they taught to acquire a deeper understanding of the phenomenon. Within this tradition, and well-suited to pragmatic settings, is interpretive description. Using interviews to gather data, which were then coded and analyzed, is also accepted as fitting the design and intent of the study.

An intentional and dialogic approach pervaded the study, from exploring motivations and goals of the research through design of the data collection and analysis (see Ravitch & Carl, 2016). My reflexive journals revealed changes in focus, but my desire to develop a deeper understanding of the *what does it matter* factor behind blended-course design did not change. As the data were collected, I kept track of thoughts and observations via analytic memos and field notes. This approach is recognized as adding credibility because it required me to explore the data deeply, recognizing patterns, seeking insights, and watching for the unexpected in the data (see Patton, 2015).

Triangulation is another important way the credibility of the study was strengthened. Data analysis benefited from triangulation that "contribute[d] to the verification and validation of qualitative analysis. . . checking out the consistency of different data sources within the same method (consistency across interviews)" (Patton, 2015, p. 661). For this study, data collection occurred via interviews and included

multiple coding methods, which is, by Patton's description, a type of triangulation. The collected data were combined with my reflexive journals and analytic memos, all of which were added to the CAQDAS for consistent coding, manipulation, and exploration.

Transferability

Transferability requires qualitative researchers to provide sufficient thick description and contextual detail so that other researchers can design studies with intentionality and, if desired, similarity (Guba, 1981; Shenton, 2004). The process for recruiting and selecting participants, followed by the process for collecting data for this study, was thoroughly explained. The process is documented again in an abridged manner in the accompanying appendices. Additional contextual details have listed the study site as 1 of 24 publicly funded colleges in Ontario, Canada. Participants were faculty members who were fulltime or parttime, may or may not have completed formal pedagogical training, and typically were hired based on their content expertise. The participants for this study consisted of a purposefully selected sample of 12 faculty members with varying levels of experience in designing and teaching blended courses from assorted departments across the study site to establish thick participant variation. The importance of sharing these details was underlined by Thorne (2016) who reminded researchers to reveal "disciplinary relevance, pragmatic obligation, contextual awareness, and probable truth" (p. 113). Beyond contextual details, procedural details were also provided in the study to enhance overall trustworthiness.

Dependability

Dependability refers to the consistency or stability of a study as documented via "trackable variance" (Guba, 1981, p. 81). The research design was fully described and sufficient details about procedural plans were provided. This qualitative interpretive description study was conducted at a single study site. As introduced in Chapter 1, the problem statement and the purpose of the study provided evidence supporting the legitimacy of the phenomenon of interest, namely, exploring faculty member experiences in making decisions related to blended-courses design. The decision to operationalize the study in Engeström's activity theory was explained in the sociocultural context of decision making as an individual- and community-based endeavor. With this information, other researchers might replicate the study based on the provision of an in-depth description of the methodology (see Toma, 2011).

The interview guide was designed with careful alignment to the study problem and purpose and to answer the RQs; however, it was slightly modified to show expected data. In this form, it was used as the data-collection instrument. The RQs, prepared with the intent of seeking a deeper understanding of how faculty members experienced designing the blended courses that they taught, emphasized the complex interconnected nature of this phenomenon by probing for perceptions of personal agency and the instructional environment. Thus, the design of the study met the dependability criteria that the study had "meaningful coherence" (Tracy, 2010, p. 848). The study was about what it claimed to be about, used methods and procedures that fit the goal, and meaningfully interconnected with the literature, RQs, and planned collection of data.

The decision to collect the data via semistructured interviews fit and was appropriate to the study. The literature referenced in the problem statement, the purpose of the study, the RQs, the conceptual framework, and the nature of the study was revisited many times and incorporated into the planning of the interview protocol. In addition to the details presented here, the protocol provided a high-level overview showing connections between the RQs and the semistructured interview questions, demonstrating how these elements were aligned with the literature.

Throughout the research, I maintained an audit trail to document the process of decision making related to the study design, instrument design, data-collection plan, and data-analysis plan (see Appendix G). The recursive approach was central to the evolution of the initial Chapters 1–3 proposal. Once data collection began, the continued use of the audit trail ensured that, much as the design changes were related to literature and reflection, findings were genuinely the result of participant experiences and contributions.

Confirmability

For the study to meet the confirmability requirement, the collected data (and, ultimately, the study findings) had to reflect the contributions and experiences of the participants. As a practicing college educator who has designed and taught blended courses, and as someone interested in the experiences of other educators and their perceptions of agency and the instructional environment, my preference for qualitative research was evident. For this study, I clearly identified my positionality and articulated my biases. Data collection occurred primarily via interviews plus my reflections and

analytic notes. The actual collection instrument (see Appendix F) indicated an interest in and openness to individual views and contributions.

Confirmability and the onus of demonstrating neutrality are focused on the data in qualitative studies, "requiring evidence not of the certifiability of the investigator or his or her methods but of the confirmability of the data produced" (Guba, 1981, pp. 81-82). To overcome the effects of bias, I triangulated the data by using multiple coding methods to elicit meaning from the collected data and by comparing the interview data against themself for consistency. Reflexivity was already part of my practice, and even as I continued to review the fit of the study elements and my positionality to ensure alignment, I completed field notes and elaborated my analytic memos. The audit trail transparently tracked all study-related changes, including stages such as using a simple criterion-based purposeful sampling strategy and changing from Taguette to NVivo as the coding software. As I moved from data-gathering into sorting, coding, and full analysis, the dialogic and recursive approach (see Ravitch & Carl, 2016) remained essential.

Intracoder Reliability

Many of the preceding elements identified under general issues of trustworthiness are brought together under the heading of intracoder reliability, which refers to the consistent way in which the coding conducted by a single researcher in a study is reliable (Saldaña, 2016). As discussed above, I aligned the RQs, the sampling process, and all data collection instruments to fit and support the purpose of the study. This process was evolutionary and captured in my journals, remaining highlighted in the audit trail. Given that I conducted this research as the sole investigator, the intentionality of my process

once I moved into coding and deeper analysis was documented with care, transparency, and anticipation of future researchers seeking to conduct a similar study.

Ethical Procedures

The procedures outlined by Walden University and the study site for gaining access to participants for a qualitative research study were followed exactly. Approval of the study plan through the study site ethics approval process, as well as Walden's ethics approval process was sought before any data collection began. Contact of potential volunteers began with a general callout. As soon as candidates expressed interest in participating in the study, they received documentation to assure them that participation was voluntary, they could freely withdraw from the study at any time, and their identity would be deidentified and strictly protected. Candidates who met the purposeful sample requirement were added for consideration to interview. After consent was received from the participants, data collection began. The processes for recording, transcription, storage, and review were disclosed at the beginning of each interview, with a reminder that participants were engaging on a voluntary basis and could withdraw at any point.

Although I held no supervisory role at the study site, I was a faculty member and faculty union steward and so it was possible that participants knew me or had heard of me. To mitigate any possible perceptions of bias, no participants teaching in the same subject area as me were included for interview consideration. Additionally, as participants exited the study, they were informed that they would receive a copy of their transcript for review and validation before I conducted any analysis. Only once the 10 days for responding had passed and participants had or had not shared their comments did

I proceed with analysis. Participants were further assured that all collected data, including recordings and transcripts, as well as supplementary and associated materials, such as my journals, analytic memos, and other related study work including hunches would be coded so participants were de-identified. The codes and actual data are being stored securely and in separate locations on my password-protected personal home computer and on an external private, password-protected cloud drive. All these research-related data will be kept secure and destroyed after 5 years.

Summary

This chapter outlined the research method for this study designed to develop a deeper understanding of how faculty members experienced the decision-making process in designing blended courses that they taught. The research design and rationale restated the RQs explaining how theory was used to inform and solve everyday challenges. The interpretive description design of this study was thoroughly discussed as the best qualitative approach for this study grounded in theory and informed by practice. My role as the researcher, including my participant-observer status, was discussed, as was my ongoing reflexive approach to this study. These details supported the decision for adopting a qualitative interpretive description approach for this study.

Under methodology, subsections provided further details about the plan for this study. The participant selection logic included a rationale supporting the use of a simple criterion-based purposeful sampling selection. Criteria for participant eligibility included experience in designing and teaching blended courses at the college level and other factors such as a representation of participants working in different subject areas and

reflecting varied genders and experience. Under instrumentation, the interview protocol and the use of semistructured interviews were explained and supported. After the procedures for recruitment, participation, and data collection, the data analysis plan, the use of a CAQDAS, and the two cycles of coding were identified and defended. Next, under the issues of trustworthiness, I described the credibility, transferability, dependability, confirmability, and intracoder reliability. Finally, a section on ethical procedures outlined how participants and their data were treated before the chapter concluded.

Chapter 4: Results

The purpose of this qualitative interpretive description study was to develop a deeper understanding of how college faculty members experience the decision-making process of designing blended courses they teach. As described in Chapter 3, eligibility for the study required participants to be experienced in designing and teaching blended courses at the college level. Ideally, candidates would work in different subject areas, reflect varied genders, and represent assorted departments at the college. The conceptual framework for this study was underpinned by Engeström's (1999, 2000) activity theory. This theory worked well because motivation is complicated and involves individual and sociocultural communal drivers (Engeström, 2001) and because the blended-learning design and teaching setting are complex (see Vásquez Astudillo & Martín-García, 2020). Using an interpretive description design, I answered the following RQs:

RQ1: What are faculty members' experiences during the decision-making process of designing the blended courses they teach?

RQ2: How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process?

RQ3: How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process?

The chapter begins with sections describing the research setting, demographics, and how data were collected. Next, in the data analysis section, I provide details about the deductive and inductive approaches I used to review and code the data before describing

the two-cycle coding approach for the study. I present the first-cycle open and structural coding, followed by the strategy for second-cycle theoretical and focused coding. After the discussion of the coding process, I describe successes and false leads through using two types of software, and I explain the process of categorizing and theming the data. An examination of all cases is presented and reveals no discrepant cases. In the section that follows, I discuss my role as a responsible researcher by discussing modifications to the original plan under evidence of trustworthiness, which includes four subsections: credibility, transferability, dependability, and confirmability. The study results are presented by RQs, noting the patterns, themes, and findings that were uncovered through key elements revealing findings. The chapter concludes with a summary of key points.

Setting

This study was conducted at a college in Ontario, Canada where postsecondary education is focused on practical career preparation and is offered in many forms from pathway-style short intensive programs to longer multiple-year options. Faculty work in programs that range from 1-year certificate programs to 2- and 3-year diploma programs to 4-year applied bachelor or collaborative degrees. Many programs have built-in work elements such as cooperative or work placements or may be organized as apprenticeship training. Faculty are usually hired parttime initially and based on industry experience, with little expectation that individuals will have pedagogical training, and so that is provided as professional development. Regular consultative meetings occur once or twice a year between the more than 300 program college representatives with community-based

industry representatives through program advisory councils to ensure programs remain current and relevant to learners.

For this study, ethics approval was needed from both Walden University, in the United States, and the study site in Ontario, Canada. In Summer 2021, I completed government-required modules to work with human subjects in Canada. In early September 2021, I began formal discussions with the study site ethics office. After defending my proposal, I submitted the IRB application to Walden on October 19, 2021. The two application processes were conducted somewhat concurrently to ensure alignment and fit. After receiving study site ethics approval on December 2, 2021, that document was shared with the Walden IRB. After a few minor revisions, Walden issued approval (#12-16-21-0975299) for this study, effective December 16, 2021.

The first call-out for participants was issued immediately. On the positive end, IRB approval coincided with the study site's 1-week postexam period at the end of the semester followed by the Christmas-New Year's break week, typically meaning faculty have more time for pursuing personal projects. However, I was worried about recruiting sufficient participants as the stress of teaching remotely due to COVID had been exacerbated since September 30, 2021, when the Ontario college academic collective agreement had expired. Negotiations were not progressing well and by mid-December, faculty began engaging in work-to-rule job action, with individuals refusing to complete voluntary or additional work. A real risk of the job action escalating into a full strike in early 2022 existed. This led me to act quickly and use the college's internal daily e-newsletter to post a 3-day advertisement between December 21 and 23, 2021, seeking

study participants. Five qualified individuals responded with interest in participating in the study within the first 2 days of posting. By the end of December 2021, another eight individuals —of whom seven were qualified—had responded either to the original recruitment notice or via snowball sampling forwards.

With 12 eligible participants and pandemic-related uncertainties around teaching, return-to-campus, health, wellness, and work conditions, I was eager to proceed promptly. Potential participants received e-mail invitations with the consent form attached. After individuals replied consenting to be in the study, interview times were arranged. The opportunity for connecting between semesters proved to be ideal and all participants requested interviews in the last week of December and the first week of January before classes started on January 10, 2022. Whereas this tight scheduling entailed personal challenges, it also meant that no participants dropped from the study, and I did not need to seek further participants.

Participants were generally eager to share their experiences and to participate in the advancement of the understanding of practice-based blended course design and teaching. After 2 years of digital teaching, participants appeared relaxed and comfortable completing digital interviews from their homes. Each interview began with a declaration of intent, and I reiterated my interest in hearing about their blended-design and teaching experiences, which led to open and engaging conversations. Participants shared copies of their research and links to podcasts and articles. Participants also revealed concern about the postpandemic future of higher education, given the extreme blurring of understanding and language on matters associated with delivery modalities such as blended, hybrid,

hyflex, synchronous, and asynchronous, as well as supporting authentic learner-centered teaching and learning.

Demographics

All study participants were faculty members at the study site. In Ontario colleges, teaching faculty are distinguished as professors or instructors, where professors design and deliver curriculum and instructors do not design curriculum. Although one instructor expressed interest in participating in the study, only professors were interviewed. Although tracking general college teaching work versus blended course designing and teaching experience was not explicitly identified as a desired characteristic, the distinction surfaced organically and is captured in this table. Participants provided experience details as related to all the categories.

In keeping with participant de-identification, Table 1 presents demographic data collected from participants by assigned pseudonyms. The table identifies each participant's gender, years of college teaching experience, years of designing and teaching blended courses experience, and status as a fulltime or parttime faculty member at the time of the interview. It also shows that the data collection goals of including participants of different genders and with varied teaching experiences were achieved.

Table 1

Overview of Participant Details by Pseudonym

Participant name	Gender	College teaching experience	Blended design/teaching experience	Faculty status
Alex	Male	+ 20 years	+20 years	Fulltime
Bowie	Female	< 3 years	<3 years	Fulltime
Chance	Male	+ 20 years	+20 years	Fulltime
Dakota	Male	4-10 years	4-10 years	Fulltime
Evan	Male	11-19 years	4-10 years	Fulltime
Fenix	Male	11-19 years	11-19 years	Fulltime
Garnet	Female	4-10 years	<3 years	Fulltime
Hollis	Female	+ 20 years	11-19 years	Fulltime
Jalen	Female	11-19 years	11-19 years	Parttime
Kai	Male	4-10 years	4-10 years	Parttime
Layne	Male	+ 20 years	<3 years	Fulltime
Meric	Female	11-19 years	4-10 years	Fulltime

Because college faculty were hired based on a combination of specific industry experience plus other credentials, and because no two participants in this study taught the same subject(s), interview responses varied greatly. In the college, consultation with industry professionals is ongoing, and faculty are often required to maintain their professional designations (e.g., lawyer, nurse, etc.). When industry-specific standards are modified (e.g., Ontario Building Code), these changes must be built into programs, and often changing industry requirements lead to new programs (e.g., abridged program to bring internationally educated nurses up to an Ontario practice standard). Feedback and information are collated, leading to faculty members designing or redesigning curriculum through program review and in a continuous way.

In Table 2, participant distribution is organized across de-identified, generalized academic areas. These groupings do not coincide with actual academic divisions as

arranged at the study site. The created areas provide an overview of the diverse, practically based disciplines captured in the study. Table 2 also lists program information based on options available to students enrolling in courses. Students are attracted to programs that vary in type and duration, requiring specific approaches to engagement, including different needs and levels of engagement with online materials.

Table 2

Overview of Participant Teaching Areas

Academic area	Description of area	Participants
Design & Applied Construction / Satellite Campus	Programming in apprenticeship, 2-, 3-, and 4-year options	4
Business / Technology in Society / Language / Tourism & Hospitality	Programming in 1-, 2-, 3-, and 4-year options	4
General & Specialized Health / Safety & Security	Programming in 2-, 3-, and 4-year options	4

Data Collection

Data collection focused on 12 participant interviews, plus analytic memos, and my reflective journal entries. Due to the variation in participant demographics as well as my understanding that blended-class design is typically not uniform across institutions (see Park et al., 2015), I expected unique responses. With COVID still a major concern during data collection, all interviews were conducted digitally. Because Zoom video conferencing software was used at the study site, all participants were comfortable with the platform and selected to complete their interviews via my private (noneducation) Zoom account. For this study and, by extension each interview, I was the solo researcher.

I conducted all 12 digital interviews recorded on my personal computer between December 28, 2021, and January 7, 2022.

Although one interview was delayed, and one interview was interrupted because of technology issues, I conducted all other interviews as requested by the participants. In preparing for the interview process, I designed a robust interview protocol (Appendix E). I used a modified semistructured interview guide (Appendix F) consistently with all study participants, asking all seven specific questions based on the three RQs. Where the prompts did not provide enough clarity, I referred to the expected data column. For example, in the opening question, after participants shared their general college teaching experience, I typically probed for blended-learning design and teaching experiences. That probing did not always give me the information I was seeking, so, using guides from the data expected column, I asked about pedagogical views and comfort with technology as part of the deeper data collection process. Whereas rich data were collected through the interviews, not all the anticipated data characteristics surfaced per question. This absence of expected data was possibly based on the unique journeys and experiences participants had with designing, adopting, revising, and teaching blended courses in the college, which is focused on graduating individuals ready for immediate careers.

During each interview, I listened and engaged actively to acknowledge and encourage participants as they shared stories. One common occurrence throughout the interviews was that participants tried to make their experiences and responses generic. This effort was significant in many cases as underscored by participants apologizing for becoming too industry-specific in their examples. In such situations, participants were

encouraged to provide the rationale and desired outcome based on industry needs, which again revealed the benefit of such an academically diverse participant group. As tempting as it was to engage in nonstudy-related discussions, I kept the focus on the core RQs while encouraging individuals to share experiences and perspectives.

After each interview was completed, I uploaded the video recording to Temi – Record and Transcribe, a machine-based transcription software program, which generated a full script for each recording. Transcripts were provided with the original video, which allowed me to return to the transcripts many times to review additional nonverbal messages the participants shared. The automatic text transcriptions included captures such as "mm-hmmm <affirmative>" but did not always accurately identify speaker vocabulary or cross-conversation style interjections. For example, in an interview, the software recorded this passage as Fenix's dialog: "I've got lots of advice. Yes, you do. Most of it through trial and error." In fact, I had interjected the "Yes, you do," statement but that was not correctly identified by the transcription program. In reviewing each transcript and comparing it to its recording, I corrected several of these errors before thanking participants and inviting their review and feedback. Although member-checking was employed to ensure greater accuracy, just over half of the participants responded with a full acceptance of the transcripts or with small further corrections.

Table 3 is organized by participant pseudonym, lists the week when the interview occurred, how long the interview lasted, and each participant's reaction to validating the transcript. The 12 interviews entailed 767 minutes (12.78 hours) of data collection. Although the shortest interview lasted 51 minutes and the longest lasted 1 hour and 25

minutes, the average interview time was 1 hour and 4 minutes. Five participants did not comment on having received their transcripts, five accepted the transcripts with no changes, and two requested slight changes. The variability in understanding, interpretation, and response to the questions was intriguing and underscored the value of a qualitative interview-based approach to data collection, whether participants responded to the transcripts or not.

Table 3

Overview of Participant Interview Times by Pseudonym

Participant name	Interview week	Interview duration (Hour: Minutes)	Transcript reaction
Alex	Dec. 28, 2021 – Jan. 2, 2022	1: 05	Approved as is
Bowie	Dec. 28, 2021 – Jan. 2, 2022	0: 59	No response
Chance	Dec. 28, 2021 – Jan. 2, 2022	0: 57	No response
Dakota	Dec. 28, 2021 – Jan. 2, 2022	0: 51	No response
Evan	Jan. 3 – Jan. 9, 2022	0: 52	Slight adjustments
Fenix	Jan. 3 – Jan. 9, 2022	1: 25	Slight adjustments
Garnet	Jan. 3 – Jan. 9, 2022	0:56	Approved as is
Hollis	Jan. 3 – Jan. 9, 2022	1:09	Approved as is
Jalen	Jan. 3 – Jan. 9, 2022	0:56	Approved as is
Kai	Jan. 3 – Jan. 9, 2022	1:14	Approved as is
Layne	Jan. 3 – Jan. 9, 2022	1:11	No response
Meric	Jan. 3 – Jan. 9, 2022	1:12	No response

Data Analysis

The data analysis plan for this study unfolded largely as described in Chapter 3. Once all the data were collected, transcribed, reviewed, and verified, I was able to begin collation. After a preliminary review, where I determined what would make appropriate codes based on the questions and conceptual framework, I compared the interview transcripts within themselves and to one another, to begin first-cycle coding. The decision

to use a CAQDAS led me initially to trial an open-source software, Taguette. Finding that software wanting for my needs, I switched to NVivo for all coding, analytical exploration, clustering, and theming.

To ensure successful coding and analysis, I reviewed the interview videos several times. Throughout this process, I added comments to my analytic notes and reflective journals, which helped my understanding of each participant's main message. While rewatching the video recordings, I also added contextual remarks to participant comments by noting body language, facial expressions, and nonlingual elements including tone, laughter, pauses, and other communication forms. With a better sense of each interview, I returned to Saldaña (2016) for suggestions about implementing a multicycle coding approach. First-cycle coding included a deductive approach where I created open codes based on the study's research goals, the conceptual framework, and the literature. Because I had used semistructured interviews, the use of structural codes allowed me to seek and find patterns around similarities and differences and helped me see new relationships among the data. As a novice researcher, I added descriptive shorter codes to capture participant descriptions in their own words.

First-Cycle Coding

Each of the de-identified interview transcripts was coded both deductively and with emergent structural codes covering large segments of text; descriptive codes were also useful in helping me build a basic vocabulary (see Saldaña, 2016). Two false starts included a partial horizontal coding attempt, terminated as the integrity of each story was lost by examining the transcripts on a question-by-question basis, and an unwieldy

exploration of all 12 interviews where I created 105 codes. Around this time, I uploaded all interviews, analytic notes, and reflexive journal entries into NVivo to support the kinds of manipulations and explorations I wanted to conduct in the study.

Because of the false starts, I was more familiar with the early transcripts, and so on this third attempt at first-cycle coding, I coded the interviews in inverse order, starting with the last transcript. In this reimagined first-cycle coding, I developed a total of 45 deductive and inductive codes. Table 4 shows how the coding progressed, with the first transcript initially coded with 31 codes. After the second interview was coded, the new total was 35 codes. By the seventh interview, a total of 45 codes had been reached. The full code list with added details has been provided in Appendix H.

Table 4

Progress of First-Cycle Code Expansion to 45 Codes Using NVivo

First-cycle code interviews (in order of review)	Number of codes added per interview	Total number of codes used on first review
Meric	31	31
Layne	4	35
Kai	7	42
Jalen	1	43
Hollis	1	44
Garnet	-	44
Fenix	1	45
Evan	-	45
Dakota	-	45
Chance	-	45
Bowie	-	45
Alex	-	45

With each cycle of reading transcripts for meaning, adding, and reflecting on codes, I developed a greater connection with the data. Terms included research-related and participant-generated ones such as agency individual decisions, connect integrate asynchronous and class parts, pandemic, and technology attitude. In some cases, I found the reflections helpful in understanding industry-specific influences on an interviewee's statements, leading me to reuse an existing code rather than create a very narrow code. For example, in my analytic note on Hollis, I observed, "uses a lot of humor… clipped, short sentence speaking style fits field." I decided to code that passage fragment to pedagogy rather than create a new subcode such as delivery style.

Soon I started to see connections between structural codes and emergent codes. For example, faculty motivations and triggers for course design were coded with decision-making and approaches to teaching and learners were coded with pedagogy. An emergent code, future, surfaced as participants considered their roles vis-à-vis their students. Jalen provided this big-picture insight connecting decision making in course design to pedagogy and post-college individual practice beyond the classroom:

> I feel a sense of responsibility to get—to have students really engage in a discussion and really think about what these issues mean to themselves. And when they're practicing, you know, in their profession… maybe they can be inspired to continue thinking about… their own kind of journey, as it relates to developing their behavior and their future habits… if I speak honestly, that's something that does drive me.

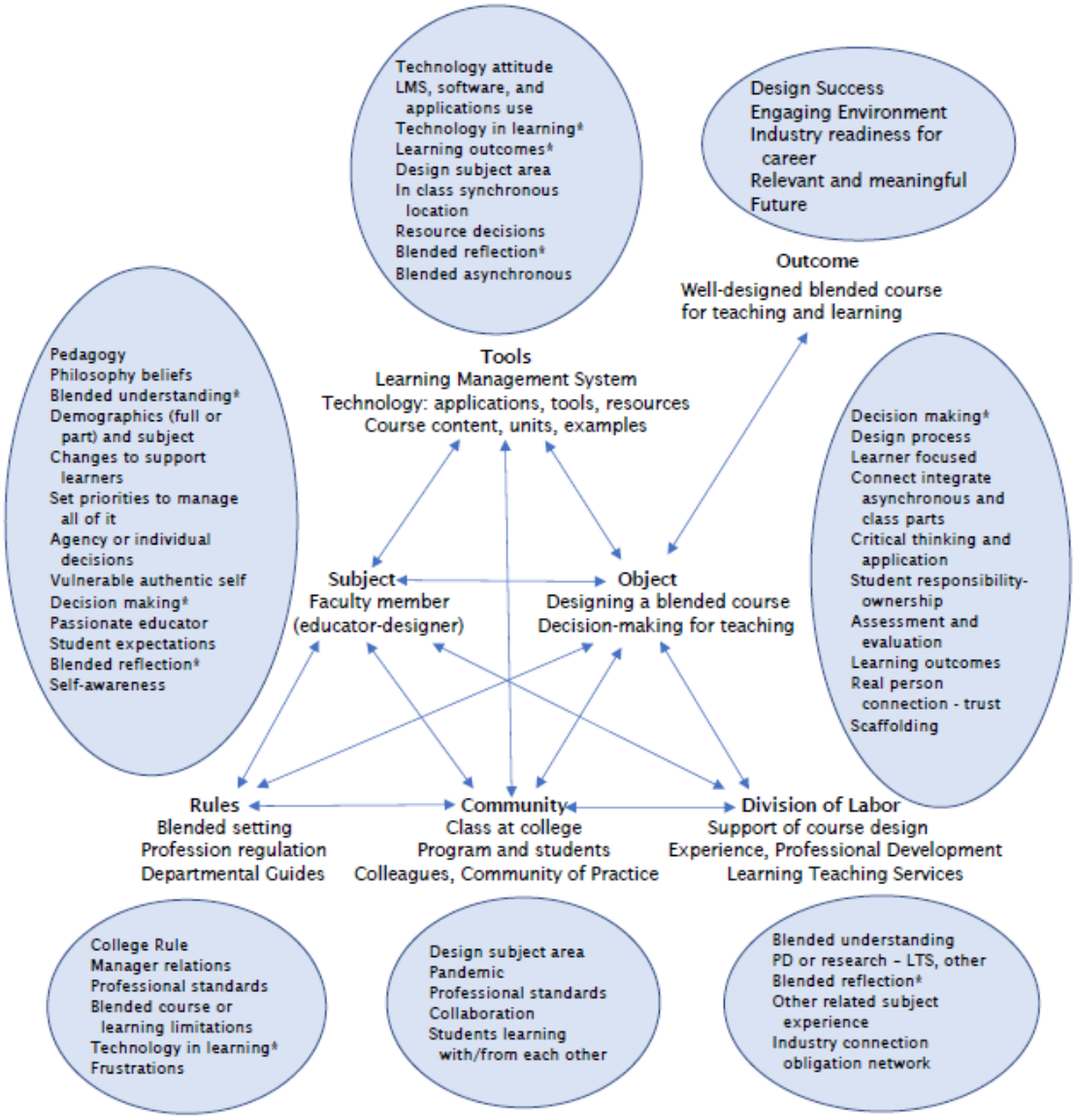
Second-Cycle Coding

The coding approach used in first-cycle coding was essential to the analytical process to help ensure I captured participant data and organized comments as they related to the RQs, the conceptual framework, and individuals' own words. Then, to maintain a dual view of the data (see Thorne, 2016), I reviewed the data as sorted by codes across all participants as well as returned to reread the full transcripts before completing two clustering or second-cycle coding approaches. One approach was based on a theoretical sorting of codes using categories provided through the conceptual framework grounded in Engeström's activity theory. The other second-cycle approach was focused coding, looking at the most meaningful and recurring codes to create gerund categories.

The clustering of codes based on the activity theory framework allowed me to appreciate the complexity of the process faculty members underwent as they designed blended courses that they taught. Figure 2 shows codes that fit with the nodes of the activity theory diagram as applied to this study. Codes connected directly to participant perceptions and experiences were clustered with subject and include pedagogy and passionate educator. The object node included codes that were connected to the action of creating the object such as decision making and learner focused. Codes associated with the tools' node included technology attitude and resource decisions. Under community, codes included design subject area and pandemic. Codes under rules included college rule and frustrations, while the division of labor codes included blended understanding. The outcome of this activity system included measurable elements such as design success and industry readiness for career plus unknown speculations such as future.

Figure 2

Clustering Codes Using the Conceptual Framework



Note. Figure 2 is extended from the Figure 1 adaptation from *Learning by Expanding* [digital]. (1987) by Y. Engeström.

Note. The * symbol is included where a code is used in more than one category.

For another second-cycle coding round, I returned to the initial codes and re-categorized or themed them to seek answers to the RQs. I used the focused coding method (see Saldaña, 2016) to group clusters of dominant and similarly coded first-cycle data into process or gerund categories. In these new groupings, I compared and explored participant data to learn about the fit to expectations and potential transferability of study design. The clustering of codes into these key process or gerund categories resulted in 11 divisions with several codes per category as identified in Table 5.

Table 5

Second-Cycle Gerund Categorizing and Associated Codes

Second-cycle gerund/process categories (includes some overlapping codes)	First-cycle codes included
Instructing: individual agency	15
Learning as leading design	7
Prioritizing & design considerations	7
Reasoning & motivation in design	5
Approaching design with support	4
Challenging or frustrating design aspects	4
Instructing: college and industry influence	4
Planning & timing of face-to-face and online	4
Understanding of blended design	3
Using technology	3
Surprising & unknown design elements	2

The largest of the categories in this gerund clustering approach was instructing: individual agency, which included observations about instruction from an individual or agentive perspective, emphasizing the central role of the educator-designer in designing blended courses for teaching. The codes in this category were all linked because they emphasized the individual approach faculty members experienced while designing,

modifying, and teaching blended courses. In addition to including the individual's pedagogy and philosophy beliefs, this category also included demographics fulltime parttime subject and other related experience, as well as personal views around hybrid reflection and technology attitude. By contrast, the category instructing: college and industry influence included perceptions of how instruction is influenced and controlled by the college and regulating or target industry. The category approaching design with support included collaboration or how faculty work with others while the category PD or research – LTS included participants' approaches to enhance their blended design and teaching effectiveness.

Table 6 provides a representative sample selection of the second-cycle process, showing how categories were formed by combining codes. The full second-cycle process is detailed in Appendix I and shows that 11 categories were created using this approach. Gerund or process codes were valuable in helping me think about how participants thought about and described their blended-course design and teaching, perceived their roles and responsibilities as educator-designers, and applied their industry and pedagogical knowledge and skills to support student success.

Table 6

Representative Second-Cycle Gerund Categories and Associated Codes

Representative or select second-cycle gerund/process categories	Actual first-cycle codes included per category
Instructing: individual agency	Agency individual decisions Assessment evaluation Blended reflection Changes to support learners Demographics fulltime parttime subject Design process Industry connection obligation network Other related subject experience Pedagogy Philosophy beliefs Real person connection – trust Relevant, meaningful Resource decisions Technology attitude* Vulnerable authentic self
Approaching design with support	Collaboration Manager relations Passionate educator* PD or research – LTS, other
Understanding of blended design	Blended understanding Passionate educator* Pedagogy
Using technology	LMS and apps use Tech in learning Technology attitude*

Note. The * symbol is included where a code is used in more than one category.

For example, Table 6 shows the unique experiences based on academics and industry translated to the code agency individual decisions, which was just one of numerous codes in the instructing: individual agency category. Discussing the real audience or students, Kai observed, “It’s very important that they get a taste of industry outside of the college. So, I try to find ways to blend in that aspect via guest speakers or assignments that incorporate actual industry for people.” The most divergent experiences and practices were found categorized under approaching design with support, in terms of accessing pedagogical, technological, and other planning support. Whereas participants generally commented positively about the resources, support, and services available through LTS, two notable exceptions surfaced and will be discussed in further detail under Results.

Throughout the data collection and data analysis processes, I maintained my reflexive journal and completed analytic memos. These elements were entered into NVivo, which supported my exploration of the data for patterns and anomalies. One comment in the analytic note for the interview with Chance included “likes the *easy-to-maintain* tech parts” (emphasis in original notes). In my reflexive journal dated March 18, 2022, I noted, “must consider and acknowledge *all* experiences – big differences surfacing based on when faculty joined the college and the BL PD provided” (emphasis in original notes). These cross-checking research elements were critical in helping me find patterns and develop themes to support the study. At this stage, I also returned to the purpose and RQs to ensure alignment.

Theming

The challenge of developing themes about faculty member decision making required looking for patterns of meaning by returning to the codes, categories, individual interview transcripts, analytic notes, and reflective journal, and from there, looking for potential relationships within and across perspectives. The process was lengthy, involving both comprehensive as well as an individual-focused exploration where I created participant profile analyses by activity theory, teaching style, and setting (see Lieblich et al., 2011). As this study was focused on collecting individual experiences, I found patterns and a few singular experiences but no discrepant cases. In Table 7, I provide an overview of how I moved from codes to categories to themes. By focusing on the RQs, I found one core theme per RQ, and two subthemes for the first RQ:

- Theme 1: Thinking and reflecting for enhanced design
    - Subtheme 1a: Learner and classroom engagement
    - Subtheme 1b: Time and effort for updates
- Theme 2: Teaching as doing
- Theme 3: Institutional and environmental influences

Table 7

Sample Overview Moving From Codes to Categories to Themes/Subthemes

Sample select codes	Categories	Theme or subtheme
Decision making* Connect integrate asynchronous & class parts Engaging environment Hybrid reflection* Learner focused Learning outcomes Pandemic* Passionate educator* Pedagogy* Philosophy beliefs* Set priorities to manage all of it*	-Planning & timing of face-to-face and online -Reasoning & motivation in design -Understanding of blended design	Theme 1: Thinking and reflecting for enhanced design
Critical thinking and application Decision making* Engaging environment Hybrid asynchronous In class synchronous location Learner focused Relevant and meaningful Student responsibility-ownership Students learning with/from each other	-Learning as leading design -Using technology* -Prioritizing and design considerations*	Subtheme 1a: Learner and classroom engagement
Collaboration Decision making* LMS & apps use PD or research – LTS, other Technology attitude Frustrations Hybrid limits Set priorities to manage all of it*	-Approaching design with support -Using technology* -Challenging or frustrating aspects -Prioritizing and design considerations*	Subtheme 1b: Time and effort for updates

Sample select codes	Categories	Theme or subtheme
Agency individual decisions Assessment evaluation Changes to support learners Design process Hybrid reflection* Manager relations Pandemic* Passionate educator* Pedagogy* Philosophy beliefs* Real person connection – trust Relevant, meaningful Scaffolding Technology attitude Technology in learning	-Instructing: individual agency -Using technology*	Theme 2: teaching as doing
Collaboration College rule Design subject area Design success Professional standards Future Pandemic*	-Approaching design with support -Instructing: college & industry influence -Surprising & unknown design elements	Theme 3: institutional and environmental influences

Note. * Codes and categories used across more than one theme or subtheme.

Through this study, I was guided by the three RQs; in this section, I provide an introductory overview of the major themes and subthemes, which are then discussed in depth in the Results. The first RQ identified the goal of collecting faculty members' experiences during the decision-making process of designing blended courses they taught. In that context, Theme 1, thinking and reflecting for enhanced design, concentrated on the general thinking and reflecting faculty members experienced as they made decisions about their blended courses as visible in the codes to categories to theme progression captured in Table 7.

The complexity of Theme 1 was highlighted through the two subthemes which, while linked to the overall theme, included priorities faculty members addressed when thinking and reflecting about blended design. In answering RQ1, the data revealed that thinking and reflecting formed a central feature of faculty members' experiences. The general spiral of teaching and design encouraged educators to think about new experiences or new information and reflect on how they could integrate that with and build upon their lived previous experiences. In saying, "teaching blended courses… is a work in progress," Evan provided a summary attitude for this major theme that pervaded the entire study.

The two subthemes to Theme 1 categorized considerations faculty members identified as they thought, reflected, and prioritized their design and teaching decision making. These subthemes acknowledged that faculty members made decisions on a continuum, trying to balance student needs or external motivators with their own or internal needs. Subtheme 1a, learner and classroom engagement, involved external

factors guiding participants in making decision as related to students. Referring to Table 7, the category learning as leading design included codes such as critical thinking and application, plus learner focused. Subtheme 1a included decisions participants made based on what they did to improve their pedagogical practice, implement new technologies, stay current with new industry developments, develop and maintain communities of practice improvements, or enhance and deepen how learners engaged with the content and their peers. By contrast, internal motivators were those personal priorities individuals set based on interests, costs to self, and perceived as value for investment. In Table 7, for example, Subtheme 1b, time and effort for updates, included the category using technology, which included the codes LMS and apps use plus technology attitude.

Theme 2, teaching as doing, emerged in response to RQ2. It was focused on the actions of teaching based on the agentive perceptions faculty members held. This theme captured how faculty members anticipated translating their plans and designs into teaching. As opposed to the experiences participants shared demonstrating that thinking and reflecting were key to blended design for teaching, the discussion under RQ2 examined how participants perceived their agency to make decisions about their blended classes. Table 7 shows how this theme included the category instructing: individual agency, which incorporated participants' educational philosophy, understanding of pedagogy, comfort with technology, and other subject-specific experience as factors relevant to the decision-making process.

Theme 3, institutional and environmental influences, surfaced in connection to RQ3, which explored faculty members' perceptions of the broader instructional environment and how that influenced their decision-making process related to blended course design and teaching. Because all participants worked in different departments, for different managers, with different provincial or national standards, there was no uniform approach to making decisions related to design. However, the categories in Table 7 instructing: college and industry influence plus surprising and unknown design elements provided some insight that college rules, subject area, and nonprogram-based factors such as the global pandemic also influenced the decision-making process.

Evidence of Trustworthiness

As noted in Chapter 3, the detailed tracking of all plans, changes, literature, and methodology is essential to the trustworthiness of this interpretive description study. In my reflexive journal, I recorded thoughts, questions, and considerations relevant to my study journey. In the audit trail of key study developments (Appendix G), I have identified concerns related to data collection and analysis in terms of acquiring enough participants and delays connected to selecting NVivo for coding. The following discussion is organized under credibility, transferability, dependability, and confirmability, and in it I explain adjustments to the study from what was identified in Chapter 3.

Credibility

Within qualitative interpretive description approaches, to achieve credibility, I followed the principles of recursive research design aligning the purpose, RQs, and data

collection tools. Interviews are recognized as an acceptable way to collect data and I only interviewed faculty members who had designed and taught blended courses at the same college. Participants were invited to validate the transcripts and only one participant asked for some items to be removed. Through reflexive journaling, I checked my biases and tracked project motivation, recording adjustments in my thinking. My journals revealed an unwavering passion for learning more about faculty attitudes and perceptions about blended-course decision making for design and teaching without altering the credibility strategy of the study.

Data triangulation is one of the accepted ways to strengthen credibility in a study. I compared the data for consistency across the interviews and compared interviews with other data such as field notes and reflections (see Patton, 2015). Triangulation of the data also involved addressing any discrepant cases that may have surfaced requiring me to check the results for consistency (Fusch et al., 2018). For example, in interviewing educators, I expected to find participants receptive to and engaged in PD, so I analyzed the data carefully where negative attitudes surfaced but found nothing discrepant. I also used multiple coding methods and looked at the data from various perspectives to mitigate bias (Fusch et al., 2018). While seeking patterns during analysis, I also watched for anomalies such as inconsistent discussion of details related to blended design and teaching. Although participants provided much of the anticipated data, the range of participant types was not as extensive as initially hoped. Only three participants had less than 3 years of blended design and teaching experience, only one professor was a new fulltime hire, and only two were parttime professors. The stressful work climate of an

unsettled contract and potential strike, combined with other elements such as the precarity of parttime employment may have accounted for some of the lower participant representation in those areas.

Transferability

To achieve the quality of transferability in this study, I provided thick description with contextual detail at all stages of the study. I explained how 12 participants were purposefully recruited for this study conducted at one of the public colleges in Ontario. The importance of the setting was relevant to blended-course design because college faculty members need to consider a wide range of learners who were dominantly not coming directly from high school and could be completing a certificate, diploma, or degree program (1 to 4 years in length). For this reason, I expected to hear from participants that they were initially hired based on specific industry experience which was validated. The unexpected and unusual circumstances at the time of data collection—related both to the ongoing pandemic and an uncertain work situation affecting all academic college employees—added stress and worry to all involved in the study and surfaced as relevant in the findings.

As the researcher, I opted for a very condensed data collection period of 2 weeks and did not rely on participant recruitment help from LTS. One side benefit was that all interviewees were at a comparable point between semesters, with a bit more time to reflect on practice and participate in the study unhampered by teaching responsibilities. The authentic nature of the study is further supported through quotations drawn directly from the data and provided in the words of interview participants.

Dependability

Adding to an overall sense of dependability, the study unfolded largely as planned, with minor changes noted here in Chapter 4. Using a recursive approach, I conducted this study and kept all the elements aligned. That is, a problem set the stage for the study purpose and guiding RQs, while the literature provided evidence that the study goal of seeking a deeper understanding of how faculty members experienced designing blended courses that they taught was meaningful. As described in Chapter 3, the interview guide included a column noting expected data (see Appendix F), which proved useful for probing during the actual interviews. For example, in the opening question to help participants become more comfortable in the interview setting and to ensure quality data, I asked them to talk about their views on pedagogy and comfort with technology. The fourth interview question was tied to RQ2 exploring agency and I used the expected data details of expansive learning, asking participants to explain how they made decisions when there was a conflict around prioritizing. These details reinforced and fit well with the overall decision to operationalize the study in Engeström's activity theory.

From the earliest planning stages, this study has been informed and driven by theory, an approach that was consistent with a qualitative interpretive description study (see Thorne, 2016). As all 12 practitioners shared their experiences, the theory-practice tension surfaced, and I was eager to go beyond literal descriptions to uncover and interpret meaning. Throughout the data collection and data analysis process, I communicated with my advisor seeking input and discussing issues I had with procedures or understanding. I encountered a significant hurdle with an initial CAQDAS coding

software that did not have the capabilities I wanted. The decision to purchase and use NVivo to run more extensive tests came about as the result of advice to work with data analysis software I felt comfortable with and trusted.

Confirmability

Confirmability of the study was demonstrated by the detailed records explaining how the data were collected, produced, and analyzed for this study. I used multiple coding methods and checked the data for consistency against and within itself to ensure authentic meaning-making. In reviewing the data, I completed several coding rounds to discover themes inductively and explore themes deductively. Beyond first- and second-cycle coding, I continued to study and manipulate the data to ensure categorical and holistic perspectives were considered (see Lieblich et al., 2011). As the solo researcher of the study, I was not neutral, and I acknowledged my subjectivity and biases.

As declared earlier, triangulation of the data in this study involved comparing the interview data against themselves for consistency, and coding other generated study data including analytic memos, field notes, and reflexive journals. For example, early in the data collection process, I was amazed by the passion I heard from participants. As the interviews continued and I re-read the transcripts becoming increasingly familiar with the data, the level of passion the participants expressed continued to leave me in awe. My immediate bias was that all faculty members were this engaged before I remembered that the study participants had chosen to be interviewed, meaning that their levels of interest were likely heightened. This all came together for me on February 17, 2022, when I attended a 1-hour talk by Flower Darby who shared an inspiring thought that I captured

in my journal: “we can’t think deeply about things we don’t care about.” While faculty participants had been telling me their attempts to connect emotionally with students were to get students to care about learning and become engaged, I realized at that moment that faculty members themselves were stewing over this problem, puzzling the pieces, and trying to solve the challenge of engagement because they cared deeply about students.

Results and Findings

The data collected for this study were obtained from 12 interviews conducted with faculty members who were experienced in blended-course design and teaching. All participants worked in distinct departments at a single public college in Ontario, Canada. Interview data revealed a range of experiences in designing blended courses for teaching. As discussed in Demographics, interviewee stories were unique, shaped by their industry and teaching experiences. To ensure consistency in analysis and reporting, I focused on experiences and perceptions participants relayed about their blended design for teaching at the study site college. I used results derived through the analytic processes of coding, categorizing, and theming. The results were explored and developed to ensure an accurate and coherent representation of the data.

In this section, the three RQs are used as an organizational frame to present and discuss the key elements that surfaced via their corresponding themes and subthemes. Table 7 highlighted codes that led to categories that helped me determine the key themes and subthemes. Moving forward, I now present details of the results by discussing the key elements or labels that I created to organize the findings that surfaced per theme and subtheme. For each key element, as I present claims, they are supported with participant

quotations. At the end of each RQ discussion, I identify the central findings based on that RQ. At the end of this section, I provide an overview showing how all these components come together.

RQ1: Results Related to Theme 1, Thinking and Reflecting for Enhanced Design

By way of RQ1, I explored the following: What are faculty members' experiences during the decision-making process of designing the blended courses they teach? The variety of experiences, especially as revealed in response to the first three interview questions, underscored that thinking and reflection are central to decision making for blended design preparation for teaching. Theme 1 pervaded the entire study. Beyond designing and teaching blended courses, all participants have taught traditional, fully face-to-face courses, and a few of the participants have taught fully online courses. Individuals provided many examples that blended design was continuously being considered and revisited based on teaching in both the face-to-face and asynchronous online modes of their blended courses. Participants articulated that beyond thinking about course design, they used reflection as a tool for redesign, as Garnet mused, "when I reflected… I was able to design." Others implied the importance of thinking and reflection in their practice such as Fenix who stated, "I have lots of advice… most of it gained through trial and error." In the case of Bowie, a core value of "always becoming" was identified and explained such that faculty keep learning by teaching, integrating new content or requirements, evaluating successes and failures, and making course adjustments as needed. The notion of thinking and reflection, as related to design and teaching, is not a new idea, nor is it limited to blended design and teaching.

In this study, with a focus on the decision-making process across all three RQs, the term thinking was very important. To demonstrate how participants discussed thinking as related to design and teaching, I have included Figures 3 and 4. These figures represent sections of a word tree generated by NVivo based on a query of the word *thinking.* Although the original rendering had many more examples of how participants used the word thinking during the interviews, this selection highlights the relevance of thinking about design, engaging students, and considering personal concerns.

Figure 3 shows a few words participants used preceding the word *thinking*, showing historical influences (started at university, critical thinking), considerations for learning location (the in-class as critical thinking), personal reflection (future classes, it had me thinking), and more deeply rooted values (and the different schools of thinking). By contrast, Figure 4 shows phrases used after the word *thinking*. These phrases show further practice reflection (thinking and revision of a course), planning about design (thinking about blended hybrid course design), consideration for applications (thinking critically and applying some), and assessing effort to self (thinking your comfort with technology). In short, these figures offer a summary insight into ways that faculty members see thinking as essential to their designing for teaching decision making.

Figure 3

Diagram Highlighting Interview Excerpts Leading Into the Word Thinking

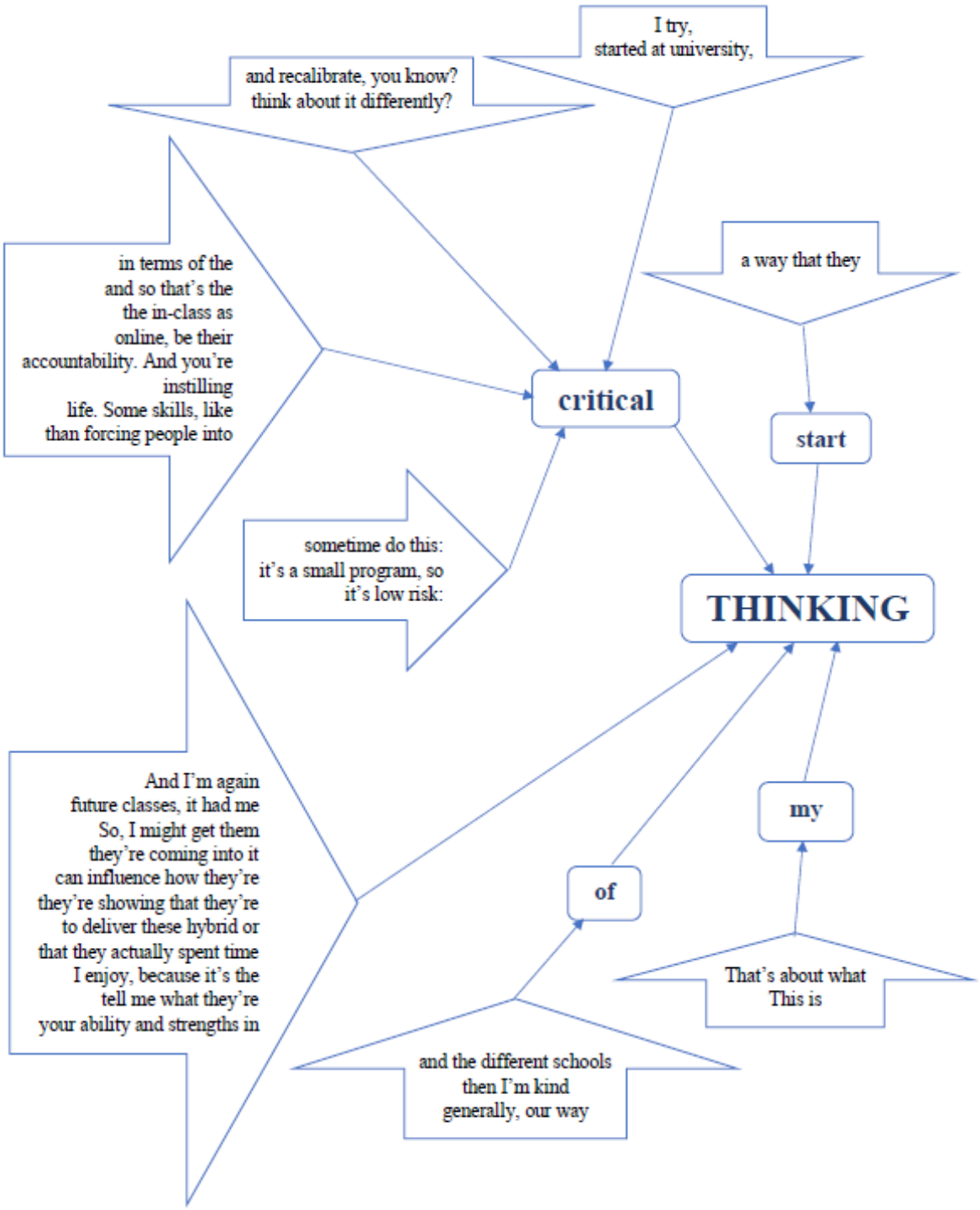
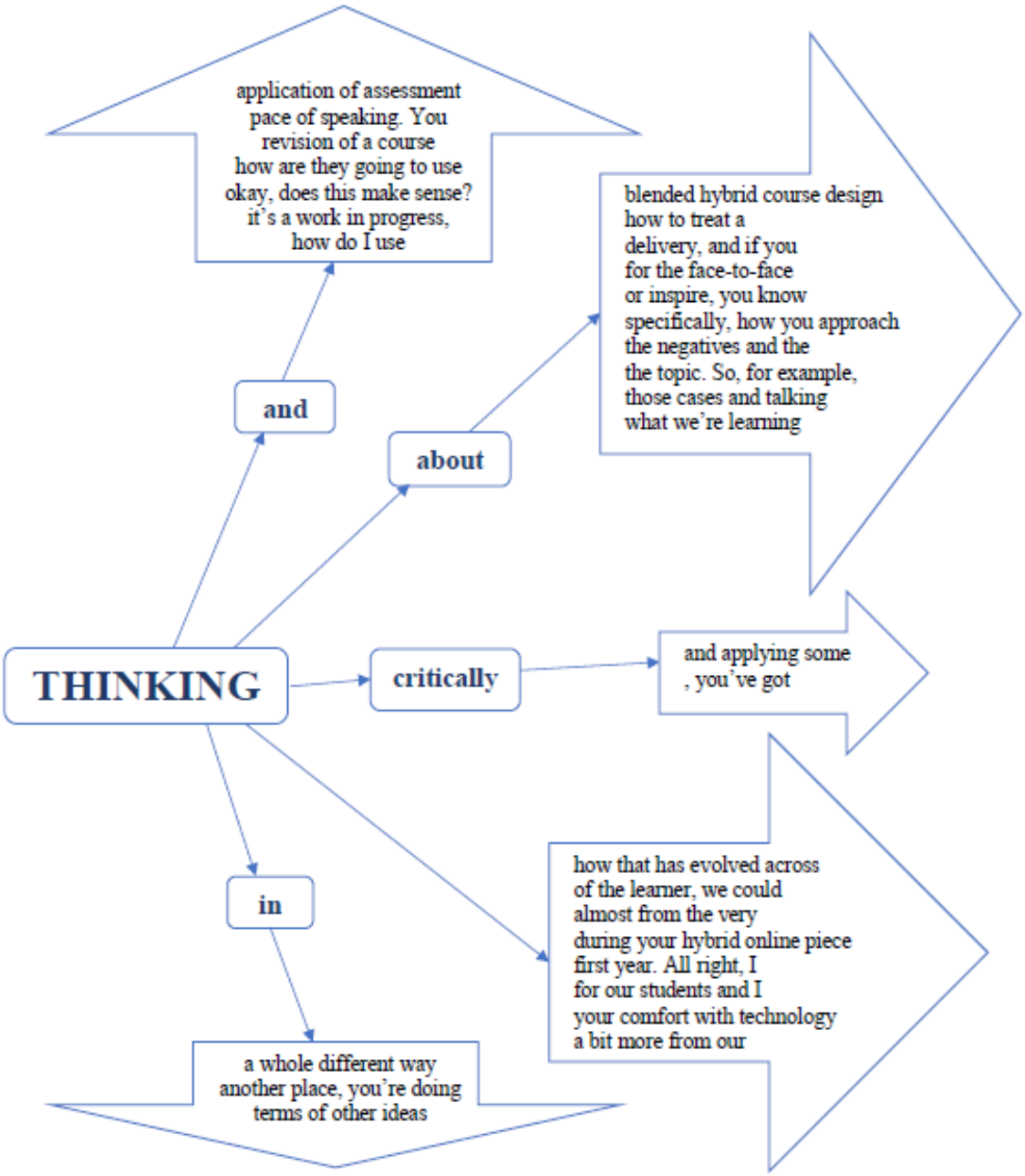


Figure 4

Diagram Highlighting Interview Excerpts Leading Out From the Word Thinking



In addition to the evolving and ever-present thinking and reflecting on blended design, other key elements made up this core theme. How individuals thought about and reflected on design and teaching decisions were first explored via participant explanations of their understanding of blended courses. Closely linked to the understanding of the face-to-face and asynchronous parts of a blended course was how those modes were connected. The section concludes with a discussion of the participants' backwards approach to design from broad to small goals.

Blended Design Understanding

Participants generally indicated they had a clear understanding of blended design as consisting of a single course comprised of face-to-face and asynchronous online content. Two faculty members in this study have been designing and teaching blended courses for more than 20 years each; they acknowledged that the early years of blended adoption included more experimentation and they shared that they continue to engage actively, thinking about and modifying courses. For example, Chance uses a "repeated iterative" approach to blended instruction, whereas Alex explained, "there are certain commonalities that you draw upon from the past. And then you make adjustments."

By contrast, the participants with 3 or fewer years of experience designing and teaching blended courses could not draw upon the same depth of experience. In some cases, however, their approaches were positively enhanced by extensive teaching in face-to-face mode or more time in industry. One of the individuals new to blended design and teaching, but not to teaching generally, Layne, expressed frustration over the requirement to provide blended classes to students who are not strong independent learners. Layne

observed that blended programming was not an ideal fit for students in 1- and 2-year hands-on, active programs who, once graduated, will not spend much time on computers. Bowie, also new to the college but with a long career in industry, embraced the blended approach noting, “I get it. You’re an adult trying to balance a whole number of different priorities… you’re going to need more than an hour… [but] having independent learning time built in, I think is really important.”

Some participants were very clear that the division of face-to-face and asynchronous time represented a collective problem-solving opportunity complemented by students putting in the time before or after class for a deeper understanding of content. Several also spoke to the advantages afforded by the face-to-face setting, where faculty members could help mediate and guide the learning. Meric explained the value of keeping certain content for the face-to-face class to “provid[e] some context” for difficult concepts or topics. Fenix articulated a commonly held participant view about the importance of the live classes with,

> I think delivering the content is something passive. They can read the book, they can watch the video, they can do that in the hybrid hour. It's still a learning activity and, and some kind of passive formative assessment model to ensure that they are in fact preparing for the class. The hybrid component, therefore, supports the more powerful, face-to-face activities.

Evan stated his understanding similarly, where the in-class, live portion of blended design allows for a deeper exploration to occur. That is, in the face-to-face setting, Evan might raise a case or bring forward a story, “something so outrageous that promotes a question

to be asked." Activities in Evan's asynchronous classes, relegate students to spectators and the learning is of a more passive nature.

Most commonly, the ratio of face-to-face to online time within blended courses was identified as 2-hours face-to-face and 1-hour online. A few other mentions included a 3-hour face-to-face to 1-hour online. One reversed ratio example of a 1-hour face-to-face to 3 hours online was provided by Alex. The freedom for students to have to be on campus only once a week for the face-to-face class was mentioned as a major benefit of this approach, and yet faculty members also emphasized the need for the two parts of a blended class to be intentionally and overtly connected.

All participants identified that both the face-to-face and asynchronous parts of a blended class need to be independently valid and integrated to achieve success. Across the full group of participants, reflection had led them to make design and teaching decisions such that each mode had distinct learning expectations and yet they were connected. Jalen observed,

> From a course design perspective, I really do try as much as I can. And I'm continually experimenting with better ways of doing this… Okay, in class, these are the things we're going to do. Out of class, these are the things you're going to do. This is how they connect. And I try to do that week to week to week, to show them that flow.

Generally, participants shared that creating a regular, predictable flow to any class is important for student engagement and learning success. More pointedly, they noted that

the dual nature of blended classes required that greater attention be given to explicitly connecting the face-to-face and online parts.

So that students would see value in both parts, participants commented that they reminded students regularly how the sections were connected. Kai shared that text readings were essential to student success in the weekly asynchronous class quizzes, and those same readings provided important theory and background examples for live classes. Fenix explained bridging the two parts this way:

> There has to be some hook to get them to understand. . . And so, there's where I bring in the class activity which is going to be built on [the asynchronous work]. From the video you watched, how would you solve this problem? So, they have to scaffold, or they have to be linked together. They're not isolated. And I think that's probably one of the most critical things: there has to be real link. Any activity that you give in the… asynchronous, the hybrid, the online hour. . . has to have a clear use of that material in the face-to-face. If it's a standalone activity and you never talk about it again, that's, to me, pretty shallow.

Thus, beyond a common understanding among participants that blended design involved one face-to-face group class combined with an independent, asynchronous, solo learning section, participants also noted that the two modes required intentional design decisions to be perceived by students as relevant and linked. Participants also addressed the first step of how to approach the full course design.

Backwards Learning Design

Exploration of the process individuals used to make design decisions revealed that participants typically built a blended course backwards, from the broadest course goals or objectives to the specific learning outcomes identified in the syllabus. In this way, decisions about what to place in the face-to-face and asynchronous online sections occurred after planning the overall course design. Jalen succinctly explained that design begins with creating a "visual" of the course experience and works best as a "backwards design." Kai explained that design must start with the course learning requirements and then move to a weekly breakdown, an approach echoed by Evan, Alex, and Fenix.

Many, including Garnet, Hollis, Jalen, and Dakota shared that they begin with course goals and then explained the value of personalizing the learning experience based on individual priorities and values. Hollis said, "Obviously, I follow the vocational learning outcomes," adding, "I really love the research. I really love finding stuff that's interesting… trying to find good examples… to be *edutaining* too." Designing courses, according to Dakota, was, "the part where I can really make my views known… mak[e] my programs quite equitable and… I theme [teaching subject] around Black History Month and Asian History Month." Almost all participants also shared that an overarching goal is to build lifelong learners.

Parallel to the overall design, participants shared that they made decisions about learning activities using a similar backwards approach, although this involved more open-ended planning. Bowie explained how the big picture course design approach carried through to each class, stating, "So, when I do my lecture… I start at my key messages,

and we start talking there. Then, based on the conversation… you have to trust the process a little bit, because you haven't structured the class completely." Evan also emphasized extensive planning to anticipate questions and be ready with analyses and responses that support the overall course goals. For Garnet, careful design and planning began with knowing "students need this for this purpose….so… how am I going to make sure that what I do first gets them there in the end?" However, to enrich and evolve the design, Garnet also asked for student input: "Give me feedback so that the next group has a better experience than you." Once the backwards design plan had been organized, participants noted the next need for establishing a regular, predictable flow to the course, supporting the idea that both the online and in-class modes would be seen as independently valid and still connected.

The data revealed some overall commonalities in how participants thought about and reflected on making decisions for their blended courses. First, participants shared their understanding of blended design as providing a rich learning opportunity for students in combining a 2-hour live, face-to-face group learning class with 1-hour independent, asynchronous work. Second, participants overtly planned activities and assessments for the two modalities and then intentionally integrated the sections for learners. Third, using a backwards, broad-to-small details approach for course design, participants ensured the course objectives were met before making decisions about which elements to place into the face-to-face or online mode. The analysis of the data also supported two subthemes for RQ1 exploring how faculty members compartmentalized,

thought about, and reflected on externally and internally motivated design and teaching factors.

RQ1: Results Related to Subtheme 1a, Learner and Classroom Engagement

Subtheme 1a represents my exploration of external motivators that faculty members experienced in thinking about and reflecting on blended design and teaching. Relevant to RQ1, a common community perspective that surfaced during the interviews was that faculty members wished to engage learners and make both face-to-face and asynchronous learning environments inviting. During data analysis and leading to the development of Theme 1 and Subthemes 1a and 1b were codes such as decision making, engaging environment, learner focused, passionate educator, and set priorities to manage all of it. As demonstrated in Table 7, more directly related to just Subtheme 1a were details captured by the categories, prioritizing and design considerations, learning as leading design, and using technology. In turn, these categories included codes such as design success, learner focused, relevant and meaningful, student responsibility-ownership, students learning with/from each other, and technology in learning. When faculty members thought about and reflected on external motivators related to design and teaching, they prioritized student-centered learning so that critical thinking skills could be developed, and they planned specifically for each modality.

Authentic Student-Centered Learning

The interviews revealed that student-centered learning and a desire to develop critical thinking underpinned faculty members' efforts at creating authentic learning conditions for students. Participants talked about ways that they brought the real world

into the classroom by sharing experiences, incorporating industry-specific terminology, working on case studies, and inviting guest experts. Alex created open-ended assignments, “to keep everyone stimulated,” while Kai kept “an open door with alumni, so that I can then find opportunities to bring them back into the system, to the new cohort, so that my new students can get a sense of what’s to come, reduce some anxiety.” Similarly, Meric emphasized that individual faculty members designed their sections for teaching based on the common learning outcomes, but shared the department team’s effort to keep a cohort connected:

> One of the things that we've consistently tried to do is that if we have a guest speaker all sections are invited… We try to build commonality because we wanted students to be able to have similar experiences… if we have guest speakers, why can't everybody come and hear them, right? [Imagine], I could have amazing guest speakers come into my class, and then what, the other three sections don't get that?

The participants concurred that such planning benefits students and enriches the learning experience, but also emphasized it takes time and effort.

Based on the enthusiasm and examples provided, participants constantly aimed to design rich, authentic learning experiences that better prepared students for their respective professional communities. Fenix has invited industry professionals to participate in video interviews so students can asynchronously view fresh, local perspectives, which then get discussed further in class. Hollis has students prepare practical workbooks asynchronously based on skills acquired in class, which would be

beneficial should they be in a work situation without access to regular resources. Bowie used online resources from the professional association students eventually join once they graduate. Very much focused on "accountability," Bowie incorporated the resources and required students to complete "attestation sheets," because, "I didn't want them regurgitating the standards." This simple and effective tool required that students "attested that they had done the modules that they could, and then apply the concepts in their practice." Dakota also required students to prepare content asynchronously, over a few weeks, in a format that would be required in the professional industry setting. In addition to creating industry-based relevant activities, participants strived to develop thinking and problem-solving abilities in their students.

Developing Students' Critical Thinking

Several participants identified the development of critical thinking in students as a core educational philosophy. Phrases supporting this claim were ample. Bowie said, "You're instilling critical thinking" while Chance suggested, "I might get them thinking about those cases and talking." Dakota explained, "Another skill I tried to build in them is a bit of critical thinking." Evan shared, "I hook my students in a way that they start thinking about things and asking questions about things," just as Fenix emphasized, "They're thinking critically and applying some of the things they learned." For Hollis, it was simply, "That's the critical thinking part of it," whereas Jalen hinted at broader life goals with, "I want students to develop sound skills that will serve them well in life… like critical thinking." Participants valued developing critical thinking skills in students that they could take beyond the class and use in real life to solve future problems.

Distinct Modal Approaches

As discussed, participants had a common understanding of blended course design as combining one face-to-face group learning class with an independent asynchronous online class. They shared that the two modes needed to be connected and integrated to maximize the learning experience for students. Preceding any linking of the two modalities, participants explained that learner and classroom engagement was designed and implemented differently for the face-to-face versus online segments.

Participants generally emphasized that successful asynchronous online engagement began in the face-to-face part of class while acknowledging that both parts of blended classes were online throughout the pandemic. Alex, Chance, Jalen, and Kai, all noted that blended courses were unique in that they combined both delivery modalities in a regular and systematic weekly fashion. Chance explained, “What I do is I try to really understand the learning objectives and the performances associated with them because any course that I've developed hybrid for has always been an adaptation of an existing course.” For most of the participants, their experiences with blended course designs were also based on having had to convert a fully traditional, face-to-face course to the dual or blended modality. The process then of deciding which elements to place in which mode and how to introduce the elements effectively mattered greatly. Kai emphasized the extra effort required in managing the dual delivery and timing for the modes as significant:

> You have to think 3 weeks ahead, 4 weeks ahead, right? To make it asynchronous, you have to plan their life for the students. That's what I've found is a big challenge with asynchronous work is, yeah, I can't just show up and just

> start: Okay, let's read chapter one together. We can't do that. Especially with online, I've noticed you just need to be twice as prepared.

In addition to conversions and general planning, faculty members shared that they had to decide about appropriate learning and assessment approaches for each mode.

Participants shared that they designed and delivered the face-to-face parts of their blended courses for a one-to-many or professor-initiated style that was grounded in group learning as compared to the asynchronous portion where learners were required to engage in an isolated, not time-bound, and independent way. Hollis shared the importance of the face-to-face setting as benefitting the group, as all those present were engaged in the learning activity and its immediate deconstruction and analysis afterward. This way, all could participate in and benefit from each other, creating a memorable, live learning experience for students. Focused on transferrable learning, Hollis was animated and provocative in the live setting sharing questions used with the students: “What happened out there? And what would you do differently?” In this way, students could benefit from the group exchange of ideas, walking away with practical, hands-on options for proceeding independently in their cooperative or future work settings.

Various examples were provided by participants reinforcing that students learn independently, at their own pace, and at a time of their choosing in the online setting. Demonstrating an effective online, individual learning approach that remained student-centered, Jalen commented,

> For the asynchronous stuff… when it comes to review, if there are concepts that I want them to absorb, then there are tools like H5P. That's an interactive, activity

> creator. So, the benefit of that is there are a variety of different activity types, and that gives students an ability to—on their own, at their own pace—explore content or test their knowledge of content.

The benefit of stop-start video applications, as noted by Fenix, was that some learners proceeded through them quickly, while others could choose to focus on particular sections, slowing down the play speed, adding captions, or even replaying parts.

Throughout the interviews, all participants spoke about creating engaging learning spaces in both modalities of a blended course. Chance explained that using quizzes online was beneficial, "because it just engages them with the subject matter that we then later reinforce in [the face-to-face class]." Jalen affirmed, "learner engagement is a definite priority" explaining the way to achieve this is by "scaffolding them to engage in the course as soon as possible… with the rhythms and the routines. So, making sure the overall course design is not complicated… I try to keep things as simple as possible." Kai summarized the idea by stating, "As professors, whatever you label it… we're always just trying to create an engaging environment for students to learn." In addition to engaging learners so that they want to learn, participants broke down their actual teaching steps.

Most participants said they used the face-to-face classes to establish an early rapport and tone that encouraged learning, for faculty members to share industry experiences, and to foster career readiness in learners. For example, Alex commented, "In class, what I do is we often discuss theory, to get an understanding of theory. We talk a little bit about applicability and then the hybrid activities have a tendency to be about the

applicability.” By using the face-to-face setting to establish common understandings and tone, students would be better prepared and more willing to participate in the online portion. Jalen added that for younger learners who needed “more prodding,” face-to-face connections were especially important. Fenix shared that in the face-to-face setting it was easier to connect with students and assure them that relationship building was part of establishing trust. Fenix explained further that when students saw their professor as a true member in the department, it was easier for them to believe the assertion, “I'm here to help you.” Despite participants prioritizing distinct approaches, designs for engaging learners varied, encouraging me to explore the reasons for specific design decisions. Because of the pandemic and the shift to most courses being offered remotely, understandings of the face-to-face and online portions of blended courses became complicated and blurred as is examined in the next section as well as under RQ3.

Face-to-Face Learner Engagement

As faculty members reflected and made choices about course design for the face-to-face part of a class, participants shared that they prioritized building trust with learners and making human connections. Then they considered how to deliver content based on industry experience and knowledge. Challenges were experienced by most participants related to COVID-induced remote synchronous design and teaching. Study participants explained that they used the face-to-face part of the blended course, which they usually referred to as the “live” part of blended classes to create safe learning spaces. This involved building trust between themselves and the students, as well as fostering relationships among the students that would hopefully carry over to asynchronous online

activities. As Fenix explained, “You have to build trust” that carries into the online setting so that the students know faculty are there to help. To nurture a respectful and safe learning environment, participants identified the importance of genuinely listening to students and responding to their requests. Through class representatives, Bowie heard that not all students missed the in-person face-to-face part of learning and wanted to have some program elements remain remotely delivered, which led Bowie to make a case with the department on behalf of learners. Consequently, one of the classes in Bowie’s program remained blended as a proof of concept for a trial post-COVID semester. Meanwhile, Garnet experienced a simpler request from students to try to replicate face-to-face classes. Students asked for the Zoom class be opened early as Garnet retold it because “It really would be nice if we have maybe even 10, 15 minutes before. Just start it and leave us. You don't have to be there, just so we can talk – just us.” In each of these cases, the faculty members had created enough of a safe environment that the students were comfortable making the requests.

Another way to build trust was via caring, which Jalen noted could be as simple as noticing someone’s absence because “Everyone needs to know that, yeah, my teacher cares.” Bowie, Chance, and Meric all underscored that they created safe, trusting, and respectful classroom spaces for discussing difficult topics and introducing concepts that students would face when they graduated and entered the workforce. Meric explained,

> I want to be able to hit all the learning styles, speak inclusively, develop activities that are of value that connect with learning outcomes and the curriculum. And because of the courses I teach the concept of respecting the learner is (not that it

> isn't in any other courses) key…So, it's that idea of interacting with others… And, well, that's my aim [and] creating a safe space too, right? For them to learn because I know students are in different places in their own journeys.

Meric's explanation of the reasoning behind, and importance of, creating a respectful and safe learning environment extended to creating a friendly understanding and positive rapport in the class too.

Beyond creating trust in the classroom, several participants spoke about the professor-student relationship, or the need to create a "human connection," as Jalen described it. Evan and Hollis both shared that they had found their school learning challenging, and in that context, they each identified an intentional prioritizing of making connections during the face-to-face time to build trusting, inclusive, and supportive learning spaces. Generally, faculty members identified using the first week or two of face-to-face classes to get to know their students, which then prepared the way for online community development.

Through various rapport-building approaches, participants shared that students began to feel comfortable and ready to learn in the face-to-face setting, and then carried that feeling over to the asynchronous setting. Layne, Fenix, and Garnet explained their approaches of being available for further discussion before and after face-to-face classes. Layne commented that, "Students who were struggling would meet with me… they would spread out in the [room] and I would go over the [subject details] with them and explain stuff. Some people need that, and other people don't." Maintaining connections with students after they graduate was also identified as a way that participants maintained

a sense of continuity. Kai observed, “The alumni feel good about giving back… it’s very much a win-win experience for all involved. And it helps me get a sense of what’s happening after they graduate.” The connectedness, therefore, provided students with an inside view of industry and helped educators remain current.

Because most programs at the study site are focused on 2- and 3-year options (even though those participating in the study were designing and teaching in programs ranging from 1–4 years), participants noted that graduates might go directly to work upon graduation. Several participants shared how they used stories from their nonteaching experience, maintained industry connections, and invited guests into their classes—all tactics designed to enhance learner engagement. Bowie, who had limited fulltime teaching experience but extensive industry experience, stated simply, “You’ve got to have some street cred” for the students to have confidence in their faculty. In addition to sharing relevant problem-solving experiences with their respective students as a central strategy, Hollis, Kai, Meric, and Fenix all maintained close ties within their fields, bringing independent, established professionals, as well as recent graduates, into their classes. Others, such as Alex, Chance, and Jalen participated on provincial or national regulatory or subject-specific bodies to stay current in their areas of expertise, using those connections to help make decisions about design and content.

Participants identified a major COVID-related challenge to live class engagement in the form of Zoom teaching, noting that Zoom considerations influenced their blended design and teaching decision making differently from in-person face-to-face teaching. Garnet shared that, “In the face-to-face, students will come early in class and chat and

things like that. And then [I] would arrive. . . But with Zoom, what I used to do was, just 5 minutes to the time… open it up." Fenix who taught blended classes pre-COVID and during the pandemic noted that a major challenge was related to connecting with students between the face-to-face or live sessions. That is, Fenix spent time on campus and students could stop by the office for a quick clarifying chat pre-COVID, but students were less inclined to book a Zoom call during COVID despite assurances of availability.

College policies during remote teaching were focused on student privacy, not requiring students to turn on their cameras, which many participants found both valid and problematic for live, face-to-face online class engagement. For Hollis, whose students are typically in 2-year programs, some had not ever been to campus because of pandemic-related closures. Because graduates of that program interact daily with the public, Hollis decided "To challenge them to show up… It means, get out of bed, get dressed, turn your computer on, and show up… I mean, they've missed… becom[ing] responsible." Meric noted that as of Fall 2021, students were rarely turning their cameras on, not even for guest presenters, which led to this comment,

> We forewarned guest speakers that students generally are there, but they're not. You can't see them. So, they'll ask questions, but they're not going to turn their camera on…. it's that social quicksand piece, right? You're talking into the abyss, it's very awkward and weird and different.

With student cameras off, faculty members expressed their concerns about divided and absent attention. Making design decisions involved, for some participants, increasing the gamification element, such as Kai who used Mentimeter (interactive, live polling, and

quiz software) for quick reactions. For others, like Fenix, it meant providing clear "rules of engagement," with more details than would have been needed in the face-to-face setting, so that "the dynamic within the group [could] be managed." Participants expressed cautious hope for an early but safe return to blended classes that required the face-to-face portion to be back in person.

Study participants made decisions to engage learners in the face-to-face classroom in many ways. Building trust with and among learners, creating human connections, sharing industry experiences, and making modifications due to COVID were all factors faculty members thought about and reflected on when designing for face-to-face engagement. In addition, faculty members made design and teaching decisions for engagement in the asynchronous setting.

Asynchronous Online Learner Engagement

For study participants, asynchronous online learning was more "passive" as Fenix suggested, possibly requiring students to watch a video, learn the rote aspects of content, or develop a base concept understanding. Challenging this view, Jalen noted that tools like H5P helped, so that students, "Are not just passively going through the video, they're kind of forced to pause and consider certain things." Most participants explicitly commented that online design had to encompass more than homework, even if, as in the case of Dakota, that was precisely the approach originally suggested by colleagues. Participants also shared that the online piece had to connect to the face-to-face part. As Fenix stated, "The hybrid component is the continuation of the learning face-to-face just without me present." Evan categorized online design and teaching as a spectating

activity, sharing, “Every time I envision my students as spectators, so that there is no involvement from me other than being a face, even if it’s behind a blank screen, I remove that from any type of live [face-to-face] interaction.” For Chance, the repetitive part of learning the industry language was put into the online setting, so that the in-person face-to-face sessions would have more meaning: “It allows me to then reinforce some of that stuff in a classroom setting through examples, rather than dealing with the boring, well, not really boring, language associated with [industry].” Alex, Hollis, and Bowie shared that they used the asynchronous sessions for reflection and adaptation of live class discussions, such that students demonstrated critical thinking, possibly applying theories to alternate scenarios. Bowie required students to take and share a screenshot of signing up for a provincial program as that way, “I know they’ve registered. And then, I had some reflective questions.” Beyond learning content in the asynchronous mode, all participants commented on the importance of clear asynchronous design.

Participants addressed the importance of ensuring that online materials in blended courses were presented in an organized and transparent way, with clear, timely requirements linked to face-to-face classes. To ensure that students valued the asynchronous content and genuinely engaged with it, faculty members shared that they regularly referred to and used the asynchronous material during the face-to-face parts of the class. Jalen provided a succinct summary, “So, it comes down to flow between the two environments, across all the different aspects of the course evaluation, the learning experience, what they're working on as learning activities, the whole thing.” Meric shared how linkages between the face-to-face introduction of a range of relevant subjects was

used to build to the final online assignment in a blended class. The students were required to complete an opinion piece, and Meric added “They choose the [industry-related] subject and educate me from their perspective. That's been one that the students seem to really enjoy.” Kai shared the importance of laying hints a couple of weeks ahead, so that classes could flow smoothly, and the pacing was obvious without being heavy handed.

As part of the flow and pacing, participants shared that the asynchronous part of blended courses could be treated as follow-up or preparation sessions for the face-to-face part. When students were required to engage with multimedia such as watching videos or a lecture to develop an individual understanding of content prior to the face-to-face live session, it is commonly referred to as a *flipped class* approach (Brown et al., 2020). Whereas Fenix frontloaded courses and used a flipped format and Evan “takes a couple of weeks” to get students used to the flipped format so there would be no required repeating of lectures, other participants shared their frustrations with a flipped approach. Garnet, Jalen, and Meric all spoke to attempts of having students prepare content before face-to-face classes. Jalen admitted, “That doesn't always work to plan because that relies on students to complete the content review. So, inevitably we do a bit of review.” Jalen has continued to try flipped class approaches, whereas others have abandoned the approach.

Kai, Garnet, and Jalen explained that they build on face-to-face rapport early in the semester by having students also complete an asynchronous introduction. Jalen outlined using a short survey at the beginning of courses as a “humanistic kind” of tool. Continuing, Jalen explained that these early, personalized connections were based on,

"Trying to get to know who they are as individuals… so I understand, are they working a parttime job? Where are they located? Are they in a time zone 12 hours away?" Garnet also liked to get an early sense of students noting, "I want to find out what their background is… what they hope to do after they finish the [subject] program, and. . . what their individual goals are for that particular course." In turn, these decisions open the way for tailoring specific activities and providing, as Jalen observed, "Some feedback to everyone… even if it's just a little snippet of a comment."

Participants also shared the need to spread asynchronous content delivery in a way that students would find manageable and that encourages participation. Kai advised coordinating the asynchronous workload with face-to-face deliverables, "So that you are not just throwing an avalanche at students." Fenix also suggested segmenting content to assist student learning: "Don't feed students with a fire hose… give it in smaller pieces, you know, use a garden hose." Alex recommended that students benefit "if you can start a discussion in class… and then have it carry over into a discussion board." Participants explained that making design decisions around such measures as pacing and integration helped create supportive learning conditions, preparing students for assessment.

According to participants, assessment had to be built into the asynchronous part of blended courses in a way that consistently supports and furthers learner engagement. That is, participants noted that multiple assessments with individualized feedback was an important part of flexible, student-led learning in the asynchronous mode. Fenix spoke at length about the importance of assessment, observing, "We can't just assume they're learning it. So, the assessment model has to be designed in some way, shape, or form as

well. And it doesn't have to be strenuous…[or] multiple choice… I'm usually doing short answer now." Fenix continued, "You've got to be clear with the assessments. So how are we going to assess and why…? Is it a formative assessment…? And I say multiple formatives are, are much better than these big, high-risk chunks." In other shorter programs, where associated assessments repeated on a shorter cycle and there were risks related to, "academic integrity and test security," as in Garnet's area, the faculty were "beginning to talk about alternative evaluation or assessment methods." Jalen shared that the ideal was to "have an assignment that takes advantage of both the online and face-to-face environments. And… if not getting graded…they're getting feedback."

Self-directed stop-start videos through applications like H5P or Captivate, where students are required to answer embedded content questions before the video continues were only discussed by Fenix, Jalen, and Kai. Other participants were aware of these technology applications and tools but felt the time required to learn and consistently use such software was too onerous and they preferred other asynchronous assessments, such as discussion boards, individualized reflections, or quizzes. Thus, faculty members made decisions to engage learners in the asynchronous classroom by making decisions about the type of content students could learn about independently, the way that the content was organized and presented to students, and the types of assessments that were used. When faculty members made decisions about creating engaging learning environments in the blended setting overall, and for the specific face-to-face and online parts, those choices were balanced by Subtheme 1b, which is described next.

RQ1: Findings by Subtheme 1b, Time and Effort for Updates

As a complement to Subtheme 1a, in Subtheme 1b, I explored individual motivations for blended design and teaching. That is, what decision-making priorities did faculty members consider during the thinking and reflection process that accounted for the time and effort they had to expend to create engaging learning environments? Subtheme 1b captured how faculty members were passionate, attempted to find a balance among priorities such as introducing and managing technology in design priorities, collaborated with colleagues, improved their pedagogical practice, and stayed current in their respective industries.

Passion for Designing and Teaching

Faculty members in this study revealed that their passion in designing and teaching was typically driven by a desire to nurture student excitement about a specific field or industry. This passion was evident in comments such as Alex's, "I enjoy it. I enjoy the challenge of working with students who are, I guess, at different stages of their lives." Evan's observation about the process of getting to well-designed blended courses emphasized a commitment common among several participants, "I think it is important to say, I spent a lot of unpaid time to get there… so, I was comfortable with doing that, because it was an investment, yes in my students, but just as importantly, in me." In answer to a probe on interview question 2 asking about the best and least liked parts of designing blended courses for teaching, Garnet summarized another view held by most of the participants emphasizing the ongoing prioritizing in design decisions:

> Honestly, there's nothing I like the least… sometimes it's uncomfortable, but it's not that I don't like it, or I like this more or that less, because every step of the course design or instructional design is important… And so, if they need it for this purpose, how am I going to go back, walking back, to make sure that what I do first gets them there in the end? Is there anything I like the least there, no. Some are a lot more work than the others. Speaking for myself, the part I find that's a lot more work is at the end of the course, when you have to go back to your journal, if you keep journals or you keep notes, to make revisions based on students' performance on tests, or students' performance on the activities and feedback the students have given, and even your own experience teaching it. So that is where I find there's a lot of work and there's never enough time. So, you have to pick and choose which one can I work on now to get the quickest bang in view of the time I have available to me.

In short, Garnet's argument summarized that the design and teaching process was student-driven yet still tempered by individual educator-designer capacities and limits. This example captured that faculty members were professionals, committed to their craft, and still realistic. Thus, participants recognized when aspects of a course fall short. They examined options and then prioritized and addressed remedies so that they balanced possibility, need, and energy available, while pushing aside other less severe concerns.

Technology Time and Balancing Priorities

Participants discussed perceptions and attitudes toward technology in terms of decision making related to time. Providing a reflective summary, Chance shared the

perpetual dilemma of time, “If I had three priorities, it would be of course, centering everything on the learning objectives, and then the time for design, and the time for evaluation. That's what I have to balance.” When it comes specifically to technology, Chance emphasized, “I’m not fearful of technology… I can do video-editing, but it’s time consuming… or using Mediasite… it takes too much time to create these things.” Others, like Evan, asserted that the process of designing strong blended courses had a price: “It is important to say, I spent a lot of unpaid time to get there.” However, Evan also added, “I'm not complaining about the amount of time that I choose to spend on this. It's my choice to do that. And I would not give any less time to make this work, but it is very intensive.” These varying attitudes were not unusual among the participants.

The participants discussed that new educational resources and easy technology-based applications are regularly promoted by the college. In this study, participants with a range of blended design and teaching experiences revealed a divergent set of attitudes about and approaches to adopting and incorporating new tools. Having designed and taught blended courses for varying lengths of time, Chance (+20 years), Hollis (11-19 years), and Layne (<3 years) all voiced general frustration with the college’s inconsistent support of new technologies, which has led to design decisions based on reliability. For example, Hollis shared how exasperating it could be when a list of technologies was posted, and by the time, “You go to learn more about it and use it: oh, we’re not using that anymore…” Hollis has also seen interesting items listed and has been told, “Oh, we're not using that one yet.” After a few disappointments like this, Hollis contended that, “I don't think they've [LTS] prepared for us,” and has turned to using reliable,

predictable technology options that come with the LMS (and Zoom). Chance explained that given the nature of a small program, trying to keep up with professional requirements, and completing course updates, the remaining time for educational technology innovations was limited. “I could update a few things throughout the semester and a few things in the spring, but not everything. And by the time I get around to all of it, the technology would've changed.” Not all participants were disenchanted with trying new technologies.

Covering a spectrum of blended design and teaching experiences, Evan (11-19 years), Fenix (11-19 years), Jalen (11-19 years), Kai (4-10 years), and Bowie (<3 years) were much more receptive to new technologies. These participants shared that they were generally more willing to experiment and invest time in learning new technologies. Jalen, who spoke very comfortably about many educational technologies, tended to be judicious in using them. The strongest view about the need to incorporate technology in blended courses was expressed by Fenix, “If you were to do an assessment of hybrids and find hybrids that were a poor design, I’d have a problem with that because that’s my job.” Fenix developed this idea further, contending that,

> If I'm not up to the task, I need to educate myself and find a way to make it better… I can't just sit back and say, oh, it's a new technology, I'm not really comfortable with it, I don’t believe in it, or whatever… and not do anything about it. So, I think it's incumbent upon us, it's an ethical… [and] a moral responsibility.

With no discernable pattern related to experience, the main division among participants who decided to invest more time or not into learning about technologies appeared to be

based on personal past negative or positive experiences learning about and applying educational technologies.

Participants generally agreed on the convenience of quiz pools and discussion boards that were housed on the LMS and how their use could facilitate the management of educator-designer workload. Chance noted a preference for building question pools in the LMS because "I couldn't rely on [the college] to provide a subscription consistently." Evan used the quiz feature on the LMS and released all asynchronous units when courses began so that learners could choose their own completion speed. Fenix and Bowie shared how improved design had helped put the learning responsibility back with students while simultaneously providing better management of time for faculty member assessment.

Nonteaching Priorities

Being a faculty member involved more than interacting with students, according to participants. Alex and Layne, who are both involved with provincial bodies, noted the time taken up with program quality review and staying current with industry. Several participants shared their ongoing efforts concerning personal development through continued educational pursuits which could help with an understanding of student learning and enhance renewed reflection on course design. Some participants were also involved in ensuring regulation changes were incorporated appropriately in their departments and have been involved in overseeing program continuity. Participants also shared experiences of taking on leadership roles for different periods within their departments, be that course or program related, and how there are risks and benefits to these wider perspective considerations. In addition to these factors, participants identified

a concern about reduced reflection time as influencing the ongoing design decision-making process.

Scheduling and Collaboration

Faculty members discussed continuous full academic year teaching (two full 15-week and 1 half-semester per year) and how that has reduced time for reflecting and revising. Alex, Chance, Dakota, and Garnet commented on redesign expectations as ongoing, even though duties continue to increase during the turnover time between semesters and the traditional spring planning time for deep course reflection has been removed. These administrative scheduling changes have also diminished faculty time for collaboration, as noted by Alex. Garnet also shared, "We try to find time to meet," to review resources, discuss common assessments, and share concerns. In short, the meetings continued to happen, just not as frequently. Kai observed that individuals were less collaborative because their time was filled with so many other tasks, adding, "And, I can't blame them. We're part of this renegotiation period… I don't blame teachers anymore for not wanting to spend time and not be compensated." Despite Kai's perception, two other participants, Fenix and Meric, spoke openly about supporting newer faculty members.

Critical Reflection

Participants discussed and valued critical reflection as a key to course redesign. Garnet shared that reviewing reflective notes about the course after it was completed is time consuming but was essential for continuous design improvement. Using examples of asynchronous group activities that did not go as expected, Hollis, Meric, and Bowie

shared that moving forward they were changing the activity. Objectively assessing the success of an activity was a maxim that Hollis shared with students: “If everybody’s doing it wrong, that’s [my] fault… the problem was the instruction.” Fenix also noted that when work was poorly completed, educator-designers, “Should look inwardly first and say, the students did poorly on that assignment, activity, test, or whatever. I better check the instructions… was it not worded clearly? Was there no rubric?” Thus, participants revealed that reflection was deeply embedded in their practice, and they continuously negotiated priorities in their redesign and teaching efforts.

RQ1: Concluding Thoughts About the Results

The observations informing RQ1, as captured by Theme 1 plus Subthemes 1a and 1b, revealed that participants considered many elements which coalesced in various ways as decisions were made about blended course design and teaching. In Table 8, I used the label key element to show what comprised the theming of the data for RQ1 succinctly. These key elements were prominent throughout the data, and they helped me discover the main study findings. By listing the key elements at this stage, their connection to the findings is easier to follow.

Table 8

Overview of Results by RQ1: Themes/Subthemes and Corresponding Key Elements

Theme or subtheme	Key elements
Theme 1: thinking and reflecting for enhanced design	Blended design understanding Backwards learning design
Subtheme 1a: learner and classroom engagement	Authentic student-centered learning Critical thinking Distinct modal approaches Face-to-face learner engagement Asynchronous online learner engagement
Subtheme 1b: time and effort for updates	Passion for designing and teaching Technology time and balancing priorities Nonteaching priorities Scheduling and collaboration Critical reflection

Table 8 highlights how and what faculty members thought and reflected about their experiences to enhance the design of the blended courses they teach. After having established the understanding faculty members had of blended design and that they designed backwards from broad to narrow course goals, in Theme 1, I explored how participants integrated independently valid face-to-face and asynchronous online parts of a course. In Subtheme 1a, I showed that faculty members considered many external aspects in their thinking and reflecting related to learner and classroom engagement, such as creating authentic student-centered learning experiences, developing critical thinking in students, and planning for each modality distinctly. In planning the face-to-face learner

engagement, faculty members built trust with and among learners, created human connections, brought in nonteaching experiences, and faced COVID challenges. By contrast, in the asynchronous learner engagement, participants noted that the passive content of this modality was more than homework, that the content had to be transparently organized with clear expectations and that students expected prompt and individualized assessment. In Subtheme 1b, I discussed the internal factors influencing faculty member decision making including their passion for designing and teaching, how they perceived and managed technology time and priorities, how they considered other faculty priorities, how changes in scheduling reduced collegial collaboration, and how critical reflection was still a central part of course redesign. In presenting these extensive key elements, it is now reasonable to address the first pair of findings related to the key elements of RQ1.

RQ1: Major Findings Based on the Key Elements, Themes, and Subthemes

After I had completed the full data analysis, reviewing all codes, categories, themes, and key elements, I found two key findings that surfaced in response to RQ1:

- Based on experiences and reflection, individual understandings of blended design include a *dominant* face-to-face modality complemented by and integrated with a *passive* online, asynchronous modality.
- Decision making about blended design occurs on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use).

Ample participant evidence has been provided in the results organized by key elements under Theme 1, Subtheme 1a, and Subtheme 1b leading to the first finding about the general understanding of the design of blended courses that faculty members teach. Individual experiences based on subject matter expertise and teaching at the college have led participants to reflect and make decisions about elements of their blended design. They were all clear that their core understanding of blended design involved creating a single course for delivery across two modalities.

Unlike traditional face-to-face classes or online options, a blended course was described and understood as comprised of two delivery modes in one course. The face-to-face or group-based mode was perceived as dominant and more robust because the interaction included everyone together at one time, including the professor. In most cases, the face-to-face part was also allocated more time, with 2:1 hours being the most common ratio. The passive online, asynchronous part of the blended course required dedicated content. Most participants designed the online content to engage learners individually, where the time of completion was not critical. One other common understanding was that the two modes had to complement one another, and they had to be carefully and intentionally integrated if learners were to engage fully with both modes.

Several examples have been provided demonstrating that participants continuously reflect on their blended designs, making decisions about assessments or approaches to alter or maintain. Although participants adopted and follow varied organizational approaches and emphasized different features or attitudes across the modes, they all emphasized the need to make design choices, so that the two parts were

connected, and students could see the value and need for completing both parts. Because the face-to-face time was scheduled and usually assigned as more time than the online, independent piece, which students completed when and as they chose, study participants emphasized the importance of students attending live classes for richer knowledge construction. All participants were passionate about their subject areas and keen to instill a passion in their students for the subject as evidenced through their efforts to create engaging learning environments, where students feel safe and work on critically solving authentic student-centered problems.

The second finding permeated the entire study, as participants made it clear they made decisions about blended design individually, on a scale balancing group academic needs of students with personal perceptions of value to cost for self (including technology use). Starting with the broadest goals and using a backwards design approach, participants first determined learning objectives and second created a weekly plan. From there they made decisions about which content and assessment pieces to locate in the face-to-face or online modes and how to connect them. At this stage, participants faced further decisions about design and teaching in the two modes, which often involved technology use. The evidence suggested that each individual made decisions on a personal scale between designing effectively for the group and individual learning experiences across the two blended delivery modes and considering the value-to-cost balance for self.

As established, participants sought ways to engage learners in face-to-face and online settings, technology use in higher education was unavoidable, and faculty

members were regularly making decisions about where they wished to expend what efforts in their blended design and teaching. Professing to be lifelong learners, this group of educator-designers still had to make decisions and prioritize among various interests including their teaching subject area, pedagogy, technology, nonteaching-related education work, and serendipitous opportunities that might arise. Decision making about meeting the academic needs of students during the pandemic included enhanced options for incorporating new technologies and whereas some participants were eager to expand their technology use, others shared reasons for directing their energies into nontechnology-based endeavors. Of course, participants also had personal interests, obligations, and distractions beyond their roles at the college or any previous industry-related experiences. Those aspects, while only occasionally captured during the interviews, existed and influenced decisions faculty members made about designing blended courses. Having discussed the two major findings related to RQ1, I now move into a discussion of RQ2.

RQ2: Results Related to Theme 2, Teaching as Doing

RQ2 asked the following: How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process? The philosophy and attitude that educator-designers brought to the action of designing blended courses for teaching grounded this question. Technology use is pervasive in higher education, as was evident in the RQ1 discussion about thinking and reflecting; its presence was again central in this discussion about doing. Theme 2, generated largely from responses to interview question 4, highlighted

how participants perceived their beliefs, values, and attitudes influence their decision making for blended design for teaching. That is, in RQ2 I explored how educator-designers perceived their agency, and how they accommodated those perceptions as they made decisions for teaching the blended courses that they designed. As with RQ1, this section is organized by key elements that surfaced during the analysis.

Specific key elements of Theme 2 included an example providing evidence of one participant's agency in creatively introducing blended teaching. Additionally, the discussion includes perceptions related to blended splits, explicit agency, pedagogy and the art of teaching, different approaches to creating community, scaffolding the learning, and managing cognitive load for students. Technology and the perceived comfort participants had with it, plus their use of it, especially as linked to taking risks precedes a discussion of asynchronous activities. The importance of the two modalities and the need for students to attend the face-to-face sessions led to a final examination of group work in live and synchronous classes.

Innovative Agency in Blended Design

In this section answering RQ2, the agency of individuals and their ability to make design and teaching decisions is presented via examples based on participants' perceptions of teaching blended courses they have designed. A significant individual example of agency and design decision making was directly due to COVID having forced faculty into remote delivery. Bowie, who identified as comfortable with uncertainty, perceived the need for a significant design change to create a blended format to better support learners during the pandemic. Previously, this course was designated as 3-hours

fully face-to-face; Bowie converted it to be 1-hour asynchronous and 2-hours synchronous, live via Zoom. With no one going to campus, Bowie decided to pre-record all lectures for independent, asynchronous learning, leaving 2 hours of interactive, synchronous learning in the Zoom setting. This innovative approach provided students with the flexibility to use the first hour as they chose, watching the pre-recorded lectures, studying difficult content, working with classmates on a group activity, or in some other self-selected way.

The positive response from students and success with this change led Bowie to request that this course retain a blended designation, including pre-recording lectures to enable rich class discussions, when campus classes resumed. Bowie had proposed that valuable lessons gained through the pandemic should not be lost in a flurry of returning to campus. Bowie's argument that learners should learn, "At the right place, at the right time, and with the right approach," was supported by management, so that this one large class (+100 students) course remained a blended distance delivery. Contending that more could be done to support active learning in large classes via a distance blended format rather than a traditional face-to-face class, Bowie's core philosophy of finding the right fit for learners yielded great learner rewards. Bowie's decision making about initially trying and pursuing a blended design approach for this course demonstrates the important connection between reflection, perceptions, and agency.

Blended Split Arrangements

At the college, faculty members were typically assigned the modality of courses they were assigned to teach. The most common blended arrangement at the college

involves a 2-hour face-to-face with a 1-hour asynchronous online split; this was also the most common experience for participants. The only significant exception to this structure came from Alex who had experience teaching a 4-hour applied engagement blended course. In that course, students completed 3 hours per week independently in the community to 1 hour of a face-to-face, seminar-style class. Alex noted that the class was very successful and well-received by students who found the face-to-face time a valuable complement to their individual experiences outside of class.

Within the common experience of an hourly 2:1 blended split arrangement, participants emphasized the need to design for active and engaging learning opportunities. In the context of using the live period for clarifying and contextualizing, Meric shared, “It is a 3-hour course… again, the stuff that we’re talking about is not just from a book, it’s life for a lot of them. So… those examples that I use are always in class.” Kai summarized that design needed to include variety such as group work and, “Getting students speaking to each other about the topic… at least once or twice watching a video together… just to mix it up, so it’s not just me… that speaks for 2 hours straight.” Another active use of the live class that integrated with the independent work included using the in-class time to provide feedback on milestones, as Jalen noted, “I can have little conferences with them… during class time.” In addition to determining the blended split arrangement, participants had various experiences with designing blended courses that they passed on to others or with teaching blended courses initially designed by someone else.

Designing and Teaching Agency

Participants discussed their mixed experiences in designing blended courses for others or working with a course that had been partially predesigned. Kai, Dakota, Jalen, and Evan specifically emphasized the time investment needed to personalize courses, dismissing the notion that a course designed for or by others could be taught without any customizing. Both Kai and Dakota shared that they had contracts for designing courses while parttime faculty members, and neither perceived these as good experiences. Evan summarized the dilemma of someone else teaching material designed by Evan noting, "They'd have to make it their own, right? . . . my script on what to do during the live time… is written in Evan-speak." In a similar vein, Jalen shared the challenge of teaching a course where the assessment types and weights were prearranged. Philosophically, Jalen found the activities incongruous with the course content and so re-interpreted the exam component deciding to revise it so that it became a take-home exam.

Faculty members consistently shared that they had the freedom to design and deliver their blended classes as they chose, suggesting that their reflection on the student needs to personal needs continuum influenced their decision-making process. A good example of the balance that participants strived to reach about decision making was provided by Meric on the matter of resource selection across multiple campuses. Faculty members typically selected resources to accompany their courses based on individual preference and perceived value for learners; often, if there were multiple sections at a campus, faculty members would collaborate and agree on common resources to make it easier for students who may wish to switch sections. In this example, Meric shared that

management had requested an alignment of resources across campuses, something that was not usual. However, after the faculty colleagues met to discuss resource options, none of the faculty members across the different campuses felt their academic freedom was being restricted. They collegially reached a compromise, selecting a single resource across all campuses that effectively recognized the legitimacy of students who might otherwise be burdened with purchasing multiple resources when transferring from one campus to another.

Several participants corroborated other stories of independent decision making with various examples of design approaches and assertions that they had never received pushback. Although departmental learning requirements require heavy group work in some courses, as identified in the learning expectations, Kai noted, “When I do have a choice—I hate to say this—I prefer individual work,” adding that there had not ever been a challenge on those decisions. Meric also emphasized, “I have a hundred percent decision making for that [face-to-face versus asynchronous].” Evan expanded on this idea and summarized a strong and commonly held participant attitude with, “I hope this doesn’t come out wrong, but I can do whatever I want or at least any of the supervisors I’ve had have empowered me to really go for it… I get absolute freedom in how I [design and teach] blended courses.” Inasmuch as managers have access to student course and program evaluations, any follow-up with faculty members could easily occur if there was a perception of concern. No participant had experienced a manager interfering with any specific course design or teaching approach.

Pedagogical Approaches

Participants readily shared their pedagogical understanding and approaches to blended design and teaching. In discussing the process of transitioning from parttime to fulltime faculty, Fenix emphasized that faculty members are typically hired for content knowledge and only really develop an understanding of the full responsibility of being a professor some 5 to 7 years after bringing their industry expertise to the classroom. Around 5 or 6 years, Fenix discovered, “I’ve been doing this wrong for so many years,” and shared that, “The light went on when I realized there’s a better way to do this.” Kai also shared, “If I compared my [current] teaching style to 8 years ago… very much lecture… I was not doing a great job at all. I've had to learn that's not how you learn. That's not how you teach.” This epiphany about how to teach blended courses, although not articulated so succinctly by everyone, was still reflected in various comments.

In a more specific example, Meric both lamented and accepted that learners did not engage in discussions that were not graded, a finding that led to a revised design the following semester. Meric’s new activity required students to complete the discussions live during the face-to-face part of a class, recording and sharing ideas on a whiteboard. Hollis also speculated, “I’m not even sure that I do hybrid right,” and yet the examples of revisions to face-to-face and asynchronous approaches and activities in Hollis’s classes suggested the students were experiencing blended pedagogy. Garnet specifically referenced using the ADDIE—analysis, design, development, implementation, and evaluation—model for blended design. While no other participants referred to specific

models, they all discussed or implied different stages, which triggered the introduction of a new approach.

Creating Community

Decisions related to pedagogical approaches used by faculty members varied with assorted examples based on CoI, constructivism, reflection, and collaboration. Unique to blended pedagogy, Jalen captured a commonly held view among participants that, “It’s more a practical sensibility that you need to connect the in-class activities with the online activities. So, they need to kind of weave in and out, so there's a sense of flow and continuity for students.” Beyond making decisions to ensure the face-to-face and asynchronous modes were integrated and designed to meet the learning outcomes, faculty members need to decide about specific approaches they wish to follow.

Just over half the participants, including Alex, Layne, Garnet, Chance, Kai, Meric, and Fenix spoke specifically about using a collegial, collaborative community-focused approach in making sure their courses fit seamlessly into the overall program and student learning was prioritized. Alex explained this clearly, “I always try to work with the people within the program to make [the course] meaningful for them… and the students.” Fenix shared that teaching courses at multiple levels helped broaden a faculty member’s perspective about what students could expect in higher levels or should have acquired in foundational levels. Kai checked in with learners to determine previous resources they had used, “Because what I'm going to do is lean on the textbook used in that course, so, the student doesn't have to buy another text. [They’ll] have that as a kind of a security blanket.” Ensuring content was not needlessly repeated, and content was

delivered effectively building upon previous learning was, therefore, important to participants.

Because the college attracts a broad spectrum of students, several faculty members shared their intentional actions to create a community during face-to-face classes and how that carried through to the asynchronous setting. During the remote experience of blended teaching, a few participants noted positives that came through Zoom use. The chat and breakout room features were identified as contributing to a positive community-building experience. Although consistent with their RQ1 reflections about the amount of time wasted in putting people into Zoom breakout rooms, Garnet, Kai, Layne, Fenix, and Meric conceded that using breakout rooms allowed some semblance of normal community building and engagement during the synchronous part of classes during the pandemic. Similarly, the chat feature proved beneficial according to some participants in allowing otherwise quiet students to participate. Jalen summarized the benefits of the Zoom chat feature,

> Some students are more comfortable chatting their answer than always speaking it… that might level the playing field for some… it's all about… a community of learners. I mean, you do have to coax some students to be part of that community. So let them, at least initially, use the tools that are more comfortable to them.

The less overt action of participating in class via chat comments rather than speaking during the live or face-to-face classes was noted as a pandemic bonus that might dissipate once campus classes resume.

Faculty members emphasized the advantages of creating community via in-person group work, although they conceded that breakout rooms, with enough support, offered a workable substitute. Fenix summarized another commonly held view about the need for clarity and specificity for students, when doing group work with,

> In the remote, the exact same activity has to be very clearly [staged]. Here's what I'm going to ask you to do: You will all go in this room. You will do this. Everyone must speak. You have to spell it out for them. And, in that sense, it's the same activity; the management of it is different. The outcome is potentially the same. And I think it's the power of the group versus the individual is that there's safety in numbers.

Despite COVID interruptions, participants were clear that their decisions to use breakout rooms and group work in live synchronous and face-to-face classes, respectively, was an important part of creating community. The value of learners interacting with one another and constructing knowledge, much as captured by Fenix above and other participants earlier, remained an important part of the community experience.

Scaffolding, Chunking, and Designing to Support Student Learning

Participants shared that they presented content in various ways so that students could learn in the ways that best suited their respective individual needs. Related to this, participants shared that they used a scaffolded approach to introduce content and build skills, which remained consistent with thoughts focused on supporting learner success and mitigated by cost to self. Chance identified using, “low stakes stuff” such as think-pair-share activities in face-to-face classes, while Fenix addressed, “low stakes, short-

term" learning activities in both modes, advising colleagues to, "chunk content" and "scaffold" their courses to support learning. Jalen emphasized a similar approach: "I break it [the assignment] up into smaller pieces, so that there are milestones that students can get earlier feedback on." This kind of chunking or multiple-stage approach was consistent with Jalen's reminder to provide feedback to all students on discussion boards promptly to support that sense of community. Kai also preferred to use, "low stakes activities" like in-class gamification via Mentimeter, so students could learn and have fun.

Other decisions about pedagogical practice included managing the rate and format of information distribution, as evident in the work discussed by several participants, including Jalen, Kai, Evan, Fenix, and Bowie. Jalen shared,

> I try to keep things as simple as possible, right down to the language I use for writing instructions. I try, when I can, to provide a visual means of instruction as well. [For example], I'll have the written instructions and then have kind of a visual overview, that's more infographic.

Whereas no other participants spoke about creating infographics, they referenced using visuals to aid the learning process and providing clear, often numbered, written steps.

Another common view that was discussed by participants related to managing the learning environment to reduce possible stressors for students related to the look of things, from LMS setup to assignments or class directions. An important plan was to ensure a clean, simple design on the LMS, as well as provide straightforward, unambiguous directions for class engagement and assignment completion. Although a

few participants, including Jalen, Bowie, Fenix, and Evan spoke about practicing a philosophy of simplicity in design, their detailed course design and assignment completion descriptions appeared more to have a surface appearance of simplicity. Jalen and Fenix noted that using numbers for steps and providing visual reinforcements when in face-to-face classes, like counting off the steps, support successful student navigation of expectations and growing their understanding. Kai's references to the previous text material, Garnet's customizing of content to fit new cohorts of students, and Evan's decision to keep asynchronous content available throughout the semester are all measures designed to support learning.

Specific examples of design approaches intended to mitigate stress for students were provided by most of the participants. Fenix shared the value of using the scheduling or due date feature in the LMS, which, once set up and activated, supported learners in managing their full course loads without adding excess sudden stress. Many, including Alex, Jalen, Evan, Layne, and Garnet, shared how they use interests identified by students or incorporate real-life, local examples to reduce stress while enhancing class community. Kai also spoke about incorporating and posting links to a variety of media on the LMS, whether creating short explanatory videos or finding videos to help students with difficult concepts. Kai suggested, "It gives the students a bit more opportunity to grasp those concepts instead of just surviving… it speaks well to the students, what they're used to consuming." Beyond examples of using technology as a regular part of designing the learning experience, participants were asked to discuss their own views of and comfort with technology.

Technology Comfort, Use, and Risk Taking

All participants addressed their use of and comfort with technology. Everyone used the college-approved LMS platform, Microsoft programs, and the internet for their design and teaching, with a more varied use of applications based on individual preferences or as related to supplemental resources. Decisions about how and where to add, remove, adjust, or fine-tune which technologies were used in what manner were identified as an ongoing process for all study participants. There did not seem to be a consistent discernible attitude based on years of blended experience, gender, or program length. Whereas the participants were split between working within their comfort zones when it came to technology or incorporating new educational technologies in their courses, participants did not appear uncomfortably challenged or stressed by technology.

Among those participants who expressed reluctance at trying all the new technologies presented through LTS, introduced at conferences, or discussed by colleagues, the individual reasons varied although concerns about time kept surfacing. Alex indicated a preference for designing and teaching from certainty stating, “I always want to make sure that I’m not designing work outside of my own knowledge base when it comes to technology,” an attitude Meric also expressed. By contrast, Dakota explained, “I am quite technologically adept, certainly in a Microsoft environment,” and shared various examples of supporting students with accessing and maneuvering technology challenges. However, because of inconsistent student participation, Dakota stopped using gamifying applications like Kahoot! during face-to-face blended classes.

Participants identified the ease of incorporating easily repeatable or expandable technologies like building quizzes on the LMS or providing links to videos as a preferred route of using technology in the asynchronous part of blended courses. Noting that students have obligations beyond the blended course an individual faculty member was delivering, some participants, like Evan, released all online content immediately for students, so that they could complete all the asynchronous work at once or on a weekly basis, as the students chose. A final comment by Chance continued reflections captured in the RQ1 discussion, “I’ve never been resistant to [technology use]. I’ve always enjoyed dabbling with it, but I recognize the amount of time to do it really, really well is something that I’ve never ever had.” Other participants echoed this hesitation to learn and incorporate new technologies because of the time needed to become proficient and effective with their use.

A few participants identified more unusual asynchronous activities returning to authentic learning activities. Hollis had students complete a walkaway package based on activities attempted during face-to-face classes: “This [activity] came up from something tangible that they could take away and use because they actually spent time thinking about it.” Bowie worked with LTS and publicly available documents specific to the industry to have students reflect and prepare a significant learning activity that culminated in students submitting attestation forms and keeping their private information private. Dakota identified an asynchronous online activity that prepared students for industry, requiring them to “break down something extremely technical… into something

manageable by people." Dakota also shared that sometimes students needed to progress further in their program to see the value of that particular asynchronous learning activity.

For those participants who tried and used new, assorted technologies there appeared to be a decision to be vulnerable publicly. Within this group of participants, although there were comments about the time involved, the personal interest in new technology appeared to factor more importantly in the decision-making process. Kai credited an attitude of embracing and using new technology as a, "Necessity… if I want students to get the job [after graduating]" and be ready for facing unknown technologies. Evan was excited when sharing, "I get to try new technology. And because I've decided to be comfortable with failing, I get to try a whole bunch of cool things." At the same time, Evan identified the "inordinate amount of time" required to design good, blended courses. Similarly, Fenix expressed great comfort with technology, a willingness to help colleagues, and an interest in trying new technologies, "If somebody said to me, we have a new software to try like Canvas or something… I'll try it, I'm not afraid of it. . . I'm always looking for new tools or new ways."

Bowie was among those participants comfortable trying new technologies and not always anticipating a positive outcome: "I never pretend to be your techie guru, but I'm open to help and I go to the experts." Bowie then elaborated on this attitude consistent with a general willingness to make choices that involve risk and the unknown, especially as triggered by COVID and the transition to Zoom synchronous delivery for the face-to-face part of blended courses:

> The advent of technology or different methodologies of educational delivery, while I may not have that technical skill and may be actually shaking in my boots (although I don't show it when I try something new) is grounded on we are always becoming, we never are… I like the opportunity for creativity… I'm okay with ambiguity… I sit fairly well with uncertainty and I problem solve, but you know, really feeling a little unsure about the whole technology thing was just an added layer.

Although Bowie and Evan admitted to taking large technology risks, other participants admitted to taking small risks in front of their learners. Garnet, Meric, Layne, and Hollis all shared their willingness to have students help with technology challenges that occurred during face-to-face (e.g., overhead monitor not working) and synchronous remote (e.g., sharing the correct screen) classes. Positive attitudes were not a blanket statement endorsing all new technologies, however. Jalen, who has a deep interest in new educational technologies and a very strong comfort with technology, noted, "My own personal use is very judicious. You don't need a lot of bells and whistles. It's about the learning, not the flashy tools, and it's about the engagement." In this context, it is valuable to return to participants' views about managing and organizing the two blended modalities.

Connecting the Modalities

Participants outlined specific expectations that they had for the two modalities. At a minimum, participants expected that students would complete both parts of blended courses, and all participants identified regular student attendance in the face-to-face

portion as essential. Whereas learner flexibility was identified as a key benefit of the asynchronous portion, professors emphasized that they used the live in-class part to share industry insights and to have students extend their independent learning through case analysis. A view commonly held by participants surfaced with Evan's, "The live interaction with me is their most valuable time," and Meric's, "Probably, greater value for the in-class [mode]." This view that students had the most to gain from the live class was supported through the types of active learning participants discussed as designing for the face-to-face classes.

Within the class, Garnet phrased the approach of having learners engage with one another as, "I do small group activities or pair them… I don't just want to be center stage… it's important to form that community." Many participants used the pairing and small group learning approach, which as Evan observed, was particularly important for "postsecondary younger [students, as] they kind of need that human connection." Bowie explained starting with the lesson goal, requiring students to discuss a situation in small groups, and then reconvening for a class discussion: "That's why I start with the key messages and then we'll go back and maybe delve deeper… into [groups or] breakout rooms to talk about something and then come back." Although faculty participants typically did not like Zoom breakout rooms as much as face-to-face actual groups, this technology feature provided some semblance of a group activity during remote teaching.

Group Work

Advantages of in-person group work identified by the participants included an easier ability to share directions, make corrections, and bring students to task. Fenix, Kai,

and Meric noted that during face-to-face classes, they, as faculty recorded the big group feedback. Similarly, these participants captured full class feedback after breakout room sessions on a whiteboard such as Word or Padlet (a whiteboard or flip chart style application). Dakota and Evan commented specifically that their programs required group work, but they lamented that this was not a skill that students were being taught. Because "they don't know how to work in groups," Dakota explained, "a pair is the smallest group I can get away with," resulting in better group performances, since scheduling and planning between two people was simpler than among three or four.

Setting up and checking in on Zoom breakout rooms were noted as more cumbersome by Layne, Garnet, Alex, Bowie, and Hollis especially. Garnet summarized, "I find that the breakout rooms—they're supposed to be good? But I find that oftentimes when students go into breakout rooms, they go off and do whatever… even if they have the assignment sheet." Although group discussions form a big part of most participants' face-to-face classes, for those who used the breakout rooms, they emphasized the need for extensive planning for contingencies in the remote synchronous class. As several, including Fenix, noted, breakout rooms lacked the easy face-to-face visibility and "overhearing" learning that could happen when students were in a physical class.

RQ2: Concluding Thoughts About the Results

Theme 2 and the key elements comprising it are summarized in Table 9. The extensive results for RQ2 proceeded from a discussion about blended design generalities and one unique COVID-triggered blended class to a discussion about agency. Under pedagogy and the art of teaching, different approaches were discussed including

participants' efforts at creating community, scaffolding the learning, and managing cognitive load for students. An extended discussion of participants' comfort with technology and their use of different technologies as related to attitudes toward risk taking included a discussion of asynchronous activities. The importance faculty members placed on connecting the two modalities with a strong emphasis on attending face-to-face sessions closed out with a final discussion of the importance of group work to live or synchronous classes. In the next section, I identify the major finding related to RQ2.

Table 9

Overview of Results by RQ2: Theme and Corresponding Key Elements

Theme	Key elements
Theme 2: teaching as doing	Innovative agency in blended design Blended split arrangements Designing and teaching agency Pedagogical approaches Creating community Scaffolding and managing cognitive load Technology comfort, use, and risk taking Connecting the modalities Group work

RQ2: Major Findings Based on the Key Elements and Themes

Having presented evidence answering RQ2 as organized by key elements under Theme 2, I surfaced two major findings:

- Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership.

- The myth of experience and other perceptions of beliefs are central to individual decision making.

These findings about personal perceptions revealed the strong level of agency and the power of belief that participants in this study felt they had when it came to making decisions about designing for blended teaching. Equally, given the first two major findings, it was not surprising that these two findings focused on the way participants thought about the agentive decision-making process as rooted in ownership and the myth of perception.

The practical discussion of RQ2 included an example where one participant initiated a blended design for delivering a previously face-to-face course during the pandemic. In addition to demonstrating a high level of agency for the initial decision, Bowie reflected on the positive reaction leading to an extension of the blended design the next semester, rather than reverting the class to its prepandemic traditional format. Again, supporting the first major finding about blended understandings, in this section, I showed how participants used various pedagogical approaches that were commonly used in blended courses. Participants made decisions to create community, scaffold learning, chunk content, and provide clear directions to support student success. Often seen as the individual furnishings each participant used to take and hold ownership of the blended course, these features were identified as critical. Further, faculty members' use of and comfort with technology were discussed, particularly their perceptions of practice tied to reflection for future design and teaching decisions.

The second finding related to RQ2 was grounded in how participants made agentic decisions about future actions, revisions, and adoptions based on experiences that had shaped their beliefs. As Soyer and Hogarth (2020) warned, the myth of experience is based on "biased evaluations" (p. 2) that we may make based on rewritten hindsight, mistaken causality, selective omission of important pieces from the past, or some combination of the preceding. Participants in this study did not escape the myth of experience. Based on the data, some participants claimed that through trial and error they improved their designs with time and developed better understandings of their approaches to blended design and teaching. However, the data also suggested that at times these perceptions represented a narrowed, albeit self-imposed set of acceptable options: a bias that restricted individuals from contemplating broader options as they made decisions to include, exclude, relocate, redesign, or shift elements from one mode to the other in their blended courses.

The myth of experience, for example, appeared to underlie decisions some participants made to stop accessing the offerings LTS provides for learning about new technologies and pedagogies based on previous experiences. Chance acknowledged that even though "technology has advanced, I couldn't keep up with the adaptation to it and it just became unmanageable. So, I stuck with the things that seemed to work for me… like question pools within Brightspace: things that I know the college will have to support." This contradicts an earlier statement and supports the myth of experience, as Chance had previously noted the benefits of technology use in blended classes because students could independently complete "lessons that had to be shown, read, and repeated. [Also,] it has

assisted me by providing a resource for the students to access and then I can sort of fine-tune whatever they're doing after the fact." Similarly, Hollis shared views that supported the myth, noting at one point the "creativity" of people had moved from using sticks as tools to being "creative in terms of technology use". Later, this was countered with a personal observation that going to LTS was a frustrating experience and not worth the continued effort. Hollis summarized, "I always feel when I go to LTS, it's here we go… they don't know what I'm talking about. I need more help… it's always disappointing." Not all participants provided details about the reasons for redesigning their blended courses; several focused instead on their preference for and comfort with making design decisions based on past successes, content and industry understanding, predictability around college support, and knowing their subject-area learners. Moving forward from agency and perceptions, the next discussion focuses on RQ3, the last study question.

RQ3: Results Related to Theme 3, Institutional and Environmental Influences

In focusing on institutional and environmental influences, Theme 3 connected to the third RQ and was primarily explored through interview questions 5 and 6. RQ3 asked the following: How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process? Because no two participants in this study worked for the same immediate manager or even in the same department, departmental experiences were unique for each. Given that some participants were loosely connected under the same dean, they may have had some common overarching experiences with others. In the broadest sense of RQ3 and Theme 3, everyone in the study worked within the same

college within Ontario. In that sense, all were influenced by and faced various levels of stress about the uncertainty connected to working without a negotiated academic contract. Similarly, the pandemic, while impacting everyone differently based on individual circumstances, pervaded all aspects of life during the study data collection period. The key aspects of Theme 3 revealed faculty members' decision making for designing and teaching blended courses was based on their perceptions of the origins of blended programming at the college, perceived benefits of blended programming, interactions with LTS, universal design for learning, the global pandemic, and a potential province-wide academic strike.

Perceptions of the Origins of Blended Programming

A few of the participants discussed the origins of blended learning at the college, which led me to examine how perceptions related to this might influence faculty members in making design decisions. Over half the participants spoke directly to college motivations for introducing blended programming as being other than pedagogical, primarily to manage the shortage of physical space on campus. A few were in a state of disbelief, as they discussed the unsupported pedagogy of introducing blended learning at the college. Fenix commented, "This hybrid thing was thrust upon us 15 years ago, 18 years ago, whenever it was, as a real estate grab—a way to manage real estate." Hollis recalled a similar, unsupported, nonpedagogically grounded experience:

> The first introduction I had to hybrid was when we had to offer so many courses or so many hours of hybrid within our program. So, we started looking at some of the courses we could offer as hybrid. And frankly, initially, it was like giving

> homework. It was, you know, with a hybrid, you have 2 hours in the classroom, and you have an hour outside where they're going to do some work.

Others with over 20 years of experience at the college had similar recollections. Meric asked about the original motivation, “Is it just to save class space? . . . I don’t get it… I’m not sure why the [blended delivery] designation.” As Meric and others entered this discussion it was clear that they were not objecting to designing and teaching blended courses, rather, the origin questions were based on curiosity.

In most cases, the experiences participants had in designing and teaching blended courses occurred because they converted existing face-to-face courses into the blended format at the direction of a manager. Beyond the single COVID-induced conversion from a full face-to-face format to the blended mode for increased student engagement, I only know of two other situations at the study site where faculty members requested an existing face-to-face course be converted to a blended format. Creating a blended course as a new course occurs more rarely based on this study sample. In the past, some noted that managers were directive about when and which courses had to become blended, but that happens less frequently. Referencing the 2017 strike settlement, Alex noted, “since we’ve had academic freedom, the nature of the conversation has changed… the process is a lot more consultative.” During the interviews, no participants identified discontent with designing and teaching blended courses, in principle. Because participants appeared generally comfortable designing and teaching blended courses, they also shared their since-found appreciation for the pedagogical value of a blended approach.

Perceived Benefits of Blended Design

Many participants commented on the student benefits blended course design and delivery offers, especially as the duration or frequency of face-to-face classes per course per week are reduced to include an asynchronous class. Fenix explained that moving content into asynchronous time relieved students, "So I don't have to … deliver all my content… or force feed students in 3 hours," adding that it gave students independent time to prepare for in-class "constructive learning." Thus, faculty members valued the process blended classes afforded whereby students learned independently, bringing that understanding to the face-to-face class, and then working together to build new knowledge.

A blended design also provided advantages to students with obligations beyond school as relayed by participants. Garnet shared that alternate delivery options were requested by students for their program, with domestic students seeking blended options to accommodate childcare issues. In Bowie's program, where there were also many students with other obligations, "A lot of them work, they have children, they have other things going on in their lives," having 1-hour asynchronous was advantageous. Generally, participants spoke about the advantages of students only having to attend one class on campus per week with part of a blended class organized asynchronously.

Some participants found the affordances of flexibility through the asynchronous parts of blended design so beneficial that they let elements seep into their delivery of face-to-face classes. For example, Evan recorded face-to-face classes for students who were unable to attend a live event and noted this reasoning, "If, for whatever reason,

they're kind of connected, but they're actually doing their shift at work, or if they connected but then their internet caused them to not be able to reconnect because there is a blizzard," students were then able to still review the face-to-face sessions. Although this approach may also evidence the continuing evolution of blended design, Evan was quick to emphasize the greater value was derived from attending live. Through the interviews, it was clear that even those participants skeptical about the college introduction of blended instruction find the benefits of blended design outweigh the poor introduction of this dual delivery mode course design.

Interactions With LTS

There was a general sense among participants that design and teaching supports have improved since the early days when they first worked with blended courses. About half the participants, including Kai, Fenix, Garnet, Evan, Jalen, and Bowie spoke about accessing the resource supports available through LTS regularly. Fenix, who recently completed another degree, shared this observation:

> When I talked to a lot of faculty through my [studies] about the LTS support, the pedagogical support we have, they're blown away. They can't believe we have the support that I talk about and how open it is now. I said, well, the thing is though, you have to go ask for it. They don't come to your door.

Adding to Fenix's glowing assessment of support offered through LTS, Kai shared,

> So, you know, I bumped into LTS one day and I've always gone back to LTS whenever I've got a question. Like, that should be embedded… go to LTS and ask

> them because they're paid, qualified, professionals that have been there, done that, and are willing to help.

In addition to these positive views of the support available through LTS, Garnet explained that, upon request, LTS prepared a customized unit about designing blended courses suitable for learners in their department. Even among participants who do not really use the services offered through LTS, including Dakota, there was a recognition that this body supports faculty development, but as Kai noted, the educator-designer must seek out help.

That is, recalling that Dakota's introduction to blended design and teaching was not a positive experience and that Dakota had developed a solid independent blended design for courses, Dakota provided this advice for new faculty members:

> If you are getting a blended course that's already been designed, you will find that there is very little in there… [The online portion] will be marked as just time for them to read a book, but actually we should be doing more with that… There are people on campus who know about this stuff. So LTS, for example. You're not going to be given a person there to talk to, but you should go find them.

Such comments showed possible optimism and underscored an interest in learning, with an unspoken hope that new faculty members might not experience such a challenging introduction. Other participants, including Fenix, Evan, Kai, Garnet, and Bowie, generally found the support that LTS provided valuable to their design decisions.

Despite these endorsing examples, not all participants were satisfied with the support LTS provided for blended course design, and it sounded like some no longer seek

help through LTS. Participants cited various disappointing experiences related to requests where they had sought LTS help for developing industry-specific skills for students, incorporating new technologies, or helping students make career-needed decisions. Hollis expressed deep frustration with the college's goal of being an innovative leader in technology and education as the support for implementation was lacking. Hollis also found that the LTS approach was off-putting, noting an unwillingness to help with subject-specific design requests:

> I would appreciate more help from the college on blended and hybrid. I've just found that whenever I've gone for help, it's just so vague…I know it's time-consuming, but if they could just take a little bit of time to learn about our program… instead of saying, I'm not sure how much help I'm going to be. That's self-sabotaging and right away I get the sense you're not going to help me.

The result for faculty members including Hollis, Layne, and Chance was that they made their own design decisions, without consulting LTS. They still made use of professional development training outside LTS and relied on personal teaching experience as well as suggestions from colleagues while managing other teaching responsibilities.

Universal Design for Learning

One observation about design stemmed from an unanticipated combination of system-wide increased numbers of students with individual learning plans and college-based professional development emphasizing universal design for learning. A universal design for learning approach is premised on creating a learning environment that is rich in variety and options, removes barriers, and does not disadvantage any students (Sims,

2014). Several faculty members provided examples of using universal design for learning such that the whole class benefited from the design, not just a few individuals who required accommodations. Evan, for example, shared that a goal of:

> trying to give my students time has been a big thing for me. More than what's required by [the accommodation], and then giving it to everybody… but that's been a reaction. I do a couple of those things… when it comes to universal design, I have not been proactive about it. I could be better at it, so it's a work in progress.

Along this line of increasing time to remove barriers, participants provided me with other examples showing that they provided additional aids to help students engage with and learn the content more easily.

Most of the other efforts or examples participants provided about universal design for learning also seemed to be reactive or triggered by a particular student need. With a large international population at the college, Fenix added audio recordings to accompany written directions to help all students who might struggle with reading and understanding the written content. Chance, Evan, and Kai noted that quizzes were open for long periods and enabled for multiple attempts to increase student access, flexibility, and opportunities for successful completion. Bowie prerecorded lectures with separate access to a slide deck that students could access at any point, as often as desired. Noting the stress students are under, Jalen used visuals to complement simple written directions, based on a design goal to, "just try to remove the extraneous stuff as much as possible." These

various approaches that participants have undertaken to remove barriers and support students were, of course, challenged by the major global pandemic of the recent past.

COVID-19 Pandemic

The data indicated that wider environmental conditions also influenced faculty members' ways of thinking, planning, and deciding how to design and teach their blended courses during the interview period. Notably, the pandemic was well into its second year. In that context, a college administrative decision had been issued within a month preceding the interviews that remote teaching would continue for most courses in all programs because of the latest spreading variant. The blurring of understanding related to online, face-to-face, live group learning versus online blended independent learning was raised by a few individuals, with Meric observing, "the lines are blurred in terms of what's hybrid and what's not". Other observations related to preparations during the pandemic and what to expect postpandemic.

The transition to remote teaching was abrupt and triggered different responses among participants. Some, like Fenix, Jalen, Bowie, and Evan, articulated views that faculty members were responsible for learning to design and teach to meet the noncampus reality. Beyond helping students navigate these new times, Fenix observed that before the pandemic,

> I was working at the dining room table with my laptop when I was doing the hybrid part of things. But now, being a hundred percent remote, I think it was important to have certain quality audio and good lighting because I think there's

> nothing worse than having somebody professional present to you in a very unprofessional manner.

Whereas other participants also spoke about having enhanced their home offices during remote work, a few voiced objections to having had to bear the cost individually.

Some participants speculated about postpandemic realities, and that varied programming, including more online components, would likely become normalized. Jalen observed, “I think the future will be blended experiences. And I think that’s actually very wise because there are affordances to the technology… supportive technology can have a more democratic influence.” Others, including Evan, Bowie, and Garnet, hoped to see some of the benefits of strong blended design continue postpandemic as it provided greater flexibility for learners. Another observation by Bowie concerned a frustration with colleagues who had expressed an eagerness for things to go “back to normal” because “The world shifted… [and] you never go back.” This attitude was consistent with Bowie’s plans to keep teaching in a blended format to support learner requests for flexibility. Other environmental conditions were also considered by faculty members as they made blended-design decisions.

Potential Province-Wide Strike

Another broad environmental factor that caused participants to be concerned about the upcoming semester, was that all Ontario college faculty were in a work-to-rule period when data collection began, with the very real possibility of a strike looming for midway through the term. With a contentious history between academic administrators and unionized educators in Ontario higher education, the college academic strike in 2017

resulted in the provincial government resorting to “back-to-work legislation mechanisms to facilitate the resumption of academic activities” (Karimi, 2020, p. 54). This recent memory led some, like Kai, to set a goal of, “trying to just, you know, maintain what we do,” during the uncertain, potential strike period. However, as a parttime faculty member in this study, Kai expressed further worry that supporting students in the event of a strike might have future work implications with such action perceived favorably by managers but poorly by colleagues. Fulltime or parttime, most participants felt this possible strike situation was difficult, uncomfortable, and added unnecessary confusion and stress for students and themselves during an already complicated period.

In a few cases, participants spoke about the politics of a strike during the pandemic. A few argued that they did not see a strike happening, so they were proceeding with designing and teaching as if there would be no interruption. Some, like Hollis, were concerned that this group of students was already facing significant disadvantages by having had so much of their postsecondary experience based in remote education without the benefit of the in-person campus experience; these participants remained hopeful that a settlement would be reached. Most participants had also experienced the strike in 2017, meaning they recalled the disruption to course plans and delivery. A few, like Meric found the work-to-rule effort tiring, while others, like Layne, wondered about the value of not posting content to the LMS, noting, “How are they going to use my [content]? Because I’m talking specifically to one group of people… it’s of limited use.” In short, participants revealed that they had to think about and make contingency plans for design and teaching if a strike were to occur, even if they remained hopeful it would not happen.

RQ3: Concluding Thoughts About the Results

All these considerations of Theme 3, Institutional and Environmental Influences, addressed RQ3. A summary of the theme and key elements is listed in Table 10. The findings included participants' perceptions of the origins of blended programming, perceived benefits of blended programming, interactions with LTS, college-wide directives, the use of universal design for learning design principles, the global pandemic, and the potential province-wide academic unit strike conclude the discussion of results.

Table 10

Overview of Results by RQ 3: Themes and Corresponding Key Elements

Theme	Key elements
Theme 3: institutional and environmental influences	Perceptions of the origins of blended programming Perceived benefits of blended design Interactions with LTS Universal design for learning COVID-19 pandemic Potential province-wide strike

RQ3: Major Finding Based on the Key Elements and Themes

One core finding surfaced in response to RQ3, which asked about faculty members' perceptions of their instructional environment: A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers. The overwhelming environmental disruption caused by COVID-19 was borne out by participants' comments that their design and teaching plans for blended courses required significant rethinking and adjustment with the shift to remote delivery.

Design decisions had been completed based on the first two findings, the understandings of blended design as a dual-modality course and balancing perceptions of student academic needs with personal value and cost. These decisions were reassessed, sometimes overturned or revised, and the teaching designs were rapidly modified within 2 weeks early in the pandemic. Participants made even bigger adjustments to continue remotely in Fall 2020 as the pandemic wore on and more decision-making reassessments were required. When the data were collected for this study, most participants had been involved in noncampus teaching for more than 1 1/2 years, with some having been on campus but in reduced size hands-on class settings. In several cases, the blurring of face-to-face synchronous and online asynchronous had become increasingly challenging as shared in the preceding discussion.

The potential strike, although not as impactful as the pandemic in causing a reassessment and reordering of most decision-making influencers for participants, posed a threat to design and teaching continuity. A strike is a major social disruption that most participants had experienced at least once before, and so they were considering design alterations and reprioritizing based on past experiences. They discussed contingency plans they were putting into place to manage both student and personal stress related to this uncertainty. Therefore, the data informing this major finding also interlinked with aspects of educator-designers seeking a design balance, as identified in the second finding, and possibly the myth of experience presented as the fourth finding. Having discussed the final major finding, I now conclude the chapter with a summary response to the RQs.

Summary

This qualitative interpretive description study exploring the experiences and perceptions of 12 faculty members making decisions as they designed and taught blended courses was guided by three RQs. In Chapter 4, I outlined the study setting and described participant demographics. Data collection detailed the number of participants, and I explained where and how the data were collected and handled. In the data analysis, I described the combined deductive and inductive process used in developing the 45 first-cycle codes, before presenting two approaches in second-cycle coding. Using the conceptual framework, I sorted the codes into seven categories. Separately, using an approach recommended by Saldaña (2016), I completed another round of analysis by the codes and created 11 gerund categories.

Having looked at the data from many angles and revisited the material by comparing within individual interviews and across all interviews, I eventually derived three core themes and two subthemes. Several key elements all contributed to and supported the derivation of these themes and subthemes. As captured in Table 11, the progression to five major findings was linked per RQ through the analytical process. The prominent features of the data captured under the key elements led me to more reflection, resulting in these five major findings, also discussed throughout the chapter.

Table 11

Summary of Results Leading to the Major Findings

Research question	Theme or subtheme	Key elements	Major findings
RQ1: What are faculty members' experiences during the decision-making process of designing the blended courses they teach?	Theme 1: thinking and reflecting for enhanced design	Blended design understanding Backwards learning design	1. Based on experiences and reflection, individual understandings of blended design include a *dominant* face-to-face modality complemented by and integrated with a *passive* online, asynchronous modality.
	Subtheme 1a: learner and classroom engagement	Authentic student-centered learning Developing students' critical thinking Distinct modal approaches Face-to-face learner engagement Asynchronous online learner engagement	2. Decision making about blended design occurs on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use).
	Subtheme 1b: time and effort for updates	Passion for designing and teaching Technology time and balancing priorities Nonteaching priorities Scheduling and collaboration Critical reflection	

Research question	Theme or subtheme	Key elements	Major findings
RQ2: How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process?	Theme 2: teaching as doing	Innovative agency in blended design Blended split arrangements Designing and teaching agency Pedagogical approaches Creating community Scaffolding and managing cognitive load Technology comfort, use, and risk taking Connecting the modalities Group work	3. Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership. 4. The myth of experience and other perceptions of beliefs are central to individual decision making.
RQ3: How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process?	Theme 3: institutional and environmental influences	Perceptions of the origins of blended programming Perceived benefits of blended design Interactions with LTS Universal design for learning COVID-19 pandemic Potential province-wide strike	5. A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers.

RQ1 asked the following: What are faculty members' experiences during the decision-making process of designing the blended courses they teach? The focus was on thinking and reflecting for this first set of themes and subthemes. Theme 1, thinking and reflecting for enhanced design, led to two subthemes. Subtheme 1a, learner and classroom engagement, was followed by Subtheme 1b, time and effort for updates. After all the key elements were presented and carefully considered, I derived two major findings that tied to RQ1,

- Based on experiences and reflection, individual understandings of blended design include a dominant face-to-face modality complemented by and integrated with the online, asynchronous modality.
- Decision making about blended design occurs on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use).

The next themes and findings addressed RQ2: How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process? Theme 2 was teaching as doing and the key elements provided evidence leading to these major findings:

- Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership.
- The myth of experience and other perceptions of beliefs are central to individual decision making.

The final theme that emerged answered RQ3: How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process? Theme 3 was institutional and environmental influences, and it was supported by several key elements that led to the last major finding:

- A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers.

In the evidence of trustworthiness, I demonstrated that I had established credibility, transferability, dependability, and confirmability in the study. Under the results and findings section, I elaborated on the findings by RQs, explaining the elements that helped create the themes and lead to the main findings. Extensive support was provided through many participant quotations. These discussions build to the final chapter of the study. In Chapter 5, I will present the interpretation of the findings, examine the limitations of the study, provide recommendations, present implications for positive social change, and then conclude the study.

Chapter 5: Discussion, Conclusions, and Recommendations

In college settings, not enough is known about educator-designers and how they make decisions about designing and teaching blended courses. The purpose of this qualitative interpretive description study was to extend the understanding of how college faculty members experienced the decision-making process of designing blended courses they taught. Given the uniqueness of individual instructional situations based on participant subject area and knowledge, industry and teaching experiences, and perceptions of the larger community setting, this study was worth pursuing because it provided insight into the gap in the literature that not enough was known about this area of research. That is, the study provided new research on beliefs, attitudes, and motivations that educator-designers have and bring to their blended course design (see Smith & Hill, 2018). This study also provided an Ontario college contextual exploration of how faculty members make decisions about design related to technology and learning (see Brown, 2016). Further, this study offers value to the discipline of blended design in higher education (see Spring et al., 2016) as it revealed more about the nature of and barriers to blended design.

Through this qualitative interpretive description study, I explored how faculty members experienced decision making in blended design and teaching, which involved investigating how their perceptions of agency and the instructional environment affected that process. Faculty members in a publicly funded college in Ontario, from disparate 1- to 4-year programs made up the target population. Using a simple criterion-based purposeful sampling with a snowball sampling strategy (see Creswell, 2010; Rubin &

Rubin, 2012), 12 qualified participants, who all designed and taught blended courses at the same college, were selected. I maintained reflexive practice throughout the study when collecting, reflecting on, and analyzing the data, to consider and address my biases and positionality (see Ravitch & Carl, 2016). Activity theory, the theory underpinning the conceptual framework applied to this study, allowed me to look at the complexity of blended-learning design and teaching experiences where subjects create objects using tools within a specific community where the additional influences of rules and division of labor also matter (Engeström, 1987, 2001). The multivoiced nature of activity theory worked well with an interpretive description design in which a pragmatically situated study remains driven by theory (Thorne, 2016).

The data collection and data analysis processes were described in detail in Chapter 4. Through multiple coding cycles, theming of the data, and further sorting by key elements, I eventually found the data contained five major findings. The interlinked nature of how faculty members experience decision making in designing and teaching blended courses is displayed in Table 12, which identifies the findings by RQ. Related to RQ1, Finding1 shows the importance of faculty member experiences and their reflections as all participants understood blended design to include two delivery modalities in a single course: a dominant face-to-face part supported by and connected to a passive online part.

The importance of the individual within the broader context of being an educator underlies the next finding. Finding 2 revealed that decision making is not fixed but rather occurs as faculty members seek a balance between meeting student academic needs and

maintaining perceived personal value for cost invested in blended design and teaching, a balance that surfaced in many aspects, including technology use. The remaining three findings surfaced with respect to the other RQs.

The agency of faculty members making decisions about designing and teaching blended courses formed the basis of RQ2. Finding 3 notes that participants perceived ownership of the blended courses they design and teach formed the basis of the decision-making process. The myth of experience and other perceptions of beliefs make up Finding 4, highlighting the potential of personal bias in decision making. The role of the instructional environment underlies RQ3 and dominated Finding 5, which revealed that participants perceived their decision making could be altered through a major disruption such as the COVID-19 pandemic and a potential provincial college academic strike.

Table 12

Summary of Study Findings

Research question	Finding	Details
RQ1 What are faculty members' experiences during the decision-making process of designing the blended courses they teach?	Finding 1	Based on experiences and reflection, individual understandings of blended design include a *dominant* face-to-face modality complemented by and integrated with a *passive* online, asynchronous modality.
	Finding 2	In making blended design decisions, individuals operate on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use).
RQ2 How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process?	Finding 3	Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership.
	Finding 4	The myth of experience and other perceptions of beliefs are central to individual decision making.
RQ3 How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process?	Finding 5	A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers.

With reference to the literature, in the interpretation of the findings, I demonstrate how the findings confirm, disconfirm, and extend knowledge in understanding how faculty members make decisions in blended-learning design of courses they will teach. Clear linkages showing similar and complex relationships among the findings and the conceptual framework are also presented. The limitations of the study are identified before recommendations for further research are discussed. After describing the potential for positive social change under implications and presenting suggestions for practice that fits with the specific design of the study, I finish with the conclusion.

Interpretation of the Findings

The study purpose was central in designing the RQs to gather data to address the problem of not knowing enough about how faculty members made decisions about designing blended courses that they taught. In presenting the literature in Chapter 2, I discussed the contemporary knowledge and understandings in the field of blended design and teaching. I also explained how the decision-making process for designing and teaching blended courses can be and has been captured in activity theory, making this an ideal framework for operationalizing the current study. In Chapter 4, I presented the analysis that led to five study findings. According to Thorne (2016), interpreting the findings is a stage that offers deep value in exploring the tension between theory and research in an applied setting. Thus, in this section, I interpret the study findings with reference to the literature and the conceptual framework, showing how they confirm, disconfirm, and extend existing research.

Finding 1: Interpretation Within the Context of the Literature

The first finding stated the following: Based on experiences and reflection, individual understandings of blended design include a dominant face-to-face modality complemented by and integrated with an online, passive asynchronous modality. The working definition of blended learning underpinning this study described blended learning as a system that combines "face-to-face instruction with computer-mediated instruction" (Graham, 2006, p. 5). I also chose to complement this definition with the additional understanding that 21% to 70% of a blended course is delivered face-to-face or 30% to 79% is delivered online (see Allen & Seaman, 2013). Findings from the data confirmed that all participants viewed blended learning instructional design and delivery as comprising traditional face-to-face or group learning with computer-mediated, individual, asynchronous, online learning within a single course. Because the term blended learning appears more commonly than hybrid learning in much of the contemporary literature and because it is consistently used to describe a combination of face-to-face and independent online learning, I used the term blended throughout this study. However, the term hybrid learning is often used interchangeably with blended learning, and it is the preferred term at the study site. All participants, independent of perceptions about their initial adoption and continued development of designing and teaching blended courses, articulated a view that blended approaches involve a dominant face-to-face mode and a more passive online mode, with great design variations beyond this commonality.

The literature suggested there is no single universally accepted blended design definition or framework (Anderson, 2017; Halverson & Graham, 2019; Su & Endersby, 2018; Vaughan et al., 2017). In addition to the variety of blended design definitions that exist, Graham (2019) added that "researchers have little control over the definition of an organically developing term" (p. 4), which is shared across various communities of practice. The range of interpretations of blended design from this study, including decisions about content and activities assigned to which modality based on subject suitability and with further changes evidenced in the creative adaptations during remote teaching, support the idea of an evolving understanding of blended design. Moreover, the study findings confirm that faculty members do not feel constrained to adhere to any single definition or pedagogy, adapting and making decisions about design and teaching based on individual experiences and reflection.

Suggestions for good, blended design as described in the literature started with looking at the learning objectives first (see Alammary et al., 2014; Garrison & Vaughan, 2008). The data from this study showed that participants build blended courses by starting with the expected end results, ensuring the course fits in the program, suits their learners, and incorporates accepted industry and academic standards. From there, a common approach confirmed by this study was that participants use a backwards design (see McTighe & Wiggins, 2012). Additionally, adopting a universal design for learning supports learners (Sims, 2014), and the data showed that participants follow such design principles by removing and reducing content repetition across semesters, scaffolding design elements to support learning, and ensuring learners are able to demonstrate

understanding via multiple opportunities. In several cases, the data showed that participants nurture a learning attitude that they hope students will carry away from their college experience and maintain beyond school, confirming design for significant learning (see Fink, 2013).

In blended courses, students must believe that both modes are independently valid and simultaneously integrated (Garrison & Vaughan, 2008; Graham, 2019; Vaughan et al., 2017), an attitude and approach that was confirmed by the data from this study. Essential to achieving these goals is creating an engaging learning environment—in both the face-to-face and online settings of blended courses (see Anderson, 2017; Boelens et al., 2017; Brown, 2016). Although there were assorted approaches to organizing content in the two modalities based on the findings of this study, the data confirmed that faculty members make decisions to create engaging environments for students in both modes and then intentionally connect the two modes.

The literature emphasized the need for clearly designed blended courses, such that a transparent structure is apparent to students because the two modalities need to be perceived as part of a single course to support student success in blended settings (see Anderson, 2017; Boelens et al., 2017; Caulfield, 2011). Jalen encapsulated the purpose of clear design by organizing the two modalities and providing overt links observing, “Students can really struggle if they don't see the connection between things they're doing online and things that are happening in the kind of live class sessions, then that's detrimental." To achieve a clear design, faculty members organized what must be completed per modality, presenting the content logically and systematically building

connections between the modes, so that students can follow individual components and see the value in how the modes are integrated.

Effectively, clear blended designs begin with faculty members making decisions about community in each mode—decisions to enable students to acquire new information in each of the specific face-to-face and online settings that students then manipulate to develop new knowledge and understanding. The data confirmed that faculty members build community and engagement by creating safe spaces for learning, a prerequisite for students to be willing to take risks to develop their learning (see Alammary et al., 2014; Graham, 2019). The data also showed that participants use the face-to-face social setting to initiate a climate where students feel safe to learn and communicate openly, making emotional connections and developing group cohesion that can be carried into the online setting (see Garrison & Vaughan, 2008). Beyond students needing to perceive safety in the social dimension so that they can construct knowledge communally, students must choose to engage in their learning, and educators must be seen as active participants too.

Garrison et al. (2000) identified the need for three interactive presences as necessary for the success of a CoI: cognitive, social, and teaching. In this study, the data supported that design decisions are made to engage all three presences, across both the face-to-face and online settings. Because successful communication is key to CoI across all the presences, various examples from the data of this study underscored how faculty members actively engage in both settings to support active, cognitive, student engagement and continued student participation. That is, faculty members bring their industry expertise to face-to-face discussions providing authentic, experience-based

examples and problems for students to solve while responding promptly and interacting individually with students online (see Garrison & Vaughan, 2008) to maintain enthusiasm and develop understanding. The two modes of blended classes are distinct, requiring group learning and engagement in the face-to-face setting as opposed to independent, asynchronous activity online.

Halverson and Graham (2019) asked, “Does engagement manifest itself differently in face-to-face settings than in online settings?” (p. 20). The findings from this study suggested that there is a difference, based on the distinct design decisions faculty members undertake for the two modes of blended classes. Participants shared that they use the face-to-face part to communicate real-life examples and handle more complicated, nuanced, and difficult material, while they use the online part more passively, for students to better understand and apply core concepts. In addition, examples from a few participants extended understanding of the social presence process as they concurrently build the online and face-to-face communities in their blended courses in the early weeks of a course. In this way, using a parallel development of community building through the social presence and maintaining an active teacher presence in both parts, faculty members provided examples of students engaging cognitively, thereby deepening personal connections and interests that benefit and support genuine engagement.

Beyond students engaging with the content and actively participating in the knowledge-building process, the literature also underscored that students need to comprehend or appreciate the need for assessment (Halverson & Graham, 2019;

Spadafora & Marini, 2018). The results of this study confirmed that faculty members perceived that students prioritized coursework based on the grading evaluations associated with activities. Participants also provided examples of how they came to understand the need for very clear and precise marking guides, often using student-centered tools like rubrics. The need for clear assessment was noted as especially critical for online activities, to both nurture and maintain student engagement for completion and to lead the way for integrating that work into the face-to-face class. On a broader level, several participants also shared that they remind students to make thoughtful decisions about prioritizing efforts within individual courses and across programs, fostering a life skill that extends beyond college studies and confirming a design approach for significant learning (see Fink, 2013).

Within the context of the literature related to Finding 1, the key aspects are captured in Table 13. The elements of Finding 1 that were confirmed by the data included designing blended courses such that they are mediated by technology and the face-to-face portion is dominant as compared to the more passive online portion. Additionally, the data showed that participants designed to suit the subject, used various approaches, and evolved their design organically over time. Starting with course learning objectives, the data confirmed that faculty members used a backwards design, incorporated universal design for learning principles, and designed for significant learning. The data also confirmed that educator-designers independently designed and carefully integrated the two components of blended courses to create engaging learning environments, using a clear design approach. Further, the data confirmed that faculty members made decisions

to create community to construct knowledge using CoI, building safe spaces where students felt comfortable communicating face-to-face and online. Notably, the data extended the CoI literature showing that engagement is different in both the face-to-face and online settings with added benefits to students if both modes are nurtured simultaneously. Finally, the data confirmed that engagement requires assessment and that learners were encouraged to prioritize efforts based on assessment values. Whereas elements of Finding 1 about the understanding of blended course design overlap with the other findings, Finding 2 focuses on the balance faculty members try to achieve when making decisions about learners' needs and personal investment as related to course design.

Table 13

Confirming, Disconfirming, and Extending the Literature Related to Finding 1

Finding	Element	Confirm disconfirm extend	Source
Based on experiences and reflection, individual understandings of blended design include a *dominant* face-to-face modality complemented by and integrated with an online, *passive* asynchronous modality.	Face-to-face dominant; online passive; mediated by technology	Confirm	Graham, 2006 Allen & Seaman, 2013
	Design to suit subject and use various approaches	Confirm	Anderson, 2017 Halverson & Graham, 2019 Su & Endersby, 2018 Vaughan et al., 2017
	Organic evolution of blended design	Confirm	Graham 2019
	Course learning objectives first	Confirm	Alammary et al., 2014 Garrison & Vaughan, 2008
	Backwards design	Confirm	McTighe & Wiggins, 2012
	Universal design for learning	Confirm	Sims, 2014
	Significant learning	Confirm	Fink, 2013
	Independent face-to-face and asynchronous carefully integrated	Confirm	Garrison & Vaughan, 2008 Graham, 2019 Vaughan et al., 2017
	Engaging environment	Confirm	Anderson, 2017 Boelens et al., 2017 Brown, 2016
	Clear design approach	Confirm	Anderson, 2017 Boelens et al., 2017 Caulfield, 2011
	CoI – creating community to construct knowledge	Confirm	Garrison et al., 2000
	Safe spaces begin with community setting	Confirm	Alammary et al., 2014 Graham, 2019
	CoI – via face-to-face first in social setting	Confirm	Armellini & De Stefani, 2016 Costley, 2019 Martin et al., 2022
	CoI community social setting BOTH face-to-face and online	Extend	Halverson & Graham, 2019
	Engagement requires assessment	Confirm	Halverson & Graham, 2019 Spadafora & Marini, 2018
	Prioritize efforts based on assessment values	Confirm	Fink, 2013

Finding 2: Interpretation Within the Context of the Literature

The second finding stated: In making blended design decisions, individuals operate on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use). The decision-making process that faculty members experienced when designing blended courses that they taught was based on many factors and is in a continuous state of change, especially as technology use has become more integrated and is an expected feature in higher education (see Brown, 2016; Ikpeze, 2016; Zhang & Dang, 2020). This study confirmed that participants found higher education to be in continuous change, requiring educator-designers to contemplate many factors and respond to various pressures from students, managers, technology innovations, departmental priorities, specific industry changes, personal challenges, and wider community events during the decision-making process. As much as blended design is continuing to evolve and respond to the changes higher education is facing (Bates, 2018; Garrison & Vaughan, 2008; Mackay & Devitt, 2021), participants in this study provided various examples of the ongoing evolution that their blended designs have undergone in response to changes in higher education.

Advancements in technology and the rampant use of technology have combined to form a big part of the changes in higher education, permeating all aspects of learning, including how students have increased expectations about their education (Pelletier et al., 2022; Skolnik, 2020; Venkateswari, 2022). In this study, the data confirmed the pervasive presence and use of technology in education, with participants having provided examples that technology considerations were an inescapable part of their thought processes and

had complicated blended course design and teaching. This study also confirmed that participants perceived students' expectations as Pelletier et al. (2022) noted, around flexibility, learning options, and pacing as factors that have to be considered when making decisions about blended design.

Extensive research and numerous studies have identified the benefits of blended programming (Garrison & Vaughan, 2008; Su & Endersby, 2018; Ustun & Tracey, 2021). The findings from this study confirmed that participants perceived enhanced learner benefits in the blended design where students received both face-to-face group classes and independent asynchronous classes. Examples referenced by participants' perceptions of students' reasoning included reduced requirements to travel to campus, opportunities for individualized learning, greater one-on-one faculty engagement with learners in the asynchronous setting, and a wider range of options for learners to absorb content and provide evidence of understanding, all examples cited in the literature (see Alammary et al., 2014; Anderson, 2017). In addition to student considerations when making decisions related to blended design, educator-designers also consider their personal investments and any perceived outcomes for themselves.

According to the literature, faculty members who design courses make decisions that involve cost and benefit to self, and do not only consider value for students, especially as related to evolving technology options and use (Eagleton, 2017; Mackay & Devitt, 2021). Findings from this study confirmed that participants included themselves and the ratio of the personal cost to benefit when making design decisions. Specifically, participants gave extra weight to factors of time as a part of the overall effort, confirming

the literature about the need for institutions to recognize the time required to learn and confidently incorporate new technologies and pedagogies (TLSS, 2016), and further supporting the literature that time allocation for blended work is underacknowledged in Ontario colleges (Mackay & Devitt, 2021). The study also revealed details about ways educators support learners with content understanding and lifelong thinking skills.

The literature emphasized the need for student-centered learning in higher education, especially as focused on helping students develop critical thinking skills (Boelens et al., 2017; Caulfield, 2011; Fink, 2003; Garrison et al., 2000; Garrison & Vaughan, 2008). The study findings confirmed the literature and revealed that faculty members felt strongly motivated to make design and teaching decisions that centered student learning with a heavy focus on developing critical thinking skills. The data further revealed that participants' reflections leading to decision making about blended design did not occur in isolation; such decisions were grounded in experiences around institutional support, particularly as related to technology use and support.

Training support programs are critical to ongoing educator success in blended settings (Halverson & Graham, 2019; TLSS, 2016; Vaughan et al., 2017). At the study site, although LTS offered pedagogical and technology training support, perceptions of the quality varied, resulting in a range of interest and access. Whereas data gathered in this study confirmed that faculty who accessed professional development support benefited from that process in terms of blended design, the literature also identified that some educators needed less support when designing blended courses and were still able to manage this more complex design (TLSS, 2016). In other research, Alammary et al.

(2014) found that individuals' knowledge and curiosity about technology and pedagogy were also essential in accessing instructional design support. In this study, the data confirmed that faculty members whose attitudes were less curious about new technology and pedagogy and/or held a disinterested to a negative attitude to LTS did not commonly seek professional development support through the college. No obvious pattern connecting participants' attitudes about accessing or avoiding LTS was found in connection to their length of time at the college, the general area of study, program length, gender, or experiences with blended design and teaching, confirming a wide array of motivations for making decisions along the student-benefit versus cost-to-self scale.

Educator-designers make decisions about course development so that they align with institutional policies and requirements, such as using an LMS and meeting learning requirements (Pomerantz & Brooks, 2017), a practice that was commonly found in the data of this study. However, increased nonteaching commitments also reduced faculty members' time for professional development or collaboration (see Vaughan et al., 2017), and resulted in a change in the understanding of professor workload as findings from this study also confirmed. Moreover, the data confirmed the argument presented by Mackay and Devitt (2021) who found that Ontario college academics faced inadequate protections for intellectual property, growing class sections, inconsistent and inadequate access to training, plus an antiquated approach to calculating the time involved in managing technology-mediated design and teaching. Beyond these elements of decision making where faculty members weighed student needs with personal benefits and costs, it was valuable to examine individual perceptions of agency.

Because perceptions and beliefs are interwoven with actual technological knowledge and institutional norms and resources, Ikpeze (2016) emphasized that agency results from complex dynamics such that "individuals are neither autonomous agents acting entirely on their own nor are they entirely controlled by institutional or other external forces" (p. 468). In that sense, I found participants' attitudes and use of technology were very difficult to isolate fully, although the findings confirmed that perceptions of technology and self were connected. The findings did not fully confirm that perceptions of technology skills and abilities limited individuals in their pedagogical practice, nor did they indicate a willingness or avoidance attitude about trying new pedagogical design approaches. In this context, a further examination of the relationships between pedagogical, technological, and content-related design decisions was warranted.

Mishra and Koehler (2006) argued that educators make decisions across a complex setting of three knowledges—technology, pedagogy, and content—an instructional design model they referred to as TPACK. Further, the crux of the TPACK framework was described as, "the incorporation of a new technology or new medium for teaching [which] suddenly forces us to confront basic educational issues because this new technology or medium reconstructs the dynamic equilibrium among all three elements" (Mishra & Koehler, 2006, p. 1030). The research findings of this study confirmed that those faculty members receptive to learning about and experimenting with new technologies do so with constant consideration of how that technology may or may not work in their blended classes based on their respective subject area content and preferred pedagogies. In addition, confirming Mourlam's (2017) research, I also found that faculty

members were consistently confident in their content knowledge; however, such confidence and assuredness were not always as apparent in technology and pedagogy knowledges. The data further revealed faculty members' awareness of communicating clearly about content to students as part of reducing perceived psychological distances between students and content, plus students and teacher.

The perception of space and time separation between educators and students was identified by Moore (1993) as the pedagogical concept of "transactional distance" (p. 22). The data from this study confirmed that participants took steps to minimize this perceived distance, especially as evidenced by their examples of responding to online posts and questions promptly and individually, so that students' feelings of isolation could be reduced. With asynchronous learning, in either the blended (Best & Conceição, 2017) or the fully online (Weidlich & Bastiaens, 2018) setting, educators are challenged to mitigate TD to reduce perceived learning barriers that surface through technology-mediated communication. The data from this study confirmed that participants endeavored to manage TD in online activities as perceptions of connections weakened more easily in the asynchronous part of blended courses (see Best & Conceição, 2017). Moreover, the data revealed that participants preferred communicating frequently and directly with students individually as they perceived such interactions benefited student engagement and learning. The efforts educator-designers take in managing perceived distances between students and content as well as between students and teachers extended to detailed content design elements as well.

The design of learning activities, whether directions to complete a task or quiz or instructions to watch a video and answer questions, requires careful planning to maximize student learning opportunities. In managing anticipated student cognitive needs in computer-mediated learning settings, participants demonstrated an understanding that it was advisable to avoid "negative emotional states [which] could be caused by situations of cognitive overload leading to learner frustration and dissatisfaction with learning activities and own performance" (Kalyuga, 2011, p. 108) by designing materials to suit "domain-specific, secondary knowledge" (Sweller, 2020, p. 4). In this study, the data showed that educator-designers were aware of distractions or cognitive overload caused by unnecessary instructions; consequently, they aimed to manage intrinsic or known knowledge by using that as building blocks to maximize the germane load to incorporate new, complex pieces of information. The findings also confirmed that participants made design decisions using social opportunities to help students process "novel information" so that as they reorganized their "previously stored knowledge" they generated new understanding (see Sweller, 2020, p. 5). Further, participants provided examples of specific design measures they took in the online environment to manage cognitive load for students: providing explicit steps, reducing wordiness, and sometimes adding visual representations of directions. These are all examples of processes that follow the "narrow limits of change principle" (Sweller, 2020, p. 6). In addition to making decisions about design to manage cognitive load, the data from this study revealed that educator-designers were deeply committed to helping students learn the subject matter or content.

The movement focusing on placing students first in the learning design process, known as *universal design for learning*, was an approach introduced by the Center for Applied Special Technology in 1998 (Sims, 2014). The study site has generally encouraged the adoption of practices such as universal design for learning; however, this conflicts with economically driven changes province-wide to "maximize teaching" resulting in reduced educator-designer time for "curriculum development, updating, and training in new pedagogical approaches such as universal design [for] learning" (Mackay & Devitt, 2021, p.26). The data confirmed that participants made design decisions to reduce barriers and enhance learner options in line with universal design for learning principles. Whereas the findings also revealed that these approaches were typically triggered by individual student learning plan needs combined with faculty members seeing the benefit in extending options to all in the class, the resulting new blended designs have, in effect, been more inclusive and open to benefit all students in a course. Examples of universal design for learning approaches shared by faculty members included their designs to increase flexibility around timelines for quizzes and assignment submissions, as well as to support nontraditional ways to demonstrate understanding.

The interpretation of Finding 2 within the context of the literature was extensive and is captured in Table 14. Of the plus 20 elements comprising this finding, most confirmed the literature, beginning with the design decision-making process as one that has been continuously changing, especially with new and ongoing technology integration. The changes in higher education have been evolutionary in nature and technology is pervasive. Students have growing expectations about courses, and educators perceived

blended design as beneficial to learning. The time needed for design, as educator-designers' time is increasingly assigned to other education tasks, is a big area of concern; moreover, the time available for Ontario college educators is a topic of ongoing concern. While faculty members strived to help students develop critical thinking skills, educator-designers still need more training support (see Halverson & Graham, 2019). Existing knowledge and curiosity are linked to educators' access of professional development while nonteaching commitments and perceived Ontario-itemized conditions add to challenges.

In terms of specific pedagogies, the study findings also confirmed perceptions of technology and self are connected, that new technology or pedagogy introductions required reconstruction of the TPACK understanding, and that faculty members remained most confident about their content knowledge. The effort to manage TD remained focused on reducing technology-mediated barriers to perceived distance. Not dissimilarly, managing cognitive load remained an important consideration for participants about their blended designs because of the associated benefits for student learning and knowledge construction. The study data confirmed that universal design for learning principles were applied to blended-design decision making. Finally, experience, while often cited as a basis for decision making, may lead to strong agentic actions including course ownership as discussed in Finding 3, but it may also result in mistaken bias as will be discussed in Finding 4.

Table 14

Confirming, Disconfirming, and Extending the Literature Related to Finding 2

Finding	Element	Confirm disconfirm extend	Source
In making blended design decisions, individuals operate on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use).	Decision-making process continuously changing, especially with technology integration	Confirm	Brown, 2016 Ikpeze, 2016 Zhang & Dang, 2020
	Evolution higher education blended design	Confirm	Bates, 2018 Garrison & Vaughan, 2008 Mackay & Devitt, 2021
	Pervasiveness of technology influencing design	Confirm	Skolnik, 2020 Pelletier et al., 2022 Venkateswari, 2022
	Students' expectations about design of blended courses expanding	Confirm	Pelletier et al., 2022
	Advantages to blended learning with two modes in one class	Confirm	Garrison & Vaughan, 2008 Su & Endersby, 2018 Ustun & Tracey, 2021
	Examples of student benefits	Confirm	Alammary et al., 2014 Anderson, 2017
	Cost and benefits to educator	Confirm	Eagleton, 2017 Mackay & Devitt, 2021
	Factors of time needing to be recognized	Confirm	TLSS, 2016
	Factors of time inadequately acknowledged in Ontario colleges	Confirm	Mackay & Devitt, 2021
	Need to help students develop critical thinking skills	Confirm	Boelens et al., 2017 Caulfield, 2011 Fink, 2003 Garrison et al., 2000 Garrison & Vaughan, 2008
	Need for blended training support programs	Confirm	Halverson & Graham, 2019 TLSS, 2016 Vaughan et al., 2017
	Existing knowledge and sense of curiosity determine interest in accessing LTS	Confirm	Alammary et al., 2014

Finding	Element	Confirm disconfirm extend	Source
	Increased nonteaching commitments reduce professional development	Confirm	Vaughan et al., 2017
	Ontario college academics face additional challenges around intellectual property, class sizes, and training	Confirm	Mackay & Devitt, 2021
	Perceptions of technology and self are connected	Confirm	Ikpeze, 2016
	New technology or new pedagogy requires reconstruction of TPACK equilibrium	Confirm	Mishra & Koehler, 2006
	Faculty most confident about content rather than pedagogy and technology	Confirm	Mourlam, 2017
	Recognize need to minimize TD in online, asynchronous part	Confirm	Moore, 1993
	Manage TD by reducing technology-mediated barriers	Confirm	Best & Conceição, 2017 Weidlich & Bastiaens, 2018
	Manage cognitive load in blended settings	Confirm	Kalyuga, 2011 Sweller, 2020
	Universal design for learning	Confirm	Sims, 2014 Mackay & Devitt, 2021

Finding 3: Interpretation Within the Context of the Literature

The third and the fourth findings addressed RQ2, which explored faculty members' perceptions of the instructional context in which blended-course design occurred and how that affected the agentive nature of their decision-making process. The third finding stated: Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership. The literature about agency is extensive. According to Bandura (2001), agency is the perceived sense of self or the independence that individuals have in controlling their actions including how they take

initiative and adapt to settings. Decisions related to processing and prioritizing design and teaching plans are further complicated based on individual perceptions of agency, which include perceptions related to influence (Schultz et al., 2018), an attitude that surfaced in the data as demonstrated by participants readily using the LMS but selectively implementing new technologies or pedagogies. As described by Hadar and Benish-Weisman (2019), agency combines "intention and action that influences experiences… it embodies the aptitudes, belief systems, self-regulatory capabilities and functions through which personal influence is exercised" (p. 138). The findings from this study confirmed that participants experienced a strong sense of agency related to decision making about blended design and teaching shaped by their beliefs, abilities, and perceived limits. An individual's sense of agency was further enabled and constrained by social context, for example, an institution's culture, policies, and directives (see Flaherty, 2020).

In higher education, institutional policies typically outline details of intellectual property rights such that research and teaching materials created and produced by faculty members are protected (Flaherty, 2020; Mackay & Devitt, 2021). In Ontario colleges, however, a "corporate model" of intellectual property has been adopted, one that is based on Canadian copyright law (see Mackay & Devitt, 2021); data from this study confirmed that participants were aware of the limits on their intellectual property but believed that they still maintained more than adequate agency in making decisions about their individual blended course designs and teaching. That is, intellectual property rights were seen as distinct from feelings of course ownership.

In this study, the data revealed that faculty members have a strong sense of owning course designs including all components such as produced materials, videos, evaluations, and interpretations of third-party materials, as well as continuing to own their courses as they change over time. That is, the data from this study confirmed the idea of "design ownership," discussed by Baxter and Aurisicchio (2018), as shifting in part due to technology, with important dimensions of ownership including "an immaterial context such as digital products, services" and "a time-dependent relationship that is subject to change" (p. 122). The strong sense of ownership participants felt about their blended courses was articulated clearly by Layne who questioned how the college could realistically make use of activities or other resources posted to the LMS, asking, "How are they going to use [my course]? Because I'm talking specifically to one group of people, you know? I can't imagine that it's of any use. I mean, it's of some use, just limited use." Thus, course ownership was based on perceptions of the influence educator-designers exercised in designing courses suited for a specific group of learners at a particular point in time. Rather than producing a course as a commodity for sale, faculty members were proud of the courses they had designed, and in that sense, they had a sense that they owned their courses. The impossibility of others taking and using courses was discussed a few times. Evan summarized the challenge of the college trying to use a fully designed course without modifications saying, "they'd have hours and hours of my lectures and then hours and hours of my script of what to do during the live time with possible directions that you can take to different points… written in Evan-speak." Moreover, feelings of ownership and mastery often stemmed from individual perceptions

of content knowledge and the value of bringing one's personal industry experience and networks to the classroom.

In college settings, hiring is typically based on content expertise, with an employer expectation that technological and pedagogical skills can be acquired on site (Mourlam, 2017), a reality confirmed by the data in this study. In Ontario colleges, even though faculty members engage in discussions with their managers about the specific courses they might be interested in designing and teaching, course modality is usually assigned. Even with modality assigned, faculty members made independent design decisions about the blended details per face-to-face and the asynchronous online portions (see Waldman & Smith, 2013) based on their pedagogical understandings, experiences, and preferences. Beyond being hired based on subject area expertise, and then being provided access to pedagogical and technology training through LTS (see Mourlam, 2017), the study data revealed that participants had the freedom to design their blended courses in ways that suited their individual comfort, preferred organization, and content expertise. Although the hiring of parttime educators, who often become fulltime faculty members, has occurred at different times at the study site to meet departmental and other needs, challenges do arise when blended implementation occurs across different periods and changing teams.

When incorporating blended programming on an institutional level, the literature has shown that the design and teaching of blended courses varies greatly when the implementation approach is spread out, as educators receive different levels of training (Alammary et al., 2014; Park et al., 2015; Ustun & Tracey, 2021). In the current study,

where blended programming has been implemented over wide periods, the data confirmed that understanding of design approaches varies considerably, much as training and support across departments has varied based on changing priorities and higher education trends (see TLSS, 2016; Ustun & Tracey, 2021). Without a single common adoption and training reference point, the data supported that some participants felt a greater sense of isolation in designing and teaching for the asynchronous or online part of blended courses (see Samuel, 2020). For example, some participants questioned their approaches with, “the hybrid stuff… I’m sure that I don’t do it right” (Hollis) or commented on the inadequacy of the college approach, “the thing I like the least about [blended design] is the lack of direction I think I've been given on it and the lack of time that's given to it” (Dakota). Still, the data also confirmed exciting innovation in blended design where individuals had adopted unique approaches demonstrating agency and ownership based on a “triggering event” (see Garrison & Vaughan, 2013, p. 25). Two such situations surfaced in the data: Dakota’s approach to the online part of blended courses as related to program goals rather than being organized on a weekly paired basis and Bowie’s pandemic-triggered creation of a blended course.

Independent of how blended learning is introduced and supported at an institution, educator-designers make decisions about and for their students to support learning across the two different settings of blended courses. Designing for blended courses means planning to engage in the face-to-face, or one-to-many, physical classroom, as well as planning to engage in the online or solo student setting (Brown, 2016; Graham, 2006; Halverson & Graham, 2019), a process confirmed by the findings of this study. The data

also confirmed that when instructors directed the learning and actively interacted in the face-to-face part, better results occurred in the online setting (see Graham, 2019). Whereas the data revealed important insights about typical blended pedagogies that participants adopted, modified, and implemented as they made decisions based on their perceptions of course ownership, much of that was explored under Finding 2.

In Table 15, the key elements of Finding 3 are presented in terms of confirming, disconfirming, or extending the literature as related to decision making across both blended course design modalities based in course ownership. All elements confirmed the literature, beginning with an examination of how a sense of personal agency influenced decision-making actions. Agency, manifested as course ownership, was expressed emotionally, through a sense of pride and accomplishment. Individual faculty members were hired based on content expertise, which they then leveraged, to create independently produced, subject-appropriate blended course designs that they perceived they owned, and consequently, updated and adjusted as they continued to teach that content.

Ownership was further demonstrated through innovative agentic blended design and in how faculty members made design decisions for the group or individual learning settings. The study further confirmed feelings of isolation for faculty members in the online part of blended course designing, in part related to the noninstitution-wide implementation of blended programming and the subsequent uneven training support offered and received. This same noninstitution-wide adoption of blended instruction at the study site also resulted in creative blended design variation. Finally, the study demonstrated that where faculty members directed the learning so that they actively

interacted and engaged in the face-to-face and online settings there were notable benefits to student learning in the asynchronous part. In addition to participants sharing examples demonstrating their ownership of designing blended courses they taught, the data showed that experience could result in mistaken understandings, as discussed in Finding 4.

Table 15

Confirming, Disconfirming, and Extending the Literature Related to Finding 3

Finding	Element	Confirm disconfirm extend	Source
Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership.	Agency based in sense of what can be influenced	Confirm	Schultz et al., 2018
	Sense of agency related to decision making about blended design	Confirm	Hadar & Benish-Weisman, 2019
	Limits to intellectual property in Ontario colleges	Confirm	Mackay & Devitt, 2021
	Faculty hired for content expertise	Confirm	Mourlam, 2017
	Independent, subject and mode design control	Confirm	Waldman & Smith, 2013
	Innovative agentic ownership of blended design	Confirm	Garrison & Vaughan, 2013
	Noninstitutional wide implementation of blended programming yields design variation	Confirm	Alammary et al., 2014 Park et al., 2015 Ustun & Tracey, 2021
	Uneven training and support across time and departments for blended design	Confirm	TLSS, 2016 Ustun & Tracey, 2021
	Design for group or individual learning	Confirm	Brown, 2016 Graham, 2006 Halverson & Graham, 2019
	Educator directs learning and interacts in face-to-face to benefit online	Confirm	Graham, 2019

Finding 4: Interpretation Within the Context of the Literature

The fourth finding stated: The myth of experience and other perceptions of beliefs are central to individual decision making. Experience is important to decision making, whether people weigh alternatives or calculate consequences (March, 1991), or when they take a slow approach that involves care, deliberation, and reflection (Kahneman, 2011). Many times, though, people make fast decisions, based on heuristics (Kahneman, 2011) or appropriateness in the moment (March 1991). Making this type of shortcut decision can be timesaving and useful; however, because these approaches are convenient and sometimes the results of inaccurately diagnosed simplifications of more complex decision making, such shortened thinking processes can lead to biases and flawed thinking (Newkirk, 2014). In such cases, although the perceptions of the experience are valid, imperfect analyses might lead to beliefs and attitudes compiling and forming an individual's myth of experience.

Assessing the veracity of beliefs can be difficult, especially as "[i]ndividuals commonly find it possible to express both a preference for something and a recognition that the preference is repugnant to moral standards they accept" (March, 1991, p. 99). In this study, the data supported that some participants completed decision-making processes under the myth of experience, as examples related to accessing and incorporating new approaches demonstrated. Further, the findings supported that in situations where individuals were possibly emotionally vested in an original shortcut, additional challenges could arise as people might not recognize that a situation was more complicated and warranted deeper, more logical thinking than initially invested (see

Soyer & Hogarth, 2020). Instances surrounding attitudes and perceptions of LTS and new technologies, resulting in the reluctance of some participants to access LTS for training about new technologies, supported that the myth of experience was present.

According to Brown (2016), in blended settings, educators made design and teaching decisions prioritizing student engagement over other elements, including personal philosophies, a reality confirmed by some participants who sacrificed personal time to create more engaging opportunities for students. The literature provided ample evidence that decision-making in course design was dominated by a desire to engage students in meaningful learning (see Imants & Van der Wal, 2020; Schultz et al., 2018). In this study, the data confirmed that participants focused their decision making on creating engaging learning environments across both modalities of blended courses, although the selective adaptation of various pedagogies was noted. Thus, data from this study confirmed the challenges outlined by Soyer and Hogarth (2020) with "biased evaluations and irreversible mistakes" because "it's easier to write and embrace the wrong story than to ignore it" (p. 2). For example, participants frequently commented on the types of learners attracted to and enrolled in their programs, sharing observations that certain approaches in either the face-to-face or online setting would or would not be successful for individuals given their expected postgraduation realities. These arguments, based on anecdotal evidence, while valid and indicative of agentive decision making, confirmed that the myth of experience was dominant in some educator-designers' decision making.

According to Emirbayer and Mische (1998), the role of beliefs is found in "the different constitutive elements of human agency [as] iteration, projectivity, and practical evaluation" (p. 970). The prominence of experience as central to decision making for participants creating and teaching blended courses was confirmed by the data in this study. Individuals shared that they consider past patterns of thought and action in their practice settings including both industry-based precollege work as well as college experiences, and imagine future possibilities based on the past reconfigured by hopes and worries, confirming the projective dimension of agency (Emirbayer & Mische, 1998). The data showed that participants have the agency to balance decision making across dichotomously clear and ambiguous demands and yet the myth of experience was also confirmed through the frequent references that participants made to having confidence in using dialogic approaches in small groups and large discussions in the face-to-face setting. The data confirmed that the practice is valid for constructing knowledge (see Garrison et al., 2000); however, the data also revealed that some participants appear to not have changed or attempted new technology-mediated approaches to community-based knowledge construction, further confirming the myth of experience. Likewise, comments about using discussion boards in the online setting were both common among participants and linked to comments questioning their actual value beyond publicly posting opinions as they did not generate true discussion.

Thus, Finding 4, which addressed the myth of experience and how individuals recalled and categorized experiences, might include negative perceptions, which in turn influences future design decision making. Six elements connected to Finding 4 all

confirmed the literature; they, plus a seventh cumulative effect item, are summarized in Table 16. Individuals were found to prefer something while simultaneously disagreeing with it and individuals were found to be emotionally vested in shortcut thinking that limited their ability to see the need for deeper thought that could reveal flaws in their understanding of an experience. Whereas student engagement remained the primary priority in design decision making, faculty members might find themselves selectively choosing and adapting pedagogies for their blended courses. That is, even though experience led decision making, the findings revealed that experience should not be taken as always accurate, particularly if individuals found themselves following a valid pedagogy like group-based knowledge construction without ever attempting any new approaches that might incorporate more technology use in their blended courses. The final item in Table 16 states that cumulatively, these elements have extended the literature about the myth of experience when it comes to blended design.

When educator-designers made blended-course decisions, many factors converged, with experiences and perceptions of student engagement surfacing as dominant considerations in that process (see Brown, 2016; Emirbayer & Mische, 1998). When emotional investments were connected to shortcut decisions, they could be followed with a selective adaptation of options, which could compound the myth of experience (see Soyer & Hogarth, 2020). Further, when the process of making decisions has been limited and individuals found themselves in the position of preferring a particular action while simultaneously disagreeing with it (see March, 1991), there is a greater understanding of how the myth of experience occurred. Therefore, when

considering all the individual confirmations of elements comprising the myth of experience, the understanding of how educator-designers made decisions about blended-design courses that they taught has been extended. The value of experience and decision making based on individual understandings, preferences, and past practice might, however, be superseded and require sudden reassessment under certain conditions, as discussed under the final, Finding 5.

Table 16

Confirming, Disconfirming, and Extending the Literature Related to Finding 4

Finding	Element	Confirm Disconfirm Extend	Source
The myth of experience and other perceptions of beliefs are central to individual decision making.	Prefer something while disagreeing with it	Confirm	March, 1991
	Emotionally vested in shortcuts limit ability to see need for deeper thought	Confirm	Soyer & Hogarth, 2020
	Student engagement is main priority in design decision making	Confirm	Brown, 2016
	Selective adaptation of pedagogies in blended courses	Confirm	Soyer & Hogarth, 2020
	Experience leads decision making	Confirm	Emirbayer & Mische, 1998
	Group-based knowledge construction with no changed approaches introducing technology-mediated options	Confirm	Garrison et al., 2000
	Cumulatively, the preceding elements add new knowledge to the field	Extend	

Finding 5: Interpretation Within the Context of the Literature

The fifth finding stated: A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers. Educator-designers put considerable time into creating blended courses that maximized learning and activities suited for the subject, the students, and to fit both the group environment of face-to-face and the individual, solo approach of asynchronous learning (see Alammary, et al., 2014; Bates, 2019; Stein & Graham, 2014). The data from this study confirmed that these goals were common among participants. Although the Ontario college setting has been described as distinct from other universities and American colleges (Skolnik, 2020), the global pandemic changed higher education around the world. Suggestions already indicate that the COVID-induced "change may be here to stay and that there will be no return to *normal* for many institutions" (Pelletier et al., 2022, p. 4, original emphasis). The findings from this study confirmed that the attitude captured by Pelletier et al. was common among study participants. As a major environmental disruption, the pandemic influenced educator-designers leading them to reassess and reorder pre-existing decisions about their blended-designed courses that they taught.

Government rules required many campuses to close and shift to remote delivery (Kelly et al., 2021), which in turn had consequences on those individuals designing and teaching during this new reality. As Lemoine and Richardson (2020) observed, "The forced change to remote learning was stressful as neither faculty nor students were prepared for the rapid change to online teaching since many academic institutions lacked the faculty with experience in online teaching" (p. 44). The findings of this study

confirmed that participants expected lasting changes to higher education because of the pandemic and that both they and students had felt stress over the suddenly imposed new delivery requirements. The data confirmed that these feelings of anxiety and uncertainty for faculty members was grounded in the many changes necessitated by remote delivery, which triggered abrupt reassessment and reordering of previous design decisions, with the realization that some changes were irreversible and potentially more changes were to come. The data also confirmed, as Lemoine and Richardson (2020) noted, that participants at this higher education institution, as at many other higher education institutions, "lacked" online design and teaching experience (p. 44).

The pandemic, which forced an abrupt shift to remote and fully online design and learning, resulted in specific course-level programming changes from how content was being delivered and assessed to bigger shifts at an institutional planning level. The sudden changes in design and delivery of higher education programs involved both introducing new and transforming existing use of technologies and methodologies (see Garcia-Morales et al., 2021), another reality confirmed by the study data. Participants provided many examples of using new technologies (e.g., Zoom, H5P, or Mentimeter) and transforming the use of existing technologies and methodologies (e.g., breakout rooms instead of face-to-face group work or Kahoot! used via Zoom instead of during face-to-face classes). Additionally, the data confirmed that participants who had already been using a wide variety of technologies, expanded their skill set, while other participants shared examples of how they had become more efficient in LMS use around quizzes, live polls, and rubrics to enhance their live synchronous sessions instead of face-

to-face classes and to better manage their asynchronous marking activities. In this regard, the study findings also supported that there were quick adjustments around assessment (see Kelly et al., 2021), as previously, many participants had designed their blended courses with a combination of face-to-face and online quizzes, tests, and exams, whereas during the pandemic almost everything shifted to online.

At the institutional level, new training programs were designed and implemented to support faculty in the transition to remote learning whereby new design approaches with previously unused and underused technologies were developed (Garcia-Morales et al., 2021; Johnson, 2022a; Pelletier et al., 2022). The data from this study confirmed that the study site offered many new training courses related to remote designing and teaching, providing options for educator-designers to participate in group study, individual self-paced study, or one-on-one coaching, and that many of the training options were centered on the use of technology. The perceptions individuals held about training support related to technology use and the remote transition remained largely consistent with their general attitudes around college-led and other professional development opportunities, although the data also confirmed that even skeptics accessed training support early in the shift to remote classes because of the extreme environmental shift the pandemic created, requiring an understanding of online pedagogies (see Mackay & Devitt, 2021; Pelletier et al., 2022). That said, many participants shared their experiences in connection to the new remote training support, with some indicating they had found the LTS transitional materials valuable. In some cases, participants were still accessing the resources, while others noted that they had stopped seeking new ideas.

Although there remains a need for more and continued professional development support for educator-designers in higher education, the literature indicated that all stakeholders have become more receptive to offering more fully online and blended courses in the period following the lifting of remote measures (Johnson, 2022b; Pelletier et al., 2022). The study findings confirmed that participants faced extraordinary challenges in shifting to remote designing and teaching, having to acquire new technological and pedagogical understandings, and generally, at the time of data collection, appearing more comfortable with the asynchronous and synchronous part of their blended courses. In addition to the pandemic triggering reassessments and reorganizations of decision-making processes related to professional development, other design concerns surfaced during COVID.

Another issue related to course preparation that both predated and then was exacerbated by the pandemic related to outsourced curriculum design that was contracted out and completed by "a contract faculty member, then *handed off* to another faculty to deliver" (Mackay & Devitt, 2021, p. 26; original emphasis). Described as part of the "unbundling" of faculty work, Mackay and Devitt (2021) noted that some colleges took advantage of the pandemic to further divide faculty work, hiring more contractors to design curriculum or mark assignments as class sizes grew. The findings of this study confirmed that participants who, prior to the pandemic, were involved in any kind of unbundled work found the experience difficult and uncomfortable; nevertheless, there was no additional unbundling experienced by participants at the study site directly during the pandemic.

The blurring of understanding the evolving meaning of blended design and teaching during the pandemic when all elements of courses were delivered remotely (Mackay & Devitt, 2021), was also identified and confirmed by the study findings. Participants shared that such confusion existed for students and faculty members, especially when students typically did not turn on their cameras during live or synchronous classes, altering the usual tone and rapport of face-to-face classes and highlighting that live online was different from live face-to-face mode. This confusion was heightened as some faculty members reported their efforts to support student success by recording portions of live sessions for access after the synchronous class in an asynchronous way. Another disruption to blended design and teaching relates to social disruptions, such as the potential college academic strike.

In Ontario, at all 24 colleges, fulltime and certain parttime academic employees operate under a common collective agreement. The expiry of the working contract in September 2021 had progressed to a work-to-rule situation by December 2021 and concerns about a possible full work stoppage for early spring 2022 were mounting (see Mackay & Devitt, 2021), a situation that worried study participants. This development, combined with memories of the major 2017 strike (see Karimi, 2020), created stress for participants about the possibility of subjecting students to further education disruption during COVID. The data confirmed that memories of the last strike were already leading participants to make contingency plans, compounding feelings of stress, and leading individuals to reorganize their blended course designs to minimize the potential impact on students.

The elements of Finding 5 all confirmed the literature, as outlined in Table 17, save the last element, which extended the literature as a cumulative effect of the individual components. As with Finding 4, the cumulative effect of the 11 confirming elements created a greater sum, which extended the understanding of the literature. A major disruption (social or environmental) triggered educator-designers to reassess and reorder existing decision-making influencers, while still designing to maximize both modes of blended classes. The pandemic changed higher education to such a degree that there will be no return to normal. The stressful conditions that surrounded the change to remote design, teaching, and learning were compounded for faculty members because they were mostly inexperienced with fully online work. Through training, faculty members learned to use new and transform existing use of technologies, including making quick adjustments to assessment processes. There were many new training programs initiated to support faculty members in their transition to remote design and teaching, and more individuals accessed training support during the pandemic than before. Coming out of the pandemic, a greater receptiveness to blended and online design options has arisen but concerns about unbundling of faculty work during the pandemic in some colleges across Ontario remained troubling. The blurring of understanding of blended design during the pandemic was another challenge, one that could carry long-term consequences. In addition, a social disruption, such as a potential strike, can and did result in faculty members reassessing and reordering their previous decision making, especially as related to perceived potential student impact. The data used to comprise these elements confirmed the literature; however, together, they extended the literature.

When educator-designers were faced with a major disruption, they reviewed and then revised the thinking that led to initial decision making about design and considered how to accommodate the disruption while ensuring they meet the existent overarching learning goals. Therefore, the data showed that the pandemic fundamentally changed higher education (see Pelletier et al., 2022), and yet, participants still aimed to design blended courses that met learning outcomes based on program requirements, maximizing both the new version of synchronous live classes blended with an online asynchronous part (see Alammary et al., 2014; Bates, 2019; Stein & Graham, 2014). The data also showed that faculty members felt stressed because they were inexperienced with remote and fully online teaching (see Lemoine & Richardson, 2020).

As institutions increased their pandemic-related training programs (Garcia-Morales et al., 2021; Johnson, 2022a; Pelletier et al., 2022), the data showed that more faculty members accessed remote pedagogical and technological training than in prepandemic times (see Mackay & Devitt, 2021; Pelletier et al., 2022) and participants were more receptive to incorporating new design considerations (see Johnson, 2022b; Pelletier et al., 2022), even if they maintained skeptical perceptions about the value LTS offered. The data also revealed that faculty members had to make new decisions about assessment (Kelly et al., 2021), and tried to develop and work with new understandings of the term blended design and teaching (see Mackay & Devitt, 2021). The potential disruption of a strike compounded the existing pandemic disruption, and the data showed that faculty members were developing increased fluidity around design decision making, so that learners could still be supported. In all, the cumulative effect of a major

environmental or social disruption led to an extension of the literature in understanding how faculty members reassessed and reordered decision-making influencers. Having interpreted how a major disruption to decision making answered RQ3, the next section looks at these findings within the interlinked context of the conceptual framework.

Table 17

Confirming, Disconfirming, and Extending the Literature Related to Finding 5

Finding	Element	Confirm disconfirm extend	Source
A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers.	Design to maximize both modes of blended class	Confirm	Alammary, et al., 2014 Bates, 2019 Stein & Graham, 2014
	Pandemic changed higher education so there will be no return to normal	Confirm	Pelletier et al., 2022
	Stressful change to remote because of inexperienced faculty	Confirm	Lemoine & Richardson, 2020
	Use of new and transformation of existing technologies	Confirm	Garcia-Morales et al., 2021
	Quick adjustments to assessment	Confirm	Kelly et al., 2021
	New training programs to support faculty in transition to remote design	Confirm	Garcia-Morales et al., 2021 Johnson, 2022a Pelletier et al., 2022
	Increased training access during pandemic	Confirm	Mackay & Devitt, 2021 Pelletier et al., 2022
	Greater receptiveness to blended and online course design options based on pandemic experience	Confirm	Johnson, 2022b Pelletier et al., 2022
	Unbundling of faculty work due to pandemic	Confirm	Mackay & Devitt, 2021
	Blurring of understanding of blended design during pandemic	Confirm	Mackay & Devitt, 2021
	Potential strike and memories of 2017 strike triggered worry and led to contingency decision making	Confirm	Mackay & Devitt, 2021 Karimi, 2020
	Cumulative effect of all elements is greater than the individual parts	Extend	

All Five Findings: Interpretation Within the Context of the Conceptual Framework

The interlinked and complex nature of blended design and teaching made this study well-suited to having been situated in a conceptual framework based on Engeström's (1999, 2000) activity theory. As educator-designers influence and are influenced by elements in the activity system (see Figure 1), they made decisions to create blended courses that were delivered over two different modes, mediated by technology, and designed to meet specific learning goals. The existing literature connected to blended learning and activity theory has shown how different elements within the activity system were interlinked and influenced one another (Hora, 2012; Vásquez Astudillo & Martín-García, 2020) and could lead to expansive learning when subjects reflected and encountered contradictions to their beliefs and understanding (Igira & Gregory, 2009). The five findings reported in this study revealed connections to activity theory with the subject, object, community, tools, division of labor, and rules interacting on and with one another. That is, the five findings from this study will now be presented as interlinked findings answering the RQs based on the conceptual framework.

Interpretation of Findings 1 and 2 Using the Conceptual Framework

The first two findings answering RQ1 addressed how participants understood blended-design courses that they taught and how they balanced their design efforts to meet group-based academic needs with their personally perceived costs to value. As related to Finding 1, Papanikolaou et al. (2017) described that educator-designers were involved in a complex relationship when they designed blended courses for teaching because they used technology to design and deliver engaging content to specific learning

groups across a dual setting that was comprised of a face-to-face setting carefully integrated with an online portion. The data from this study confirmed that faculty members did not consider the decision-making process of course design as distinct activities for designing per mode, technology use, and teaching, but rather as an integrated process that required holistic management.

Activity theory is also "artifact-mediated and object-oriented" (Engeström, 2001, p. 136), meaning it centers the activity of designing the object or artifact, in this case, creating a blended course. The data from this study confirmed that educator-designers made blended course design decisions or engaged in the activity of creating an object within the broader context of their departments at the college, which was set within a specific cultural, historical period (see Hashim & Jones, 2007). Further, the findings supported that this activity occurred while using tools, such as technology (see Mwanza & Engeström, 2005), as technology tools were accepted as a regular part of higher education blended courses.

The second finding noted that design decisions were individually undertaken as educator-designers balanced the group academic needs of students against perceptions of value and cost to themselves. Sannino and Engeström (2018) emphasized that individuals made decisions and took actions based on how they saw themselves, as well as based on their experiences as connected to their communities. This interlinked process for decision making was confirmed by the findings of this study, with participants providing examples that object creation, or designing blended courses, was not static, but occurred in a cyclical iterative manner, as they incorporated new options based on experiences and

learning (see Igira & Gregory, 2009). Shukor and Hammond (2018) found that students perceived learning, technology use, activity work, and achieving outcomes in blended settings favorably, an interpretation of student views that participants in this study confirmed. In this study, the data confirmed that the process by which participants made decisions about design and teaching was complicated and required ongoing input and reflection from and to oneself, the community, and students.

Because activity theory is people-based and centered on an identified activity, it was ideal for framing an exploration of subject perceptions, values, and beliefs that would influence thoughts and actions while remaining grounded in individual histories and situations (Engeström, 2001). As I examined the data, they confirmed that educator-designers create blended courses for delivery across two modalities, making decisions based on individual and collective priorities and interests, while grounded in their individual experiences and settings. That is, participants provided examples that decision making entailed many intertwined factors. They considered past and present influences in terms of stakeholders in industry and education who provided input, they thought about students and expected learning outcomes, they reflected on personal experiences with content as well as technology, they explored new content or pedagogies, and they were aware of the wider college and community setting.

Blended design and teaching also involved a continuous process of self-negotiation for subjects as they created their objects, overcoming internal and external conflicts in the process. Thus, in making decisions, educator-designers experienced the double stimulation principle where “life activity” overlapped and interfered with object

creation within and among the stages due to the other influences within the activity system (Sannino & Engeström, 2018). The findings from this study confirmed that as faculty members thought about, reflected, and made decisions about creating blended courses, they worked from a common understanding where the face-to-face portion was dominant and integrated with a more passive online part while concurrently negotiating and considering the other influencers in the activity system. The experiences shared by participants in this study captured the overlapping, fluid, and iterative nature of thinking and reflection, a process that involved constant personal conflict as they reprioritized and adjusted decisions on a personal sliding scale accounting for nodes in the system while also balancing student academic needs versus personal value and cost.

Looking specifically at blended learning in higher education, Vásquez Astudillo and Martín-García (2020) argued that activity theory provides a framework "to comprehensively study the nexus of people, technology and online community, and… ways of remodeling to improve the interactions and design of activities, achieving a change in teaching and learning practices" (p. 455). In this study where I explored individual experiences, the data confirmed that different life journeys combined with current happenings to create unique outcomes for each of the educator-designers. For example, participants who were initially skeptical about blended adoption at the study site across various departments and with assorted attitudes to adopting new or modifying existing pedagogy and technology use, readily acknowledged the benefits of blended design were such that none desired a return to fully traditional, face-to-face classes. Thus, this study confirmed that faculty kept the thought of student interest and learning as an

important focal point, one they often and regularly revisited, even if they had personal issues with the tools or rules being required or applied.

Further, the study confirmed that as much as participants shared a common understanding of the nature of blended courses (see Vásquez Astudillo & Martín-García, 2020), they made individual design decisions based on a scale balancing group academic needs for students to their perceptions of personal value to cost, thereby adding to the evolution of blended design. As a result, the successes of the individual blended design influenced future faculty member activity related to reimagined and revised designs. That is, reflection anchored the design and teaching process for participants, stabilizing activity, triggering thoughts and new planning, as well as cementing attitudes (see Igira & Gregory, 2009). Because experience is central to the faculty design and teaching process, when understandings and perceptions are possibly built on imperfections or misanalyzed reasons, the myth of experience can be perpetuated.

The findings of this study also confirmed that the use of tools in higher education, largely dominated by technology (see Sannino & Engeström, 2018), was unavoidable. That is, technology tools both influenced and were influenced by faculty members making decisions about blended course design and teaching, which was individually decided, and supported the finding of course ownership. Tool use was also interlinked with the community, rules, division of labor, and the outcome. Further, because the historicity of designing blended courses or the activity-making part of activity theory is grounded in past experiences (see Engeström, 2001), the decision-making process of design surfaced as both central to and leading bias through the myth of experience.

Therefore, the findings of this study confirmed the value of using the conceptual framework to answer RQ1, revealing how faculty members experienced the decision-making process by detailing multiple examples of the complex, interlinked, and multifaceted thinking and reflecting involved in blended design and teaching. Citing individual industry and pedagogical practices, plus instructional experiences, participants demonstrated how unique perspectives developed and influenced decision making based on multiple considerations while maintaining a common understanding of blended design. This view supported the existing activity theory literature that subjects both influenced and were influenced by the tools such as technology and the blended course or object being created, within the community setting of the college.

Table 18 summarizes the interpretation of Findings 1 and 2 using the conceptual framework of activity theory to answer RQ1, revealing how faculty members experienced decision making during blended design for teaching. The importance of understanding blended design as a dominant face-to-face class, integrated with a passive asynchronous one combined with the ongoing process of balancing group academic needs of students to perceptions of value for self was revealed as the central intertwined response to RQ1 exploring faculty members' experiences in making decisions about blended courses they design to teach. The understanding was based on individual experiences, contextualized historically, mediated by tools, and focused on creating a blended course for engagement. For faculty members, the activity of designing began with learning outcomes in this interlinked setting and modifications occurred based on experiences and new inputs. The study findings confirmed that as much as participants shared a common understanding of

the nature of blended courses, they made individual design decisions based on a continuum, balancing group academic needs for students to their perceptions of personal value in a cyclical iterative approach that remained people-based and activity-centered.

Individuals underwent unique processes based on their specific lives and community connections and the research confirmed that faculty members were in continuous negotiation with themselves through the double stimulation principle involving exposure and engagement in life. In addition, despite a common understanding of blended design, the findings revealed that the definitions for blended design continue to evolve, and the use of tools continue to be dominated by technology. Therefore, the conceptual framework was valuable in revealing how integrated the first pair of findings were in answering RQ1, showing that faculty members or subjects made design decisions about blended courses or objects based on how they influenced and were influenced by tools, the community, students, rules, their past experiences, and goals for the outcome. As the other RQs were answered, the evidence supported the overarching claim that the process faculty members have gone through in making decisions about designing blended courses was a highly complex and interlinked process, one that involved consideration of all influencers past and present, making the framework of activity theory ideal for interpretation and understanding. In the next section, I will discuss how the third and fourth findings in this study answered RQ2 and confirmed, disconfirmed, and extended the conceptual framework as related to faculty members' agentic perceptions.

Table 18

Confirming, Disconfirming, and Extending the Conceptual Framework: Findings 1 and 2

Finding	Element	Confirm disconfirm extend	Source
1: Based on experiences and reflection, individual understandings of blended design include a *dominant* face-to-face modality complemented by and integrated with a *passive* online, asynchronous modality. 2: In making blended design decisions, individuals operate on a scale balancing group academic needs of the students versus personal perceptions of value to cost for self (including technology use).	Complex relationship with design because technology and dual modality	Confirm	Papanikolaou et al., 2017
	Historicity of design	Confirm	Hashim & Jones, 2007
	Decision making based on how self is perceived and experiences in community & cyclical iterative approach	Confirm	Sannino & Engeström, 2018 Igira & Gregory, 2009
	Students perceived to have favorable view of blended courses	Confirm	Shukor & Hammond, 2018
	People-based and activity-centered	Confirm	Engeström, 2001
	Double stimulation principle, with overlapping and interfering life activity	Confirm	Sannino & Engeström, 2018
	Individual experiences combine with happenings to create unique outcomes, while balancing nodes and group to individual needs	Confirm	Vásquez Astudillo & Martín-García, 2020
	Common understanding of blended courses that is evolving	Confirm	Vásquez Astudillo & Martín-García, 2020
	Use of tools largely dominated by technology	Confirm	Sannino & Engeström, 2018

Interpretation of Findings 3 and 4 Using the Conceptual Framework

In answering RQ2, Findings 3 and 4 addressed how participants' perceptions of agency mattered as they made decisions about blended-course design and teaching based on many factors. Beginning with reflection, leading to ownership, and often stemming from and perpetuating the myth of experience, the agentic nature of faculty members was central to their decision-making processes. In this discussion, it will be evident that individual experiences supported by their understandings and preferences about blended design and teaching and influenced by their ongoing internal negotiations and balancing of priorities, remained influential in the process.

In the context of the activity theory framework, details comprising Finding 3 revealed the complexities of how educator-designers perceived ownership, which influenced their activity of designing blended courses that they taught. Igira and Gregory (2009) stated that the activity theory perspective was valuable because "elements of an activity system are not static; they do not exist in isolation from one another… they are dynamic" (p. 438). In this study, the data showed participants' perceptions of ownership of design confirmed the interlinked nature of elements that were actively influencing one another. That is, faculty members involved in making design and teaching decisions for blended courses considered, accommodated, and anticipated interactions that occurred within an interlinked system where they saw themselves as agents creating objects using various tools in a broader community setting, with respect to rules and division of labor, none of which were fixed or changeless components.

In research exploring the implementation of innovative educational technology and a particular unit of study, Russell and Schneiderheinze (2005) used an activity theory framework and found that the educators in the project consistently faced contradictions that they resolved in ways that fit with their pedagogical priorities and perceived learner capabilities and constraints. The findings from this study confirmed that educator-designers who participated in the study freely shared innovative blended design and teaching approaches for courses they had designed and perceived they owned fully. In the analysis, I found that participants regularly encountered and resolved contradictions to their perceptions of needs and required changes, based on individual understandings of their subjects and learners, and tempered by their willingness and appetites to undertake new challenges given individual as well as community level experiences and expectations.

Based on Engeström (1987, 1999, 2001), expansive learning is considered the inevitable outcome of activity theory, which fit well with this finding of ownership as an evolving experience, based on incorporating perceived improvements; therefore, the data confirmed this process. Igira and Gregory (2009) explained and visualized the iterative expansive learning process as a spiral involving several stages in the reflection cycle, with the main source of conflict occurring at the boundary of object creation. The current study confirmed that individual experiences and reflections on the value-cost continuum were a regular part of the iterative process of ownership and occurred in a nonending fashion akin to a spiral whereby the faculty member might see new possibilities and challenges on each revisiting of a specific element because suddenly another influencing

factor had gained prominence or slipped from prominence. The data further revealed that conflict for individuals making decisions occurred at the boundaries where individuals' values and attitudes clashed, possibly based on new outside information, some recent industry-based development, an interesting learning-teaching occurrence, or a misclassified memory leading to a perpetuation of the myth of experience. As participants reached the limits of object creation, such conflict arose continuously and fluidly. Still, the experiences and processes associated with decision-making were grounded in historical contexts of self- and community-understanding while the boundary conflict triggered blended-course design and teaching revisions, with faculty members perceiving that the new approach would better meet student needs. Although prioritizing and reassessing experiences and blended-design understanding should include new information (see Hora, 2012), the data also confirmed that this did not always occur, suggesting the myth of experience may dominate boundary conflict interpretations.

In research grounded in activity theory as applied to blended learning in higher education, Vásquez Astudillo and Martín-García (2020) described how expansive learning occurs for teachers, who in the activity theory model are subjects, completing the activity of designing effective and successful blended classes:

> the role… is, first of all, to offer students favorable conditions for learning, the occasions to practice the existing schemes, that is, the way of acting and better control operations, the possibility of automating a certain part of what has been learned; second, to develop new schemes, that is, new concepts, new rules of action for objectives and tasks that are still uncommon (p. 461).

The current study findings confirmed that, from a perception of ownership, faculty members worked to create engaging learning settings, focused on providing repeatable, pattern-based opportunities for students to categorize and organize their new learning in both face-to-face and online settings. Additionally, the data confirmed that participants created circumstances for students to challenge existing understandings so that students too could expand their learning. As faculty members created these learning opportunities, they continually bumped against their personal boundaries of time and effort for value and benefit, the ongoing cycle of balancing group learning needs to perceived individual costs and benefits, the whole time never losing sight of ownership.

The conceptual framework was also important in showing the multifaceted and interlinked elements connected to ownership because it highlighted the competing influences individuals experienced. Hora (2012) observed, "a multiplicity of organizational factors such as governance systems and workload policies… and departmental traditions and disciplinary identification… influence teaching practices… and may even inhibit the adoption of new pedagogical techniques" (p. 208). Perceptions of ownership grounded in agency were dominant in this study. Moreover, the study data confirmed that institutional factors, including recognition of the time faculty members needed to learn about and adopt new approaches, could act as an impediment to action. Participants selectively applied elements of various pedagogies to their blended courses, incorporating what they were willing to do within broader understandings of Findings 1 and 2 and fully rooted in Finding 3, individual decision-making ownership. As noted

earlier, as critical as experience wass to decision making, individuals might accidentally ground their beliefs, attitudes, and actions on fallacies.

In examining the myth of experience, the conceptual framework proved useful as individual educator-designers were constantly making choices about pedagogy and technology use in designing blended courses they taught. According to Vásquez Astudillo and Martín-García (2020), "When we use a tool, such as technology, or when the teacher incorporates innovations, [activity theory] becomes a structure of pedagogical intelligibility" (p. 454). The findings confirmed that participants used technologies and selected aspects of various blended-learning pedagogies in their course designs, confirming their understandings of technologies and pedagogies that worked with blended learning. However, having only collected data from faculty members, their perceptions of understandings and incorporation of technology in classes based on their prior experiences with similar students and content may not have been completely accurate or appropriate for each subsequent class and should have involved a more thorough reevaluation of new factors. The complex nature of making decisions in the blended setting may, at times, have been conflated with the self-awareness individuals brought to the process resulting in decision making based on the myth of experience.

Educators do not always perceive learning processes or outcomes the same as students do. In research looking at a blended learning application of language learning through activity theory, Shukor and Hammond (2018) found that "the student- and teacher-participants' perceptions varied from one another" (p. 1). That study found educators perceived higher levels of having met goals than students found in terms of

meeting teaching objectives to support and advance student learning. Specifically, educators had a stronger sense of having successfully achieved a suitable mix of in-class and independent asynchronous technology-based activities, as well as of having effectively integrated the in-class and online activities than the students perceived for the same program. In this study, I only collected data from educator-designers and did not gather any information directly from students. That is, the myth of experience was not only a finding unto itself but appeared to confirm that participants would likely have different perceptions of blended-class design than their students.

The conceptual framework demonstrated interlinkages that faculty members had with base understandings about blended design and teaching, including their ongoing evaluation and balancing of meeting student needs while satisfying individual value-cost perceptions, possibly conflicting with their perceptions of agency and course ownership. Nevertheless, the framework was useful in examining the different influences acting on the subjects or faculty members. Participants' lived experiences and interpretations of past events through the use of tools like technology and the role of tools as required through the community and industry, were discussed and explored in the bigger setting of faculty members creating their objects of blended courses.

Using the conceptual framework, I found the third and fourth findings about ownership and the myth of experience underscored the complexity of decision making for educator-designers creating blended courses they taught as captured in Table 19. Answering RQ2, the data showed that faculty members perceived having full agency in deciding about blended designs for courses they taught. That is, they controlled what to

prioritize within a course, based on previous experiences leading to cumulative knowledge and understanding, their unique subject expertise, plus their comfort and preferences about pedagogy and technology. Thus, the data confirmed that RQ2, within the context of the conceptual framework, was only answerable based on a combination of Findings 3 and 4, themselves based on Findings 1 and 2.

The complex relationship faculty members had with design was further highlighted in the data because of the technology used in the face-to-face and online parts and because of the dual modality of blended courses. The findings of the study confirmed expansive learning was part of the iterative process occurring at the boundaries where faculty members encountered conflicts over their perceptions, understandings, and attitudes. Whereas prioritizing and reassessing experiences should include accommodating new points of information, the findings showed that participants might sometimes have mistakenly organized memories resulting in the myth of experience superseding logic. Ownership included student engagement and the use of repeatable learning patterns but was also influenced by institutional factors, which might have involved perceptions individuals held of what was required and offered by the institution. The role of technology as part of the pedagogical understanding was confirmed while noting this might have led to the myth of experience. Lastly, the unexplored and possibly divergent views faculty members and students could have about course design might have resulted in the myth of experience having a deeper presence than originally anticipated. In the final interpretation section, I review the conceptual framework linked to the last finding looking at the instructional environment.

Table 19

Confirming, Disconfirming, and Extending the Conceptual Framework: Findings 3 and 4

Finding	Element	Confirm disconfirm extend	Source
3: Individuals make blended design and teaching decisions across both modalities based on perceptions of course ownership.	Activity system evolves as nodes of the figure interact	Confirm	Igira & Gregory, 2009
	Cycle of contradictions force renegotiation of priorities, capabilities, and constraints	Confirm	Russell & Schneiderheinze, 2005
	Expansive learning is the outcome of activity theory	Confirm	Engeström, 1987, 1999, 2001
	Iterative expansive learning where conflict occurs at boundaries	Confirm	Igira & Gregory, 2009
4: The myth of experience and other perceptions of beliefs are central to individual decision making.	Prioritizing, reassessing experiences should include accommodating new information, or myth	Confirm	Hora, 2012
	Ownership includes engagement and repeatable learning patterns	Confirm	Vásquez Astudillo & Martín-García, 2020
	Ownership influenced by institutional factors	Confirm	Hora, 2012
	Technology as part of pedagogical understanding which can lead to myth of experience	Confirm	Vásquez Astudillo & Martín-García, 2020
	Myth: perceptions of pedagogy and success diverge from faculty member to students	Confirm	Shukor & Hammond, 2018

Interpretation of Finding 5 Using the Conceptual Framework

The final finding answered RQ3, noting how a major disruption (social or environmental) resulted in a reassessment and reordering of most other decision-making influencers. That is, although the previous sections outlined the interpretation of the first four findings within the context of the conceptual framework demonstrating strongly interrelated connections among reflection, the continuum of experiences and priorities, the perception of ownership, and the myth of experience, these elements were all juggled and reassessed during a major social or environmental disruption. Therefore, faculty members perceived that a major social or environmental disruption influenced the instructional environment to such an extent that they had to reorder and reassess their blended course design decision-making process.

Within the conceptual framework of activity theory, where subjects created objects within a culturally specific period with reference to historical context, this finding was almost self-evident. Finding 5 brought attention to the environment within which educator-designers completed their activity of designing blended courses that they taught, revealing the complexity of decision making during major disruptions where existing and past-practice plans were no longer valid or workable (see Lee et al., 2022). It also connected to the other four findings, highlighting the interlinked nature of this framework and showing the disruptive effect of the environment on decision making.

Although Engeström (2001) proposed that an individual's sense of agency was inextricably linked to position and relations in the group, or perceptions of the environment, in pursuit of achieving a common outcome, in this study, the environmental

condition of being employed at a public college in a certain department of colleagues was relevant to much of the decision-making process but not perceived as centrally tied to agency. Participants viewed their sense of agency as linked to their abilities to make suitable decisions about design based on industry expertise, their condition as faculty members, and their pedagogical knowledge. These agentic identity elements coalesced and led faculty members to reflect upon their experiences, weighing priorities across a continuum of value to learners and cost to self within a specific time in history at a specific publicly funded Ontario college. That is, the data collected for this study could only happen in this way at one time because of the individuals involved at this point in history in this unique setting. In other words, the data collected in this study confirmed that the interrelationships among the nodes of an activity system were based on individual and collective situated histories, experiences, and evolving relations (see Havnes, 2010).

Based on commonly situated and connected conditions, Sannino and Engeström (2018) suggested there was value in looking for patterns, similarities, and differences among experiences across participants in a community, much as I have been doing throughout this interpretation. Again, the data revealed several common patterns among participants' experiences in their early adoption of blended-class design and teaching, as well as when they shifted to remote design and teaching, with the movement of the face-to-face portion of blended classes to live Zoom-based teaching because of the pandemic. Similarities among the faculty members included their unpreparedness for shifting to fully remote and technology-mediated design and teaching plus their overall willingness

to attend professional development opportunities to acquire skills and understanding that they were lacking. By contrast, differences included their existing skills and abilities combined with a sustained willingness to experiment with and adopt new pedagogies and technologies. These attitudes and capabilities might also have been conditions rooted in their individual past experiences and their perceptions of college support for and with new initiatives through LTS or other avenues. While these experiences were valid and should not be discounted, they might also provide support for the myth of experience finding.

The continuous reflective process of designing, experiencing, reflecting, untangling contradictions, and coming up with new understandings within changing spaces resulted in expansive learning as subjects tried to make sense of their experiences and new challenges (see Engeström, 1999; Hora, 2012). With a major disruption, individuals were forced to revise previous plans and approaches rapidly as Lee et al. (2022) observed in their study of academics at a South Korean university, where 90% of all course offerings had been in full face-to-face, traditional mode before the pandemic:

> Academics were then tasked with creating an entire online course overnight and found it vastly challenging. Many… recalled feeling frustrated and apprehensive at this moment, mainly due to their lack of basic skills for online teaching… [and] serious concerns rapidly emerged across the university that many faculty members were not prepared for a full semester of online teaching (p. 471).

Data from the current blended study confirmed that participants experienced similar feelings of frustration and apprehension as they tried to navigate unknown decision

making during the immediate early remote weeks. As ongoing remote semesters became a pandemic-related norm, the early feelings were compounded with additional feelings of frustration related to learning and engagement limits, combined with deep exhaustion. Participants, as subjects, were part of this intricately complex and multidirectional cycle where the nodes of community, rules, and division of labor influenced and were influenced by themselves, while their sense of expert identity was being shifted beyond their control. Moreover, faculty members had to make decisions about incorporating and including more technologies and pedagogies to support learning in the remote mode, in many cases more than they would have ever self-selected to include. Participants were using tools to design and deliver well-designed blended courses at a time when the academic world of education was dramatically shifting with no end in sight and, where individuals often perceived their prepandemic technology and pedagogy choices had been entirely suitable for achieving the desired learning goals.

When there is a system-wide disruption, such as occurred with the pandemic or was anticipated with the potential strike, Lee et al. (2022), proposed that of the four common contradictions that exist using the activity system model for analysis, the most relevant were “tertiary contradictions… those existing in moments of change within the activity (tensions between old and new versions of the activity)” (p. 466). The findings from this study confirmed that decision-making practices by faculty members exceeded their industry, pedagogical, and other experiences, due to the pandemic or in anticipation of the strike, requiring rapid adjustments to self-identity and feelings of competency. Lee et al. (2022) also found that the pandemic shifted faculty member identities: “Most

academics, without prior online teaching experience… [gained] a new identity of *novice* online teacher. Many of them, respected subject-matter experts with multiyear teaching histories, found this sudden identity shift disconcerting" (pp. 471-472; emphasis in original). The findings from this study confirmed that some of the faculty members also suffered initially from this kind of uncomfortable, inexperienced self-view, although all were comfortably working in the fully remote environment when the data were collected.

Other contradictions and challenges raised by Lee et al. (2022) were confirmed by this study, including faculty members who had previous teaching experience with video recording for flipped class designs who were now seen as experts although they no longer had access to professional studio support. Similarly, challenges around "technology capacity issues" (Lee et al., 2022, p. 476) were identified and confirmed at the study site. The data showed that faculty members adjusted their blended designs and experienced challenges related to equitable and consistent internet bandwidth for conducting live classes or uploading recordings. In this respect, the study results extended the literature by highlighting new contradictions that surfaced between artifacts (uploading video content) and rules (accessing and working with content) within a community that was no longer defined by a common campus infrastructure.

The suddenness and magnitude of the pandemic disrupted decision making in such a way that entirely new blended-course designs were developed and some understandings blurred. That is, this finding linked to the data about the core understanding of blended design and how participants adapted their understandings to work in remote education. While a live dominant synchronous class provided a modified

understanding of the face-to-face part of blended classes, and faculty members continued to integrate it with a passive asynchronous part, new problems surfaced. Several participants voiced concerns about how indistinctly they and their students saw the two parts of remote blended classes, especially as many students were uncomfortable turning on their cameras, deepening the differences between a live synchronous and in-person, face-to-face setting. Faculty members also continued to use the scale weighing and balancing the effort of achieving group academic needs against individual cost and value in courses. Another interpretation could be that participants continued to see their agency as related to ownership and might have not pursued some options available for remote blended design and teaching because they were working under the myth of experience, tainted by past experiences related to taking new risks about design and teaching that were not as significant but had somehow been perceived as comparable.

A major disruption like the pandemic or a potential strike, also influenced how educator-designers made decisions about tool use. In their discussion of mediated action perspective and how subjects used technology, Kaptelinin and Nardi (2012) proposed an interrelationship existed, because "tool affordances can be adjusted to situational needs" (p. 973). Participants in this study confirmed this view of technology as they, the subjects or actors, adjusted use of technologies to suit the emergent situation: continuing to provide education to students during the pandemic and making plans in anticipation of a strike, all the while adjusting decision-making plans that had been set earlier. The ongoing reassessments and reordering of decision-making influencers were, according to the data, an exhausting process that exacerbated participants' attitudes to the College

Employer Council (management) and its position leading up to the potential strike. The data further revealed that while some participants were following the work-to-rule action, they generally found the process onerous and were unhappy about limiting student-related work like marking. Consequently, many participants were already anticipating making plans for potential poststrike student support and course adjustments.

Finding 5 answered RQ3 showing that faculty members' perceptions of their instructional environment affected their course design decision-making processes, with major disruptions causing a substantial rethinking of decision-making priorities. When I examined RQ3 in the context of the activity theory conceptual framework, the eight elements listed in Table 20 surfaced as relevant. It was important to note that the Finding 5 major disruption occurred on top of and in continuation with the previous group of four findings. That is, when faculty members were faced with an environmental or social disruption, they were effectively encountering conflict on the boundary of decision making about design. As they reflected for adaptation, they revisited their experiences, reconsidered their understanding of blended design for teaching, made choices on the continuum of benefit for student learning versus the cost to self, retained perceptions of course ownership, and might have made decisions based on the myth of experience.

The data confirmed that individual agency for participants was inextricably linked to the position they held within the community as faculty members intent on sharing their passion for a subject with students despite adverse conditions occurring around them, such as the pandemic or a potential strike. Similarly, the interrelationships between and among the nodes on the system were both individual and collective, so there was value in

seeking patterns, similarities, and differences among members of the group. The rapid change to online design and teaching caused frustration and apprehension among participants as they were suddenly tasked with finding a fit for incorporating new technologies and pedagogies. The tertiary contradictions that surfaced in the activity theory analysis revealed tensions between old and new versions of designing blended courses. For those faculty members with more experience in traditional mode teaching than blended work, the shift to remote included a disconcerting designation of novice online teacher. Moreover, issues about technology capacity in the noncampus community extend activity theory literature, while the need to adjust technology use to suit emergent situations was confirmed.

Table 20

Confirming, Disconfirming, and Extending the Conceptual Framework: Finding 5

Finding	Element	Confirm Disconfirm Extend	Source
5. A major disruption (social or environmental) will result in a reassessment and reordering of most other decision-making influencers.	Individual agency inextricably linked to position in group	Confirm	Engeström, 2001
	Interrelationships among nodes of system are individual and collective	Confirm	Havnes, 2010
	Value in seeking patterns, similarities, and differences among members in group	Confirm	Sannino & Engeström, 2018
	Rapid change to online caused frustration and apprehension and new use of technologies and pedagogies	Confirm	Lee et al., 2022
	Tertiary contradiction between old and new versions of activity	Confirm	Lee et al., 2022
	Shift to *novice* online teacher: disconcerting	Confirm	Lee et al., 2022
	Technology capacity issues based on a redefined noncampus community	Extend	Lee et al., 2022
	Adjusted use of technology use to suit emergent situation	Confirm	Kaptelinin & Nardi, 2012

Concluding Thoughts on Interpretation of Findings

Five findings, linked to answering the three RQs I initially posed, came out of this study. The interlinked, multidirectional process of designing and teaching blended courses lent itself to interpretation through an activity theory conceptual framework. Through the process of interpreting the data, I have demonstrated the complex nature of how faculty members made decisions about designing blended courses that they taught.

In numerous instances, the experiences captured through the data confirmed the existing literature deepening understanding, and, in a few cases, they extended the literature.

The examination of the data within the context of the conceptual framework revealed that personal reflection provided the foundation for understandings of blended design experiences where the face-to-face modality was dominant and integrated with a passive asynchronous online part. Based on these understandings, individualized design approaches occurred on a continuum where faculty members tried to balance student needs with personal needs and costs. Faculty members perceived themselves as holding agency to design blended courses as they felt appropriate, which, when combined with other perceptions and attitudes influenced their views on course ownership and frequently complicated new decision making based on an overreliance on the myth of experience.

Commonly, conflict requiring reassessment of priorities and rethinking of decisions occurred on the boundaries which, in turn, were visible to faculty members as they went through the spiral cycle of reflection for blended-course design and redesign for teaching. Many of the conflicts that faculty members experienced in this nonstatic iterative process of interacting elements resulted from technology changes leading educator-designers to make decisions based on the double stimulation principle where their life activity overlapped with professional self-perceptions and obligations. Finally, the data revealed that beyond experiences and perceptions of agency, faculty members made decisions based on environmental conditions, which, if there was a major disruption, required full reassessment and reorganization. In the next section, I will discuss the limitations I encountered and how I proceeded.

Limitations of the Study

The study was designed to reduce limitations through methodology, a well-designed interview protocol, consistent data collection, field notes and reflexive journalling, careful review of the data for consistency, as well as triangulation of the data through analysis via multiple coding methods. The purposeful sampling approach was successfully supplemented with snowball sampling, which might limit the replicability of the participant sample group for future researchers. Still, nobody withdrew from the study and enough participants, reflecting various levels of experience and from diverse areas of the college, volunteered, ensuring dependability through thick descriptions (see Patton, 2015).

The fact that the pandemic was ongoing during data collection meant that attitudes and practices in postsecondary bricks and mortar institutions, including the study site, had changed, and were continuing to change, around the viability and preferences of incorporating online components to courses and programs (Pelletier et al., 2022). For example, I tried to ensure participants shared experiences in the blended setting where the face-to-face component was not only delivered live but in person rather than online; however, the distinction of face-to-face versus synchronous, live online was sometimes blurred. The changes in higher education because of the pandemic, combined with an expectation for growth in blended programming (Johnson, 2022b), may also trigger institutional training and support changes, which would potentially limit future efforts to replicate the study.

In the early stages of analysis, I started with an open-source data analysis software package, Taguette. Although I had wanted to support open-source software, I found it was inadequate for my needs and so I switched to NVivo. Through the NVivo software, I was able to complete a more fulsome analysis, by playing hunches and exploring the data more thoroughly, thereby satisfying me that the richer research outcome was worth the change effort. Beyond limitations, the findings and interpretations of this study have opened the way to some recommendations.

Recommendations

Coming out of this study were several recommendations for practice and research. The changes higher education is continuing to undergo after extended periods of fully remote instruction suggest increased value in exploring faculty members' decision-making experiences related to designing blended courses that they teach in the postpandemic period. It would be interesting to explore similarities, evolutions, and differences in and among blended-design decisions from before the shift to fully remote instruction to this post-remote period, noting what new elements or changes have become regular features in blended design and teaching. Further, it would be interesting to explore how many new blended courses now exist and what variations of blended arrangements, including hyflex and multimodal learning, have become a regular part of instructional programming.

Future researchers might pursue a deeper understanding of faculty members' decision-making processes for designing blended courses they teach by specifically exploring the components comprising the nodes of the activity theory system, within a

slightly altered community setting (see Lee et al., 2022). Using an activity theory framework, individual faculty member decision-making processes for blended design and teaching could be explored, with a focus on boundary conflicts with other faculty members in the same program. Another consideration could be to explore individual blended-learning designs adopted by faculty members (see Halverson & Graham, 2019), examining their perceptions of why these designs worked and exploring their transferable potential to other programs.

Future research might benefit from a mixed approach study that would include reviewing college documentation associated with faculty members being assigned to design and teach blended courses, to develop a better understanding of professional development and other supports provided by the institution. Another researcher might be drawn to explore other areas of blended learning design and teaching, looking specifically at the allowances and constraints afforded by departmental leadership. Further, if a larger segment of faculty members were surveyed about their professional nonteaching industry experience, including a detailed exploration of comfort and familiarity with evolving technology and applications' use, that might provide a new opportunity to search for commonalities, patterns, or divergences. There might also be value in exploring qualitatively and quantitatively the differences and similarities of blended-design decision making among faculty members at large or small colleges or at colleges that have different student populations.

As much as this study addressed faculty members' experiences and perspectives about designing blended courses that they taught, future research might consider the

specific pedagogical background educator-designers have when hired. Such a study could also explore attitudes faculty members hold toward professional development before exploring their decision-making processes about design and investigating what triggered individuals to keep or alter designs, possibly approaching the research as a longitudinal study. Such a study might provide further insight and understanding about the myth of experience, revealing more about the relevance and importance of life events and institutional conditions concerning educator-designers' plans, reflections, and actions. Notwithstanding these recommendations for future research, the current study included some important implications for higher education at the institutional and faculty member level.

Implications

The implications for positive social change coming out of this study were compelling and might lead institutions to recognize that time is an important and key requirement for faculty members to design successful and richly blended courses. Further, institutions might revisit their approaches to professional development, providing better options around customized support for faculty members around technology learning and use, that in turn would support student success, based on future design and teaching decisions. Colleges would benefit from having a better understanding of faculty members' perceived experiences to create professional development opportunities that resonated more fully with participants (see Bates, 2018). That is, professional development should account for the existing abilities and needs of faculty members, tactfully recognizing the negative effects of the myth of experience so that new

technological or pedagogical knowledge could be designed to complement existing expertise. Such professional development should also incorporate faculty members' perceptions of the blended-design decision-making process along the student-self continuum and address potential issues of course ownership. An additional possible benefit coming out of such holistic professional development might result in faculty members creating better blended-course designs leading to enhanced student success in learning-teaching situations. In addition to implications for institutional support, this study revealed implications about faculty members' decision-making processes.

Based on the study findings, faculty members might find it valuable to expand their process of tracking successes and failures in blended courses. That is, given the centrality of experience to decision making, if faculty members were aware of the possible risks associated with the myth of experience, they might choose to record and capture reflections more intentionally. With a deeper self-examination reviewing motives for pursuing a particular design approach or not adopting another design approach, faculty members might find themselves more open to professional development opportunities. Having now looked at the potential implications for higher education institutions and educators, all that remains are a few closing comments.

Conclusion

The key findings of this interpretive description research study provided insight on the experiences of faculty members as they made decisions about blended courses that they designed and taught at an Ontario public college. Through a carefully designed study and interview protocol, I was able to gather extensive data from 12 participants, revealing

that individual experiences dominated the reflection process associated with blended course design. As faculty members tried to understand, apply, and implement pedagogically sound blended designs with a dominant face-to-face part focused on group learning settings complemented by a more passive online asynchronous part focused on individual learning, they constantly reevaluated and prioritized their decision making based on the perceived value for student learning versus the personal cost and benefit to themselves as educator-designers. The study also revealed that faculty members have strong feelings of course ownership, based in agency and manifested in the design decisions they implement in their respective subject areas. However, the myth of experience surfaced as a complication to the decision-making process when faculty members used heuristics in analyses that warranted more initial contemplation about classification of particular experiences resulting in lasting perceptions that might include negative attitudes about future options.

These decision-making influences proved to be interlinked, individualized, and historically situated meaning that the actual process of making decisions about blended design was continuously in process and never static. Through the activity theory framework, I was able to find that as participants reached boundaries—items or values that caused conflict to existing attitudes—reassessments and reevaluations occurred in a fluid and nonisolated way, meaning that faculty members continued to develop understandings and revise their thinking in a never-ending spiral fashion. The overarching presence of technology in higher education, and in blended design and teaching more specifically, provided an area of constant conflict and boundary challenge,

especially as professional perceptions overlapped life activities. Finally, the study revealed that a major environmental or social disruption disturbed previously established approaches to decision making and caused individuals to reassess and reprioritize their plans, triggering an even bigger spiral of revision.

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Appendix A: Participant Recruitment Criteria

Target population: ~900 faculty members, of which 700+ have designed/taught blended-learning (BL) courses
Sampling frame: 30-40 eligible participants
Interviewee/participant: ~10-15 faculty members

Criteria	Rationale	Evidence of Compliance	Supporting Consideration
Design and Teach Blended-learning (BL) Courses	- Alammary et al., 2014; Anderson, 2017: need for more BL practice-based research - Brown, 2016; Smith & Hill, 2018: need more understanding of faculty member roles in BL - Eagleton, 2017; Spring et al., 2016; Su & Endersby (2018): needs re design of BL courses - Graham (2019); Farrell, 2017: value for BL, pedagogically speaking - Herring et al. (2016) – content over tech knowledge in HE	Have/have not designed and taught BL courses at study site (doesn't matter if experience is parttime or fulltime)	Names of viable candidates collected through publicly available documents; supplemental names through learning and teaching services
First response	Management of invitations to achieve aligned sampling frame	Returned within first few days	As responses are returned, track by date returned
Experience	- Halverson & Graham, 2019; Park et al., 2015; Smith & Hill, 2018: incomplete understanding of experience, knowledge & skills transformed to designing BL - Alammary et al., 2014: BL experience challenges based on experience - - - Farrell, 2017; Garrison & Vaughan, 2008: pedagogy & instructional design principles should lead BL design	Note the approximate college experience (open records)	Anticipate and prepare possible probes

Criteria	Rationale	Evidence of Compliance	Supporting Consideration
	- Ikpeze, 2016; Zhang & Dang, 2020: ubiquitous tech in HE		
Department	- Boelens et al., 2017; Brown, 2016; Park et al., 2016 (academic disciplines): need greater understanding of educator motivations, perspectives, and experiences in BL design - Galvis, 2018; Shambaugh, 2009 decision-making process is complex, highly individualized - Hora, 2012: decision making in AT (activity theory) - Hrastinski, 2019a: need more situationally specific research	Strive to include diverse range of departments	No perceived possible power relationship Use the response returns to ensure diverse department coverage
Gender diversity	Zydney et al., 2019; Vella et al., 2016: broader sector than gendered locations; more representation than just one section		Hope to have gender diverse representation among final participants

Appendix B: Recruitment Notice – General Invitation/Marketing Post

(This post appeared on the internal morning newsletter. Initial post ran for 3 days. No re-posts required.)

SUBJECT: Invitation to participate in hybrid course design research

Are you a faculty member at XX College? Have you designed and taught hybrid/blended courses at the college? Does participating in a study that looks at the faculty experience of designing hybrid/blended courses that you teach sound interesting? If yes, please keep reading.

The purpose of this study is to develop a deeper understanding of how faculty members experience decision making when it comes to designing and teaching hybrid/blended courses. The study is part of a PhD research project I am completing. The interviews will be scheduled in December/January/February and should take approximately 60 minutes. All interested candidates will receive a reply about the status of their potential participation.

If being part of this project interests you, please respond to Judy Puritt at XXX@waldenu.edu for more information by Month X, 2021. If you are a good fit for the study, I will provide further information about consent and the voluntary nature of your participation in this study.

Appendix C: Invitation to Participants (E-mail Option for Selected Volunteers)

SUBJECT: Details related to participating in research interview

Dear {Colleague}:

Thank you for expressing interest in participating in an interview on your hybrid/blended teaching course design and practice. As advertised in the general notice, the interview will be one of several I am conducting with faculty members to gather data for my PhD research. The interview should take approximately 60 minutes.

Please review the attached *Consent Form* which contains additional information about the study. If you consent to be in the study, reply to this e-mail by *Month day*, saying you agree to be in the study. At that point, we can *arrange an interview in person* or *via a digital platform such as Zoom/Messenger*. Based on your interview format preference and availability between *Month day* and *Month day*, we can set up a time that is mutually convenient.

Many thanks!
Judy

Judy Puritt
PhD in Education Program
Walden University

Appendix D: Thank You for Your Interest E-mail (for Nonselected Volunteers)

SUBJECT: Thank you for your interest in the research study

Dear {Colleague}:

Thank you for indicating an interest in participating in the study on hybrid/blended teaching course design and practice. At this time, I have received enough [earlier] responses that reflect a broad range of experience and subject matter expertise across the college. Although your response is much appreciated, at this point I will not be scheduling an interview with you. Should I need further perspectives in the future, I may reach out at that time.

For now, have a good semester and thank you for responding to the initial call.

Regards,
Judy

Judy Puritt
PhD in Education Program
Walden University

Appendix E: Interview Protocol

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
Warm-up/ building rapport	1-Please tell me about teaching in higher education and in designing blended (hybrid) courses that you teach.	P-1 Gender; age; time teaching at college; designing and teaching hybrid; fulltime or parttime; department; courses; status? Best part?	-general background, some sense of pedagogical and design perspective -comfort with technology -views on and expectations re blended (hybrid) courses and student learning	- Alammary et al., 2014; Anderson, 2017; Graham, 2006 discussed need for more BL practice-based research - Eagleton, 2017; Spring et al., 2016; Smith & Hill, 2018 discussed needs re design of BL courses - Boelens et al., 2017; Brown, 2016; Park et al., 2015 explored faculty & learner roles in BL courses - Design of BL: Caulfield (2011), Garrison and Vaughan (2008), Stein and Graham (2014), Su and Endersby (2018) - Alammary et al. (2014) and Graham (2019) – online addition = improved pedagogical model - Luna & Winters, 2017; Farrell, 2017; Vella et al., 2016 - value for BL, pedagogically speaking - Shukor and Hammond (2018) showed generally positive perspectives (by learners and teachers) around outcomes, tool use, and scheduled activity - Herring et al. (2016) – tech knowledge in higher ed is secondary to content

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
RQ1 *What are faculty members' experiences during the decision-making process of designing blended courses they teach?*	2-Describe what you like best and like least about designing courses, especially blended (hybrid) courses.	P-2 Why? (especially as compared to other modes) Details best/ least?	-overall design understanding and preferences, i.e., individual learning and technology -preferences re objectives and design goals: community in f2f and online? cognitive load? TPACK? transactional distance? -design approaches -expansive learning? - personal conflict over what, where, when to prioritize elements	- Halverson & Graham, 2019; Park et al., 2015; Smith & Hill, 2018 found incomplete understanding of experience, knowledge & skills transformed to designing BL - Farrell, 2017; Garrison & Vaughan, 2008; Su & Endersby, 2018 - need pedagogy and instructional design principles to lead BL design - Engeström (2001) stated that "individual and group actions [are] embedded in a collective activity system" (p. 134) - Engeström (1999): interactions, change possibility as practitioners make sense of experiences and challenges → expansive learning - Hora (2012) - education setting & expansive learning - Russell and Schneiderheinze (2005) examined innovative decision making in education - Mwanza and Engeström (2005) via AT explored at improving and managing content in e-learning environments

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
				- TPACK: Koehler, 2012; Papanikolaou et al., 2017; Herring et al., 2016; Marcelo and Yot-Domínguez, 2018 - CLT: Clark et al., 2006; Miller, 2014; Sweller, 2017; by Leahy and Sweller, 2016; Sithole, 2019 CoI: Garrison et al., 2000; Garrison and Vaughan, 2008; Anderson, 2017; Bates, 2018; Bleazby, 2012; Armellini and De Stefani, 2016; Costley, 2019 TD: Moore, 1993; Weidlich and Bastiaens, 2018 - Significant learning: Fink, 2013 - Design for learning: Sims, 2014 - Design for general instruction: Hoffman, 2014 - Design challenges: Boelens, et al., 2017 - Design approach (low-, medium-, high-impact): Alammary et al., 2014
	3-Please tell me about how you design courses you teach, noting specifics you consider for blended	P-3 Differences per shell, sections, semesters, levels?	-origin re design -initial and iterative process of design -use of feedback, collection of new options,	- Vásquez Astudillo and Martín-García (2020) explored blended-learning design incorporating digital media with consideration to historical developments

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
	(hybrid) design with face-to-face and online elements.	Content requirements for f2f?	integration of changes -split of learning goals per group in f2f/ synchronous portion vs individual and asynchronous -use of tech	- Shambaugh (2009) used AT to review and develop a fully online program - Kaptelinin and Nardi (2012) how people design and use technology (esp. cultural context) - Brown, 2016; Hora, 2012 – decision making: prioritize and reassess existing knowledge and experience re BL design with new information
RQ2 *How do faculty members' perceptions of the instructional context in which blended-course design occurs affect the agentive nature of their decision-making process?*	4-When you design a blended (hybrid) course, describe how you think about and address the face-to-face (synchronous) vs the online (asynchronous) portions?	P-4 a) accommodate and engage varying student abilities, b) manage changing directives, and/or learners and course learning requirements, c) incorporate new industry (Program Advisory Committee) needs and/or pedagogy and technology changes. Support	Complexity of individual thinking, planning, control re design -approach to thinking and revision -differences re teaching and learning in online vs f2f -sense of individual ownership of designing where what goes -perception re leading of subject to object or object on subject; tools to object or object to tools?	- Boelens et al., 2017; Brown, 2016; Park et al., 2016; Smith & Hill, 2018 noted need for greater understanding of educator motivations, perspectives, and experiences re BL design - Galvis, 2018; Shambaugh, 2009 decision-making process is complex, highly individualized - Ikpeze (2016) studied agency related to independent control and use of technology in teaching - Kaptelinin and Nardi (2012) - Shukor and Hammond (2018) - Engeström (1987, 1999) - Havnes, 2010

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
		(manager, LTS) and ability to make independent course design decisions? Use of student feedback? Requirement re LMS & other technology in class and online?	-use of text, tech, other resources: ownership on individual level or departmental-/ professional-/ college-level	- Archer, 2004; Bandura, 2001; Samuel, 2020 (heightened isolation online) - Emirbayer & Mische (1998) noted that agency is the ability to control decisions and actions in a culturally specific setting, that both supports and restricts individual control - Schultz et al. (2018) - agency is complicated in education because overt and implicit challenges as well as competing priorities - Hadar & Benish-Weisman, 2019 - Brown, 2016; Teach Online, 2020; Vaughan et al., 2017 - individual level of tech comfort in class - Engeström,1987: 2 types of decision making → *automatic responses* or reflexive actions (conditioning, tied to "environmental properties" (p. 55)) and *reasoning* = decision making based on longer-term thinking about stored information and experiences - Kahneman, 2011: fast/slow thinking
RQ3	5-When you think about	P-5 personal situation,	Complexity (demands and	- Hora (2012) conducted a study examining

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
How do faculty members' perceptions of their instructional environment, specifically programmatic, departmental, and institutional directives, affect their course design decision-making process?	blended (hybrid) course design, describe priorities that influence your planning and delivery of courses	LMS, chair, team/ colleagues, LTS, profession, other roles Is there anything about your setting that is unique? Comparisons to other experiences? Example of changes – success/ failure?	supports) of planning based on set community interaction – LMS, geography, content specialization/ professional requirements -opportunities and restrictions re professional development and exposure/ awareness of research around BL design -access to, limits to, and knowledge of technological and pedagogical developments re learners and learner success in BL	instructional decision-making constraints and supports using an activity theory lens - Russell and Schneiderheinze (2005) studied how "different elements including viewpoints, or voices, as well as layers of historically accumulated artifacts, rules, and patterns of division of labor" (p. 39) - Paul (2017) used AT to examine and prepare for an institution-wide blended-learning initiative - Hrastinski, 2019a noted need for more situationally specific research - Brown, 2016; Ikpeze, 2016; Zhang & Dang, 2020 - ubiquitous tech in higher ed - Bates, 2018; Pomerantz & Brooks, 2017; Teach Online, 2020 - LMS use - Mwanza & Engeström, 2005; Vásquez Astudillo & Martín-García, 2020 found that tech dominates tools - Mooney, 2018 → no requirement pedagogy training in Ont college - Bates, 2018; Mackay, 2014: BL in Ont. since 2000s

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
				- Skolnik, 2020 → Ont. role in career-ready, vocational training
	6-If you were mentoring an inexperienced colleague, what advice would you offer about blended (hybrid) course design?	P-6 (i.e., as related to faculty member control re design to support student engagement and learning). Anticipate any content/ program, demographics, postpandemic technology trends? Online fatigue/ preference?	-anticipations re change possibilities or restrictions based on agency and/or community and/or tools	- Brown, 2016; Smith & Hill, 2018 need more research re faculty member understanding
Closing Statement/ Question	7-Thank you for your participation in this interview today. We discussed your experience in designing blended (hybrid) courses that you teach. Before we	P-7 If anything was not covered in enough detail re agency or environment?	-open-ended; possible re-enforcement of key points	

Research Question (reason)	Interview Question	Probes	Data Expected	Literature
	finish the interview, is there anything else you'd like to share about blended (hybrid) learning, course design, and your role vis-à-vis student learning in your classes?			
Post Last Response Note *Thank you again for being willing to participate in this interview.*				

Appendix F: Interview Guide

Interview Question	Probes
1-Please tell me about teaching in higher education and in designing blended (hybrid) courses that you teach.	P-1 Gender; age; time teaching at college; designing and teaching hybrid; fulltime or parttime; department; courses; status? Best part?
2-Describe what you like best and like least about designing courses, especially blended (hybrid) courses.	P-2 Why? (especially as compared to other modes) Details best/ least?
3-Please tell me about how you design courses you teach, noting specifics you consider for blended (hybrid) design with face-to-face and online elements.	P-3 Differences per shell, sections, semesters, levels? Content requirements for f2f?
4-When you design a blended (hybrid) course, describe how you think about and address the face-to-face (synchronous) vs the online (asynchronous) portions	P-4 a) accommodate and engage varying student abilities, b) manage changing directives, and/or learners and course learning requirements, c) incorporate new industry (Program Advisory Committee) needs and/or pedagogy and technology changes. Support (manager, LTS) and ability to make independent course design decisions? Use of student feedback? Requirement re LMS & other technology in class and online?
5-When you think about blended (hybrid) course design, describe priorities that influence your planning and delivery of courses	P-5 personal situation, LMS, chair, team/ colleagues, LTS, profession, other roles Is there anything about your setting that is unique? Comparisons to other experiences? Example of changes – success/ failure?
6-If you were mentoring an inexperienced colleague, what	P-6 (i.e., as related to faculty member control re design to support student engagement and learning). Anticipate any

Interview Question	Probes
advice would you offer about blended (hybrid) course design?	content/ program, demographics, postpandemic technology trends? Online fatigue/ preference?
7-Thank you for your participation in this interview today. We discussed your experience in designing blended (hybrid) courses that you teach. Before we finish the interview, is there anything else you'd like to share about blended (hybrid) learning, course design, and your role vis-à-vis student learning in your classes?	P-7 If anything was not covered in enough detail re agency or environment. . .?
Post Last Response Note	
Thank you again for being willing to participate in this interview.	

Appendix G: Audit Trail of Key Study Developments

Time	Tracking Changes in the Study	Rationale
June 2019	Qualitative study	Most BL research is quantitative or meta; need more individual qualitative research
February 2020	Study focus on faculty members not students	Smith & Hill, 2018 – very little on faculty member perspectives
May 2020	Although methodologist-approved, started to explore other options; concepts in conceptual framework were too complicated and lacked clear focus	Trying to bring together too many elements: Community of Inquiry; Cognitive Load; Technological, Pedagogical, and Content Knowledge; Community of Practice
October 2020	After several other considerations around blended-learning theories, came to Engeström's activity theory	Needed something that considered faculty experience holistically
December 2020	Set up conceptual framework in activity theory	Feeling comfortable with this bigger picture exploration approach
February 2021	Revised conceptual framework, so that designing a blended course became the object	Challenged with operationalizing the conceptual framework
April 2021	Comfortable with reintegrating decision making in the Object, as a key aspect of designing blended courses.	Feeling confident that this is a workable framework
May 2021	Determined need to have a purposeful stratified sample	Literature (Alammary et al., 2014; Park et al., 2015; Hrastinski, 2019a): stratify by experience, gender, & locale
June 2021	Included and then removed a preinterview survey tool	Want information to create strata; based in publicly available knowledge
July 2021	Investigating ethics approaches at university and study site	Compliance with data collection requirements

Time	Tracking Changes in the Study	Rationale
	location; remove preinterview survey	
October 2021	Proposal accepted	
November 2021	Removed “stratified” aspect of sampling; removed gift card gratuity; declared roles at college	Ethics requirement at study site first; more straightforward to use a simple criterion-based purposeful sampling strategy.
Nov. – Dec. 2021	Ethics approval from both study site and research university	
Dec. 2021	Post notice at study site; Schedule interviews	Intensity of Work-to-Rule situation; accepted all requests for interviews within 2-week period. All interviews to be conducted digitally, via Zoom.
Jan. 2022	Transcribed Zoom recordings via Temi; uploaded to Taguette	Did not use corporate Zoom option with transcription because of work situation. Temi showed high reliability for transcription. Selected Taguette because I wanted to support open-source software
Feb. 2022	Changed coding software to NVivo	Unable to manipulate data and conduct explorations as desired; needed a stronger software
June 2022	Added perspective case analysis to holistic analysis	Need to deepen analysis

Appendix H: First-Cycle List of Full Codes

	Codes Used Across all 12 Interviews	**Details / Further Understanding per Code**
1	**agency individual decisions**	***includes obligation as faculty member***
2	**assessment evaluation**	***activities, grading, process***
3	**changes to support learners**	***particular actions, steps***
4	**collaboration**	***with others, in dept, includes advice***
5	**college rule**	***imposed, required, expected, attitude, inadequacy***
6	**connect integrate asynchronous and class parts**	***link f2f and online; challenges, why, worked***
7	**critical thinking and application**	***for students – require independence, career success***
8	**decision-making**	***priorities, why include/exclude, past***
9	**demographics fulltime/parttime and subject**	***= demographics + faculty parttime contract***
10	**design process**	***the thinking and steps***
11	**design subject area**	***specific subject design experience***
12	**design success**	***worked well!***
13	**engaging environment**	***so that students want to learn***
14	**frustrations**	***time, college, students, pandemic, reality***
15	**future**	***post-pandemic, careers***
16	**hybrid asynchronous**	***independent student work***
17	**hybrid limitations**	***challenges w dual modality***
18	**hybrid reflection**	***need to reflect, have reflected, because reflected***
19	**hybrid understanding**	***as articulated by individual***
20	**inclass synchronous location**	***f2f in person or zoom***
21	**industry connection obligation network**	***using network, linking to network, sense of obligation***
22	**industry readiness for career**	***goal for students to be ready to work, think at work***
23	**learner focused**	***Decision making driven by focus on learners/needs***
24	**learning outcomes**	***learning requirements, CSI***
25	**LMS and apps use**	***Brightspace, Kahoot!, Mentimeter, h5p, Captivate***
26	**manager relations**	***supportive or not***
27	**other related subject experience**	***nonstudy site experience***
28	**pandemic**	***changes because COVID, remote, emergency online***

	Codes Used Across all 12 Interviews	**Details / Further Understanding per Code**
29	**passionate educator**	***dedicated to teaching, students,***
30	**PD or research – LTS, other**	***directed, solicited, pros/cons, LTS, individual***
31	**Pedagogy**	***approach to teaching***
32	**philosophy beliefs**	***grounding approaches, thinking about***
33	**professional standards**	***external body regulations***
34	**real person connection – trust**	***relationship w students as driver***
35	**relevant, meaningful**	***link to what is after or outside school***
36	**resource decisions**	***texts, articles, applications, self, experts***
37	**Scaffolding**	***low stakes, previous courses, building on***
38	**self-awareness**	***confidence, limits***
39	**set priorities to manage all of it**	***usually, faculty directed for self***
40	**student expectations**	***both what is expected from and by students***
41	**student responsibility-ownership**	***students need to own, take on this responsibility***
42	**students learning with from each other**	***peer learning; "community of learning"***
43	**technology in learning**	***use of tech f2f or online***
44	**technology attitude**	***faculty approach to, thoughts on, feelings about tech***
45	**vulnerable authentic self**	***take risks, reveal true self***

Appendix I: Gerund Categories for Second Level Analysis

Gerund Categories	Code #	Code Name
Instructing: Individual agency	1	**agency individual decisions**
	2	**assessment evaluation**
	3	**changes to support learners**
	9	**demographics fulltime parttime subject**
	10	**design process**
	18	**hybrid reflection**
	21	**industry connection obligation network**
	27	**other related subject experience**
	31	**pedagogy**
	32	**philosophy beliefs**
	34	**real person connection – trust**
	35	**relevant, meaningful**
	36	**resource decisions**
	44	**technology attitude**
	45	**vulnerable authentic self**
Learning as leading design	7	**critical thinking and application**
	23	**learner focused**
	35	**relevant, meaningful**
	37	**scaffolding**
	40	**student expectations**
	41	**student responsibility-ownership**
	42	**students learning with from each other**
Prioritizing and Design Considerations	8	**decision-making**
	12	**design success**
	13	**engaging environment**
	23	**learner focused**
	29	**passionate educator**
	38	**self-awareness**
	39	**set priorities to manage all of it**
Reasoning & Motivation in Design	1	**agency individual decisions**
	7	**critical thinking and application**
	22	**industry readiness for career**
	35	**relevant, meaningful**

Gerund Categories	Code #	Code Name
	45	**vulnerable authentic self**
Approaching Design With Support	4	**collaboration**
	26	**manager relations**
	29	**passionate educator**
	30	**PD or research – LTS, other**
Challenging or Frustrating Design Aspects	14	**frustrations**
	17	**hybrid limitations**
	26	**manager relations**
	30	**PD or research – LTS, other**
Instructing: College & Industry Influence	5	**college rule**
	11	**design subject area**
	12	**design success**
	33	**professional standards**
Planning & Timing of Face-to-Face and Online	6	**connect integrate asynchronous and class parts**
	16	**hybrid asynchronous**
	20	**inclass synchronous location**
	24	**learning outcomes**
Understanding of Blended Design	19	**hybrid understanding**
	29	**passionate educator**
	31	**pedagogy**
Using technology	25	**LMS and apps use**
	43	**technology in learning**
	44	**technology attitude**
Surprising & Unknown Design Elements	15	**future**
	28	**pandemic**