Effective Blended Learning for Post-Secondary Learners:

Instructor Perspectives

by

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ABSTRACT

This qualitative study examined instructors' perceptions of teaching practices and their experiences teaching blended learning at the University of Manitoba. Using in-depth interviews, this study (a) explored instructors' teaching practices and their experiences teaching using blended learning in higher education, (b) examined the extent to which elements of the community of inquiry framework (designed along social constructivist learning principles) were incorporated into instructors' approaches, and (c) examined which learning theories influenced the teaching of blended learning courses at the university of Manitoba as well as their impact on effective instruction and learning in higher education contexts. The study revealed that instructors found convenience, accessibility, and cognitive flexibility to be some of the main benefits of blended learning for learners. Instructors adopted the underlying principles of social constructivism. In their teaching, they focused on several issues, including their complex role as instructors. This role included enhancing the learning experience through the use of the online component of the course, understanding the learner and appreciating their experience, being present, and creating a collaborative and engaging learning environment. The instructors expressed the need for institutional and technological support, as well as professional development. Suggestions for university instructors included pre-planning, considering learners and their experiences, creativity, flexibility and perseverance, and attending training sessions/workshops. Students were advised to put more effort into being open and self-directed, investing in their learning experience, and adopting a positive attitude.

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CHAPTER 1: INTRODUCTION

The rise of e-learning and the expansion of technological learning environments outside of the classroom increases the challenge and responsibility of providing suitable quality teaching and learning for all students in higher education. As electronic learning (e-learning) is developing and growing, educational establishments have come to recognize the benefits associated with this type of learning, such as offering learners the advantage of accessibility and convenience along with the ability to learn at their own pace (Appana, 2008) for the growing population of adult learners in academy.

This research in general examines instructors' understanding of current teaching practices and their experiences of teaching in blended learning contexts in higher education in an effort to create effective learning environments for post-secondary learners. In this chapter, I begin by providing a brief overview of the education system through the works of Ralph Tyler (1949/2003), John Dewey (1859, 1952), and constructivism. Afterwards, I describe the construct of *blended learning* utilized in this study, followed by the theoretical and personal rationales for the study that explain my background as an international student and my academic positioning in this research process. Finally, the purpose of the study and the main research questions are presented, along with a list of definitions of recurrent terms.

Background to the Study

Improving teaching and learning has been a longstanding mission for educators. Before the arrival of the 19th century, teaching children was the sole responsibility of the family. Given the gendered nature of the social world at the time, girls learned skills from their mothers while boys learned from watching their fathers and other males (Collins & Halverson, 2009). Historically, schools were created with learning outcomes that are focused on the three R's:

reading, writing, and arithmetic. According to Garzitto-Michael (2012), the three R's were "systematically standardized and homogenized" to better enable the test oriented educational system.

The Tyler Rationale

Curriculum design was a means whereby standardized instruction could be implemented in schooling through the training of teachers and the use of textual materials. While there were numerous scholars who were interested in theorizing and contributing to curriculum design, Ralph Tyler came with the notable contribution, coined the "Tyler rationale" (Tyler, 2003). Tyler outlined four questions he saw as key when planning and implementing curriculum:

1. What educational experiences should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether the purposes are being attained? (Tyler, 1949, p. 1)

Tyler's systematic method is methodical and behavioristic. It centralizes the role of teacher and, in its interpretation, frequently marginalizes students by positioning them in passive and submissive roles. The teaching and learning process often became mechanistic (i.e., a series of behavioural objectives to be taught and learned) and focused on student assessment (i.e., to determine if the stated objectives had achieved the curricular aims; Tyler, 1949/2003).

The major downfall of this approach is the pre-specification of the learning objectives that does not take into account other variables like students' interests and the unpredictable nature of their behavior. The strong focus on the learning objectives indicates less attention on the big picture. This is no different from Freire's (1970/2006) notion of "banking education," whereby teachers assign and transmit knowledge to passive recipients. This type of teaching and learning

was deemed suitable to the industrial period and social engineering prevalent during much of the 19th and early 20th century (Collins & Halverson, 2009).

John Dewey's Progressive Education

John Dewey (1938) proffered educative concepts such as experiential learning through active inquiry, community, democracy, and social consciousness to be infused into schooling. In contrast to the teacher-centred, didactic, and authoritarian forms of teaching prevalent in the late 1800s to the mid-1900s. Dewey's approach, called for a balance between delivering knowledge and children's interests, interaction with the environment, active participation, and "hands-on" learning experiences. Such an approach evokes what would now be identified as constructivist principles.

According to Tenenbaum, Naidu, Jegede, and Austin (2001):

> Knowledge in the constructivist approach is viewed as an entity which is mentally constructed via the actions and experiences that the learner undergoes with the immediate learning and broader social environments. Knowledge is actively constructed by the interaction between the learner and external objects through adaptation of and to the experiential world. (p. 89)

Dewey's view on experience and education was the origin of the work of Kolb (1984). Kolb's theory on experiential learning focuses on acquiring knowledge through the transformation of the experience. Learning occurs in a cyclic process of exposure to new situations; observation and reflection; formalizing new ideas and adjusting them (known as *generalization*); and, finally, application, or testing the hypothesis. This cycle allows for a comprehensive understanding of the topic investigated and requires learners to be engaged in the process. Founded based on the work of Dewey, Piaget, and Lewin, Kolb's theory serves as a

great foundation for the design of learning experiences. It provides a framework for designing active and collaborative learning. Leaners are engaged as they actively explore and construct knowledge. Similar to constructivism, the interaction between the learner and the world or experience is linked directly to the acquisition of knowledge and the reality is always changing through a cyclic process of exploration, adapting, modifying, and testing.

Research in social constructivism and cognitive constructivism serves as the foundation for the constructivist approach to teaching. Vygotsky is the father of social constructivism, which states that learning is socially constructed through one's experience (Merriam, Caffarella, & Baumgartner, 2006). Reality is constantly changing and the formation of perception is dependent upon the individual and what they view as their reality. The mental framework is in constant adaptation through interaction with the stimuli in the environment. This view values experience and places high emphasis on active engagement and interaction (Yakimovicz & Murphy, 1995).

Constructivism and Blended Learning

Today, the fundamental shift from the didactic, teacher-centered approach of teaching and learning to a collaborative constructivist approach is evidenced in the growing use of online and blended learning programs (Vaughan, Cleveland-Innes, & Garrison, 2013). This constructivist approach to learning has been emphasized in higher education as learners are handed more responsibility of their own learning or "sense-making process" (Lincoln & Guba, 2013). Blended learning has been growing and receiving great attention among educators (Bonk & Graham, 2006; Garrison & Vaughan, 2008). Since blended learning was introduced to the educational field more than a decade ago (Hsul & Hsieh, 2011), numerous schools, training corporations, universities, and higher educational institutions have adopted the blended learning approach and are

competing to offer courses in multiple modalities, including both online and face-to-face (McKenzie et al., 2013; Picciano, Seaman, Shea, & Swan, 2012; Taylor & Newton, 2012). This rapid growth of blended learning could be explained by the numerous potential benefits of this form of education, as it is employed to create the optimal learning environment through "finding the harmonious balance between online access to knowledge and face-to-face human interaction" (Osguthorpe & Graham, 2003, p. 1).

Definitions of Blended Learning

There are several definitions of blended learning. The three most common definitions according to Bonk and Graham (2006) are the ones reported by Graham, Allen and Ure (2003): (a) "combing instructional modalities," (b) "combining instructional methods," and (c) combining online and face-to-face instructions" (Graham et al., 2003, p. 4). Sener (2015) of the Online Learning Consortium identified two types of blended courses: (b) blended classroom courses, and (b) blended online courses. The blended classroom course refers to online activities that supplement and reduce some of the face-to-face time. Blended online courses, by contrast, refer to courses that are conducted online and with only a few face-to-face sessions. The difference between the two types lies in the amount of face-to-face time being replaced. Allen, Seaman, and Garrett (2007) used time to differentiate between online learning and blended learning. They provided specific recommendations regarding the amount of time that should be spent in the classroom versus online:

> Blended courses and programs, are defined as having between 30 percent and 79 percent of the course content delivered online. "Face-to-face" instruction includes those courses in which zero to 29 percent of the content is delivered online; this category includes both

> traditional and web facilitated courses. The remaining alternative, online courses, are defined as having at least 80 percent of the course content delivered online. (Allen et al., 2007, p. 5).

Unlike the previous definitions, Garrison and Kanuka (2004) focused on the quality of the blending process. They defined blended learning as "a thoughtful integration of classroom instructions and online instructions" (p. 96). According to Bonk, Kim, and Zeng (2005), there are several advantages of blended learning, including convenience and flexibility—particularly for adult learners—as well as the ability to combine various instruction styles and delivery methods. Above all, blended learning is capable of overcoming the shortfalls of face-to-face and online learning, emphasizing the benefits of each, ultimately providing learners with the best of both worlds (Graham & Kaleta, 2002). Blended learning provides learners with the freedom to work at their own individual pace—which is vital for those who are busy with jobs and family responsibilities—while also benefiting from the social interaction and connectedness that occurs in the face-to-face setting.

Research on Blended Learning

While numerous studies have examined student perceptions of blended learning (Garrison & Kanuka, 2004; Kocaman, Kiraz, & Ozden, 2006; Olson, 2003), few studies have examined instructor perceptions of teaching online or their experiences with blended courses. Researchers have found that instructors tend to provide less structure in e-classes compared to traditional face-to-face classes, and that they primarily depend on the traditional face-to-face instructional approach because they are most familiar with it (Hinson & LaPrairie, 2005). This practice may parabe explained by the lack of a teaching practice structure in the e-learning field (Higher Education Funding Council for England, 2008). This reason may shed light on why instructors

feel resentful toward participating in online and blended learning programs. With the lack of professional and systematic training and the need for holistic approaches to blended learning, instructors can feel overwhelmed when stepping into this virtual world. Thus, there is an urgent need to establish effective e-pedagogical approaches, particularly for learners in higher education.

Technology alone does not offer effective teaching and learning, nor does it guarantee better achievement and learning outcomes (Kala, Isaramalai, & Phontong, 2010). Teaching effectively in blended learning environments is a daunting challenge for instructors. It requires more than simple layering of face-to-face and online contents and activities, and it goes beyond transferring face-to-face content into electronic formats (Tabor, 2007). Further, additional challenges arise as instructors struggle with teaching in the blended context due to the lack of a solid or consistent theoretical foundation, particularly as the field changes quickly with adaptations to technology. The literature reports several attempts to tackle this issue by presenting different designs and frameworks to create successful blended learning environments. The most widely acknowledged framework has been the community of inquiry (CoI) model, which was developed by Garrison, Anderson, and Archer (2000).

According to the CoI website developed by Athabasca University, Garrison et al.'s (2000) seminal article that led to this collaborative constructivist model has been cited more than 1,800 times, and has been used to generate much discussion and research on learning and learning theories in online and blended learning environments. This model consists of the three interactive overlapping elements: (a) the teaching presence, (b) the cognitive presence, and (c) the social presence of learning (Garrison et al., 2000). The presence of these elements is the key to beginning to create successful learning experiences in any learning environment, but in this case,

particularly in online and blended learning environments. The CoI model, designed using social constructivist principles, provides a means for instructors and students to co-construct knowledge and learning in blended learning frameworks. It is beneficial in guiding instructors' effort, experience, and knowledge toward creating a collaborative, engaging, and a meaningful learning experience. Instructors who have had no training in this pedagogical process and, consequently, are unsure of how to approach this mixed environment find teaching in blended learning environments frustrating and overwhelming as they strive to find the right balance of methods and teaching strategies.

Purpose of the Study

This study examined the experiences and perceptions of instructors regarding approaches to teaching using a blended learning format in higher education. Additionally, this study examined which learning theories informed teaching practices and the extent to which the elements of the CoI model (i.e., social constructivist principles) were present in teaching approaches using a blended learning format.

Given the emphasis on social constructivist learning theory currently utilized in face-to-face education contexts (Garrison & Vaughan, 2008), this study endeavored to investigate the extent to which instructors at the University of Manitoba identified principles of this theory in blended learning courses at the institution. Identifying the most widely used teaching and learning theories in blended learning courses may help to improve (a) the quality of the student experience at the University of Manitoba, including student achievement in blended learning coursework, student retention, time to completion, and program recruitment; and (b) the quality of the instructor experience, including willingness to teach blended learning courses, instructional growth, pedagogical risk-taking, and openness to change.

Research Questions

This study investigated instructor teaching approaches in blended learning courses to create effective learning environments. There were three overarching research questions:

1. What are instructors' current teaching practices and perceptions of teaching in blended learning contexts?
2. To what extent are elements of the CoI model (i.e., social constructivist principles) supported in instructors' current methods of teaching using blended learning?
3. What theoretical and practical implications do the findings of this study have for the creation of effective learning environments in blended learning contexts?

Blended Learning at the University of Manitoba

Given that the study was carried out at the University of Manitoba, practices at the university promoting online and blended learning will be reviewed. The University of Manitoba has been offering distance learning through the Department of Distance Education for over 60 years (Blended and Online Learning Task Force, 2014). In 2009, the Adult and Post-Secondary area of the Master's of Education program delivered a course on blended learning that was based on the work of Canadian and international leaders in blended learning theory (Bonk & Graham, 2006; Garrison & Vaughan, 2008). In 2010, several participating students reported their course experience in a presentation at the Collaboration for Online Higher Education and Research held during the Canadian Society for the Study of Education in Toronto (Atleo, Menzies, Syed, & Vogt, 2010). During this same time period, the university supported a blended learning research project in the Faculty of Education to explore the redesign of the Master's of Education program (UTS, 2009).

Faculty of Education Blended Learning Research Project

The Blended Learning Project was designed to establish policies, resources, methods, and strategies for blended learning. Guided by Ozkan and Koseler (2009), this project used a hexagonal e-learning assessment model known as HELAM. HELAM targets six vital aspects: (a) system quality, (b) service quality, (c) content quality, (d) learner's perspective, (e) instructor's attitude, and (f) supportive issues. The project ran for several months. Meetings and presentations led by faculty members, including Dr. Marlene Atleo, Dr. Kathleen Matheos, Dr. Dawn Wallin, Dr. Jon Young, and Dr. Lori Wallace, helped generate discussions regarding university policies, instruction, effective learning, faculty responsibilities, workload, and other issues related to implementing blended learning courses.

Wallace and Young's Case Study

Wallace and Young (2010) conducted a case study in which they examined specific areas related to blended learning at the University of Manitoba. These areas included resources, program and course approval, instructors' workload, and students' access and support. Multiple methods, including a review of the literature, an examination of the University of Manitoba website, interviews with faculty members and administrators, and an analysis of existing policy documents were employed to collect data related to challenges pertaining to adopting blended learning. Wallace and Young reported several challenges that hindered the implementation and the expansion of blended learning. These challenges were divided into three categories: (a) management and organizational, (b) faculty/academics, and (c) students. The findings highlighted concern related to university policies in regards to rethinking and adjusting the institutional priorities and goals to include and benefit from blended learning, program and course approval, development and delivery support, and ownership of intellectual property. Facultyand

academic concerns revolved around creating criteria to determine faculty workload and criteria to assess the equivalency of blended learning courses. Regarding students, predictable challenges included accessibility and the need for technological support required to enroll and participate in online and blended courses.

University of Manitoba's Blended and Online Learning Task Force

Subsequently, the university administration created the Blended and Online Learning Task Force led by Ristock and Taylor in 2012. The task force made recommendations for establishing a university strategy and identifying best practices for online and blended learning. The efforts made by the task force in supporting online and blended learning on a strategic institutional level were notable.

The Blended and Online Learning Task Force was asked to assess the current state of online and blended learning and to present an analysis along with recommendations on how to promote, expand, and sustain online and blended learning. After receiving feedback from the University of Manitoba community, the task force submitted a report presenting its findings in May 2014 (Blended and Online Learning Task Force, 2014).

Survey of blended and online learning. The task force team conducted a survey to assess the current state of online and blended learning along with the learning management systems and the technological infrastructure at the University of Manitoba, revealing that there was no established technological infrastructure to support the development and delivery of blended learning courses. At the time, the university was planning to upgrade its wireless capacity to reach the "n" standard by the end of the 2014–2015 academic year.

***Course offerings*.** The course offerings through Extended Education at the University of Manitoba lent themselves well to a blended learning format due to the non-traditional formats,

timeframes, and settings in which these courses were often delivered. Blended learning courses were also being offered through another 12 departments (Blended and Online Learning Task Force, 2014). However, the blended activity was most notable in the Faculty of Dentistry, the Faculty of Social Work, the Department of Psychology in the Faculty of Arts, and the Department of Biological Sciences in the Faculty of Science. It is quite important to point out, however, that most of the blended learning courses offered—particularly through the departments of Psychology and Social Work—did not strictly follow the common definition of blended learning in the literature.

In 2010, the Faculty of Nursing offered its Master of Nursing via blended courses to better cater to the learning delivery needs of rural nurses in Manitoba. The faculty has been collaborating with the Center for the Advancement of Teaching and Learning to assist and maintain this course delivery strategy.

Course management systems in Faculties of Medicine and Dentistry. The Faculty of Medicine was delivering and continues to deliver several undergraduate courses through a mix of two course management systems: Online Portal for Advanced Learning and UM Learn. Moreover, numerous courses are being delivered online in the Physician Assistant and Inter-professional Education programs, and the Department of Medical Education within the Faculty of Medicine is increasingly offering more courses via the learning management system Desire 2 Learn (D2L) to reach more remote populations (Blended and Online Learning Task Force, 2014). The primary learning management system currently employed at the University of Manitoba is UM Learn. The Faculty of Medicine is using the Online Portal for Advanced Learning as its main management system, while the Faculty of Dentistry utilizes a combination of Axiom and D2L.

Task force analysis. An analysis was conducted to assess the strengths, weaknesses, opportunities, and threats (known as a SWOT analysis) of online and blended learning (Blended and Online Learning Task Force, 2014). The majority of the opportunities, threats, and weaknesses of blended learning were congruent with the advantages and disadvantages commonly cited in the literature.

Identified opportunities. The opportunities included better pedagogy as a result of incorporating the best teaching approaches of online and face-to-face instruction, convenience, flexibility, accessibility, saving physical space, lower costs, a learning curve for staff members, and potentially better learning outcomes.

***Identified threats*.** The threats included the lack of funding, technical limitations for the rural population, lack of technological skills, rising competition among universities, and the offering of massive open online courses and better fully online and blended courses at other universities, such as Athabasca University, which attracts students away from what is being offered at the University of Manitoba.

Weaknesses. The weaknesses revolved around the resistance to participate in online and blended learning given that face-to-face is considered the norm, lack of understanding what regarding constitutes blended learning, concerns about the limitations of D2L, lack of technical support for course delivery, lack of class technology necessary to support online and blended learning, lack of professional training and support for faculty, lack of support in helping students succeed in taking online and blended learning courses, approaching online and blended learning in a trivial manner that lacks planning and strategy, and, finally, insufficient research on an institutional level to adequately study and compare online, blended, and face-to-face learning.

Task force recommendations. Finally, the report lists several recommendations to counter these weaknesses and improve the online and blended learning opportunities at the University of Manitoba. These recommendations are in 10 key areas: (a) organization and leadership, (b) technology, (c) research, (d) teaching and learning support, (e) quality assurance, faculty development, (g) academic workload, (h) financing and compensation, (i) services for students, and (j) fostering innovation and sharing experiences (Blended and Online Learning Task Force, 2014).

Personal Rationale for the Study

The Blended and Online Learning Task Force (2014) report made it clear that the University of Manitoba teaching delivery methodology up to this is mainly "traditional" (i.e., a face-to-face modality). Like many undergraduate students, I too was taught via the traditional teacher-centered approach. This method, which consists primarily of the passive receipt of knowledge, hindered my innovation and creativity and caused a strong feeling of alienation from school and a lack of engagement in learning. In this approach to teaching, the teacher becomes the single source of knowledge. Learning in this case is mainly text driven, and the ultimate focus is on knowing the delivered content.

In my learning experience, my responsibilities were limited to receiving knowledge and the grueling memorization of the given content, which included the "right answers." Knowledge was assigned and delivered; it was not mutually constructed, and thus was never internalized. I rarely found myself venturing beyond the prescribed curriculum. When one learns mostly by submitting and receiving, it is quite challenging to shift from passive learning to critical and active learning. Additionally, the process of recalling information becomes extremely difficult

as your brain literally dumps the memorized information in a desperate act to free the working memory.

As a way to cope with this traditional learning environment, I resorted to memorization. I alternated between *rote memorization* (which is based on mindless repetition where the learner engages in memorizing without understanding) and *meaningful memorization* (where the learner engages in memorizing with or after understanding; Marton, Wen, & Wong, 2005). Memorization and understanding are both essential parts of learning. The key, however, is not to have one present without the other. When learning is completely dependent on mindless memorization as an exclusive mode of learning, the learner ends up reproducing knowledge without internalization, thus no (re) constructing of this knowledge within the learner's own frames of experience. In my undergraduate learning experience, I often missed opportunities to construct meaning in relation to others. I was not always granted the liberty to create my own reality through my own lenses of experience and values.

After graduating with my bachelor's degree with honours, I received an offer to become a faculty member upon the completion of my master's and Ph.D. degrees. I moved to Canada to pursue higher education. When I started my master's degree at the University of Manitoba, the learning environment shifted completely—from being teacher-centered to student-centered. I struggled to adjust to that mental shift because I was asked to have a voice of my own—to represent my own reality. I was expected to participate in problem solving, in depth discussions, and most importantly, critical assessment of existing knowledge. I found myself hesitant, nervous, and resentful toward this approach of learning. It is quite difficult to attain an authoritative voice on a certain topic when you have been mostly trained not to question but rather to accept and copy things. I struggled with the freedom and cognitive flexibility learners

are given, as I was accustomed to receiving step-by-step instructions and guidance. I had not only missed the opportunity for autonomy, self-exploration, and self-expression, but I was also so immersed in my passive ways of learning that I was sometimes unable to progress through the phases of inquiry (Garrison et al., 2000) without considerable frustration and challenges.

I have always had a special interest in teaching. I find it to be quite fulfilling. It has something to do with guiding young minds to the right path as they maneuver through life and learn to connect with their calling and purpose. It is really an honourable profession that goes beyond lectures, tests, and PowerPoint slides. When I was pursuing my master's degree, I made a decision to explore online learning. I was interested in examining how instructors perceive this relatively new trend. As I started my Ph.D., my interest shifted to blended learning, partly due to recommendations that developed out of my master's research to address some of the possible limitations of exclusive online learning. Based on my personal experience, I am motivated as an educator to encourage learning through creating what Dewey coined as a democratic, safe, and engaging space where cognitive and emotional flexibility is encouraged and an educative and hopefully transformative learning experience can occur.

Several factors influenced my decision to explore the possibilities of blended learning in higher education. For example, I had the opportunity to enjoy a course (Seminar in Educational Technology) that combined several technological tools (e.g., Twitter, blogs, videos) in order to create a collaborative community that remained connected beyond the classroom walls. I was reluctant at the beginning to fully engage in the course, as I was not sure about the effectiveness of engaging in technological tools such as Twitter, blogs, and so on. As many students who honour books and question the authenticity of online materials and learning, I resented the course initially, fearing the awkwardness of fast-paced learning and the constant social connection (via

Twitter) with “strangers” as well as the potential commitment and time consumption. However, I came to appreciate my professor, who created a safe, dialogical, and interactive atmosphere. He managed to form a collaborative CoI where we shared knowledge and established mutual trust and a sense of connectedness and belonging that was sustained post the completion of the course.

Various topics were presented in the course, and dynamic discussions were facilitated and monitored in an open learning environment. Open communication and critical reflection were constantly encouraged. By creating our own blogs to summarize class discussions, we had a great opportunity to reflect on different readings, dialogues, and videos shared in the classroom. Most of all, we had the chance to learn not only about the wonders of technology, but also about the unintended consequences of innovative technology, such as social and emotional disconnection and deterioration of the neural connections associated with human contact (Small & Vorgan, 2009).

I was also fortunate to work as a teaching assistant with a different professor, who designed and taught a blended learning course in 2012. This enabled me to experience first-hand the amount of effort involved in managing blended courses as well as the challenges educators face in dealing with a technology-mediated environment. In addition, I had the opportunity to speak with several students and hear their perspectives on the benefits and the downfalls of blended learning and their recommendations on how to improve the quality of the learning experience in a blended context.

Given my experiences as a graduate student, and my prior research, my interest has narrowed more purposefully to consider the extent to which particular learning theories are evident, or even considered, in the design and current teaching practices in blended learning

environments and the impact they have on teaching and learning in higher education contexts. More specifically, what is the theoretical engine that drives the current teaching practices in blended learning environments at the University of Manitoba?

Theoretical Rationale for the Study

This study is designed generally within a social constructivist framework. The constructivist approach to teaching and learning is based on research in cognitive and social psychology. The foundation of this theory is that learning is a result of mental construction and making thoughtful connections between new and given information, meaning that we as humans gain knowledge through meaningful interpretation of what we experience (Cobern, 1993). Individuals actively construct their knowledge and skills as they adapt to stimuli in the environment, and their learning is affected by the learning context and their own values and attitudes toward learning. Constructivism has revolutionized the field of education because it has broken the restrictions associated with traditional approaches in education (St. Pierre Hirtle, 1996) that center the teacher as the expert who delivers prepackaged content to be memorized by students. Since its emergence, constructivism has been widely cited in several disciplines within the field of learning (Baker, McGaw, & Peterson, 2007).

This study revolves around Garrison et al.'s (2000) CoI model. This model has been guiding learning online and in blended learning environments, and promotes the design of a community of learning that helps learners achieve deep learning through critical inquiry. It is based on the three interactive elements previously identified: (a) cognitive presence, (b) teaching presence, and (c) social presence. *Cognitive presence* refers to learners' cognitive abilities to construct knowledge and make meaning. *Social presence* refers to learners relating to and being part of a community. *Teaching presence* refers to instructors' facilitative role in directing

learners toward the first two elements. The dynamic interactions among these elements leads to deep and meaningful learning (Garrison, Anderson, & Archer, 2010).

The CoI model is built upon social constructivist principles and it endeavors to facilitate the construction of meaning and achievement of higher-level learning through collaboration and group work. Learners become members of a collaborative community, which is established based on open communication and a strong sense of belonging. The instructor's role is not to dictate, but rather to facilitate and direct learners toward making meaning (cognitive presence) and working together as a community (social presence).

This study examined instructors' current teaching practices and perceptions of their experiences of teaching using blended learning in higher education. According to Woodson Day, Lovato, Tull, and Ross-Gordon (2011), the majority of instructors in higher education lack knowledge related to pedagogical literature, which creates a significant problem in the design and delivery of relevant and meaningful blended learning coursework. Instructors' perceptions and experiences regarding blended learning must be explored in order to enable instructors to create and facilitate better learning in higher education. This study drew on Garrison et al.'s (2000) CoI model and it operated on the philosophical underpinnings of social constructivism. In order to gain a better understanding of teaching practices in blended learning environments in higher education, it is necessary to explore instructor experiences with using blended learning and examine their teaching approaches in blended learning contexts.

Collaborative CoIs have been found to be effective in teaching post-secondary learners in blended learning environments. This study examined the extent to which components of the CoI have been used in blended learning at the University of Manitoba. The implications for teaching and learning in blended learning environments will be explored.

Significance of the Study

The educational field is witnessing a rapid growth of online and blended learning. With more learners enrolling in online and blended learning courses in higher education comes a significant need to create effective learning environments. Even though blended learning was introduced to the distance education field more than a decade ago, there is a paucity of literature examining current teaching practices in blended learning environments (Torrisi-Steele & Drew, 2014). Torrisi-Steele and Drew (2014) reviewed 827 articles and classified the findings into three categories: (a) how-to case studies, (b) student focus, (c) and academic focus; most of the research focused on the first two categories. This is problematic because to recommend effective practices for approaching blended learning and to implement better professional development programs, it is critical to explore current teaching practices in higher education.

Blended learning is more than taking face-to-face content and uploading it to an online platform. The presence of technology requires educators to reconceptualize the relationship between teaching and learning, and to reconsider different approaches to teaching and learning in order to accommodate the needs of students. Therefore, it is imperative for instructors to understand underlying assumptions, and the advantages and pitfalls of blended learning so that they are able to identify problematic issues during the course of learning or during instruction. This understanding is necessary because it enables instructors to better facilitate learning utilizing the best possible means. If educators do not fully understand the nature of this dual environment, then it may be difficult to propose frameworks, designs, and teaching strategies to facilitate learning. Studies have proposed various designs and theories for identifying the elements required to promote authentic learning in blended approaches (Moskal, Dziuban, & Hartman, 2013).

When teaching using technology, instructors and faculty members are often distracted by the process of implementing technology rather than focusing on the content and finding ways to redesign it to make it more suitable for a blended environment (Kaur, 2013). Suitable teaching frameworks and blended strategies based upon relevant learning theory are needed in order to guide instructors, and to enable learners to flourish in blended learning environments (Halverson, Graham, Spring, & Drysdale, 2012; Kaur, 2013). This research aimed to provide useful suggestions to enhance the learning experience in blended learning environments. Because research in online and blended learning at the University of Manitoba is in its infancy, the university has not yet examined the possibilities of using learning theories or models to guide blended learning initiatives. This study may thus contribute to advancing the university's understanding of the CoI model and its applicability to the design of blended learning courses.

In addition, this study benefits the University of Manitoba by contributing to the research on blended learning. It addresses several of the weaknesses reported in the Blended and Online Learning Task Force (2014) report. In particular, it addresses the unplanned manner in which faculty approach blended learning (i.e., lack of understanding of theoretical aspects underpinning the approach) and, thus, furthers understanding regarding ways to implement theoretically grounded courses and instructions.

Furthermore, the results of this study provide data regarding how faculty approach blended learning on several levels, including in the organization of courses, instructions, facilitation of social interaction, and teaching strategies. The data helps to identify the ideal conditions for blended learning environments for both instructors and students. In addition, it sheds light on what both groups require in order to improve the quality of their blended learning experiences.

This study can also help to fill the gap in literature related to teaching practices in blended learning environments. Descriptive data generated from this study could potentially benefit other researchers in the blended learning field. Findings may provide useful suggestions for future research on effective blended learning environments for post-secondary learners. Most importantly, findings from this study may inform effective means of incorporating theory into blended learning courses in post-secondary education, particularly related to the quality of instruction as well as student learning experiences and faculty teaching experiences.

Scope of the Study

Due to the nature of qualitative research, which is narrower in focus than quantitative research, findings from this study will not be generalizable to the larger population. This study was limited by the small sample size. The method included interviewing instructors who taught graduate and undergraduate blended learning courses at the University of Manitoba. The study targeted instructors in the four faculties that had the greatest number of blended learning activities: the Faculty of Dentistry, the Faculty of Social Work, the Faculty of Arts, and the Faculty of Science. Due to a low response rate, instructors from other faculties were later invited to participate. Nine instructors who were teaching blended learning courses across various faculties were interviewed in the 2016 academic year. Their experiences may transfer to other instructors who are teaching in similar learning environments in other universities.

Participation in this study was voluntary, which may have excluded the experiences of other instructors who taught blended learning courses but did not want to participate due to workload, illness, stress, or other factors. This study was further constrained by the definition of blended learning as a mix of online and face-to-face learning and by the specific learning management system employed at the University of Manitoba (UM learn). However, this study

offers implications related to working with post-secondary learners in similar blended learning environments, and presents beneficial suggestions to universities, colleges, faculty members, and instructors serving post-secondary and adult learners in blended settings.

Definitions of Terms

Post-secondary students: Students pursuing an undergraduate or graduate degree in a college or university full time or part time.

Instructors: Instructors did not necessarily need to be of professorial rank. Individuals who taught at least one academic blended learning course in a department at the University of Manitoba were included in the study.

Blended learning/hybrid courses: Blended learning courses (sometimes known as hybrid courses) are courses taught in a learning format that combines face-to-face and online learning.

University: A university is a higher education institution that offers a 4-year post-secondary education in addition to graduate-level education.

Perception: Refers to the experience of obtaining sensory information about the world of people, things, and events, and the underlying processes (Craighead & Nemeroff, 2004).

Constructivism: Constructivism refers to how individuals construct knowledge and create their own meaning rather than passively receiving knowledge. The creation of knowledge comes mainly as a result of the interaction between new learning experiences and previous knowledge and experience (Poplin, 1988).

Social Constructivism: A sociological theory that points to the social nature of cognition. It refers to the process of constructing and internalizing knowledge through the process of interaction with other individuals. According to Berger and Luckmann (1966; as cited in Lynch,

2016), the interaction process includes “externalization, objectivation and internalization” (p. 149).

Community of inquiry (CoI): CoI is a framework designed using social constructivist learning principles that offers a means of creating communities of learners; it consists of three overlapping elements: (a) social presence, (b) teaching presence, and (c) cognitive presence (Garrison at al., 2000).

Summary

With the rapid development of blended learning in higher education comes a need to investigate and establish theoretical and practical solutions that enable instructors to create effective blended learning environments: environments in which learners can achieve higher levels of learning and satisfaction. A valuable way to achieve this is through exploring instructor perceptions regarding their experience with teaching in blended learning contexts. These perceptions offer insight into the extent to which current learning theory has been embedded into the teaching and learning environments of blended learning courses. Findings from this study may have implications for the quality of student learning experiences and faculty teaching experiences in post-secondary environments.

CHAPTER 2: LITERATURE REVIEW

The field of distance education has witnessed a dramatic change in the last 10 years (Akyol, Garrison, & Ozden, 2009). Blended learning has grown rapidly since the early 2000s and is receiving increasing attention among educators; it is evolving to become a widespread phenomenon in higher education (Bonk & Graham, 2006; Garrison & Vaughan, 2008; Rovai & Jordan, 2004; Taylor & Newton, 2012). Many higher education institutions are using blended learning, especially those that focus on distance education (Mortera-Gutiérrez, 2006) in an effort to offer nonconventional modes of learning and to shift to a more learner-centered approach.

The first section of this chapter focuses on blended learning. I begin by describing the term blended learning, its advantages and disadvantages, and what is currently known about instructor and learner perspectives of blended learning. Afterwards, the CoI model, which served as the conceptual framework for this study, is discussed. This chapter concludes with factors that contribute to improving learning experiences in blended environments as indicators of effective blended learning practices.

Digital Natives and Blended Learning

The explosion of technology in the 21st century formed a cultural and generational gap, creating two different groups. Marc Prensky coined the terms “digital natives” and “digital immigrants” with the hope of better distinguishing between the two digital generations. The term *digital natives* refers to people who were born into the technological world, while the term *digital immigrants* refers to those who were introduced to technology late in life (Prensky, 2007). Digital natives are young people born between 1977 and 1997—known as the “net generation” or “Generation Y.” Children born between 1998 and the present are commonly known as “generation next” or “Generation Z.” Digital immigrants are individuals born between 1946 and

1964, also known as the "baby boomer generation." "Generation X" (digital immigrants as well) refers to those born between 1965 and 1976 (Tapscott, 2009).

According to Small and Vorgan (2008), technological innovation surrounding the digital native generations has had a great impact on brain development, altering neural wiring and affecting brain function. Digital natives are being exposed to and immersed in technology very early in life. Tapscott (2009) stated that the net genres are creative collaborators and innovators who are looking for the freedom to customize and personalize society and their own learning. According to Prensky (2007), if we examine the education system today, it appears to be trapped between traditional practices and the high demands of the current generation to properly incorporate technology into learning experiences. Digital natives use present-day technology and will function quite efficiently in the digital world because their brains adapt to constant technological evolution. Technology is a fundamental part of their lives and, thus, they expect it in their learning environment.

Prensky's (2007) view on the division and the differences between the generations caused a debate and a few researchers put forth some criticism. Helsper and Eynon (2010) for example, pointed out that Prensky's view on the generational divide and their differences is primarily based on age. The dichotomy embedded in his definition indicates distinctive differences, which in Prensky's case, are inadequately based on when someone is born. Analysis revealed that a few variables come into play when explaining the generational differences including "age, gender, self-efficacy, education, experience and breadth of use" (p. 14), with exposure and the amount of time spent on technological activities being the most influential factor in identifying one as a digital native (Helsper & Eynon, 2010).

Conversley, Bennett, Maton, and Kervin (2008) questioned the validity of Prensky's (2007) claim regarding the gap between the digital natives and the digital immigrants, which is was purported to be caused by the difference in the technological exposure, skills, and experience. The simple generalization, they explained, is problematic because even the younger generation differs amongst itself in their access and use of technology. Additionally, Prensky assigned certain characteristics to the digital natives which include their ability to multitask, use computers efficiently and effectively, learning at a high speed, and acquiring a unique learning style and preference. The educational system as it stands now, according to Prensky, does not take into account the needs of this generation and does not speak their language, and therefore must be reformed. This claim is unfounded and based on weak empirical evidence. The issue is that there is no evidence to support that these traits are only associated with the younger generation. Most importantly, the generalization once again is groundless because it disregards the variability in cognitive abilities among the digital natives (Bennett et al., 2008).

Similarly, Lai and Hong (2015) surveyed 880 (799 undergraduate students and 81 postgraduate students) to explore their use of technology and compared three different age groups (under 20, under 30, and over 30) to determine whether the younger groups exhibited distinctive differences in their learning characteristics. Lai and Hong (2015) found the following:

> The findings of this study supported findings in the literature that the net generation's use of digital technologies is more complex than it has been characterised. Although digital technologies use is part and parcel of young people's daily lives, how they are used is not homogeneous. Furthermore, findings from this study do not support the notion of a unique learning style or preference for the current generation of young people. Although

> the younger generation of students may do things and learn slightly differently, their way of using digital technology is similar to older generations of learners. (pp. 735–736)

Thus, Prensky's (2007) demands for immediate adjustments to the educational system have been regarded as largely ungrounded. Nonetheless, there are challenges with the current educational system. A continuous cycle of assessment, change, and development is critical for responding to emerging needs. With the rapid expansion of technology, numerous post-secondary establishments are racing to bring technology into classrooms in an effort to adapt to the current digital movement in order to appeal to the young generation. The answer, however, does not lie in the technology itself; rather, it lies in the manner in which we approach it. It is a delicate process that requires thoughtful integration of face-to-face learning and technology in order to create a successful learning environment. It is only through a careful blend of online and face-to-face learning that we can draw on the benefits of both worlds and provide a meaningful engaging learning experience. Blended learning provides learners with the connection and motivation offered by technology, as well as the benefits of face-to-face social interaction, immediate response and stimulation.

The Constructivist Foundation of Blended Learning

A key factor to consider when approaching blended learning is to base it on a constructivist foundation. Collins and Halverson (2009) asserted that the current generation of learners learns best when they are actively engaged in learning and when they are able to collaborate, innovate, problem solve, and utilize their own learning style. Thus, the traditional banking type of education (Freire, 1970/2006) that depends on the passive reception of information will fail to optimize their learning. Digital learners are constructivist learners and technology is an intrinsic part of their learning.

This is reflected in the continuum model, Literacy with ICT Across the Curriculum, developed by Manitoba Education in 2006 for Kindergarten through Grade 8. It is, however, applicable to senior years' students as well. This continuum model emphasizes digital responsibility and safety, critical and creative thinking, and developing and assessing information communication technology (ICT) skills. In 2008, the Manitoba government mandated that public schools throughout Manitoba infuse technology into their daily classroom instruction. The goal was to provide learners with technical skills and to assist them in utilizing these skills to achieve higher levels of thinking. Moreover, it intended to help learners demonstrate their learning using means other than paper-and-pencil assessments (Manitoba Education, Citizenship, and Youth, 2006). They found, as a result, that effectively engaging learners involved (a) approaching technology as a tool to enhance learning experiences, and (b) capitalizing on learners' social constructivist nature and attitudes toward learning. Blended learning becomes the stage for virtual learners and the social, cognitive, and teaching pieces are conceptualized and organized using the CoI framework, which, at its core, promotes social constructivist learning.

Definition of Blended Learning

Blended learning as a concept was introduced to the educational field approximately a decade ago (Hsu & Hsieh, 2011). However, it remains relatively new both conceptually and in practice. University administrations are exploring ways to understand and most effectively implement this mode of learning (Moskal et al., 2013). The articles referenced in this literature review are seminal to the area of blended learning and include the key works of scholars such as Garrison and Kanuka (2004), Rovai and Jordan (2004), Garrison and Vaughan (2013), and Osguthrope and Graham (2003). Other authors, considered to be pioneers in research on the CoI

model, include Garrison, Anderson, Archer, Bonks, Vaughan, Cleveland-Innes, Arbraugh, and Swan.

Combining Instructional Methods

Blended learning as a term has been used mainly to describe the process of combining traditional face-to-face learning with some form of computer-based learning (Stubbs, Martin, & Enlard, 2006). According to Cisco Systems (2001), this combination may include web-based instruction, video, audio, or various types of synchronous and asynchronous communication with traditional face-to-face learning. Graham, Allen, and Ure (2003) identified the three common most definitions of blended learning: (a) combining instructional modalities, (b) combining instructional methods, and (c) combining online and face-to-face instruction. They suggested that the third definition represents the historical emergence of the blended learning system.

A more recent and comprehensive definition was developed by Vaughan et al. (2013). These authors pointed out that blended learning is not a simply "layering on" face-to-face and online activities (p. 9). The key in this process is mixing the ingredients "thoughtfully" to bring out the best of both worlds. Vaughan et al. (2013) stated the following:

> We have chosen to provide a qualitative definition, which distinguishes blended learning as an approach that addressed the educational needs of the course or program through a thoughtful fusion of the best and most appropriate face-to-face and online activities. The key is to avoid at all costs, simply layering on activities and responsibilities until the course is totally unmanageable and students do not have the time to reflect on meaning and engage in discourse for shared understanding. (p. 9)

Blended learning is predominantly employed to bring together the distinct benefits of both face-to-face and online approaches. It supplements the online learning component with the

energy and live interaction of the face-to-face component. In other words, one of the main benefits of blended learning is that it aims to take full advantage of the best of the two worlds (i.e., face-to-face and online learning styles; Graham & Kaleta, 2002).

Hybrid Learning

The term *hybrid* is sometimes used when mentioning blended courses that are based on a mix of face-to-face instruction and online learning (Franks, 2002). The term *hybrid learning* is being used widely to refer to blended learning (Koohang, Britz, & Seymour, 2006; Vaughan, 2007). Mortera-Gutiérrez (2006) claimed that the various definitions of blended learning represent the depth and value of this mode of delivery.

Levels and Purpose of Blending

According to Bonk and Graham (2006), blended learning takes place on several levels, including activity-level blending, course-level blending, program-level blending, and institution-level blending. In addition to considering the level of blending, there are also three categories of blended learning. Blended learning can be implemented for (a) convenience and access, referred to as *enabling blends*; (b) for implementing minor changes that target improving the learning experience, which is referred to as *enhancing blends*; and finally, (c) for a complete transformation of the learning experience, referred to as *transforming blends* (Bonk & Graham, 2006).

As the field develops, so too does its conceptual and logistical complexity. However, often left unexplored in the research literature are the current teaching practices in blended learning environments and the extent to which particular learning theories are evident in the creation of blended learning environments, and the implications they have for the quality of the student learning experience and the instructor teaching experience in post-secondary institutions.

Benefits and Challenges of Instructional Methods

Face-to-Face Learning

Face-to-face and online learning have their strengths and weaknesses. Face-to-face learning includes activities that promote dialogue through social interactions that support the meaning-construction process. The verbal and non-verbal immediacy has a great impact on how on the psychological distance perceived by learners. According to Swan (2002),

> Educational researchers have found that teachers' verbal (i.e. giving praise, soliciting viewpoints, humor, self- disclosure) and non-verbal (i.e. physical proximity, touch, eye contact, facial expressions, gestures) immediacy behaviors can lessen the psychological distance between themselves and their students, leading (directly or indirectly, depending on the study) to greater learning. (p. 25)

However, face-to-face instruction has limitations. Travelling to campus at times can be inconvenient and the schedule can lack flexibility. Moreover, students are unable to revisit the classroom conversation when needed as in online discussions, which can be recorded and saved (Wonacott, 2002) and the nature of the interaction and discussion face to face can be limited. Picciano (2002) pointed out the linear nature of face-to-face discussions, which prevents them from reaching their full potential.

Online Learning

The online learning approach has various advantages, including the following: accessibility, convenience, flexibility, and anonymity (Eryilmaz, 2015; Michinov, Brunot, Le Bohec, Juhel, & Delaval, 2011). It also serves as an opportunity for faculty to learn to deal with distance learning (Appana, 2008). Although fully online courses offer great flexibility and

convenience, they generally fail in providing the necessary interactions between instructors and students that are critical to enabling effective learning (Shachar & Neumann, 2003).

Administrative Benefits and Challenges of Blended Learning

From an institutional standpoint, Laifer and Rahimi (2010) claimed that blended learning resolves various educational and administrative challenges in higher education, including "limitations on class size, standardization of curriculum coverage in courses given simultaneously by various lecturers, and gaps in curriculum coverage stemming from the variance in student backgrounds and prior knowledge of the course material" (p .1). Blended learning, as a combination of online classes and face-to-face classes, has been acknowledged for offering flexibility and convenience for learners particularly as they enjoy studying at their own pace and privacy without having to be physically present at the university all the time. According to Bonk et al. (2005), blended learning environments have led to flexibility, convenience, and institutional cost savings. Similarly, Vaughan (2007) reported lower operating costs for blended learning. Butler Battaglino, Haldeman, and Laurans (2012) reported that in K–12, the blended and online models tend to cost less per student—$6,700 and $8,900, respectively. This is significantly less than the traditional face-to-face model, which costs around $10,000 per student. Some educators, however, argue that blended learning in fact increases the costs. According to Morrison (2016), Dr. Lefevre, the head of the Imperial College London's Education Technology unit, pointed out the common misconception that blended learning saves money, where in fact there are additional costs associated with it. However, he emphasized the benefits of blended learning in offering flexibility and convenience for learners and believed that this hybrid trend will take over eventually. In addition, Vaughan (2007) reported that blended learning "improves

the reputation of an educational institution and enhances the access to its educational offerings" (p. 88).

Student Benefits and Challenges of Blended Learning

> Many focus on the benefits of blended learning. As Bonk et al. (2005) claimed: [Blended learning] combines the best of the best in terms of effective learning approaches, delivery methods, instructional styles, and content combinations, while also providing the learner with increasing choice, flexibility, and overall learning opportunities. There is the eternal utopian dream of providing learners with the type of learning that they need when and where they ask for it. (p. 1)

In addition, as a dynamic and flexible approach, blended learning offers the opportunity to overcome the isolation and limitations of the online environment (Valejs, 2003).

Conversely, blended learning presents challenges for students. Several studies report that some students miss the physical gestures, verbal and non-verbal immediacy made by faculty in the face-to-face setting. A reduction in social, verbal, and non-verbal cues may result in issues for learners who tend to depend on physical gestures to comprehend and connect with the learning material and the instructor (Rovai & Jordan, 2004). According to Meyer(2003), "Critics of online learning bemoan the loss of face-to-face interactions, which have energy and immediacy that is important to some faculty and students" (p. 56).

According to Vaughan (2007) and Moule, Ward, and Lockyer (2010), time management, computer literacy, and accountability for learning are some of the reported challenges that students face in blended learning environments. Similarly, Kougo, and Nojima (2004; as cited in Kitazawa, Nagai, & Ueno, 2008), referred to the importance of self-motivation and self-regulation in order to mitigate those challenges. They found that self-regulated learning was

critical to achieving success when using e-learning. Understanding the role of interaction and assisting the learner to actively participate are major challenges in blended learning courses (Bonk & Graham, 2006).

Instructor Benefits and Challenges of Blended Learning

For post-secondary faculty, the benefits of blended learning include dynamic interaction between teachers and students, as well as greater student engagement in the learning process (Vaughn, 2007). Blended learning also offers intructors flexibility in the teaching and learning environment because they can alternate between the face-to-face mode and the online mode. Further, blended learning serves as an opportunity for instructors to constantly improve their teaching methods by trying out new strategies and approaches (Graham & Kaleta, 2002). Because blended learning is a combination of both teaching practices, it offers the instructor a wider range of instructional methods to address the various needs of students. It provides the instructor with an opportunity to minimize the pitfalls and enhance the benefits of each environment, and thus offers each student an optimal learning experience. However, in order for this to be accomplished, educators need to work on improving their teaching practices and strategies, such as encouraging learner-centered approaches, fostering a collaborative and engaging learning environment, and promoting active learning strategies (Monsakul, 2008). Each of these suggestions align with current learning theory approaches that favor social constructivism.

Other pedagogical benefits that are cited in the literature include:

- Increasing interaction between student-student, student-faculty, and student-content,
- Accomplishing learning objectives more successfully,
- Transforming from teacher-centered to learner-centered focus in which students become active learners,

- Encouraging real world activities and authentic assessment,
- Integrating formative and summative assessment mechanisms for students and instructors,
- Balancing independent learning with human interaction, and
- Motivating students to discipline themselves in an online environment. (Futch, 2005, p. 24)

Regardless of the benefits, faculty members can perceive blended learning as challenging because it requires a great time commitment. Technological support is also typically lacking, and faculty may lack technology skills. Finally, resources and training on how to teach effectively are often limited (Keengwe, Kidd, & Kyei-Blankson, 2009). What appears to be missing for many instructors is knowledge of the learning theories that could help them to teach well in this kind of learning environment, rather than becoming frustrated with the logistical and technological aspects of delivery.

Instructor and Student Perceptions of Blended Learning

All of these different challenges cause some faculty members and instructors to resist the shift toward a technology-based approach, which in turn becomes a major obstacle to the implementation of technology in the classroom (Lynch, 2002). Lee and Lee (2008) conducted a study to examine how professors perceived the blended learning approach. They found that professors' perceptions varied widely depending on their experience with e-learning. The majority of professors acknowledged the effectiveness of incorporating e-learning into their classrooms and intended to continue using it.

However, participants in Lee and Lee's (2008) study reported several obstacles, such as lack of time and skills to prepare for blended learning classes, lack of knowledge regarding the use of e-learning strategies, and lack of instructional methods for blended learning. Participants also

reported that they would appreciate institutional support as well as training and orientation programs designed to facilitate not only the acquisition of technical skills, but also knowledge about alternative instructional approaches suitable for e-learning. Once again, knowledge about learning and how to teach well in this context appeared to be as important, if not more important, than technology issues.

Instructor Experiences and Perceptions

To better understand blended learning and how it is being implemented, it is important to investigate instructors' experiences in teaching post-secondary learners in blended learning environments (Drysdale, Graham, Spring, & Halverson, 2013). More attention should be given to faculty members and instructors because there is very little known about their experiences when compared to the research conducted on learners' experiences and satisfaction (Drysdale et al., 2013).

Teaching practices. Of the research that does exist, studies report instructors encountering difficulties in investing their time to be more acquainted with technology and to observe, guide, and facilitate a community of learners online (Conrad, 2005; Edginton, 2010), as well as adjusting their teaching practices and techniques to fit the blended classroom. The conundrum lies in the existing gap between what the "digital learners" expect of blended learning and the faculty's ability to fully embrace blended learning and use it to enhance students' learning (Francis & Shannon, 2013).

While instructors can use blended learning to customize the teaching and learning experience and create and sustain a sense of community outside the classroom, they can also struggle with using face-to-face time for creative activities, finding the right balance in designing and dividing the content between face-to-face and online, engaging students in the learning

process, and establishing online and technical support for learners (Napier, Dekhane, & Smith, 2011). Timus (2015) outlined the difficulties instructors face in blended learning environments:

> Teachers are constantly learning by doing and learning on the way, particularly when engaging with e-learning environments, often lacking previous personal experience with online or blended learning frameworks or encountering new challenges (e.g., technological problems) that require an immediate response during the course implementation. Overall, this makes the educator a super-instructor, whose expertise within his academic discipline must be supplemented by technical skills for the e-learning environment. The changing role of the teacher represents one of the biggest challenges of using of e-learning tools as well as advancing innovative pedagogical methods, moving beyond the pilot basis and ensuring that creative course projects eventually translate into organizational learning and adaptation. The instructor plays a crucial role in defining the pedagogical strategy and designing creative ways of interaction, as well as selecting the optimal e-learning tools, taking into account their advantages but especially potential limitations in the learning process. (p. 141)

Designing resources. Designing educational resources is another challenging aspect of blended learning. Educational resources often serve to motivate students and positively impact their cognitive behavior. Thus, when designing educational resources, it is important to consider the learner's nature, different learning styles, as well as the learning environment (Barker, 2006).

Training. Professional development plays a vital role in encouraging instructors to embrace blended learning. Educational establishments must provide instructors with appropriate training that will support them not only technically but also pedagogically. Training is critical to ensure they can understand the underlying principles of the recommended practices and develop

the necessary skills to successfully adopt blended learning (Owens, 2012). Rewarding and recognizing the amount of work and effort that is involved in creating and running blended learning course is also important, otherwise faculty will just revert to their conventional methods of face-to-face teaching.

Other obstacles. Additional barriers were time (including time required to learn about technology and time required to work on online materials), communication, workload, lack of administrative and institutional support, engaging students in the online component of the course, technological issues, and lack of incentives and funding (Lee & Lee, 2008; Maguire, 2005; Jokinen & Mikkinen, 2013). Porter, Graham, Spring, and Welch (2014) reported that incentives play a significant role in motivating reluctant faculty to adopt blended learning. Incentives include not only financial incentives, but also reduction in workload, hiring assistants, and considering the adoption of blended learning in promotion and tenure decisions.

Student Experiences and Perceptions

When comparing the effectiveness of blended learning to face-to-face learning and online learning, research studies indicate that students in higher education are more satisfied and have better learning outcomes in a blended learning environment when compared to those in online environments (Garrison & Kanuka, 2004; Olson, 2003; Pereira et al., 2007). For example, Kocaman, Kiraz, and Ozden (2006) conducted a qualitative study to examine the perceptions of students in an undergraduate teacher education course designed using a blended format. Results indicated that blending face-to-face instruction with online applications positively affected student perceptions. Most of the students (78%) actively used the online applications and enjoyed them. They valued interactions with each other and the instructor in

the online community, the immediate feedback from the instructor, and the opportunity to reflect on what they were writing and reading.

Osguthrope and Graham (2003) identified that blended learning provides better access to knowledge that otherwise would not be accessible if students were not taking online classes as well as rich social interaction that is a product of online and face-to-face collaboration, virtual communities and working and interacting within a community. In addition, Bonk et al. (2005) suggested that blended learning may improve student learning and attitudes, particularly for shy students who are hesitant to join the class discussion.

Interaction preference. Another study conducted by Kuo, Eastmond, Bennett, and Schroder (2009) aimed to investigate student perceptions of three types of interactions (learner–learner interaction, learner–instructor interaction, and learner–content interaction), and the level of satisfaction toward a blended learning course. The results revealed that students generally believed that social interaction was important to their learning experience, and they were highly satisfied with the blended class. The increase in any type of interaction was positively correlated with student satisfaction. The learner–content interaction was the most significant predictor of satisfaction (Kuo et al., 2009).

Achievement. In addition, several studies reported that students in blended learning courses had achieved better or equal learning outcomes, including academic achievement and withdrawal rates, when compared to students in face-to-face or online environments (Albion & Redmon, 2006; Chamberlain & Reynolds, 2007; Delialioglu & Yidirim 2008; Dziuban, Hartman, & Moskal, 2004; Garrison & Kanuka, 2004; Vaughn, 2007). Blended learning provides students with greater time flexibility, as they can work on their course materials from different locations; they also enjoy the benefit of having a wide range of course scheduling

options. These researchers claimed that blended environments support both independent and interactive learning because they facilitate dialogue in both verbal and written ways. Dialogue creates greater opportunities for students to reflect on their personal learning process, to develop high levels of thinking, and to improve their learning. In addition, Stirling, Bitter and Skiera (2015) reported that using online systems in blended learning offers the opportunity for interactive learning and customizing the learning experience (material and pace), which contributes to improving students' performance and outcomes.

Learning Theories Over the Last Century

Ralph Tyler

As mentioned in the introduction, Ralph Tyler wrote *Basic Principles of Curriculum and Instruction* in 1949, in which he proposed what was to become one of the most prominent curriculum designs known as the Tyler rationale. The Tyler rationale has dominated curriculum planning for nearly 50 years. The four questions Tyler proposed are at the heart of all curricular planning, organization, and implementation. These questions translate into four steps. First, planners must decide which educational purposes the school strives to achieve. Following the process of analyzing educational purposes and breaking them down into components, curriculum planners must design educational experiences to attain them. After carefully organizing the educational experiences based on grade level, the curriculum planners search for methods to determine whether the educational purposes have been achieved (Tyler, 1949/2003).

Tyler clearly stated that the intent of his book was to provide "one way" (p. 5) of examining an instructional program and its effectiveness. He felt that it remains best practice to take into account the views of different types of thinkers, such as essentialists, progressivists,

child psychologists, subject specialists, sociologists, and educational philosophers, who are interested in designing curriculum to obtain specific educational aims and objectives.

Tyler also outlined several methods of stating objectives. He suggested that the most useful way to state objectives is to "identify both the kind of behaviour to be developed in the student and the content or area of life in which this behaviour is to operate" (p. 46). Tyler positioned teachers as the pedagogical experts. Their job is to pass their content knowledge of the curriculum objectives to students. His approach gives freedom to the teacher to practice in the way he or she deems appropriate for student achievement of the mandated objectives.

Ultimately, Tyler's ideas positioned the student as the consumer (and replicator) of predetermined discrete knowledge bytes. In Tyler's model, the learning environment is a tightly controlled space in which students "demonstrate" their learning in overtly behavioristic ways. Often coined as "traditional education," or what Freire (1970/2006) described as banking education, knowledge is mainly transmitted and deposited into the minds of passive receivers. Learning becomes meaningless when teachers limit their responsibilities to transmitting knowledge and learners turn into passive recipients. We might ask ourselves about the extent to which this type of learning environment is alive and well in post-secondary classrooms today.

The major pitfall of this approach lies in the preposition *pre*. Educational objectives according to this approach are preselected and prespecified, which indicates that the interests of students and unpredictable behavior is not taken into account; control of content and learning are the curriculum developers' main objectives. Furthermore, dissecting the process into specified objectives takes the focus away from the greater scope of the learning process. In fact, creating an effective lesson involves more than applying the technical procedure of writing objectives and

selecting the content and method. It involves significant questions regarding what should be learned and the nature of learning.

While Tyler's rationale is attractive because it is systematic and organized, it was critiqued by several authors. For instance, Kliebard (1970) pointed out the underlying behaviorist foundation of Tyler's rationale, claiming his view on education was a means to change students' behavior and did not differ significantly from hypnosis or brain washing. Furthermore, Kliebard claimed that even though Tyler recommended considering students' needs as one of the main sources for educational objectives, he failed to (a) clarify those needs, (b) identify methods for assessing needs, and (c) outline how students' needs would be utilized in determining educational objectives.

John Dewey

Alternatively, Dewey (1938) is a learning theorist considered to be the father of experiential education. Keywords in Dewey's philosophy were *experience*, *truth*, *freedom*, *democracy*, and *education*. Experiential learning is based on connecting students' actual life experiences to the curriculum. It is simply, as the name indicates, learning from and through experience. The principle underlying experiential education is enabling learners to construct meaning out of experiences as they reflect on the world around them. We learn to think by reflecting on and dealing with issues and problems that arise from our experiences. According to Dewey (1938), "All genuine education comes about through experience" (p. 25). However, this does not mean "that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other. For some experiences are miseducative" (Dewey, 1938, p. 25). Those miseducative experiences, explained Dewey, are the ones that can stunt the development of the potential experience. The problem does not lie in providing experiences;

rather, it lies in the quality of experiences, which are often not genuine as a result of being imposed from the outside. This hinders learning, and consequently, learners fail to link their experience to future experiences.

To avoid providing learners with miseducative learning experiences, Dewey (1938) suggested two factors for effective learning: interaction and continuity. *Interaction* refers to dialogue and communication between students and the school environment. This environment, according to Dewey (1910/1997), is affected by three factors: (a) the mental attitude and habits of the person who is in contact with the learner, (b) the subject matter being studied, and (c) the educational goals and ideals.

Dewey's notion of learning requires educators to help learners build upon their past experiences and provide sufficient resources and support for the learning to occur. According to Dewey (1910/1997), traditional education has failed in connecting the curricula to students' interests and activities by suppressing learners with routinized and uninteresting pedagogy. In his view, students' activities and purposes, even those unrelated to the subject matter, must be considered by educators who guide those purposes and activities that enable students to understand the subject matter and construct knowledge.

According to Dewey (1910/1997), the instructor's role is not to impose knowledge on students via lectures, nor shape their behavior through training; instead, it is to encourage methods of discovery and to create conditions for experience that enable growth and responsibility required for the learning process. Based on Dewey's approach to learning, teaching is inquiry-based and organized around problem solving, investigation, projects, role- plays, questions, and democratic experiences. Teaching is based on understanding students' past, present, and future experiences, and the relationship of experiences to the subject matter. The aim is to connect students with the

subject matter by means of building a learning environment (community) that enables students to identify authentic problems in real life, and to use the curriculum to investigate and reach solutions to these problems.

A typical classroom using Dewey's approach is student-centered, active, and participatory, and one in which curiosity is celebrated. *Metacognition*, which consists of critical reflection and analysis of one's thinking patterns and approaches to learning, is a significant part of the learning experience. All types of experience, including personal or community and past or present, are valued, and the psychological and social dimensions of teaching are particularly emphasized. Teachers carefully observe, note, and analyze students' performance and behavior against the curriculum goals.

Dewey (1910/1997) modeled the classroom learning environment on the principles of a democratic society. In contrast to the teacher-centered curriculum, learners are active members in this classroom and, above all, they are central to education. Acquiring knowledge is only part of the greater goal, which is to enable learners to achieve self-realization. Cognitive development is the holistic goal of education, which can only be achieved by a cyclic process of constructing and reflecting upon experiences. Students remember what they learn from the curriculum because they use it and reflect on it. This holistic approach emphasizes communication, or *dialogue* as Dewey (1910/1997) referred to it, while uniting experience and learning, and combining subjective and objective methods of acquiring knowledge.

David Kolb

Offering an alternative to a behavioural classroom, Kolb's (1984) experiential learning theory is based on Dewey's notion of experiential education. In his theory, Kolb claimed that the formulation of a new concept is always driven by new experiences. According to Kolb (1984),

"Learning is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p. 41). He viewed the learning process as a cycle that consists of four stages where the learner first (a) encounters a new situation or experience, known as *concrete experience*; (b) observes and reflects on that experience, referred to as *reflective observation*; (c) begins conceptualizing new ideas or modifying existing mental abstracts, known as *forming abstracts and generalizations*; and finally, (d) applies the new concepts or hypothesis to other situations—known as *testing hypothesis*—which generates information and leads to new experiences and personal growth. Effective learning occurs when the learner progresses through the four stages of Kolb's cycle.

One of the most influential theories in adult learning (Bergsteiner, Avery, & Neumann, 2010), Kolb's approach has three key elements: (a) learning theory, (b) the learning cycle model, and (c) the Learning Style Inventory. According to Bergsteiner et al. (2010), Kolb's work could be viewed and analyzed from multiple perspectives such as cognitivism and adult learning. Influenced by the work of Dewey, Jean Piaget, and Kurt Lewin, this theory serves as a great foundation for the design of learning experiences. It provides a framework for designing active and collaborative learning experiences and environments that support and encourage learning. In this interactive approach, the learning quality depends on the learner, not the subject matter. The learner plays an active role in drawing upon his or her experiences in order to imagine new possibilities or to achieve personal growth.

Paulo Freire

Freire (1970/2006) took a more critical approach, demanding that education be used as a tool to empower learners by questioning cultural assumptions and social norms. Freire criticized the forms of education that reduced students' roles to passive paralyzed learners (merely objects)

who submissively accept, repeat, and memorize oppressive knowledge and views imposed on them by the teacher. The teacher in this banking educational format is the dominant figure that "deposits" or transfers a predefined package of knowledge from one person to another, thereby inhibiting active participation and critical reflection. This teaching model alienates students from the learning process and prevents them from constructing their own knowledge.

Freire (1970/2006) argued against this traditional banking transmission of content that maintains the status quo and treats students like empty accounts. His view of teaching and learning supported various nontraditional methods in education, and through his pedagogy, he aspired to transform society. According to Freire, education is key to revolution. The main task of education is to break the cycle of oppression and dehumanization and lead society to justice and liberation, not only for the oppressed but also for the oppressors.

Freire (1970/2006) rejected banking education in favor of a dialogical problem-posing education. In this model, knowledge is not "bestowed" upon learners by an authority figure; instead, learners become inquisitors who are invited to explore their reality in a problem-based format where they achieve a broader form of critical thinking and imagine a new reality, thus achieving freedom. In contrast to banking education, problem-posing education does not promote content accumulation, nor does it assign the teacher the role of an authoritarian. Students and teachers are equal partners in the learning equation; they coinvestigate and actively engage in the learning process and dialogue in order to build a collective view of reality.

According to Lankshear and McLaren (1993; as cited in McLaren, 1999) there are six Freirean learning principles for problem-posed learning:

1. Learners approach their act of knowing based on their individual circumstances, experiences and needs;

2. Learners approach the historical and cultural world as a transformable reality, which is like humans constantly being shaped by ideological representations of reality;
3. Learners must learn how to connect between their own lived conditions and the process of making reality;
4. Learners must consider the possibility of making new reality through their methods of knowing;
5. Learners must understand the importance of print in the literacy phase, as it will result in experiencing the potency to their own act of knowing; and
6. Learners must understand the myths of dominant discourse, which oppress them, to break the cycle of oppression. (p. 51)

Learning here is an act of cognition that is dialogically performed by students and teachers together. It is through reciprocal dialogue and problem-posing that knowledge is comprehended and re-created. The teachers' role is to enable students to develop intellectual autonomy, to expand their creativity, to encourage their curiosity, and to critically examine what counts as "knowledge" in order to "read" the world around them. Upon doing so, learners will be equipped to achieve liberty from the dominant discourses that disempower them.

Common Ground

The views of Dewey and Freire share some common ground, particularly in demanding the abandonment of teachers' complete control of the learning process, in providing democratic and meaningful learning experiences, and in emphasizing active participation in knowledge construction. These principles represent the core of constructivism. Although they differ significantly in the level of criticality in their viewpoints, and in the espoused purposes for

learning, both recognize the socially constructed context of learning, the need for dialogue, and the importance of learning from experience.

Constructivist Theories of Learning

Research in social constructivism and cognitive constructivism serves as the foundation for the constructivist approach to teaching. The social constructivist stance claims that knowledge is not autonomous in its existence;, rather it is constructed through social practices (Kaldis, 2013). Knowledge is "constructed when individuals engage socially in talk and activity about shared problems or tasks" (Driver, Asoko, Leach, Motimer, & Scott, 1994, p. 7). The social constructivist view refers to a "collectivist and anti-realist mode of thinking" with inspiration from Marxism and phenomenology (Kaldis, 2013, p. 894). It was developed in Russia the 1930s by Lev Vygotsky. According to Merriam et al. (2006), Vygotsky was the founder of this approach because "he proposed that learning is socially mediated through a culture's symbols and language, which are constructed in interaction with others in the culture" (p. 292).

On the other hand, there is also cognitive constructivism that is based on the work of Swiss developmental psychologist Jean Piaget. Piaget (1896–1980) suggests the learner must "construct" her or his own knowledge through experience. Experiences allow for the creation of mental frameworks, known as *schemas*. Schemas are changed, modified, expanded, and made more sophisticated through the harmonizing process of assimilation and accommodation. According to Schreiber and Valle (2013), the major difference between the two branches of constructivism is one's emphasis on the role of culture, society, experience, and background in learning while cognitive constructivism acknowledges the autonomy of the learner. Constructivism as it is used in this study is both social and cognitively constructed as the individual interacts with other individuals in social contexts that may be technologically mediated

or framed. This constructed reality becomes the foundation on which the individual builds their understanding of understanding of the world.

Constructivism stands against traditional banking approaches to teaching and learning. In constructivism, "Learning is a process of constructing a conceptual framework" (Cobern, 1993, p. 109). According to Tenenbaum et al. (2001),

> Knowledge is viewed as an entity that is mentally constructed via the actions and experiences that the learner undergoes with the immediate learning and broader social environments. Knowledge is actively constructed by the interaction between the learner and external objects through adaptation of and to the experiential world. (p. 89)

According to the constructivist paradigm, one true reality about the world does not exist; instead, reality is perceived differently based on how the individual views the world. The foundational tenet of this theory is that individuals actively construct their knowledge and skills as they continuously adapt their mental framework via interaction with stimuli in the environment. In a constructivist model, constructing knowledge is based on linking new information to old assimilated knowledge through individual experience (Tenenbaum et al., 2001).

Knowledge is not simply transmitted from instructor to learner. According to this approach, students are active learners; they construct mental frameworks, modify them, test them, and reflect on them, thus improving their abilities to deal with real life problems (Huang, Ulrich, & Liaw, 2010). According to Yakimovicz and Murphy (1995), the constructivist approach values real-life experience, promotes negotiation and interaction and, as a result, improves the ability to acquire knowledge (Merriam et al., 2006). The role of a constructivist instructor is to shift away from assigning "true reality" or providing learners with statements about the world, toward enabling students to learn by drawing from their own experience and creating meaning

(Boghossian, 2012). The instructor is aware of the learning context and encourages an interactive relationship and exchange of experience (Schreiber & Valle, 2013). It is crucial to create a learning environment that will celebrate and support the diverse experiences of learners, and that will encourage leaners to participate in open communication and collaborative work to construct and achieve a higher level of knowing. These learning principles are the basis of Garrison et al.'s (2000) CoI model, which was used to examine blended learning environments in this research project.

Community of Inquiry Framework

Almost all recent frameworks in the field of teaching and learning in education are founded on constructivist principles, and ideal learning environments are considered to be collaborative and constructivist (Garrison & Vaughan, 2008). As more institutions move to create blended learning environments, a framework is needed to help educators understand the complex nature of learning in these environments. In an effort to meet this need, Garrison et al. (2000) developed the CoI model, which has become one of the prominent models in blended learning. The CoI model is built upon a collaborative, constructivist foundation. The essence of this model lies in creating and sustaining a CoI that enables learners to reach higher levels of learning.

Building upon Dewey's call to close the gap between the psychological and sociological aspects of education, the CoI model stresses the importance of creating a constructivist and collaborative learning environment in which students not only gain knowledge, but also actively create and sustain a sense of belonging that enhances the learning experience and the co-construction of critical discourse. The heart of the educational experience is in enabling learners

to engage in the learning experience, to interact and collaborate with each other as they construct meaning, and finally, to reflect on their experience (Garrison & Vaughan, 2008).

The CoI model has been used extensively in online and blended learning contexts to help instructors and students understand the complex nature of teaching and learning in these environments (Garrison et al., 2000; Garrison, Anderson, & Archer, 2010; Garrison, Cleveland-Innes, & Fung, 2010). The CoI model serves as a framework (see Figure 1) to focus thinking and theorizing on collaborative engagement and dialogical teaching and learning to ensure quality learning that supports knowledge construction (Shea & Bidjerano, 2010). It places emphasis on the process of co-constructing meaning through deep inquiry, which occurs as a result of the dynamic interaction and the relationship between the three elements in the model (Garrison. Cleveland-Innes, & Fung, 2010), namely (a) social presence, (b) teaching presence and (c) cognitive presence (Akyol et al., 2009). The success of this model relies on the interaction of these core processes "to a greater or lesser degree depending on the subject matter, the learners and the communications technology" (Garrison, Anderson, & Archer, 2010, p. 6).

Figure 1. Community of inquiry framework (Garrison et al., 2000).

At the heart of the CoI model lies the deep and meaningful educational experience that Dewey demanded for learning to occur. This experience is collaborative and constructivist in nature. Instructors facilitate knowledge construction in an open and reflective community of learners that takes into account the social, cognitive, and teaching elements of the model. *Social presence* refers to the development of an interactive climate characterized by connectedness and open discourse. *Cognitive presence* refers to selecting the content and supporting discourse. *Teaching presence* refers to selecting content and establishing the learning climate. Factor analysis has confirmed the structure of the CoI framework (Arbaugh & Hwang, 2006; Garrison, Cleveland-Innes, & Fung, 2004).

Social Presence

Social presence refers to the extent to which learners can express themselves socially in the community, work collaboratively, and engage in open communication. Social presence has

three components: (a) open communication, (b) cohesive response, and (c) personal and group connection (Garrison, Anderson, & Archer, 2010; Garrison & Vaughan, 2008). It should be noted that the social presence component in this model does not occur simply as a result of employing chat rooms. It requires that the instructor facilitate deep levels of meaningful communication (Garrison & Vaughan, 2008). According to Garrison, Anderson, and Archer (2010), social presence should be considered from a multidimensional perspective that overlaps with the other types of presences: "Building on the affective expression dimension, we added 'open communication' as a category within social presence to reflect the purposeful nature of the community, and 'group cohesion' to reflect the collaborative nature of the community and its activities" (p. 7).

Social presence is dependent upon teaching presence, and facilitates cognitive presence (Garrison, Cleveland-Innes, & Fung, 2010). The learning environment must be supportive and collaborative so that learners can construct meaning and achieve higher levels of thinking and learning.

Cognitive Presence

Cognitive presence is grounded in the inquiry process and contained within the practical inquiry model (see Figure 2) that is based on theoretical assumptions of four cyclic stages of the learning process. The process begins when a problem is identified (the *triggering event*) that requires further investigation. The second phase, *exploration*, occurs when individuals and groups begin to investigate the issue. The third phase, *integration*, represents the process of making meaning and sense out of the collected information. The fourth phase, *resolution*, is where learners test, apply, and transfer knowledge to different contexts (Garrison, Anderson, &

Archer, 2001). Research indicates that cognitive presence is predicted by teaching presence and social presence (Garrison, Cleveland-Innes, & Fung, 2010).

The figure of the practical inquiry model incorporates a vertical axis that bisects a horizontal axis. The vertical axis represents the continuum between action and deliberation. The horizontal axis represents perception and conception. Swan, Garrison, and Richardson (2009) explained these axes in relation to Dewey's notion of learning: The vertical axis represents the psychological and sociological sides of the educational process identified by Dewey. This reflects the individual's private and reflective world juxtaposed with the community's shared world of discourse. Practical inquiry iterates imperceptibly between these two worlds. It is a process that includes both deliberation and action. That is, practical inquiry is shaped by the rigorous and purposeful process of reflection and discourse to construct meaning and confirm knowledge.

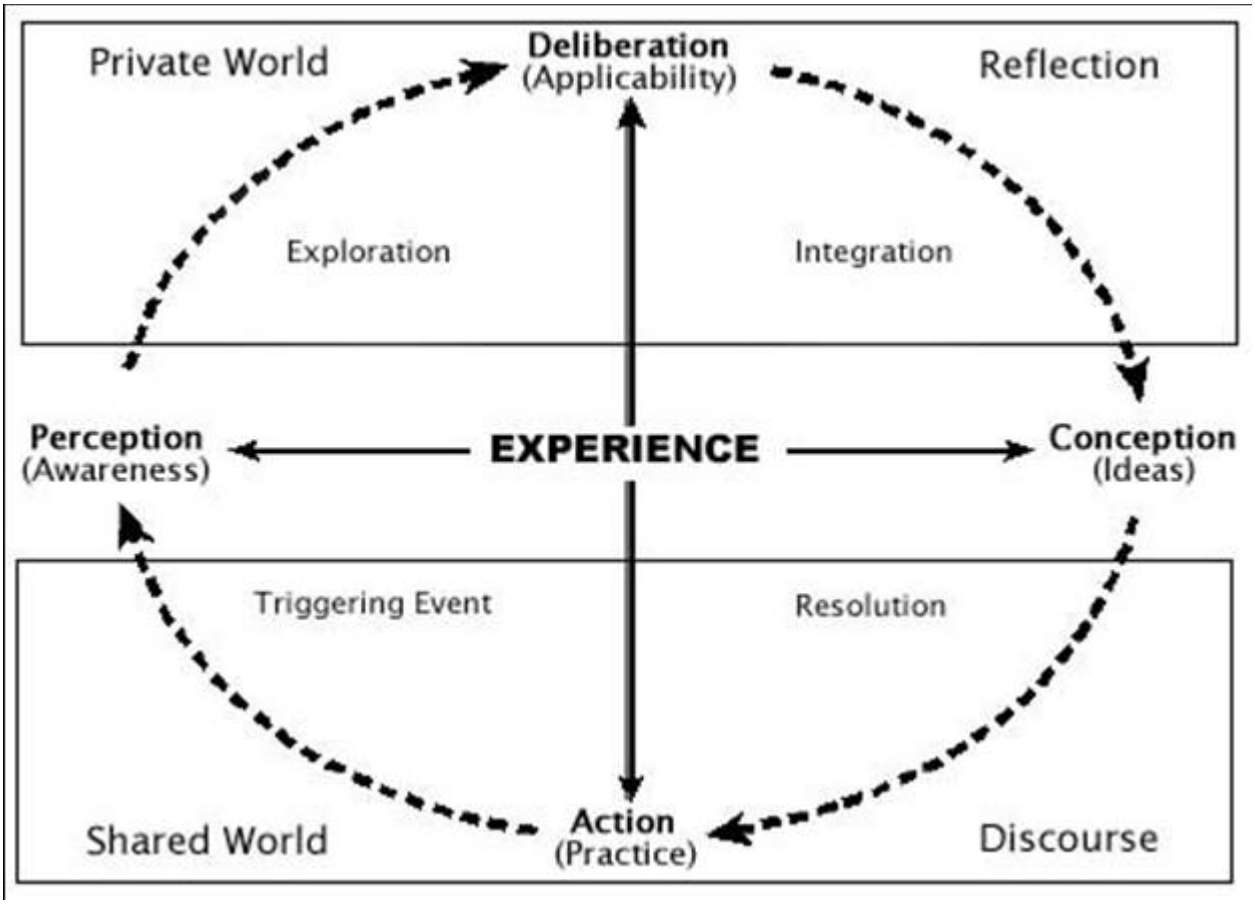


Figure 2. The practical inquiry model (Garrison et al., 2001).

The second dimension of the model defines the divergent process of perception and analysis contrasted with the convergent process of conception and synthesis. The points of perception and conception are points of insight and understanding. At each of these points, we see the true fusion of the psychological and sociological, and the unity of the educational experience that Dewey advocated. The figure reveals the theoretically logical sequence through which knowledge is constructed and applied in contexts that differ from the context in which the initial problem was perceived.

Teaching Presence

Teaching presence refers to the instructor's role in facilitating learning and interaction among learners. This core element has three dimensions: (a) design, (b) facilitation, and (c)

direction. The construction of these dimensions, as Garrison, Anderson, and Archer (2010) explained, is dependent on the learners and the learning context. Teaching presence designs, directs, and facilitates social presence and cognitive presence, which contribute to meaningful learning (Anderson, Rourke, Garrison, & Archer, 2001).

Garrison, Cleveland-Innes, and Fung (2010) outlined three main responsibilities for the instructor: (a) creating meaningful content, which is supported by diverse learning activities and timelines; (b) observing and encouraging collaboration in a reflective learning atmosphere; and (c) providing constant feedback and consistent direction in order to assist learners in achieving higher levels of learning. Studies have linked this core element to learners' satisfaction, and have found it to be important to the success of the CoI model (Arbraugh, 2008; Garrison & Arbaugh, 2007).

It is important to note that teaching presence refers to the roles that both instructors and students play in the learning process. Instructors are responsible for facilitating and directing learning. Students are members of a CoI and must be responsible, to some degree, for cognitive, social, and teaching presence, "depending on the specific content, developmental level, and ability" (p. 14). Hence, the name of the element is teaching presence, not teacher presence (Vaughan et al., 2013).

The CoI framework has received great attention and recognition from educators and researchers since it was developed by Garrison et al. (2001). In recent years, however, a number of critiques emerged including one from Garrison and Arbaugh (2007), in which the authors reported challenges related to the development of the CoI framework, discussed future research, and provided suggestions to improve the application and the impact of the framework. After examining literature related to the CoI, the authors identified three specific issues:

> (1) the need for enhanced methodological and analytical rigor in future studies; (2) the need for conceptual refinement of the relationships and interactions between/ among the elements, both particularly and collectively; and (3) the need for testing the framework in disciplines other than education. (Garrison & Arbaugh, 2007, p. 156)

Xin (2012) emphasized the need to reexamine and reconsider the way online discussions are being analyzed in relation to the CoI framework. The issue is the framework does not consider the depth and complexity of human interaction that occurs in the online asynchronous forums. Xin argued that the distinction between the elements particularly in an online discussion context is "analytic" rather than real. Due to the random and complex nature of the online communication, it is quite difficult to isolate one presence from the other or treat them as separate aspects, as all three elements can occur simultaneously in one communicative act. Both the content and way in which the content is disseminated must be taken into account. Communicative acts are critical and must be considered when interpreting and analyzing the discussion forums.

Xin (2012) noted another problem that lies in the speculative nature of the word *presence* in the online discussion context. In asynchronous forums, every action is a display of a presence. According to Xin (2012), presence must be defined as an operative component:

> In this sense, the cognitive, social, and teaching presences are best specified in terms of the functions that make them "present." "Presence" is an effect of what I call "functions." In other words, communicative functions are actions that cause the effect of someone or something being present. (para. 27)

Annand (2011) raised a few concerns about the CoI framework. These concerns included the validity of the framework in informing the development of online theory and practice and

helping learners achieve deep meaningful learning, the overstated impact of social presence on learning, and the suitability and applicability of the model in hard disciplines as opposed to soft ones.

Garrison (n.d.), one of the CoI authors, responded to Annand's article on the CoI website, stating that the core issue with Annand's claim is that he is discussing the CoI model from a traditional distance education perspective, which is very different from online education. The CoI framework was not intended for distance education. As Garrsion (n.d.) stated, "It is misleading and counter-productive to critique a framework from an incompatible paradigmatic perspective that is not congruent with a context or for a purpose for which it was not intended" (para.4). The distance education approach places more emphasis on the independence and autonomy of the learner than creating a collaborative CoI. This explains Annand's view on the social presence. Moreover, Garrison pointed out that social presence is critical for deep learning to occur, and studies have indicated the significance of sustained collaborative discourse and its effect on cognitive presence.

Creating Successful Environments for Blended Learning

Blended learning is not only about mixing face-to-face content with technological materials. It involves a reconceptualization of the relationship between teaching and learning, and reconsideration of the different approaches to teaching and learning. Very little formal research has examined blended learning at the institutional level (Graham, Woodfield, & Harrison, 2013). In order to facilitate blended learning environments, teaching practices and strategies must come before technology. That is, greater emphasis must be placed on offering an effective learning experience before considering the use of technological tools (Hadjerrouit, 2008). Pellerin (2007) placed great emphasis on designing a collaborative, interactive, and

dialogical learning environment that enables learners to reflect on their learning experience, achieve higher levels of thinking, and construct knowledge and meaning.

Blended learning must be pedagogically driven and educators may want to consider adopting learning theories. Pedagogy must drive the selection of technology. It can serve to better inform decisions related to the design and implementation of blended learning, such as the process of dividing content between face-to-face and online sessions, and the time allocated to each format. It involves more than developing generic guidelines to promote effective learning. It is essential that educators realize the need to move toward a rich curriculum that addresses not only what is being learned, but also how and why it is being learned.

Palloff and Pratt are pioneers in the virtual world. They have researched and written extensively on developing effective online learning environments. The authors work has focused on creating learning communities that are student centered, collaborative and social constructivist that would provide quality learning in online environments (2007). Those communities encourage and foster dialogue, critical reflection and collaboration that are central to the meaning making process. The goal is to stay away from "repeating our tired and true educational model and calling it innovative" (p.20). The focus must not be on integrating the latest technology but rather on how to best utilize and integrate this technology to create a good transformative learning experience.

Similar to the CoI model, Pallot and Pratt (2007) developed a model that consists of three interactive elements: people, purposes and processes. People here refers to the interaction occurring between instructors and learners Drawing on the work of Garrison, Anderson and Archer (2000), they emphasize the role of the social presence in creating a community for online learners. The presence is modeled through the instructor facilitation of the course and guidance.

Purposes refer to the process of instructors and learners negotiating and establishing guidelines and practical consideration such as time and size of the group. The process includes creating meaning in a social constructivist environment that becomes the vehicle for learning to occur.

In addition, Palloff and Pratt (2003) defined and explored the unique characteristic of the virtual learner to determine the best suitable methods to provide a quality learning experience. They adopt a student-centered and adult focused philosophy. The authors also delineate the characteristics of a successful online learner. Qualities such as self- direction, self- discipline and commitment to put in the effort and manage time for example, are essential for having a successful learning experience. According to the authors, learners are responsible for their learning and for identifying opportunities to share the teaching role. This is similar to how Garrison, Andy and Archer (2000) perceived the teaching presence and discussed the shared responsibility of teaching between instructors and learners.

The authors also identified the characteristics of a good online instructor. They have to be flexible, willing to work with learners and willing to be facilitators and leave behind the traditional role of hoarding and transmitting knowledge to learners. They explain electronic pedagogy that is adult focused and based on student-centered learning approach. In addition, the authors point out the importance of combining the theoretical principles of pedagogy, andragogy and self-directed learning.

The Seven Principles of Good Practice

Vaughan et al. (2013) emphasized the importance of moving away from traditional presentational approaches in this era of technology, because these approaches fail to fully explore and utilize the potential benefits of technology to optimize the learning experience. The authors examined a common traditional approach to teaching in higher education, the Seven Principles of

Good Practice for undergraduate education developed by Chickering and Gamson (1987). The principles are as follows:

1. Encourage contact between students and faculty.
2. Develop reciprocity and cooperation among students.
3. Encourage active learning.
4. Give prompt feedback.
5. Emphasize time on task.
6. Communicate high expectations.
7. Respect diverse talents and ways of learning. (Chickering & Gamson, 1987, p. 16)

The principles are widely cited and have been adopted by educators in higher education to enhance learning (Mehlenbacher, 2010). However, they are based on traditional grounds. While one could argue that these principles work in both face-to-face and blended learning environments, Mehlenbacher (2010) questioned the efficiency and benefits of applying them in technology-mediated environments.

Vaughan et al. (2013) developed a new set of principles based on the characteristics of a technologically infused learning environment, which can be used to facilitate purposeful CoI. Learning in a CoI requires more than simple interaction and collaboration. To achieve deep, meaningful learning, learners must assume more responsibility for their learning. The new principles are based on the CoI model and revolve around cognitive presence, social presence, and teaching presence. The principles are as follows:

1. Plan for the creation of open communication and trust.
2. Plan for critical reflection and discourse.
3. Establish community and cohesion.

4. Establish inquiry dynamics (purposeful inquiry).
5. Sustain respect and responsibility.
6. Sustain inquiry that moves to resolution (refer to the Practical Inquiry model).
7. Ensure assessment is congruent with intended processes and outcomes. (Vaughan et al., 2013, p. 17)

The first two principles speak to the social and cognitive challenge of designing a collaborative blended learning experience. The next two principles address the social and cognitive concerns associated with facilitating a CoI. The last three deal with the social, cognitive, and assessment responsibilities of directing an educational experience to successfully achieve the desired outcomes. These seven principles are the first step in providing specific practical guidelines to the design, facilitation, and direction of a collaborative CoI (Vaughan et al., 2013).

Instructors need high quality support to assist them in navigating the teaching and learning process in this environment. The idea is to create a collaborative and interactive learning environment in which knowledge is not transmitted via face-to-face lectures, or by accumulating large amounts online materials. Instructors need to consider pedagogical issues related to implementing technology in their classrooms. Educators should be searching for ways to maximize the benefits of both face-to-face and online learning, without one side overpowering the other. The key challenge for educators is achieving a harmonious balance through practical means and succeeding in creating a purposeful CoI.

Division of the Content and Integration

Researchers found that the decision to divide content coverage (i.e., face-to-face vs. online format) is one of the most challenging aspects of designing a blended learning model (Albion &

Redmond, 2006; Moskal et al., 2013; Tabor, 2007). According to Hinkelman (2005), the blended learning approach should be viewed as a continuous link between the two approaches. Consequently, when designing learning tasks, instructors should consider the interchangeable nature of these environments and ensure that tasks lend themselves to both learning environments.

The integration process of both worlds (face-to-face and online) is a common issue faced by instructors of blended learning courses (Bonk & Graham, 2006). The process is considered challenging because faculty must make decisions about assigning different weights to face-to-face and online learning in order to find the right blend. It is a significant process because the learner must understand the justification for a blended setting as well as the relationship between the online and the face-to-face material.

To succeed in the integrating process, Kerres and DeWitt (2003), Sands (2002), and Willett (2002; as cited in Futch, 2005), suggested an approach that appears to adhere to Tyler's principles; it delineates several specific steps for educators to follow to ensure a good learning experience:

1. First, identify the instructional outcome of the course and how students will demonstrate mastery.
2. Identify the incremental steps to achieve the outcome and objectives for each step.
3. Identify course activities and assignments that facilitate students' achieving course objectives. Here, think about the tasks students must complete rather than the method of delivery.
4. Determine the proper modality, face-to-face or online, for each activity or assignment. Plan how to connect online activities with face-to-face classroom time. (p. 35)

According to Futch (2005), following these steps may enable faculty members or instructors to incorporate both environments and reach the right blend or combination

Alignment Between Theory (Pedagogical Beliefs) and Practice

For the successful adoption of blended learning, faculty members and instructors must identify with blended learning and work to align their teaching orientations with social constructivist learning approaches. They must understand and embrace the theoretical principles of the recommended approaches for blended learning in order to enable active and deep learning.

Owens (2012) identified a gap between instructors' beliefs about teaching and their actual teaching practices. In her study of 529 U.K. university lecturers, Owens highlighted the influence of the "concept of teaching" and the "pedagogical belief" on instructor teaching practices. She explained that the implementation of technology can be rendered useless if the faculty's pedagogical beliefs are not aligned with the recommended teaching practices for technology-based courses. For example, Owens reported that faculty who favored teacher-centered approaches and who believed in the transmission approach to teaching used technology merely to transmit knowledge.

Exploring and Understanding Theoretical Frameworks for Web-Based Learning

The transition from face-to-face courses to blended course requires that faculty members and instructors step back from what they have mastered (face-to-face teaching) and explore an array of new teaching strategies and methods to enhance students' learning and to maximize the benefits of the two integrated environments (Carbonell, Dailey-Hebert, & Gijselaers, 2013).

Thus, the professional development offered to faculty and instructors must not focus solely on ways to implement technology nor add more layers of online activities; it must also focus on understanding learning theories and theoretical frameworks that enhance the quality of

learning in technology-mediated environments. Educators must understand the philosophical positions and models that underpin blended learning. Blended learning has been recognized for its potential to combine the advantages of face-to-face and online learning, which has led some researchers to claim that it is the perfect learning format for post-secondary learners (Ausburn, 2004). The important question is not whether to blend, but rather what and how to blend in order to create a learning environment that will promote effective learning for post-secondary and adult learners.

Tabor (2007) proposed the "block for success" model for creating a successful distance-learning program. Blocks in the model include: involved and committed faculty, an organization that is ready to adopt and support blended learning, available technical resources, clear and effective communication, suitable structure, and student maturity. Svinicki and Dixon (1987) proposed using instructional activities that support Kolb's experiential learning cycle in order to help learners progress through the four different stages (i.e., explore, observe, reflect, and apply). For example, they suggested employing readings or laboratories to support the first stage of concrete experiences.

Learners' Role and Self-Direction

Aside from design and integration issues, learners in higher education assume big responsibilities in online and blended learning environments, as a part of the learning process depends on their readiness and motivation to engage and sustain interest in the subject matter. In a collaborative CoI, it is vital that learners assume responsibility alongside the instructor to facilitate the three elements of the model. This notion in education is referred to as *self-directed learning*. Self-directed learning is built on the assumption that students lead and take

responsibility for their own learning. This is similar to what Vaughan et al. (2013) suggested for learners in the CoI—to be active members and share the cognitive, social, and teaching elements.

Knowles (1975) defined self-directed learning as a process "in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18). Self-directed learning can occur in a variety of linear, interactive, and instructional models (Merriam et al., 2006). Some level of self-directed learning theory is embedded and assumed in e-learning because the learner leads most of the learning, completes the required tasks, and achieves the course objectives on his or her own. In blended learning, the online aspect depends primarily on self-direction and control, while the face-to-face component is based mainly on social interaction and collaboration in which knowledge is constructed and problems and tasks are shared (i.e., social constructivism). Students have reported that blended learning increases their sense of responsibility and ability to take control over their own learning (Gecer & Dag, 2012).

For instructors, it is important to note that post-secondary learners have a tendency to be self-directed learners (Merriam et al., 2006). Self-directed learning is founded on the concept of personal autonomy, being responsible, and taking control of one's own learning. However, it is important to note that the amount of control over learning and readiness for self-directed learning varies among learners. It depends on the learners' attitudes, characteristics, learning context, and familiarity with the subject matter. For instance, learners who display a high level of readiness to direct their own learning in mathematics—because they are familiar with the subject matter—may not show the same level of readiness to direct their learning in another learning environment

where they are not that familiar with the content or the learning context (Fisher, King, & Tague, 2001).

Studies have indicated that the level of readiness for self-direction must be matched with a suitable level of teacher direction and guidance to ensure a successful learning experience (Fisher et al., 2001). Thus, it is important to take a balanced approach when sharing the responsibility of creating and sustaining a purposeful CoI. Instructors must not take over the learning process completely and students must be active and accept some responsibility to facilitate their own learning.

Learners' Experience, Motivation and Engagement

It is crucial for instructors to motivate learners and create a learning environment that encourages learners to engage in and direct their own learning. When learners are offered the opportunity to draw upon their own experiences, they are more likely to retain the content. Olka (2005) explained that post-secondary and adult learners equate their experiences with self-identity: Their experiences shape their personality, values, and characteristics. In addition, offering students some level of freedom to manage their own learning promotes deep, meaningful learning (Ramsden, 1992) and the student becomes the center of the learning experience. Moreover, engagement is critical for learners. When creating a learning environment, it is important to acknowledge learners' attributes, experiences, and expectations (Cercone, 2008). Learners need an education that will speak to their interests. To engage learners and meet their demands, educators must create courses that are relevant to learners, reflect their interests, simulate real problems, are relevant to their life experiences, and support their independence and self-direction (Olka, 2005).

Instructors must work to facilitate deep discussions and conversation that motivate learners to engage, interact, and further their knowledge. This may be more easily accomplished in the face-to-face mode of learning due to the type of human interaction that occurs in face-to-face classes. In online classes, however, it may be more difficult to compensate for the verbal cues and body gestures, which play a significant role in attaining and sustaining students' attention (Olka, 2005). Online activities—such as discussion circles, blog or wiki development, and audio-visual connections— are recommended as they provide opportunities for students to communicate and engage with content.

Finally, design and teaching strategy must accommodate the level of student learning, whether introductory, intermediate, or advanced. DeMartino (1999) suggested that if students are not familiar with the subject matter, they must be taught using a more teacher-centered approach. However, if students are familiar with the subject matter, then a student-centered approach is preferred whereby the instructor plays the role of facilitator to enable students to enhance their learning.

Other Issues

When examining the literature, there are numerous factors that potentially contribute to creating successful blended courses. These factors include the following: learning styles and patterns, connecting the face-to-face component to the online portion of the class, technological infrastructure, technical and relational support systems, teacher's role as a facilitator of knowledge not a transmitter (Palloff & Pratt, 2003), communication and interaction between instructors and students, promoting engagement and autonomy, timely feedback, and identifying and using the course objectives as the foundation of the design (Franks, 2002; Frumkin, Mimirins, Dimitrova, & Murphy, 2004; Garrison & Kanuka, 2004; Tabor, 2007; Smyth, Houghton, Cooney,

& Casey, 2012). According to Hadjerrouit (2008), faculty and instructors must provide clear information, timely and constructive feedback, and strong intrinsic or extrinsic motivation. Activities such as case studies and role- plays are ideal for post-secondary and adult learners because they promote leadership, responsibility, and the utilization of real life experiences (Woodson Day et al., 2011).

Blended learning environments do not have a one-size-fits-all design. The process of designing blended learning courses is quite challenging because it requires more than combining traditional face-to-face material with online content and activities (Bonk & Graham, 2006; Graham & Kaleta, 2002). It involves careful consideration of different factors like time demands, educational goals, technological barriers, and the provision of suitable online activities that enable students to reflect on key concepts to find the right balance or blend (Futch, 2005; Tabor, 2007).

These factors and suggestions are represented to varying degrees in the literature. They are not all- inclusive and may target only certain issues. They also do not cover all aspects of the learning process. The CoI is a comprehensive model because it views the learning process from a broader theoretical lens and deals with the key aspects required to ensure a quality of learning experience. The model attends to social, cognitive, and teaching elements that are critical to ensuring meaningful educational experiences.

Blended learning environments may provide the means for including the best of both worlds for adult learners. This study emphasized the importance of providing learners with a more effective blended learning experience. It explored instructors' perceptions regarding their experience of teaching blended learning; further, it examined the extent to which constructivism, embedded in elements of the CoI model, were evident in their teaching practices in blended learning courses at the University of Manitoba.

Summary

Blended learning is a combination of face-to-face and online instruction. Students benefit from a blended learning environment because they are exposed to the best of both worlds of instruction. They receive the convenience of online learning along with the social support that stems from interacting and communicating with instructors and peers in the traditional face-to-face setting. There are many considerations to take into account when building a successful blended learning course. The most important factor to remember is that blended learning is not a single approach; it is a mix of various delivery modes. Thus, the designed framework should reflect the relationships among instructors, students, and content.

To design successful blended learning environments in higher education and provide optimal learning experiences for learners, teaching strategies must be guided and inspired by a holistic model/learning theory or theoretical principles that consider learners' needs in engaging in meaningful inquiry. The CoI model was designed using social constructivist learning principles. It focuses on creating a collaborative community of learners who are connected beyond the classroom walls, and who are fully engaged in constructing knowledge under the supervision of instructors who design, organize, and direct learners toward deeper knowledge and reflection. The aim of this research was to provide a better understanding of how instructors teach blended learning courses in higher education. It examined the extent to which elements of the CoI model (and therefore constructivist learning principles) were evident in the teaching approaches utilized in blended learning courses at the University of Manitoba. Further, this study aimed to provide suggestions to create better learning and teaching experiences in blended learning environments in higher education. The following chapter outlines the methods used in this research study.

CHAPTER 3: METHODOLOGY

The literature in Chapter 2 provides an overview of the development of learning theory, blended learning contexts, and the CoI model (Vaughan et al., 2013). In order to gain understanding regarding instructors' experiences with teaching in blended learning environments, and to explore the extent to which elements of the CoI model were incorporated into their teaching methods, I utilized a qualitative phenomenological approach. Instructors from the University of Manitoba were invited to participate in semi-structured interviews.

Qualitative Research

Qualitative research refers to several research methods and various paradigms (Guba & Lincoln, 1994) that are deeply rooted in anthropology and sociology (Bogdan & Biklen, 2007). The rapid development of qualitative inquiry resulted from "a growing dissatisfaction by researchers and academics that were seeking a deeper understanding of the subject rather than merely numbers and statistics" (Lindlof, 1995, p. 9). Creswell (2012) defined qualitative study as follows:

> A type of educational research in which the researcher relies on the view of participants, asks broad, general questions, collects data consisting largely of words (or texts) from participants, describes and analyzes these words for themes, and conducts the inquiry in a subjective, biased manner. (p. 39)

Qualitative research can be described as interpretive, phenomenological, hermeneutical, experiential, or dialectic (Hathaway, 1995). However, these terms cannot be used interchangeably because they vary according to their underlying assumptions.

Unlike the empirical analytic inquiry, or quantitative research—which is characterized by the researcher's detachment from the setting of the study—the researcher in this context is the instrument for data collection (Creswell, 2012). Knowledge and reality can be found only when the researcher engages with the situation and the participants under study. This results in a better understanding of the participants, in particular how they construct, view, and interpret reality.

This is a qualitative research project. The purpose of this study is to provide a direct depiction of the participant experience. Human beings recognize a phenomenon and form perceptions about it. For example, according to Ponty (1945, as cited in Langer, 1989), phenomenology is the study of essences. In response to empiricism (sensory) and rationalism (reason), Ponty claimed that perceptions are not merely sensory or rational but rather both. It is not the object nor just the subject, but rather the moving in between whereby expectations are formed in the spectrum. The expectation is then a product of both sensation and reason. Human beings form their perceptions, and consciousness that assigns meanings.

This study focused on teaching in a blended learning environment as a shared experience and explored instructors' perceptions of this experience and their current teaching practices in blended learning environments. As Creswell (2012) stated, "The reality of an object is only perceived within the meaning of the experience of an individual" (p. 78). Accordingly, each participant described his or her experience and how it informed their instructional practices—in this case, teaching in a blended context.

Research Questions

The aim of this research was to provide a better understanding of instructor experiences with teaching using a blended learning format, and to determine the extent to which the elements of the CoI model (and therefore social constructivist learning principles) were evident in their

approaches to teaching blended learning courses. The main research question that informed this study was as follow: In what ways do instructors' approach teaching using a blended learning format and utilize learning theory to help to foster the development of effective teaching in blended learning environments in the post-secondary education context?

This question was guided by three secondary questions:

1. What are instructors' current teaching practices and perceptions of teaching in blended learning contexts?
2. To what extent are elements of the CoI model (i.e., social constructivist principles) supported in instructors' current methods of teaching using blended learning?
3. What theoretical and practical implications do the findings of this study have for the creation of effective learning environments in blended learning contexts?

In order to examine these questions, interviews explored instructor experiences with teaching blended learning; they examined the extent to which elements of CoI were evident in instructors' teaching approaches in blended learning environments. The researcher explored the learning theories that informed blending learning instruction and the implications for the quality of the student learning experience and faculty teaching experience.

Researcher Positioning

It is important that I state my position in relation to this study. I have positioned myself in my research by acknowledging my academic background and experience as an international graduate student and instructor (see Personal Rationale for the Study in Chapter 1). As stated in Chapter 1, I focused on exploring the instructors' experiences with teaching using a blended learning format in higher education. I planned to share the knowledge that I gained from this

research with instructors. As an educator, this research will better equip me to utilize blended learning and to maximize learning for post-secondary learners.

As a researcher, I am a constructivist; the manner in which I perceive, organize, and conduct research is grounded in my personal beliefs and experiences. Given my personal experiences, values, and knowledge about the topic, as well as my background in the field (i.e., advocate for blended learning), it is impossible to remain completely objective and free of bias. Nevertheless, I attempted to control for my bias by sharing my background and bracketing my experiences when collecting and interpreting the data (Creswell, 2012). According to Fischer (2009), *bracketing* refers to identifying the factors that may influence one's interpretations of the data. These factors include personal perspectives and assumptions, background, and cultural identity. Fischer (2009) explained that the researcher attempts to "shelve" these factors or put them in "brackets" (p. 583) as much as possible to ensure the transferability and transparency of the data. It is a continuous process that involves a high level of awareness and reflection regarding one's own involvement with the data. According to Fischer (2009), bracketing requires two steps:

> My position is that authentic bracketing has two ongoing engagements. First, the researcher continuously identifies and records his or her assumptions about a topic as well as his or her interests in it. These processes allow one to self-consciously and regularly check to see whether one is imposing meanings on the data and to re-examine it to see what other meanings might appear. This ongoing practice, however, is not merely an effort to get rid of bias but also an effort to specify the perspectives through which meanings can become evident. Second, bracketing includes getting in ever deeper touch with the meanings of one's subject matter through evolving reflexive and hermeneutic

> readings of data- That is, in this second engagement, one continuously discovers what his or her earlier interpretive understandings and assumptions were and reexamines them against emerging insights. What is bracketed—set aside for the moment or directly questioned—in this second engagement is one's earlier understandings of data. (p. 584)

In addition, to ensure the quality of this research, I only reported participants' experiences and attempted to be as reflexive and detailed as possible in interpreting the data.

Study Design

Qualitative approaches are used to describe a phenomenon in greater detail. Qualitative approaches assume multiple truths about the world and consider individuals' historical and sociocultural contexts (Sharts-Hopko, 2002). In this study, the rationale for using a qualitative phenomenological approach was to gain greater understanding regarding instructors' experiences with blended learning. According to McMillan (2008), "There are multiple realities as different people construct subjective meaning from the same event. As a result, much of what is reported in qualitative studies is participants' perspectives" (p. 271). Such perspectives represent participants' socially constructed views of the world based on their experiences. Thus, the data collection methods also reflected the social constructivist learning principles advocated by the CoI model.

Thus, the primary aim of qualitative research is to enable the researcher to gain insight into human experience from the participants' own frame of reference, using thick description and attention to detail. The researcher focused primarily on exploring participants' experiences through their own consciousness and perceptions of their own realities; that is the core of qualitative research.

Context and Participants

This research was conducted with instructors who worked at the University of Manitoba. Participants in this study included nine instructors who had taught and were teaching at least one academic blended learning course at the University of Manitoba. Faculty members were initially selected from the Faculty of Arts, Faculty of Science, Faculty of Dentistry, and Faculty of Social Work, as these were the departments that had the most blended learning courses. A blended learning course had to comport with the operational definition provided in Chapter 1 (i.e., classes that combine face-to-face and online learning). The goal in qualitative research is to collect data until the information feels redundant, or what researchers refer to as *data saturation* (Bogdan & Biklen, 2007). The researcher encountered issues recruiting participants (i.e., poor response rate in the first 6 months). Nonetheless, several common themes emerged regarding the ways in which participants taught in blended learning environments.

A mix of purposeful and snowball sampling procedures was used in this study. The instructors were purposefully selected: Those who were teaching a blended learning courses in the 2015–2016 academic year or who had taught at least one blended learning course in the past at the University of Manitoba were included.

The participant recruitment process was conducted as follows:

1. The researcher contacted department heads by e-mail and asked them to send invitation e-mails on behalf of the researcher asking potential participants if they would be interested in participating in the study.
2. The researcher contacted the Dean of Extended Education, given that this faculty is most likely to have lists of instructors who teach or have taught blended learning. The dean, or a representative of the dean, was asked to contact potential participants by sending an

invitation e-mail on behalf of the researcher asking potential participants if they would be interested in participating in the study.

3. The researcher contacted the Center of Advanced Teaching and Learning at the University of Manitoba by e-mail to check for potential leads for recruitment.
4. Snowball sampling was used, whereby the researcher asked identified participants to suggest potential participants. In addition, the researcher contacted other instructors and fellow colleagues to suggest potential participants.

Interested parties contacted the researcher directly. Participants received letters inviting them to participate in the study via the University of Manitoba e-mail system. A copy of the interview questions was provided to each potential participant. Responding participants received a letter containing the informed consent form, were contacted to select a time and a place that were convenient for them, and participated in semi-structured interviews that lasted no more than 2 hours.

Anonymity was ensured by using pseudonyms in the reporting of the data. Participants were informed of their right to withdraw from the study at any time without a penalty, and to have their comments stricken from the study. All protocols for anonymity, and ethical procedures, as outlined by University of Manitoba guidelines, were followed in this study. Please refer to Appendix B for the informed consent form, Appendix C for the letter of invitation, and Appendix D for the ethics approval.

Research Instruments

Interview questions focused on exploring how instructors taught using a blended learning format in higher education, the extent to which elements of the CoI framework were evident in their teaching practices, and ideas for improving teaching and learning in blended learning

environments. Questions focused on their experiences with teaching blended learning courses, particularly in relation to the following aspects: design and organization, facilitation of learning, social interaction, connectedness, and teaching strategies to enable learning. These aspects are directly related to the CoI model. I also asked participants for any suggestions to improve the blended learning experience.

The interview questions were open-ended; however, they were guided by the following questions and subquestions:

1. What has been your experience with using blended learning?
    a. In what faculty do you teach?
    b. How many blended courses are you teaching and/or have you taught?
    c. How many face-to-face courses have you taught?
    d. How many years have you been teaching blended learning courses?
    e. What is a typical class size?
    f. How would you describe the way in which you approach teaching using blended learning?
    g. Has your experience teaching blended learning courses changed over time? How so?
2. Based on your experience,
    a. How do you think students learn best in blended learning contexts?
    b. How does your approach to teaching using blended learning differ, if at all, from teaching face-to-face?
3. Please describe how you facilitate learning in blended learning environments, particularly in relation to the following elements:

a. design and organization of the course
b. facilitation of learning and instructions
c. social interaction, connection, and communication
d. teaching strategies to enable learning

4. What suggestions could you offer to help make blended courses more effective for learners and instructors?

The researcher first collected data on the participants' background. Next, participants were asked to describe their teaching approach in general and how it differed, if at all, from their teaching approach in traditional face-to-face classes. Participants were also asked to identify any benefits for learners using a blended learning format. Then, more specific questions addressed particular aspects of participants' teaching practices in blended learning environments.

The four components of the third question were derived directly from the CoI survey tool. This facilitated identifying elements of the CoI model. The first aspect of the third question pertains to the design and organization of the course. The second aspect pertains to the facilitation of learning and instructions. These two aspects were obtained from the survey in the section on teaching presence. The third aspect, social interaction, connection, and communication, speaks to the social presence element in the survey. The fourth aspect, teaching strategies to enable learning, addresses cognitive presence (cognitive presence could also be measured in the first two aspects as well, indicating the interactive and dynamic nature of these elements).

The interviews took place at times that were convenient for the interviewees. Observational notes were taken during the interviews. These notes produced supplemental data, which further contributed to understanding participants' responses to the main questions.

Data Collection

The research interview is one of the most prominent and important qualitative data collection methods, and it has been most extensively used in conducting ethnographic research and field studies (Qu & Dumay, 2011). Interviews are used by researchers to gain a better understanding of participants' life experiences; although their purposes may vary according to the research question and the researchers' perspectives. In this particular study, a single semi-structured interview was conducted with each of the participants.

Semi-structured interviews are the most utilized interview type in qualitative research (DiCicco-Bloom & Crabtree, 2006). This interview technique provides the researcher with the flexibility to further probe specific areas of inquiry beyond the predetermined set of questions, thus providing more insight into the phenomenon under study.

Interviews were conducted during three consecutive semesters (Fall 2015, Winter 2015, and Spring 2016). Interview appointments were set up by e-mail message. The interviews were conducted in face-to-face meetings. The participants decided where the interview would take place. Each interview was approximately 90 to 120 minutes long. Interviews were audio recorded and transcribed by a professional transcriptionist. All interviewees were asked to comment on their experience of teaching in blended learning contexts. Instructors were asked to provide examples to corroborate their responses in an attempt to address the limitations of self-report.

Member checking was used to increase the credibility and trustworthiness of the interviews. All interviews were returned to participants via e-mail for verification purposes prior to data analysis. To ensure transferability of the results, anonymous direct quotations from participants were included to support the findings.

Data Analysis

The entire transcripts and rich text-based data from interviews were uploaded to Quirkos (2016), a computer software that enables researchers to classify qualitative data and identify the relationships among themes and codes. Qualitative content analysis was utilized as a means to analyze interview transcripts. This method of analysis involves a process of reducing the rich extensive data into themes based on valid inferences. It employs inductive reasoning, which enables the researcher to compare and contrast data in order to produce themes and categories (Zhang & Wildemuth, 2009).

Directed content analysis was utilized for the initial coding because this type of analysis is driven by a particular theory or a model (i.e., CoI framework). Zhang and Wildemuth (2009) stated the following:

> The second approach is directed content analysis, in which initial coding starts with a theory or relevant research findings. Then, during data analysis, the researchers immerse themselves in the data and allow themes to emerge from the data. The purpose of this approach usually is to validate or extend a conceptual framework or theory. (p. 309)

Content analysis involved preparing the data, identifying the unit of analysis (codes), and developing categories and codes, while also taking into account the boundaries of each category or code. To draw conclusions based on the data, it is important to ensure the consistency of codes (Zhang & Wildemuth, 2009). In content analysis, the researcher starts by reading the transcripts after they have been checked and returned. The transcripts are read for the purpose of getting a broad overview of the data. Once this step is completed, the researcher looks for any emerging themes. The qualitative analysis begins by segmenting the information and developing coding categories; a method of recursive coding is employed after identifying initialcodes. According to

Creswell and Plano Clark (2007), coding is "the process of grouping evidence and labeling ideas so that they reflect increasingly broader perspectives" (p. 132).

Afterwards, the researcher summarizes the codes while looking for differences and similarities; relationships among codes are also examined. Even though codes will continue to develop throughout the research process, the researcher must keep working on refining the codes (Denzin & Lincoln, 2000). Once coding is complete, the classification phase begins in which the researcher generates themes from groupings of related codes (categories). Lincoln and Guba (1985) identified three types of themes: (a) *consensus themes*: when the majority of participants refer to the same notion/theme; (b) *supported themes*: when approximately half of the participants mention the same notion; and (c) *individual themes*: when an idea is only mentioned by a couple of people or a small minority.

According to McMillan (2008), qualitative analysis includes organizing the data into segments, developing codes for specific patterns, summarizing the data into themes and categories, establishing connections between the patterns, and finally interpreting the data and explaining the findings. The interpretation process involves "the organization of themes into larger units of abstraction to make sense of the data. . . . The researcher would link his or her interpretation to the larger research literature developed by others" (Creswell, 2012, p. 187).

Both emic and etic data were considered during the analysis. *Emic data* refers to a participant's words and own account, while *etic data* represents the researcher's interpretation of the emic data (McMillan, 2008). When presenting the results, the researcher attempted to use a balanced approach—combining both sufficient description and interpretation— in order to allow readers to make their own judgments.

Quality of the Research

Several steps were taken to ensure the quality and trustworthiness of this qualitative research. According to Lincoln and Guba (1985), there are four criteria that constitute rigorous qualitative research, which they linked to criteria used in conventional quantitative inquiry. The criteria are credibility, transferability, dependability, and conformability.

The *credibility* of qualitative research replaces the notion of internal validity (Lincoln & Guba, 1985). The researcher ensures credibility through member checking of the instructor interviews; participants received a copy of their transcripts to check the accuracy of the recorded data.

Transferability, which similar to external validity, refers to the ability to generalize findings of the study to other settings or the larger population (Lincoln & Guba, 1985). Even though qualitative research does not aim for generalizability, in this study, the researcher attempted to provide sufficient descriptive data such as the number of participants and strategies used to collect data, as well as a thick description of the data to allow readers to make their own judgments about the applicability of findings.

Dependability, which corresponds to reliability, refers to truth of the findings (Lincoln & Guba, 1985). The researcher described extensively the research process, including the documentation of data, methods, and decisions made in interpreting the data.

Confirmability, which corresponds to aspects of objectivity to assure the adequacy and accuracy of results. Consequently, the researcher acknowledging her bias and personal beliefs to ensure that results would be derived primarily from participants' experiences (Lincoln & Guba, 1985). The researcher provided a detailed description of the data collected.

Ethics

Ethical concerns exist in all research. Researchers must explain how they intend to address potential ethical issues. For instance, concerns such as maintaining the participants' privacy must be explained. This study included approval from the University of Manitoba Education/Nursing Research Ethical Board. Informed consent forms were obtained in writing before conducting interviews. Participants were offered a copy of the informed consent form for their own records, and were instructed to return one signed copy to the researcher. The nature of the study and participation were explained prior to conducting interviews. On the date of the interview, the researcher reminded participants of the parameters of the signed consent form. The researcher explained once again the confidential and voluntary nature of the research, as well as participants' right to refrain from answering questions and to withdraw from the study at any time. No confidential records were consulted or obtained. The data were used only for purposes of completing the researcher's dissertation. Only the primary researcher, the researcher's advisor (Dr. Marlene Atleo), a professional transcriptionist (who was provided with anonymous digital files), had access to the data.

No power issues between the researcher and the participants emerged. They would have been addressed immediately if they had arisen during the research. Coercion was averted by not withholding any essential information from participants. There was no misleading information about the research or its purpose. The research did not involve deception, nor did it require waived informed consent. The researcher ensured confidentiality by removing identifiable data from the analysis and assigning pseudonyms to participants.

In addition, participants had the opportunity to review a transcript of their interview to verify the accuracy and to ensure the confidentiality of information. All results were reported in

general terms. The interview data in addition to the observational notes were securely stored in a password-protected computer file, as required by the University of Manitoba guidelines; the consent forms and printed data (i.e., transcribed interviews) were stored in a locked file cabinet in the researcher's home. All data will be destroyed after 5 years in August 2022.

Summary

The purpose of this study was to better understand instructors' teaching practices in blended learning environments, and to investigate the theoretical underpinnings of their approaches. It examined the extent to which elements of the CoI model were evident in instructors' teaching practices in blended learning courses at the University of Manitoba. A qualitative approach was employed in this study to gain a deeper understanding of instructors' perceptions of blended learning, as well as to identify the components of effective blended learning environments in post-secondary education.

CHAPTER 4: FINDINGS

The purpose of this study was to explore teaching practices in blended learning environments and the ways in which learning theories informed these practices in blended learning courses at the University of Manitoba. In this study, the researcher aimed particularly to explore instructors' perceptions of their teaching approaches in blended learning environments and their perceptions of what constituted effective blended learning. The CoI (Garrison et al., 2000) was used as a conceptual framework. Data collected in this study generated a range of recommendations and suggestions for administrators, instructors, and students. The results should help to better understand underlying philosophies of teaching in blended learning environments; further, they may contribute to creating better blended learning courses for students and instructors.

In this chapter, the primary categories and themes are presented. Findings are presented in four main sections: Teaching Experience, Benefits of Blended Learning, Evidence of Social Constructivism (CoI Elements), and Suggestions to Improve Teaching and Learning in Blended Learning Environments. The first section includes general information on the participants' academic background and their teaching experience (i.e., department, number of students, number of courses taught, and years of experience). The second section is categorized as teaching experience, which included three themes that were derived from three different questions focusing on teaching experience in general: (a) Teaching Approach, (b) Change in Teaching Experience Over Time, and (c) Differences Between Teaching a Traditional Face-to-Face Course and Blended Learning Course. The third section is based on the CoI framework survey. The themes in this section correspond with the primary elements of CoIs: (a) design, organization, and structure; (b) facilitation of learning and instruction; (c) teaching strategies; and (d) social

interaction, communication, and connectedness. The fourth section focuses on suggestions for students and instructors to improve the experience of teaching and learning in a blended learning environment.

See Figure 3 for the primary categories and themes.

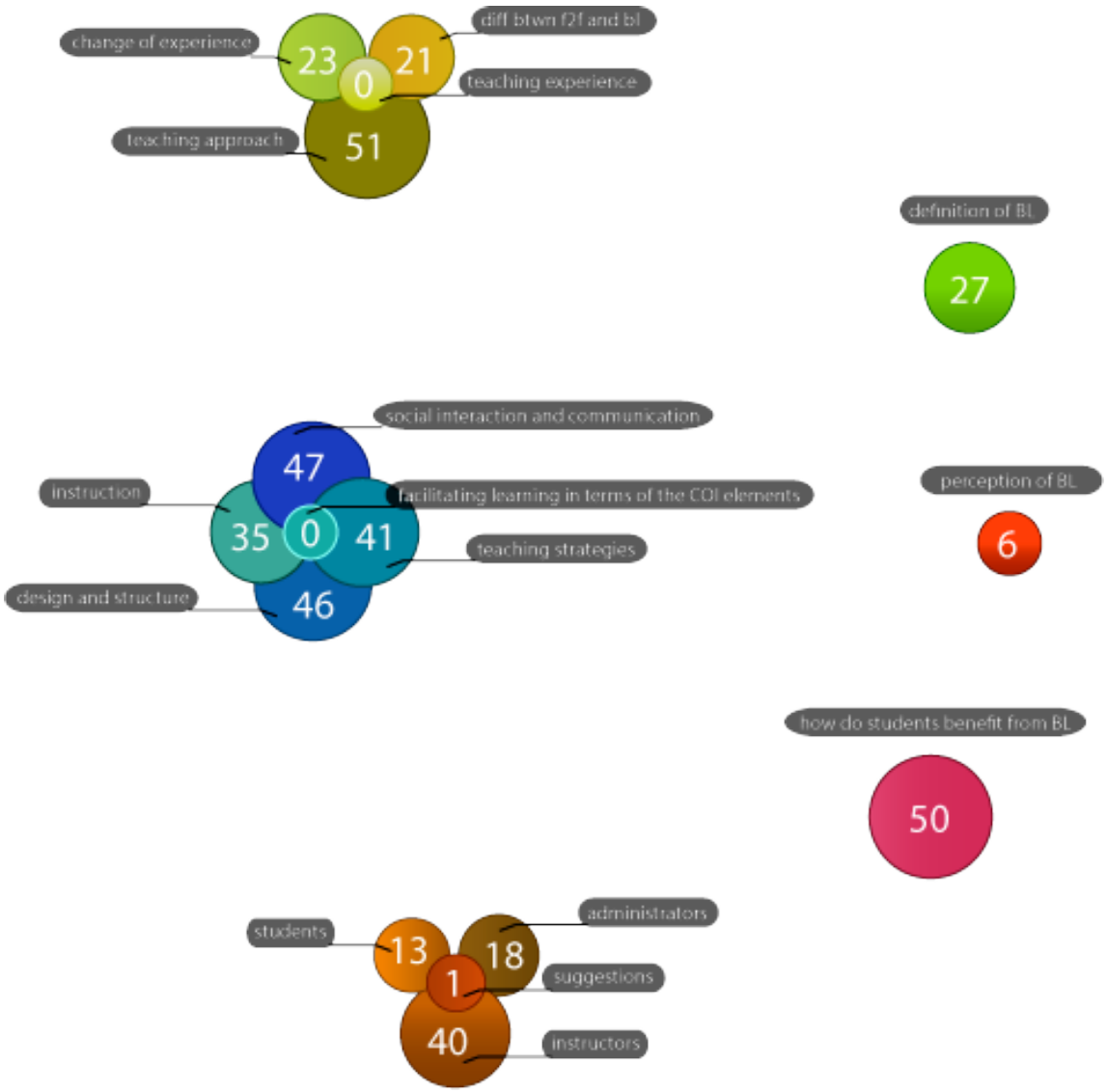


Figure 3. Primary categories and themes using Quirkos.

See Figures 4 and 5 for the hierarchy regarding the categories Teaching Experience and CoI Elements. The location of the bubbles in the figures is irrelevant. The size of the bubbles represents the number of quotes found to identify and align with each theme. Each cluster of bubbles represents a theme. The bubble in the centre is the main theme, and the bubbles emerging from the main themes are the subthemes.

Figure 4. Hierarchy regarding the teaching experience.

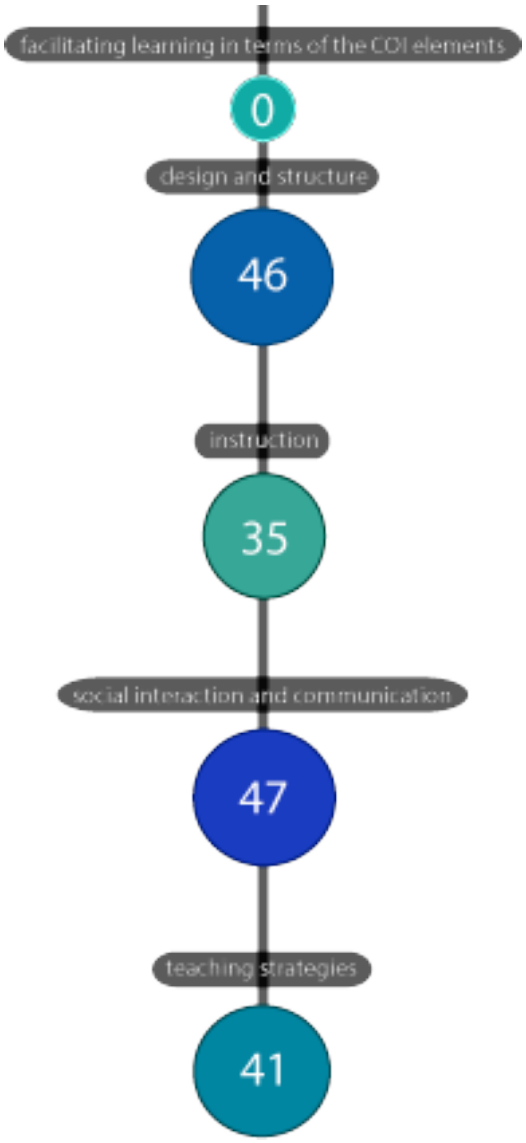


Figure 5. Hierarchy regarding the facilitation of learning through the CoI elements.

Main Findings

The findings of this study are presented in four sections. In the first section, findings related to the general teaching experience will be discussed, including three themes:

1. Teaching Approach, which corresponded to the interview question, "How would you describe the way in which you approach teaching using blended learning?"

2. Change in Teaching Experience Over Time, which corresponded to the interview question: “Has your experience teaching blended learning courses changed over time? How so?”
3. Difference Between Teaching a Traditional Face-to-Face Course and Blended Learning Courses, which corresponded to the interview question, “How does your approach to teaching using blended learning differ, if at all, from teaching face-to-face?”

In the second section, findings related to the benefits of blended learning will be discussed, which corresponded to the question, “How do you think students learn best in blended learning contexts?” In the third section, findings related to CoI elements are discussed, including theoretical underpinnings (i.e., teaching presence, social presence, and cognitive presence). This section corresponds with the third interview question: “Please describe how you facilitate learning in blended learning environments, particularly in relation to the following elements: (a) design and organization of the course; (b) facilitation of learning and instruction; (c) social interaction, connection, and communication; and (d) teaching strategies to enable learning.

Finally, in the fourth section, the researcher presents instructors’ recommendations for improving teaching in blended learning contexts. This section corresponds with the final interview question, “What suggestions could you offer to help make blended courses more effective for learners and instructors?” Please refer to Table 1 for the organization of the findings in relation to the research questions.

Participants’ Backgrounds

The researcher interviewed nine instructors, four female and five male, employed at the University of Manitoba.

Table 1

Findings: Classificatory Themes Based on Data Analysis Based on Questions as Indicated

Section 1	Section 2	Section 3	Section 4
Findings related to the teaching experience.	Findings related to benefits of blended learning for learners.	Findings related to evidence of social constructivism in current teaching practices.	Findings related to suggestions for administration, instructors and students.

The instructors met the inclusion criteria of having taught at least one academic blended learning course in which they combined online and face-to-face learning (synchronous and asynchronous). The instructors taught in three different faculties, with the majority working in the Faculty of Education (see Table 2). Due to the state of blended learning at the university being in its infancy, and the lack of participants, the small sample behooves the researcher to abstain from providing more information in regards to the instructors' academic backgrounds and their departments to respect ethical concerns for their anonymity and confidentiality as required by ENREB guidelines.

An important note on the findings depicted in Table 2 is that 6 of the 9 participants were from the faculty of education in which technology is a featured pedagogical strategy. Consequently, these members are highly conversant with using technology in the classroom as a blending approach and also dealing with online student instructed education. Their contributions raise the profile of blended learning in this study to a greater extent than possibly exists in the general population.

It was immediately noted that the participants experienced some difficulty answering the two following questions: "How many face to face courses have you taught/teach?" and "How many years have you been teaching courses in a blended learning environment?" This difficulty

may be attributed to the lack of conceptual clarity in regards to blended learning. In addition, difficulty recounting the number of traditional courses taught (as most had been teaching traditional classes for at least a decade) may again have been due to lack of clarity regarding the definition of blended learning.

Participants' Definitions of Blended Learning

While the term blended learning was defined in the study material (i.e., the process of combining face-to-face and online instructional methods), instructors provided a range of responses when asked to define and explain blended learning. They loosely defined blended learning as the combination of face-to-face learning and online learning (without the substitution of the online component for some face-to-face learning time).

Table 2

General Background Data Generated From the First Interview Question

Participants	Faculty	Number of blended learning courses	Number of traditional face-to-face courses	Typical class size for the blended course
J	Education	1	12	15 as for the f2f the smallest was 8 and the highest was 50
M	Education	According to her definition of BL (blending different modalities) all her courses are blended	n/a	Undergrad 35-40 while grad courses are from 6 to 25
K	Education	5–6	Impossible question because she taught a lot	35–45 students
D	Education	According to his definition of BL all his courses are blended	n/a	Graduate is 6 and undergraduate of 30

L	Dentistry	2–4 courses. Two taught in the last 15 yrs.	n/a	26
S and A	Arts	Led 5 sections of a course for 3 yrs.	n/a	It will range from 150–300
R	Education	According to his definition of BL all his courses are blended	n/a	Varies widely
O	Education	1	n/a	Graduate class 10–12 and undergrad is 35

Five of the instructors described blended learning as a combination of online activities and/or various instructional methods with no online instruction time substituting face-to-face time. The remaining four instructors used blended learning as a combination of online classes and face-to-face classes, with the online part substituting some of the face-to-face time and the content being divided between the two modes.

Instructor R said the following:

> My definition of blended learning would be where there is some version of online learning with association with face-to-face class time. I think it has to be more than just readings. I think there has to be a more interactive element to it, which probably could be achieved by students forming little study groups with the readings. In this case, making use of the online capabilities to have discussions, to share resources, for everybody to contribute to the group learning . . . that there is an online interactive part to it that becomes [a] critical piece of learning.

Others provided broader definitions of blended learning, typically referring to any use of blended modalities. For example, Participant M stated the following:

> I understand blended learning as a pedagogical modality; so there are few courses that I teach where [I] don't use multiple modalities. In terms of substituting in time, I would say none, because my concept of blended has been curtailed by the definition of the faculty with time spent with students. . . . I will still be there for watching a video, or sometimes I will assign a video, but I will still spend that time with them in the classroom. I can assign extracurricular modalities of experience, but I will still spend the required amount of time in the classroom.

Instructor D defined blended learning as "blending the teaching as to whether it's on site, in a classroom at a given time—and the content."

The researcher observed that the instructors expressed different attitudes toward blended learning depending on their familiarity and level of comfort with it. Instructor D expressed his confusion and frustration with the term, describing it as a "soft concept and a stipulated definition." Further, he shared the following:

> I don't think the term blended learning means very much. It's certainly not new—it's a standard technique. The only thing that's new is whether it's online and exactly what that means then we take it from there. What is blended learning? I don't know what your definition is—and I should ask you that by the way—what is blending? I think, though, that it's on class—in class versus on your own at home. I don't know. What is blended learning? In the teaching of my field . . . the idea is to use as many technologies as possible. If I use a picture, is that blended? There [I] am changing modalities. To blend, and again, I don't know what blended means. I don't think anyone knows. I think it's a bad term. Blended—it's a very soft concept. . . . I think it's a stipulated definition. A stipulated definition is always, I say, this is what it's going to mean, but nobody else has

> to agree with you. The rest of the world can believe something else. I don't like stipulated definitions. They fall short very quickly.

Though Instructor D appreciated the concept of blended learning, he found it to be a "stickler definition" and a "buzzword" that was "almost meaningless" and not associated with good or bad teaching. Similarly, Oliver and Trigwell (2005) described the term blended learning as vague because it covers a wide range of definitions that can be perceived differently. The instructor did see the value of regulating blended learning at the university because he believed it would limit its possibilities. By contrast, instructors who appreciated the vast nature of the term blended learning—including numerous combinations of learning methods—wondered about the benefits of streamlining blended learning or narrowing it down to simplify the process of teaching in blended learning environments.

Four instructors highlighted the negative attitudes of their peers in relation to them teaching blended learning courses. Participant S stated, "Everybody hates us because we are not there live. We've got[ten] accused of laziness [by other instructors]." Instructor A agreed: "I have gotten emails that have been complaints to the head of our department as well that I send my grad students in to teach classes because [I] am too lazy." She explained further:

> Other faculty members don't like that. They think you're shrinking your responsibility. They don't understand the structure enough. With the blended, I can offer it up to 2,000 students. Just me instead of 10 professors teaching it. You've designed a course that made it unnecessary to hire more professors, so controversial. Many of them are very concerned with the kind of trend that we represent.

In general, the instructors found blended learning to be different from traditional face-to-face learning and online learning. Instructor J described it as a "unique" mode of learning. He continued:

> It's probably unfair to say blended is the best of both worlds. Blended is different. That's what I've learned. Blended is unique—its own learning opportunity. . . . I really think it is its own structure, delivery, and modality. It is not just like face-to-face. It is certainly not like online. If you have a continuum, I don't think it sits in the middle. It tends to sit closer to—I think—the richness of what face-to-face is as a unique mode of learning.

Section 1: Findings Related to Teaching Experience

The findings presented here revolve around the instructors' experiences with teaching blended learning. This section is divided into three subcategories. Section 1a discusses finding related to instructors' approaches to teaching in a blended learning environment. Section 1b examines findings about the evolution and possible change in their experience of teaching blended learning courses over the years. Finally, Section 1c explores differences instructors found between the ways they approached teaching in a face-to-face learning environment versus a blended learning environment.

Participants' teaching approaches. Instructors were asked to explain how they approached teaching in a blended learning environment. A few instructors were confused with the term *teaching approach*. They perceived the term to be ambiguous and asked for clarification and a precise definition of the term. This was particularly true of instructors who expressed uncertainty about their approaches to teaching in a blended learning environment. The uncertainty may be a result of a lack of practice, knowledge, and/or familiarity with blended learning, especially given that it is in its nascence at the University of Manitoba. Participants may

have been concerned that their perceptions of blended learning and teaching practices were not aligned with the goals of this study. The participants provided various answers that covered a wide range of methods that they took into consideration while teaching in a blended learning environment. In examining the codes, the researcher determined that the instructors, in general, based their teaching approaches on enhancing the learning experience. They focused primarily on three overlapping elements: (a) students, (b) themselves, and (c) the use of technology. These elements were captured in participants' discussions of pre-planning, time management, continuity, and knowledge of the learner.

Working with blended learning can be overwhelming. It requires careful consideration regarding planning, designing, organizing, facilitating learning, assessment, and being present. Having a concept map or an overall plan and being organized were found to be key factors considered when teaching in a blended learning environment. In fact, one of the codes that emerged emphasized the potentially overwhelming and complex nature of blended learning. According to Instructor S, "There's plenty of times where we went, 'This is just too much and too stressful.'"

Instructor L explained how her approach was based on forming a well-executed plan that considered a range of variables:

> To have an ability to be well-organized—both depth and breadth. When you are doing this, you have to have an overall game plan. It's complex. Know where you are in that complexity of the web or the algorithm that you have created. If I am going to put this material online for them to do on their own, where am I going to check in with what they have learned online? In an online format—or do I want to do it face-to-face? Decisions, decisions, and what—what's the implication of that decision—the consequences?

The thoughtful planning becomes quite useful considering the workload instructors deal with when teaching in blended learning environments. As Instructor O explained, "I get them engaged that way, so I also have to think about my workload. . . . And, also I don't want to ignore myself in the whole process. How do I have fun?" Instructor O was passionate about his course. He discussed having fun by immersing himself in the process, being present and involved with face-to-face and online discussions, and creating projects that were relevant to learners and their experience.

Time management was thus a core issue in delivering blended learning courses. This was consistent with Tynan, Ryan, and Lamont-Mills' (2015) findings that teaching tasks and managing communication with learners (e.g., managing chat sessions) added to their worktime and workload. Instructor L highlighted the importance of considering time when planning a blended learning course: "It's time management from my perspective . . . being respectful and sensitive to time management and time availability from their [the students'] perspectives. We're not doubling a course here by dumping material online."

However, not all instructors approached their teaching experience with comprehensive pre-planning. Two instructors stated that their experience with blended learning was more of a trial-and-error approach that involved a lot of experimentation. Instructor O discussed the importance of being familiar with the content, flexible, and open-minded, all of which he considered crucial to the success of a blended course. He stated, "Instructors can't just dump stuff online or use the technology as a waste or a filler, or upload textbooks online, or layer online activities." Instructor D explained:

> If I use as rule of thumb, technology should not be used as a time waster to fill in 2 hours that you don't know what to do with. . . . I don't care what subject you teach, that's a good rule to follow.

Based on the participants' responses, approaching blended learning must be a thoughtful process that leads to productive and better ways of learning. It is described as a process that evokes minds and focuses on active sharing of learning and knowledge. It must promote interactive, engaged, participatory, and collaborative learning because, according to Instructor L, "that's the essence of blended learning." She shared the following:

> I want them to think, "She really makes me think. She's really passionate. She really makes me think." The thing is students has [*sic*] to be disposed to want to be in the learning space that you're inviting them to come into. I am referring to this as the interactive, engaged learning, a.k.a. the blended part. You don't do that by reiterating textbook knowledge. You do it by engaged learning. In that way, the blended part from the very beginning of time that I have been very purposeful.

According to Collins and Halverson (2009), this generation learns best when they are actively engaged and when they are able to collaborate, innovate, problem solve, and utilize their own learning style. Digital learners are constructivist learners and technology is an intrinsic part of their learning (Vaughan et al., 2013). In addition, Instructor O pointed out the element of *continuity*, which refers to connecting both face-to-face and online content. He underlined the importance of blending these approaches, particularly through dialogue. Blended learning involves infusing two different spaces—one highly energetic and interactive, while the other more self-paced and isolated. The process of mixing two different types of learning is delicate and complex. It often raises questions such as the following: How does interaction occur in these

spaces? How do we blend/combine the two spaces in a way that will maximize learning? It is important to investigate how post-secondary and adult learners perceive interaction in both the face-to-face and online components of the course (McDonald, 2012). This will help to understand how educators can facilitate interaction and engagement in blended learning contexts. Instructor O stated,

> That's something that was really important to me—to take that theme of blending to another level and blend the learning spaces through conversation. I feel like that element of continuity is just very strong with you [the instructor], where you make sure both worlds are connected all the time—where others are just like, "Online is inline. Face-to-face is face-to-face." It's separated.

This finding is consistent with Hinkelman's (2005) study in which the author stressed the importance of the element of continuity between the two modes of learning. It is a critical factor in the process of designing and teaching blended courses because it helps to ensure a smooth transition for learners between the face-to-face and online modes, without disrupting the learning experience. Instructor M based her teaching on theoretical principles operating from a position of situated knowledge and considering the schema theory, which allows knowledge to become a product of the student–student and students–teacher negotiations. She explained this process as follows:

> I basically operate from a position of situated knowledge. [My] theoretical position is that everybody is very situated in their knowledge, and we need to understand that we're speaking from a place so that when people communicate with each other, they're always positioning themselves—and we have to acknowledge that about them in our conversations with them. That is what a community of inquiry is about, we [are]

> negotiating our understanding about something so we can come to some commonalities in our understanding around the issue that we are learning about. I think of it like schema theory: It involves affective and experiental framing. . . . When interaction occurs, layers of our schema are constantly growing and getting more and more elaborate. It is only when we get involved in negotiating our meaning and understanding of what is being learned that learning becomes meaningful.

All of the instructors underlined the importance of knowing the learner and discussed numerous ways to accomplish this task. Instructor M explained that knowing the learner involves forming a "synergy" with them—like the one between a mother and her child. She stated the following:

> There's a synergy between you and the child, and how you use these synergies to direct the child's attention, or redirect their attention, and it's both a cognitive and affective piece/component. I see it similarly. I think when I interact with my classroom, I see it similar to that in that I am directing and redirecting their attention, or orchestrating their attention. I see it as a real dynamic that's more like an orchestra playing. Embracing that bond and promoting a sharing atmosphere creates the cultural depth needed to make the learning experience more meaningful.

Instructor K described using surveys as a means of gaining more information about her students' experiences. She emphasized knowing the learners and building a community in the classroom: "I like to do surveys—find out what they know, what experience they've come from, so they can actually come into the classroom community and learn how to build community themselves. That would be the basic notion behind that."

According to Instructor M, when you know the learner, you are likely to provide them with a better learning experience that suits their needs. She described her class as student-centered and planned based on students' learning styles and experience. She said, "[It] is like an orchestra with different instruments playing the same piece of music." She discussed the importance of establishing a sense of community early in the process and working on sustaining it throughout the course. She indicated that she asks students to share things about themselves (e.g., interests and experiences), while she notes other characteristics (e.g., learning context and styles). She discussed how this enabled her to tailor the learning experience to their needs as much as possible. For example, she shared how she used meaningful visual aids to support verbal instruction for visual learners. Additionally, she designed assignments that could be tailored to each student's experience, like writing a precis for a chapter. She said, "The experience needs to be facilitated to be the best experience possible, which means you'll have to pay attention to where they're coming from, where they're going, and where they're at, at this point in time."

A key method to understanding students and responding to their learning needs during a blended learning course is to be visible and present throughout the learning experience. It requires a great deal of effort and courage; as Instructor O stated, "You can't be absent. So, you have to have the courage to be ever-present with them." Further, being present early on and in both modes (face-to-face and online) is especially beneficial to learners because they feel that teaching presence throughout the learning experience. This must be done with careful planning and consideration, as it has the potential to overwhelm the instructors and increase their workload.

Another significant code that emerged was ensuring that students facilitate their own learning. Instructor O stated, "Because the students take ownership of their own learning through the process, they become facilitators." Students take ownership when they are engaged and

involved. For example, having student-directed projects involves them in their assessment (rubrics or grading criteria) and allows them to use different outlets like technology to demonstrate their knowledge. For students to take on this role, Instructor O discussed how it is critical that instructors first model it. Students can then shift between different roles at different phases in the teaching and learning process. Instructor O explained this shift as follows:

> I am a facilitator. But, then as you will see through the students experience with the online, I become more and more moved by the process—the teaching and learning process. I am more of a commentator. Yeah, so it shifts overtime. At the start, I would say I'm an instructor. Moving from facilitator to commentator and that is because students take ownership of their own learning. They become facilitators and then I shift more into the commentator role, where am just commenting on what they're doing and saying because they're teaching each other.

Other codes that emerged included locating good resources and providing options and various venues for students to learn and express their learning. Instructor K shared the following:

> Instead of having stuff fed to you, you can actually learn by experimenting with a few of these things—what works for you. I provide choices and always provided choices for people. If you're going to learn something more quickly this way, let's do that.

Instructors discussed the importance of having a willingness to experiment, being open-minded, and maintaining engagement both online and face-to-face. According to Instructor O, keeping students involved in the learning process is crucial. He discussed ways of maintaining engagement:

> I consider different factors. I look at how can I engage students and keep them engaged because I used to teach all courses, like the courses online before I moved to blended

> learning. So, I learned that you need to keep students engaged. So, how do you keep them engaged? How do I get them to work with the technology? And, how do I build a community?

Participants' changes in teaching experiences over time. This section examines findings about the evolution of instructors' approaches to teaching in blended learning environments over time. All participants reported that their approaches to teaching blended courses changed to a certain degree over the course of their teaching experience. This included instructors who had only taught one blended learning course. Nonetheless, changes in teaching practices varied in several ways. One instructor, for example, reported that her teaching style, use of modalities, and the technology she utilized changed. Instructor D discussed how teaching had become easier for him in general, including the ease of locating multimedia learning resources. He stated the following:

> Only that it is easier to get films or to get media—to get multimedia. This is multimedia teaching. It's easier to get. . . . I am a little more flexible. Teaching has become easier, it has become cheaper, and it has become more accessible.

Similarly, Instructor K also found that teaching had become easier and she had become more proficient in dealing with technology. She stated, "We had lots of shifts in how technology blends, so to speak, over that time. [It is] much easier now." Instructor J discussed change in terms of his level of comfort, familiarity with technology platforms, knowledge, and interest. He stated, "Yeah, what's changed is my comfort level, my knowledge, my familiarity around using the platform, but also my interest in doing more." It is important to note that this change may have been partially related to the support he received from his department, particularly from one of his colleagues who helped him navigate teaching in a blended environment.

Several instructors reported being focused on continuously changing their teaching approach to reflect their students' needs and feedback. Instructor L discussed her efforts to utilize her students' feedback as a resource to refine and improve her teaching approach:

> Because I schooled myself to better understand teaching and learning and not just rely on my own experiences year after year, I engaged in how to teach and teach to learn and bettered my own abilities. . . . I gave very careful and scholarly thought to what I am doing and why am doing it, and why does it work, and why does it not work and lots of feedback from the students. So, I wonder how I can help reduce their frustration, stay on task . . . every year revisit the good, the bad, the ugly, not toss the ugly because its ugly, but say, "No, what's going on with the ugly that I can soften it because its educationally sound?"

Similarly, instructor O took into consideration his students' feedback collected through surveys. He discussed how student feedback helped him to learn more about the tools available to him and made him change his syllabus to reflect their apparent need for more face-to-face time. The syllabus change included more ways to engage students and foster their leadership.

Instructors S and A discussed streamlining instruction and incorporating more engaging material in the online part of the course. Streamlining turned out to be quite beneficial as the instructors were dealing with particularly large numbers of students. Instructor A shared the following:

> I have over [X] numbers of students at a time, which is a lot. We have tried to make it streamlined so that students can easily follow what they have to do in the course. There aren't a lot of components, so we don't have a lot of little tiny assignments because we found in the beginning when we had multiple assignments, it was just too much. We streamlined it. It works much smoother now.

Differences between teaching a traditional face-to-face course and blended learning course. The participants were asked to discuss the difference between the ways in which they taught face-to-face courses compared to blended learning courses. Two of the participants, Instructors D and J, reported no differences between their teaching approaches in each environment. They discussed how they had always taught their face-to-face courses combining online components, even prior to the emergence of the term blended learning. Instructor D stated, "I teach with technologies. Whether I teach with them at home, at school, at somewhere else depends on the nature of what I've got." Instructor J treated his blended course as if it were face-to-face. The instructor mentally prepared for it in the same manner he would prepare for traditional face-to-face courses. Instructor J discussed relying heavily on his face-to-face teaching approach due to his lack of knowledge and familiarity with blended learning. He explained:

> I probably framed the course as if it were face-to-face, but delivered it blended. I had no experience. I had no mentor. [My colleague] and I made it up as we went along. We probably tried to think our way through it without any practical experience. I would say in terms of the question that you've asked, I probably relied too much in my mind, in terms of the design and structure of the course, as if it were going to be face-to-face.

The remaining seven instructors reported individual differences between teaching in a blended learning environment and teaching in a face-to-face environment. Instructor A described teaching face-to-face as being traditional: following the transmission of teaching and assessment. She stated, "Yeah, this would have been a transmission way of learning where I had exams, and so I had recall recognition exams, and multiple choice, and those kinds of exams that are content-based."

Teaching in a traditional face-to-face environment certainly involved more guidance, which to Instructor O meant more "handholding." Instructor O observed that he had a stronger presence while teaching in a face-to-face environment, describing his role as being more of an instructor than a facilitator. He said, "I am more of an instructor, I think I would say, in person. I am hand holding a lot more in person. Maybe it's the way that the support structure is set up for classrooms."

The majority of instructors (six of the participants) found that teaching face-to-face lacked the time, variety of options, and the excitement that required the instructor to work on making it more appealing to learners. Instructor R stated the following:

> You can't have as many options because you have time constrictions that you don't necessarily have in blended. I am more cognizant of the fact that I need more variety in what I am doing in face-to-face and trying then to do more of that within the face-to-face environment. . . . When you've got 20 or 30 people there, and you've got to bring the energy into the class and you've got to design—because there isn't as much choice—you've got to design it to appeal to—that time period has to appeal to—different kinds of people and different kinds of learners. In class, you don't have the variety for each individual. You've got to create the variety. You've got to bring the energy so people can actually participate.

Blended learning, by contrast, was found to be more open, structured, and less improvised. It was described as clearer and more concise, with less verbal input. Instructors believed that the reason is that learners in a blended environment rely more on intrinsic motivation because they require self-motivation and direction. Instructor A said, "It's much more structured when it's blended. So, you have those recordings and you just want to make

them as efficient, so you get to the point. Everything is clear, concise." Similarly, Instructor S shared the following

> I think because teaching a lecture course you're there maybe three times a week and you can remind people, "You've got to—the exam is coming up. You've got to read this." You're giving a lot more verbal reminders of things. There is an element of self-motivation. It's a stronger requirement for our [blended] class.

Instructor O noticed that the type of questions he asked in a blended learning course happened to be a bit more open and more challenging and thought-provoking. It could be that the instructor found the innovative learning space to demand more creativity and thus a departure from the traditional norms. In general, the instructors found their teaching approaches to differ to a certain extent in blended learning environments. Instructor O explained, "It's a virtual space. That means it requires a particular set of skills that are different than the in-person space."

Section 2: Benefits of Blended Learning

Instructors were asked about their perceptions of how students benefited from blended learning. Seven of the participants perceived their students to be satisfied with blended instruction, while the remaining two were unsure about how students thought about their courses. Similar to Bonk et al. (2005), this study found that accessibility, flexibility, and convenience emerged as distinct advantages of blended courses for learners.

Instructor K stated, "We can offer things to people that [who] are not able to make it here. They maybe live in a farm or someplace far away, and yet they're not cut off from educational experience." The ability to learn together and from each other was a theme that reflected the collaborative and interactive nature of blended learning. Instructor L shared the following:

> I have reiterated that to learn from and about and with each other around the content because we are creating a community of inquiry. . . .From the students' perspective, it's a permission to learn together, right. They know how to learn the material individually, but what about the learning together and the power of the group?

In agreement, Instructor J said, "The students learned independently, interacting with the material. It was clear they learned from each other." This is consistent with Fetch's (2005) findings that blended learning increased student interactions, both with the content and with each other.

Instructors O and K highlighted the benefit of the reflection process during the asynchronous online component of the course. The self-paced online learning allows learners to engage with the content on a deeper level and reflect upon what they have learned in class. Instructor K said, "You get a chance to go back and review anything you want—see it twice. You'll see new things when you see it twice."

Instructors consistently referred to the importance of variety in approaches to learning. Five instructors emphasized that blended learning provided an array of venues or modalities for students to learn and demonstrate their learning. According to Instructor D, for example, learning could be achieved through reading books, articles, and blogs, as well as watching videos. Learning could be demonstrated not only in writing but also through making a video or podcast. As Instructor R stated, "I think what's important about blended learning is that there are different ways of students getting at the learning." This finding echoed Graham and Kaleta's (2002) observations that a key benefit of blended learning is the ability to offer a wide range of instructional methods.

Furthermore, blended learning was found to meet students' needs for stimulation and immediacy. Instructor M discussed how students have a need for a lot of stimulation, which can be addressed by using multiple modalities and accessing resources online during lessons. Blended learning lends itself to this while simultaneously satisfying the need for immediacy.

Instructor M discussed how blended learning evoked students' potential:

> Blended learning evoked potential. That is a real psychological term. Evoked potential is like how you physiologically respond. Even my searching online—everybody can get involved in my search online; they all know how to do that, so they can be there as I'm looking at the URL up. So, they can be engaged even as I Google. It's like getting them going. They contribute their own perspectives, their own experiences, their own reading to the theme and it enriches the conversation about the theme. But, you also have an experience as you're doing it, so that you learn. It becomes embodied through a learning process.

According to Instructor M, blended learning facilitates the process of co-producing and co-constructing knowledge between learners and instructors:

> Instructors and learners enter the learning with their own experiences. When they share their experiences with each other, when questions and answers are exchanged regarding a certain topic using multiple formats, and when feedback is exchanged and both sides challenge and learn from each other, that is when the co-production process unfolds—that is at the heart of this process.

Instructor M stated, "You produce something and if you can produce something together, that's sort of the ultimate outcome of that co-construction—is if you can do that." The cooperation that unfolds in the learning environment has a positive impact on the relationship

between the student and the instructor. Instructor M explained, “It breaks down the hierarchy I think between the student and the instructor. It reduces the hierarchy because . . . you’re merging boundaries as you’re co-constructing.” This construction of knowledge is the core of the constructivist approach, where instructors are expected to enable students to collectively learn by constructing knowledge, drawing from their own experience, and creating meaning (Boghossian, 2012).

The relationship then becomes more dynamic and advanced, and the responsibility of learning now is shared rather than being held solely by the instructor, which is the essence of the teaching presence (Vaughan et al., 2013). Instructor O stated, “They become facilitators and then I shift more into the commentator role where I am just commenting on what they’re doing and saying because they’re teaching each other.” In addition, Instructor O observed that blended learning facilitated connection because it offered the emotional and cognitive flexibility required for students to learn effectively. He discussed how unlike traditional approaches to learning, blended learning allowed learners to facilitate their own learning and to challenge each other at a deeper level. Instructor O indicated that the questions that were asked in the online discussions were very different from the questions posed in face-to-face classes: There was greater depth, a sense of challenge of investment, and a desire to learn. According to Instructor O, “They [the students] ask hard questions to each other that I would never ask them, but they really do challenge each other and because it’s not me challenging them, the power dynamic is different.”

Instructor J explained how thoughtful integration of face-to-face classes and online activities and classes facilitated the process of internalization, which enriched the learning experience and added depth and new dimensions:

> They learned from each other when they used the discussion board, when they interacted with the various content we had loaded—textual content. We also loaded video content. . . . They definitely learned as they engaged with the material, but it seemed to go one level deeper through their discussions. . . . I don't think it would have gotten to that depth that I hoped the discussion would get to unless we had a blended format. In other words, if it had been purely online, I don't think I would have been as satisfied with the course as I was as a blended course.

Other advantages mentioned by the instructors for students were as follows: (a) the ability to access various resources and hyperlink to them, (b) allowing shy learners to interact and express themselves in the online component, and (c) allowing prep time prior to attending class and reflection post-class.

Section 3: Evidence of Social Constructivism (CoI Elements)

This section addresses the instructors' teaching experience regarding elements of the CoI model. Instructors were asked about their experiences facilitating learning in a blended learning environment in terms of (a) design, organization, and structure; (b) facilitation of learning and instructions; (c) social interaction, communication, and connectedness; and (d) teaching strategies. The purpose was to further understand the theory that informed their teaching practices and to determine the extent to which constructivism was evident in their approach. By analyzing the participants' quotes for elements of the CoI model, the researcher was able to get a sense of what the instructors did and what factors they took into consideration when teaching in a blended learning environment.

It is important to note that the researcher did not provide the participants with any further explanation when they were asked to describe how they facilitated learning in relation to these

four aspects, nor did the instructors ask for any clarification. They were not familiar with the CoI model, nor were they introduced to any related research. The participants answered the questions based on how they perceived and defined each aspect. Consequently, this led to numerous individual codes. This partially explains why the researcher had difficulty finding commonalities among participants regarding the CoI elements.

Design, organization, and structure. Knowing the learner once again emerged as an important code. The participants explained that this was the primary foundation for their work and a vital step that instructors must not skip prior to designing and working on their blended learning courses. Instructor R said, "I have trouble designing courses—not intellectually, but to me it seems absurd to be designing a course without knowing who is in it." Instructor K designed her course by first attempting to understand the learners and where they come from. She stated,

> You've got to come to terms with who your students are in your class—get some idea of that first. You might have people with less or more experience and you've got to deal with those issues and make that community your focus because it's a learning community.

Instructor K employed a pedagogical strategy with the content delivery that enabled students share in the co-construction of knowledge. This finding is consistent with Cercone (2008), who highlighted the importance of acknowledging the learner's experience, attitude, and expectations. Similarly, Instructor M discussed building her course to cater to adult learners:

> Well, I have a set process in my courses, where for the first while I learn about the students, and they learn about themselves. I use assignments where students will reflect on dimensions of themselves, and so they overtly know certain kinds of things about themselves and then I will know them too. That creates a basis on which I can build knowledge about them—the first part is establishing where they're coming from,

> establishing what we're doing in the class, and then triangulate between where we are, who we are, and each other in the classroom.

This points to the importance of the situated knowledge (Haraway, 1988). It is important to acknowledge learners' affordances and barriers to learning, including social, socioeconomic, intellectual, and cultural elements, all of which come into play when developing a rich learning experience. When students come to the experience from a place of self-knowledge and empowerment and come together to exchange their points of view, it provides a rich account of their perspectives/reality and what they're learning. Instructor M claimed that the core of the learning experience was having a developmental goal. In her class, she described her expectations as multicomplex and fluid in nature, and they were aimed at the development of learning that was born from "that type of interaction [occurring in my classroom]."

Participants also discussed the importance of flexibility in the design, paying attention to learners' interests, and providing them with the freedom to choose and contribute to the design of the course, particularly regarding the selection of assignments. Instructor ? shared the following:

> I like giving them a choice, and I think that's an important piece in blended learning in making sure they always have that choice to do what they want to do that interests them, and then I would write back that student. I respond to as many of these things [as I can].

His expectations were clear and embedded in the syllabus rather than stated explicitly in person. Instructor ? claimed that he was quite aware of the level of clarity needed in this type of learning environment. He discussed making an effort to be as clear as possible, particularly when communicating what was required of the students and what was expected of him as the instructor. He said the following:

> I am very clear as to what they need to do. Ask a question, build a response, provide a recommendation, draw another aspect of the assigned readings. So, there's options for them, in a sense of what they will learn—right there.

Six instructors preferred having clear and concise expectations. Instructor D discussed making an effort to communicate his biases, the topics assigned, and the specific technologies he used in class (i.e., interactive blogs and videos). He carefully considered the technologies he utilized. He said, "I choose technologies that I want and I'm the expert in—that I feel I have the background in." His goal was to create opportunities for "deeper learning—as you say, not a survey of all the technology."

Similarly, Participants O, S, A, K, and L discussed being well-structured and ensuring learners knew each week's tasks. They emphasized planning in advance. The prepping process included taking mental steps at the very beginning and considering all that could be confusing for learners and working to eliminate it. This was a critical step in the process. The key was not to overwhelm learners with a complex design and unnecessary assignments and tasks.

Instructor R, by contrast, did not have clear expectations, outcomes, or objectives. He believed that too much structure was limiting and would only result in the reproduction of knowledge as opposed to construction of new meaning. He said the following:

> There are two reasons. One is that this tends to be limiting. I know there's a lot of talk about having really clear objectives and outcomes, and expectations, and having exemplars of what you expect students to do. And, I find if you do that, you get 30 copies of what you've already done, which is both not useful to the student and really boring to me as a marker. I try to give a very general idea of what the assignment is about, but I

> don't give a lot of details and almost invariably I get a way better variety of products. . . . They do way better work because they are fully invested in having made the choice.

Instructor R acknowledged that his fluid approach might not be suitable for all learners, especially Type A learners who appreciate a more detailed, step-by-step approach to achieve their academic goals. His solution was to negotiate with learners and only provide verbal details, not an outcome checklist. Instructor R preferred adopting an open and flexible approach to avoid the limitations of working with a rigid set of expectations and behavioural learning outcomes.

Instructor S discussed how the best learning was through trial and error. His colleague, Instructor A, who worked on the same course, summarized their approach:

> The points are clarity, simplicity, standardizing things, prepping in advance, which has always been mentioned in studies. We've done a lot of work with the visual appeal of the lectures. I think instructors think that their role is more important in that way than it really is, and more useful. I guess philosophically, I've noticed that there's a problem with instructors treating their course as the only course that students are taking, and the only thing that's important in the students' lives. I think that's a real threat to course design. If you have too complex a set of goals for your course, then you really risk overwhelming students. They're trying to get a lot of things done.

Instructor J focused his efforts on designing learning opportunities that were based on interacting with the content, and offering various venues to learn the content for both the online and face-to-face components. The discussion board was the primary space for interaction and exchanging ideas, and the face-to-face part was used to elaborate on concepts and initial ideas. It was a space for the instructor to get more engaged in the process. Instructor J shared the following:

> In terms of designing learning opportunities for the students, it was to read, to watch, to listen to the content—learning through interaction with content. Then, I'd say the secondary component in terms of the design was to learn from each other though discussion board posts. Then, the face-to-face components—to expand those initial conversations and for me to enter the conversation more. I really stepped back through their discussion boards and tried to play more of a moderator role and tried not to give my perspective, my opinion. On the face-to-face, the students really wanted me to do more than facilitate and moderate, which is what I had been doing on the discussion board..... I hadn't planned that they would want to know my perspectives, my ideas.

Instructor J expressed regrets about not being sufficiently clear with his expectations and not fully considering the learning modality, the learning outcomes, and the delivery system. The design of the online component was primarily based on the same concepts of the face-to-face component. He stated, "The purely independent online component was not designed to be very different in what they [students] would do in a face-to-face class."

Participant L emphasized basing her design on theoretical principles that were linked to effectiveness and student-centered learning in the literature. The course was structured in a methodical way, utilizing logic and highly organized materials. Participant L shared the following:

> There has to be logic in the course—so logical just structurally—the courses, as you're delivering them—the modules, the themes. You can't be jumping all over the place. . . . Then, a continuity between things and activities. If I do a lot of activities, I want to see the continuity of those activities throughout—the purpose of them being clear. And then, I also am going to a relationship, so not just continuity, but a relationship of events,

> activities, modalities of delivery, and communicating—it would be logic, the continuity of themes threaded throughout for reasons related to relationships of the material.

The organization process was based on organizing themes in a coherent fashion and ensuring each step was purposeful. She explained, "I do a lot in my organization purposely—absolutely purposely—about what would be the cognitive aspect, what would be the psycho-motor aspect, and what would be the affective aspect."

Facilitation of learning and instructions. Participant M discussed having difficulties formulating instructions because of their technical and limiting nature. She preferred a more playful approach that evoked learners emotionally and cognitively, depending primarily on stories and anecdotes. This playfulness manifested through interactions with learners through multiple modalities:

> Instructions are very difficult because instructions are highly technical and procedural. It's about procedural knowledge. People don't necessarily proceed in the same way. . . . Learning requires cognitive and emotional flexibility. I like to be playful to get them—I guess you could call it, flow. So, I like to be playful in my interaction with them, and I use a fair number of anecdotes and stories.

Instructors S and A, who collaborated on the same course, worked on making the online component more appealing to students by using humour and finding various ways to present the material, such as cute images, cartoons, pop-ups, videos, and audio files. Nonetheless, they made sure that learners contributed and acknowledged their part in engaging with the content. The instructors believed that regardless of their attempts to present the content in interesting ways, the responsibility of learning ultimately falls on the students. Instructor S said the following:

> There's only so much I accept responsibility for students learning. We tell people that this is how you go about doing well in classes. Take the material and do as much as you can with it. Think about it in as many different ways as you can, really make it a part of the way you look at the world—immerse yourself in it—you'll do great. We put a lot of thought into—how do we tell, with each lecture, a bit of a coherent story, as much as you can and also get the fundamental issues.

Similarly, Instructor A said, "I really don't think that we can do anything to make the students engage with the material. Like you said, It's on the student." This finding is consistent with Vaughan et al. (2013) who suggested that in a CoI, it is mandatory that learners play multiple roles and share the responsibility of their learning.

Two instructors indicated that they did not identify with the role of facilitator because they believed it was up the students to take responsibility for their learning and engage with the content. Instructor A said,

> I wouldn't describe myself that way [facilitator]. Actually, I would say that we offer a blended media course. We provide information—just like we would in a class—but as far as facilitating their learning, it's on them. A person decides if they want to engage. I can't make anyone pay attention to me. It's not a blended or an in-class issue. It's a student is going to be able to learn the material to the extent they pay attention.

Learners' willingness to engage with content, however, could have been influenced by their *self-efficacy* (i.e., their belief in their abilities to succeed). Studies have found a correlation between teaching presence and social presence and self-efficacy. Shea and Bidjerano (2010) found that student effort and achievement was dependent upon their self-efficacy. A strong sense of self-efficacy can help learners face difficult tasks with a positive attitude. This could explain

why students with high self-efficacy are more willing to try and are not afraid of challenges like adjusting to a blended learning environment or putting in more effort and being more disciplined.

In contrast, the other seven participants emphasized the multiple roles instructors play in the learning experience, particularly being a facilitator. Instructor D listed the roles he played: "Sometimes a facilitator, sometimes as an instructor, sometimes as a guide who knows the content, sometimes as a presenter, as a lecturer. There's nothing wrong with presenting material." It is crucial that instructors acknowledge the different roles they assume in blended learning environments at different phases of the learning experience.

Similarly, Instructor O said, "It's the roles you play, right? It's instructor. It's facilitator. It's commentator." He described his instructions as very descriptive in the beginning; later, as the course continued, they became more embedded and fragmented. His roles shifted. This shift, however, did not cause confusion or disruption in the learning process. Instructor O made an effort to maintain clear communication and to be present and consistent with learners throughout the course.

Clear communication between instructors and learners is essential because it provides a sense of reassurance for learners in knowing what is expected of them. Also, it provides them with the opportunity to feel connected to the source or the "expert" guiding them through the learning experience. Thus, being present in the learning process was considered vital for some participants. Instructor L called it "circulating" and "observing their learning" for "hard data or evidence," without overshadowing and without taking away from the learners' freedom. The key was flexibility and creating a harmonious balance in establishing a clear structure and detailed guidance that did not overpower the learning experience or limit learners' creativity and engagement. Instructor L said, "Right, so a lot of freedom for them [learners] to do some work

and let them really—encourage them and give them the tools." Instructor R stated, "Yes flexibility—seven choices, different percentages [for assignments] . . . it's usually a few sentences about the general direction or expectation, whether it's keep a blog of what you're learning, a weekly summary of what you're learning."

Instructor J, who had taught only a couple of blended learning courses, indicated that his lack of familiarity with the content and blended learning impacted his ability to deal with certain unexpected situations. He found that sufficient preparation and planning was necessary to be able to deal with unpredicted scenarios that were exclusive to the nature of blended learning. He discussed his experience teaching his first blended learning course:

> I went to the face-to-face section, just assuming it was going to be like any other lecture; things worked well, but it wasn't designed that way. A lot of times the conversations went in places that I didn't think they were going to go . . . because it was new. . . . Normally, I moderate and I facilitate some discussion, but I present content. Students really do want to know what I am adding to the learning dynamic. In this one, because blended was so new to me, I was like, "Well I really don't know what am going to do, so I'll just facilitate and moderate discussions." I just thought I would do what I did on the online course, which is really just help navigate people—point them in the right direction.

Instructor J wished he had been aware of the underlying differences between blended, face-to-face, and online learning. He reported that blended learning required him to be more engaged while shifting his positions/roles depending on the learner and the stage of the course.

Social interaction and communication. The majority of the instructors paid attention to the social aspect of the learning process. They recognized the importance of building a community of learners and attempted to encourage and facilitate it in various ways. One of the

codes that emerged was using playful and fun approaches to facilitate sharing, not only as an entry point but also as a means of establishing safety so that learners could open up and interact with each other. Instructor M focused on facilitating social interaction by allowing learners to share their own experiences:

> For me, it's not so much about breaking the ice. For me, it's getting into that common experience of play mode—where we're now in it together, where they can recognize the modality that they're in. To me, it's much more than ice breaking. . . . As an instructor, you want to demonstrate that this is a safe place to go to. At the beginning, I get students to reflect on dimensions of their own lives. It can be almost anything, just as long as you have some common things that you've thought about yourself that become points of interaction with other people. Then, from there the ripples get larger, and then we can understand from which kind of experience they're coming from. It just adds to the group experience and the group schema development.

Similarly, Instructor J reported that the best learning occurs when learners are open and feel less inhibited to share their opinions and more comfortable to listen and express their ideas and feelings even the raw ones in a free and open manner. This, of course, is highly dependent on the subject matter, the amount of knowledge learners have prior to starting the course and their attitude and feelings about the topic of discussion. According to Instructor J, patience and time contributed to a sense of comfort:

> It got better towards the end. It requires time. Again, time and I think the social graces that just allow you to relax. Grab a cup of coffee. Let go of that weight that came in the door with you. I really do think some of the greatest learning comes when we can really

> open ourselves up to other people. I think that's the biggest thing in terms of how does it impact leaning.

According to instructor L, it was only when learners felt safe that real social interaction occurred. Safety was established by providing a sense of freedom and flexibility. For example, good management of the learning process and providing learners with a detailed outline in the syllabus of the content, timeframe, and grading criteria created a predictable frame in which the students could feel safe express themselves.

Instructors J, K, O, D, and L attempted to facilitate social connectivity via chats in discussion board, forming groups, and making learners work together. According to Instructor K, "We usually chat on there. I have on occasion used small groups with 10 people on Skype or with Blackboard." Instructor D said, "A variety. Sometimes I have them work in small groups, sometimes home groups, larger groups. Sometimes the whole class participates in something. You do all of it—a little of everything."

Instructor L took group socializing a step further by working to establishing social accountability within groups. She discussed how socializing served to teach learners about building a sense of community that went beyond mandatory interactions. She shared how purposeful collaboration and interaction led to the construction of meaning and reflection:

> I make that social accountability right away. And then I say, "And, now let's not to be landing all over that person who we point at perhaps as the person who's the weak link. It's about how do we facilitate them to become a strong leader," and then it's a group responsibility and it's my responsibility to help you guys help each other. It's all about facilitating all—one and all—to move forward. I really talk about that social interaction piece so someone's not attending with the group because he is doing something Facebook

> wise, while his group [is working]. . . . The group should turn to him and say, "How are you going to handle that? So, I get them to do that social responsibility like where they actually do declarations and responsibilities if they have to do group work, so what do you say you're going to [do this] and they sign that this week I'm going to do this for the group and then the group comes together and does a group analysis of how well we're moving as a group and how well individuals are moving and what we can do to help you because you said you were going to do that, you weren't able to, how could we do it? What can we do to help you? That kind of stuff, so that the group moves together—again, community in practice. Right? I give them sort of like inquiring questions that challenge them to at least go back to the group and reflect.

Instructor A discussed taking a passive role in facilitating the social aspect of learning. She believed that it was not the instructor's job to ensure that learners socialized or bonded. She said, "The online 'lounge' is available and connecting with each other remains up to the learners." Given the sheer number of learners in her class, Instructor A discussed how she played a minimal role in facilitating social interaction or connectedness. When asked directly if she wanted learners to form a bond, she responded,

> It's up to them. If students are coming to university—we provide the information, but it's up to them to learn that. It's very old school. I don't babysit or spoon feed. We certainly don't do anything to directly facilitate people forming into study groups or things like that. I don't think it would be a priority for us to impose that kind of structure. For example, assigning study groups. The most we've done was discussion groups. I think there's variability. I didn't want anyone bugging me when I was in courses as undergrad. They were a distraction and an irritation. I don't think interacting with other students is

> necessarily a positive thing. . . . What I mean is, it's not my job to make social relationships for students. If they want to be social, find someone social in class. . . . No [I don't think it impacts their learning]. I am not interested in having students socialize with each other.

Instructor O was on the other end of the spectrum. He was involved in creating an intimate space online where learners felt safe to reveal themselves and share their own personal experiences. He provided ground rules regarding his expectations of their behavior online, and was always present during discussions to monitor and guide conversations in a civil and open manner. He recognized the different nature of the online space and sought to form a learning environment that led to multidimensional learning. Instructor O redefined his role in the online space and made an effort to make his presence more announced. He stated the following:

> You need to engage each other in this online space. You can't just write your response and that's it. You have to read what each other are saying so . . . you're internalizing what they're saying. You're considering it, and you're adding that new dimension. . . . I do check in with people. I think it does give me another piece of information about the student. I really do take it seriously. I do feel like this is another type of learning space. They're sharing their identity. They're sharing their backgrounds. They're giving it all—you know? How is it just for me to ignore that? No, I don't think so. I think as an instructor, I am professionally and personally obligated to respond to that investment.

Instructor R selected the strategy of compulsory participation, particularly during the asynchronous online part, because he wanted the students to interact and benefit from knowing each other. The instructor made a purposeful effort to facilitate learning on a deeper level by engaging learners in meaningful discussions.

Teaching strategies. The researcher observed that the term *teaching strategies* elicited various reactions. Instructors K and L perceived the term to be synonymous with *teaching approach* and *instructions*, and found themselves being redundant in repeating some of their answers. The remaining seven instructors experienced no issues with the clarity of the terms. The overlap in responses occurred in multiple themes and was documented in diagrams. For example, a level of redundancy was noted in the themes related to design and structure and facilitation of instruction. There was also overlap between teaching approach and the benefits of blended learning; that is, some of the participants mentioned benefits of blended learning as they were describing their teaching approach. Please refer to Appendices E, F, G, H, I, and K for the diagrams demonstrating how themes overlapped.

The complexity of the adult learner and manners in which they learn were key for instructors when teaching in a blended learning environment. Instructor J discussed designing learning opportunities around the complex nature of adult learners:

> For me it's a bit of the go with the flow. [I designed it] around adult learning principles—no one thing works perfectly for all people. As adults, we're complicated people. Sometimes the complications of our lives are really complicated. For me, it's always learning. It's designing learning opportunities that respect that adults are complex. They play multiple roles in a day. They have multiple identities. No one approach is going to work.

Instructor M explained the importance of considering the learners' experience, level of knowledge, and level of engagement. She stated, "What I try to find out is what kind of process will they buy into? You do the range, and the depth, and the strategies." Instructor M's

expectations of learners played a major role in determining her teaching approach. She shared the following:

> I expect adult learners to be more self-conscious. I expect them to be operating at a meta-level—metacognition level. They are responsible of their own content, but I get to orchestrate their content and the social interaction—through the social interaction, right?

Instructor M focused on engaging with the learners, creating a highly dynamic and energizing environment, and utilizing various means to promote learning. She said, "For me, it's about advocating or promoting a range of opportunities that are not going to miss." She discussed playing multiple roles with the intention of providing metacognitive strategies. For her, blended learning served to enhance the depth of the learning experience. She said, "It's [blended learning] turning up the volume and everything." Similarly, Instructor O described his strategy: "So my strategy is to engage students, to be respectful of their time and their energy—to be respectful of their learning journey, and to [provide] them [with] a chance to try something new."

Instructor K discussed how it was impossible to play just one role: "You're a teacher, a facilitator; you step back, then you get involved again." Further, she shared the following:

> You can't just be one. I have found it's good to be the absolute king leader at the beginning and then to try some other experiments, but I tell them what that is. This is facilitation. This is formative learning.

Instructor K depended highly on instructional design literature in designing her course, but also took into consideration her own individual style. She stated, "Everyone forms their own piece and their own style. And, I think that's one of the beautiful things about any kind of blended learning. It becomes a personal piece."

Similarly, Instructor L discussed facilitating learning and being directional when needed. She coined her style as "observation facilitation." She defined her position more as "having a presence." Her strategy aimed at engaging students in their own learning using various participatory activities that produced "hard evidence" that they were learning. According to Instructor L, "The strategy is purposeful weaving and helpful checking-in points along the way to know."

Instructor D preferred the traditional strategy of show and tell. He discussed how this approach was effective at times, and other times students failed to understand the underlying principles. A couple of participants indicated that they did not have any strategies in mind. Instructor J indicated that the face-to-face part of his course was conversational in nature, with less formal strategic planning and more reliance on the "flow and the ability to pull it off." He described a level of comfort with this improvisational approach, which stemmed from his familiarity with adult learning theories and relaxed attitude toward experimenting, taking risks, and not being afraid of failing.

Similarly, Instructor O explained that his strategy was to "go with the flow," but with purpose in everything that he did. The two instructors who worked on the same course disagreed about using learning groups as a teaching strategy, in particular regarding the role instructors should assume. Instructor S found working in groups to be beneficial for learners, whether for a group presentation or another type of project. He discussed his role as a facilitator of learning, sharing how his role further developed as students progressed through the program.

Instructor S's co-instructor, Instructor A, pointed out the issue of tying one student's performance to other students' performance. According to Instructor A, grading independently was not considered a solution because her students expressed dislike for this strategy. The

instructor also discussed her disapproval of the term *teaching strategies*: "I would reject that [the term teaching strategies]. No, I am not interested in adopting it. There is a little difference of opinion here [between my colleague and me]." Unlike her colleague, Instructor A indicated that she enabled learning more through her design concepts rather than the roles she played, leaving the majority of the roles to assistants.

Section 4: Suggestions to Improve Teaching and Learning in a Blended Environment

This section reports participants' suggestions to improve the blended learning experience. Instructors were asked to provide recommendations for instructors and learners based on their experience with blended learning. The instructors provided suggestions for administrators, even though they were only asked to provide suggestion for students and instructors. The suggestions were divided into three sections: (a) suggestions for administration, (b) suggestions for instructors, and (c) suggestions for students.

Administration. The recommendations for administration primarily revolved around professional development and the institution's attitude toward blended learning and the instructors teaching using blended learning. Several participants discussed the need for administration to recognize the amount effort instructors put into their work in teaching blended learning courses, and the time associated with them. Instructor S said,

> Nobody knows. Nobody sees the work we do because that's not in class. Nobody sees how much work it takes to prepare stuff and set it up all in advance. If something goes wrong in a [huge] course with that many people in it, then it's really a disaster. To make sure that everything is set up so that it [disaster] can't happen, is very challenging. . . . It's all done in a way that is not very visible, I think.

Instructor L highlighted the importance of seeking instructors who were flexible and willing to venture beyond traditional teaching approaches and experiment with new tools and approaches. Flexible instructors can be a great asset to the institution, particularly when adapting to new policies. In addition, administration must conduct continuous assessments of current practices to determine their effectiveness and suggest improvements to enhance the learning experience. Also, administrators must set up realistic expectations that match the instructors' set of skills and experience. Instructor K offered the following advice:

> My advice to them is to take a look at what's working and what's not working and also look at some of the skills people bring to the learning environment. Don't expect a teacher that's a real face-to-face teacher to have to do something that they don't really [know] and want. Go after the people that [think], "Oh I want this, I want to try this."

Similarly, Instructor L suggested supporting and encouraging instructors as they adjust to the learning curve and grow through the experience. She said, "The learning curve is huge for us academics that don't have that background. Huge! It has to be modeled, and the university has to support it with more than a phone call." These findings are consistent with Lee and Lee (2008), who found that instructors encountered similar obstacles, including lack of time and skills to prepare for blended learning classes, lack of knowledge regarding the use of e-learning strategies, and lack of instructional methods for blended learning. In addition, participants discussed needing institutional support as well as training and orientation programs designed to facilitate not only the acquisition of technical skills, but also knowledge about alternative instructional approaches suitable for e-learning.

Participants discussed how support should include monetary incentives to deal with the issue of teaching credits. This was consistent with the findings of Porter et al. (2014), who

reported that incentives, including monetary, hiring support, reduction in workload, played a significant role in motivating reluctant faculty to adopt blended learning. Participants discussed the need for administration to be clear about instructor compensation when assigning teaching credits. For example, Instructor S shared the following:

> It's very arbitrary right now—how many credits you should get. What is fair? Is it not fair? It's really hard to know if you're not getting the right amount of teaching credits for the work that you do. I think some thought needs to go into how much teaching credit is appropriate. It would be worth the university thinking about how to allocate teaching credits for this [blended] course, versus other courses where somebody's just throwing books up online. It would be useful to standardize that kind of compensation. If you're doing a blended course, how should you get compensated in terms of full-time faculty member teaching credit requirements?

Instructor L recommended that administration support instructors to protect their intellectual property and to take into consideration the great amount of effort and time put into creating their work. She said the following:

> Did we talk about the ownership, because this is scholarly work? This is so much more than—I mean a lecture is a scholarly work too for sure, but there is something about the ownership of this material that you have created and blended and woven and theoretically grounded in theory [the content]. One should have [the designation] "developed, created by" if it's copyrighted or whatever. Something around that, because the time you spend doing this stuff is time you're not spending doing research and writing papers.

Eight instructors discussed professional development and workshops that would contribute to helping them understand, prepare for, and teach blended learning courses.

Participant D, however, expressed strong disagreement and expressed his doubt about the value of courses/workshops offered through the university. The instructor observed that most professors do not attend at all. He noted that it is only instructors who benefit from such help, because professors "don't put any effort to attend and learn" due to spending the majority of their time doing research and "tenure-worthy tasks." He said the following:

> No, I don't think workshops would help because at least a dozen courses were offered here, and you only get two or three people at each of them. Sometimes nobody shows up. . . . The people that came to them [were] mostly instructors not professors. Mostly instructors came to those and some of them really bought into it and got into it and some of them came to most of the sessions, but it was really limited success. I don't necessarily blame them, but the profs are there to do research. That's how they're going to get promoted. That's how they're going to get their tenure. They say it's 30% teaching, or whatever it is. That's not true because when it comes to promotion or tenure time, they have to submit all their documentation; they may glance at course evaluations, but I don't know that that's even part of it. When push comes to shove, that 30% seems to disappear.

This again points out the importance of incentives to motivate instructors. According to participants, administration should consider monetary incentives to improve participation and outcomes. According to Porter et al. (2014), incentives include not only financial incentives, but also reduction in workload, hiring assistants, and considering the adoption of blended learning in promotion and tenure decisions. This may help to attract more professors to teach using different modalities.

Instructor L expressed her frustration not only with the negative ways her colleagues viewed blended learning and her efforts, but also with the lack of a solid technical infrastructure and associated cost issues. She pointed out that instructors had the right to have a few technical tools and programs readily available for them when needed. Additionally, she emphasized that instructors should not be asked to spend from their own professional development money to cover expenses she believed should be covered by the university. She stated the following:

> What about the cost of all those IT and program people that I need readily available to me? Then the recognition, too. That to do something and in this way and create the content in an interactive, engaged online way, not just a dump of PowerPoint. I guess when I say, "What can the university do for me to help?," maybe it's very technically grounded. It's just basically be there to ask, answer, and be readily available for my programming needs, my Internet, or my IT needs. Buy them for me. Don't tell me I have to use my professional development money, which was told to me.

Instructors. Instructors were asked to examine their own personal experiences and propose a few suggestions to improve the teaching experience in blended learning environments in higher education. After examining the codes, the researcher noticed that the participants' advice for instructors fell under two categories: (a) suggestions related directly to learners, and (b) suggestions related instructors. Please refer to Table 3 for themes and codes.

Table 3 Suggestions to Improve Teaching and Learning in a Blended Learning Environment

Suggestions Related to Learners	Suggestions Related to Instructors
Engage learners with the content	Advance planning and prior knowledge
Know the learner	Be aware of time consumption
Keep students' styles in mind	Remember there's no one best approach
Sequence the material	Challenge your own learning
Understand adult learning theories	Learn from your own learners
Be present early in the process	Become skilled and literate
Provide usable tools and resources	Flexibility
Variety	Perseverance not to give up
Don't dump the material OL	Should fit your style
Long engaged sessions in f2f	Creativity
Don't design a huge course	PD workshops

Once again, understanding learners and how they learned best emerged as a code, along with knowing the learners. Understanding adult learning theories was emphasized by a few instructors and was deemed necessary, particularly for institutions admitting older learners. People have different learning needs at different stages of life. What is considered to work for K–12 might not be suitable for post-secondary and adult learners. Instructor M explained:

> I think they [instructors] need to understand adult learning theory. I guess I can say this till I turn blue, but there is lots of solid research of adults learning differently over the lifespan and if we are going to get more, older adults; we need to understand how older adults process. If we are stuck in the K–12 learning theory, we can't imagine teaching people at different ages . . . and nowadays, there is continuous retooling or cognitive

> retooling of people. Professional re-tooling of people, and if we don't understand how adults learn, and what they need to meet their potentials over the lifespan, then we can't even do it. There is a need for understanding learning theories that are concerned with the characteristics of post-secondary learners as multidimensional individuals. It is not that adult learners learn differently from "traditional" younger learner. In my experience of teaching middle school students and university students, I believe that the learning process for both groups is similar to some extent. Both learners come with their own schema. We bring with us our own preconceived notions and mental structure that would assist us in interpreting our reality. What differentiates us from younger learners, I believe, is the amount of experience we accumulate as we pass various milestones (emotional, cognitive, psychological, etc.) and grow accordingly, in other words, the process of layering our schema. This experience gives us depth and a more complex view of reality. The process of constructing meaning and how we perceive and interpret our reality is highly influenced by our experience and by the cultural, social, and intellectual baggage we bring with us to the learning experience. This is what instructors must consider when they think of strategies to make the learning experience more engaging, relatable, and effective.

Familiarity with appropriate theories emerged along with the importance of knowing the learners—understanding where they come from and what they bring to the learning experience. As Olka (2005) observed, this is vital; students tend to retain their learning when instructors consider their experience. It largely contributes to engaging learners and forming a community. Instructor K said, "Look at the people as individuals and then look at building a community

that's there." However, three instructors pointed out that knowing the learners is difficult when dealing with a high number of students. Instructor S said the following:

> In a perfect world, we would get to know the names of all our students, and like a small college sort of set up, where you'd have a little class, and I'd get to understand where everybody's coming from, and what different parts of the course might resonate with them more, and maybe something about their learning styles. I could adjust and sort of—with one particular person, "Oh, you don't understand this concept?" I could develop a strategy that's sort of tailor-made for them. That is the best way for learning to proceed. Who would ever deny that? We have this practical issue of 2,000 students. That's really the reason why we wouldn't consider ourselves responsible for that.

Instructor M commented on the necessity of engaging learners, particularly with the content. The core of the learning experience, she claimed, was learners' interaction and experience with the content, and how they constructed meaning based on that interaction. She said, "You still need to engage them with the content, but it's got to be about their experience with the content." To get the learners involved, they must find value in the learning experience (Lindeman, 1989).

Instructor J, whose course was 80% online, found that having longer face-to-face sessions was crucial to facilitating learning in a blended environment, and that it was better for learners because they had an opportunity to spend more time engaging with each other and the instructor. As for the online component of the course, he stressed the importance of guiding the learners in navigating the content online and being present by stepping beyond the moderator role. He explained:

> I think the idea for the students, building on the content that they encounter independently. Have an idea sequentially of what you actually recommend. "You may want to read this one first. You may want to read this one, second. As you're reading the second one . . . " give them a crumb trail of some ideas that they can take forward. I think I would actually insert myself in the discussion board conversation a little bit earlier. That became clear—that when they came to the face-to-face, they wanted to know what I thought because I had sat so much on the sideline and done nothing other than moderate the conversation. They wanted me to be a part of the conversation.

For eight of the instructors, blended learning was particularly time-consuming. This was a significant issue for them. Instructor J stated, "It was a bear of a course. It took a ridiculous amount of time. That's probably the one downside." Instructor L listed "patience" as a requirement when teaching using blended learning. She said, "You have to have perseverance of character. That would be another ability. Perseverance not to give up." This may explain the importance of advanced planning, as it would lessen the stress associated with all the work required for teaching in a blended learning environment. With preplanning, the blended course may have been easier to handle and the workload may not have felt insurmountable. Participant A stated the following:

> It's an incredible amount of work, and there's a lot of ways of doing blended learning. But, if you're doing it [like us], it's incredibly time consuming on the front end. . . . There is something that really needs to be stressed whenever someone is going to plan on doing a blended course, is that prep time in the beginning. If you don't plan it out in advance, it can be a disaster.

Participants found it critical to plan the course in terms of content, structure, and time while considering the learners' day-to-day commitments as well as their own personal well-being. According to Instructor S, the majority of instructors plan their course as if it were the only course students were taking, which leads to an overwhelming and negative experience. He said,

> I can't operate as though [my course] is the only thing they're going to be up to. Many instructors I feel suffer that kind of vibe. If I did that—design courses that would be so overwhelming or complicated that either students would have to abandon some important aspects of my course, or they would have to let other aspects of their life slide.

It is a matter of balance and flexibility. Several instructors stressed the importance of flexibility and not being too structured when working with a blended learning course because it has an inevitable impact on the creativity level. Moreover, lots of things can either change or take place during the course, so it is important that the instructor have the ability to adapt and deal with unpredictable issues. Instructor K stated the following:

> A lot of people, they structure some courses so that they're very disciplined. This is hard to loosen that up. Some of the ways the software is written is very restrictive, too. And I find that it takes away the creativity aspect of it. I want to provide the best teaching environment for them and that involves flexibility.

Some instructors discussed how using blended learning implied dealing with various challenges. These challenges included learning a new set of skills, learning about learning management systems, managing time and responsibilities, and embracing the changing nature of technology. For some instructors, learning to become technologically literate and staying motivated to use technology was a challenge. For example, Instructor O said the following:

> Instructors really need to really challenge their learning. They need to say, "Okay, now that I have mastered this specific learning management system, what's the next step?" What's new, you know? So, ongoing enhancement of the blended learning experience is crucial to make this work just simply because technology is changing all the time and students are changing all the time. Their engagement with technology is changing all the time.

These findings are consistent with the existing literature. Time, communication, workload, lack of administrative and institutional support, engaging students in the online component of the course, technological issues, and lack of incentives and funding are considered to be some of challenges that instructors encounter (Jokinen & Mikkinen, 2013; Lee & Lee, 2008; Maguire, 2005)

Because of the vast nature of blended learning, prior knowledge about what it entails, how it compares to face-to-face and online learning, and the instructional methods needed to maximize learning can be extremely beneficial when planning a blended course. Participants referred to the importance of professional development for faculty. For example, Instructor J stated the following:

> You should know something before you try to design it. Had I gone to a workshop or a session by the center on designing and delivering a blended course, that probably would have helped me before I took it on. . . . I would have probably felt more comfortable operating from a way of knowing as opposed to constantly making this up.

Attending workshops emerged as an easy way to acquire knowledge about learning and technology and how to better facilitate learning in a blended learning environment. The majority of the instructors referred to the importance of workshops on blended teaching and learning.

Owens (2012) discussed the importance of training instructors and supporting them technically and pedagogically so that they understand the philosophical underpinnings and required skills of successful blended learning. Instructor O discussed the complex nature of blended learning:

> Instructors definitely need professional development on the area of online teaching and the area of blended learning as well. They need to learn about how to choose what assignment or to engage online. What topics to engage online and which are best suited in person—try not to dismiss either one. Both have strong merit but combined, you can make a much richer educational experience.

Instructor L suggested online workshops to teach instructors how to be competent and knowledgeable about using various programs and for administration to provide instructors with a certificate of some sort upon completion. The online workshops would be more comfortable and convenient for instructors who lack the time and the desire to attend physically.

In conclusion, instructors must remember that there is no one perfect approach to blended learning. It is not a one-size-fits-all approach. According to Instructor D,

> I think the other generalization I guess to say is that in general with teaching and learning, there's no one best way. I learn best my way, you learn best your way. We all teach differently. To look for the one best way is elusive.

Instructors must consider what fits their style while allowing learners sufficient freedom and flexibility to learn and demonstrate their learning. Instructor R shared this viewpoint:

> It has to fit your style. If you need more structure, then add more structure. I think within that though, you have to find ways to give students more choices in how they learn. You can still have your content that you think is critical. And, you should have

> content that you think is critical to their learning—to their development. You have to build in as much flexibility as you can, within how you feel about it.

Students. Instructors were asked to provide suggestions for students that would enhance their learning experience in a blended learning environment. Participants discussed how students must put in the effort to learn. The category effort included several themes. The first theme was effort in terms of the willingness to embrace blended learning and adopt a positive attitude toward it. According to Instructor K, some students perceived blended learning to be difficult, either due to lack of their technological skills or due to the amount of work and time required to learn effectively. She encouraged students not to fear blended learning, nor to avoid it because other learners had negative experiences with it. She shared the following:

> They will often think of anything that is blended as that "it's this or it's that," but not what we do on a normal, everyday basis. You're challenging some of those beliefs that have been driven into them—the negative attitudes.

Similarly, Instructor O encouraged learners to be willing to experiment and keep an open mind. He stated, "Be very open to experience. Don't run it out." Instructor A linked the effectiveness of the learning experience to the learners' efforts to get involved. She said, "What makes blended learning effective is the student. If the student engages [with] the material, it's a very effective way to learn." This requires that learners recognize their skills, value, and position as a powerful contributor to the learning experience. Instructor O stated the following:

> It's remarkable how much power they have and how much skill they have, but they just don't realize it. Let's hope that they can realize that they have valuable insights to contribute to a blended learning experience—to be open to sharing those insights and sharing that knowledge, and trying out something new.

The second theme revolved around learners making an effort to be self-directed and self-disciplined in managing time, tasks, and responsibilities (Palloff & Pratt, 2003). Participants discussed how it was learners' responsibility to understand what was required of them and to ensure that they remained on task. This finding was similar to the findings of Kougo and Nojima (2004; as cited in Kitazawa et al., 2008), who referred to the importance of self-motivation and self-regulation in e-learning. Instructor S said, "You have to be more self-directed." Instructor A shared the following:

> It's very different for the students who come into the university, because in high school there are no deadlines that they have to meet. They can always hand something in late. That's very different from what happens at a university. Those are really the issues. So, students should be keeping on track and listening to those lectures as the weeks go by, in preparing for class. Unfortunately, some students don't even realize they're supposed to watch videos until a couple of months have passed. It really depends on how mature and prepared students are. Time management and that's not something we can control.

Summary

This chapter summarized finding from interviews with nine instructors who were employed by the University of Manitoba. Individual themes were generated from the data and direct quotes were used to provide evidence from participants. The analysis of the data presented in this chapter was organized into four sections. The first section addressed teaching experience, which included the teaching approach, changes in experience, and the difference between teaching a face-to-face and blended learning course. The second section included the benefits of blended learning. The third section explored the instructors' approaches across four aspects of learning: (a) design, organization, and structure; (b) facilitation of learning and instruction; (c)

social interaction, communication, and connectedness; and (d) teaching strategies. The fourth and final section included recommendations for administration, instructors, and learners for a better blended learning experience.

In general, the data revealed that the participating instructors had a positive experience with blended learning. Their attitudes and perceptions varied depending on their experience. Important aspects of teaching included flexibility, understanding adult learners, engaging learners, variety, and continuity.

Participants were alert to the type of teaching required for blended learning, particularly during the online part of the course. They worked on continuity, which refers to connecting the online and face-to-face components. They also recognized the importance of being present throughout the course in order to enhance the learning experience. Three participants, however, reported little to no difference in the way they approach teaching in face-to-face versus blended learning courses. This may be because instructors have always had some form of web-based technology integrated in their face-to-face classrooms and, thus, have never felt the need for a major shift in their approach.

The student benefits of blended learning in this study were consistent with the literature. They included convenience, variety in the ways students could learn and express themselves, accessibility, flexibility, prep time prior to attending the class and reflection post-class, and more and better engagement with the content. Nevertheless, the instructors held that learners could not reap the benefits of blended learning without self-direction and motivation; time management and staying on task were essential for learning in a blended environment.

In general, the participants demonstrated a strong foundation of social constructivism and that was evidenced by their comprehensive answers to the section on CoI elements. The data

revealed that the instructors addressed the importance of the teaching presence (i.e., facilitating and directing the learning experience) and the necessity of sharing the responsibility of teaching and learning with learners. This was a significant part of the teaching presence as explained by Vaughan et al. (2013). The social aspect of the CoI was evident in instructors' efforts to make the learning environment open and safe for learners to share their experience and learn together. In comparison to the other two elements, the least evident in the participants' responses was the cognitive element. Nonetheless, it was mentioned sporadically when the instructors referred to constructing meaning, which they described as metacognitive, ultimately adding depth and dimension to the learning experience.

The suggestions reported in this study were specific to students, instructors, and administrators. In general, instructors expressed their desire to have more support from administrators through professional development, encouragement, and incentives. In regards to suggestions for other instructors, the participants encouraged their colleagues to know the learner, to be more open-minded and willing to experiment with technology, and to not fear the learning curve that comes with teaching in a blended learning environment. Similarly, students were encouraged to have a positive attitude and an open mind to be able to appreciate blended learning approaches to instruction.

CHAPTER 5: DISCUSSION

In this chapter, the findings presented in Chapter 4 are discussed in relation to the research questions. Nine instructors were interviewed and asked to share their personal experiences with teaching using blended learning. The purpose was to examine their teaching practices, and underlying learning theories, as well as perceptions of teaching in blended learning environments. Four overarching themes emerged.

Summary of Themes

The first theme was the teaching experience. This theme included three categories: (a) teaching approach, (b) changes in teaching experience over time, and (c) differences between teaching a traditional face-to-face and blended learning. The second theme focused on the benefits of blended learning, including the benefits to students. The third theme related to evidence of constructivism by examining the CoI elements in instructors' teaching practices in blended learning courses at the University of Manitoba. This theme included four categories: (a) design, organization, and structure; (b) facilitation of learning and instruction; (c) teaching strategies; and (d) social interaction, communication, and connectedness. The fourth theme was instructor suggestions for creating a better teaching and learning experience in blended learning environments. This theme included three categories: (a) suggestions for administrators, (b) suggestions for instructors, and (c) suggestions for learners. Please refer to Figure 6 for themes and categories.

Participants shared their personal experiences teaching in a blended learning environment in higher education. Their experiences varied based on their definition of, familiarity with, and attitudes toward blended learning.

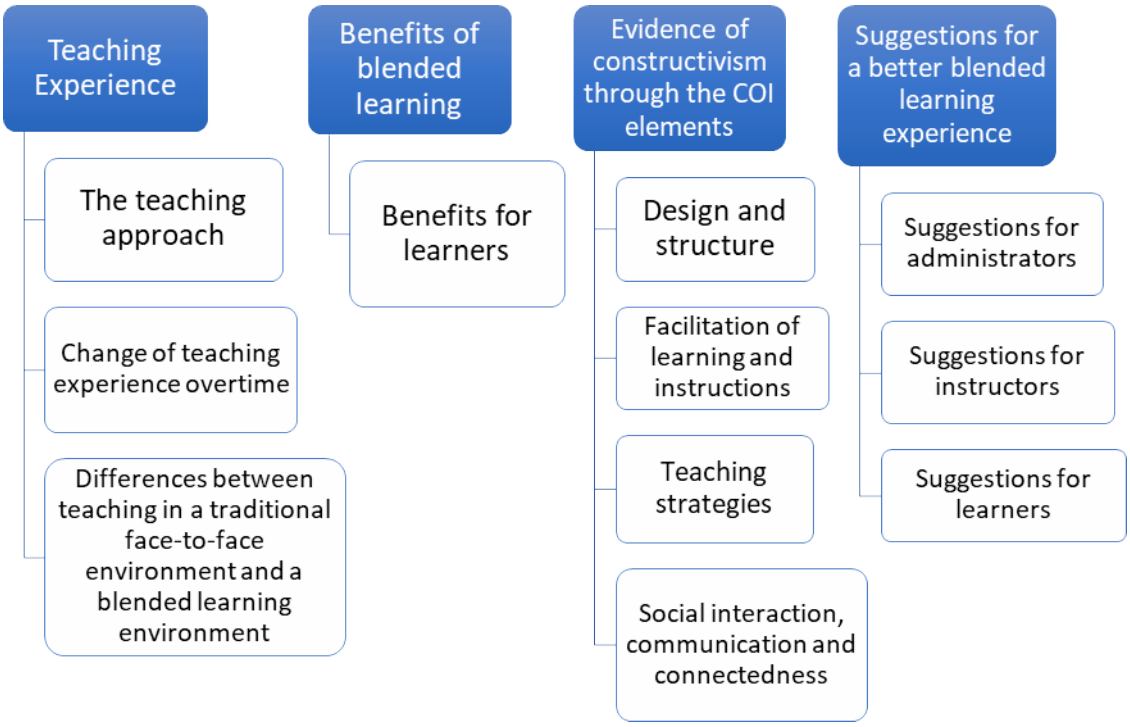


Figure 6. Themes and categories.

In general, it was found that the term *blended learning* was ambiguous (Friesen, 2012, McDonald, 2014), given that none of the participants were confident about what "actually" constituted blended learning. Questions and doubts regarding the types of technology "required," the right combination of face-to-face and online activities, and the division of content and time (e.g., 50% face-to-face and 50% asynchronous online vs. 30% face-to-face and 70% asynchronous online) were raised. In fact, five participants expressed their concerns prior to the interview about whether their courses fell under the category of blended learning. The uncertainty and apprehension, as well as tentative definitions, indicated that blended learning was still not sufficiently established at the University of Manitoba. This was consistent with findings of the Blended and Online Learning Task Force (2014), which described blended learning at the University of Manitoba as being in its infancy and primarily implemented on an individual level.

Theme 1: Teaching Experience

Teaching approach. When asked to describe how they approached teaching in a blended learning environment, participants provided various responses covering a wide range of methods and strategies. Their answers included the following:

1. focusing on using the online components of the course to enhance the learning experience, which has been identified as an enhanced type of blending (Bonk & Graham, 2006).
2. establishing a collaborative, dynamic, and engaging classroom (Garrison & Vaughan, 2008; Pellerin, 2007);
3. knowing the learner and understanding their experience (Cercone, 2008; Olka, 2005)—where they stand and where they come from;
4. forming a "synergy" or a reciprocal relationship between the instructor and learners that encourages the construction of knowledge and the dissolution of traditional boundaries in the learning process;
5. assuming multiple roles during the learning process (Timus, 2015);
6. familiarity with the content and blended learning as a concept; and
7. carefully considering workload because it is labour-intensive (Welker & Berardino, 2005).

Several participants stressed the importance and value of well-considered, well-organized, and comprehensive preplanning and preparation (Welker & Berardino, 2005) to have more control of the learning situation and to minimize the occurrence of unexpected events. Participants were challenged by the time and amount of work required for the following tasks: (a) designing the content and infusing both face-to-face and online components; (b) being present throughout the duration of the course; (c) communicating with learners using two different

modalities; and (d) managing, facilitating, and moderating learning, particularly during the online component of the course.

Another important finding related to continuity, which refers to connections between the face-to-face and online component. Similar to Hinkelman's (2005) findings, instructors found it important to consider that the element of continuity involved blending the two spaces—virtual and traditional—in a manner that created harmonious transitions for learners, and that did not disrupt their learning. Participants discussed the importance of teaching approaches being thoughtful and enhancing students' learning experiences and means of demonstrating their learning. The participants emphasized learning that promoted collaboration, engagement, interaction, and the creation of a learning environment that cultivated interest and awakened potential.

Changes in teaching experience. Change in participants' teaching experiences over time were mainly attributed to the integration of technology that made teaching easier. For instance, instructors had access to multimedia learning resources that made teaching more versatile. Participants discussed making changes to the modalities utilized as well to their syllabi, including incorporating more engaging materials, limiting the number of assignments, and offering more choice/options and more face-to-face time. They discussed changes in their teaching styles, such as increased flexibility, more energy, greater clarity, and taking on a variety of roles—from lecturer and storyteller to facilitator and commentator. Two participants mentioned using student feedback to inform the changes they implemented. One participant employed a trial-and-error approach and another based her changes on published research, particularly literature on effectiveness and student-centered learning. All of the participants, regardless of their teaching

experience, reported positive changes in their level of comfort with, interest in, and familiarity with blended learning.

Differences between teaching a face-to-face and blended learning course. When asked if they found any differences in the way they taught a traditional face-to-face class in compared to a blended learning class, six participants reported differences in the roles they played, the structure of lessons, and the variety of options utilized for learning and demonstrating learning. The participants perceived the traditional face-to-face environment to be more restrictive in nature when compared to a blended learning environment, particularly in terms of time and students' expectations. These observations determined the methods of teaching they adopted and, thus, the roles they performed.

In addition to allowing for flexibility, participants discussed how blended learning created opportunities for cognitive creativity and a variety of instructional roles, which depended on learners' progress in blending learning formats as well as the nature of the learning space. Refer to Table 4 for a summary of the differences participants reported between teaching in traditional versus blended learning environments. Two participants reported no differences because they treated the blended learning course as if it were a traditional face-to-face course.

Theme 2: Benefits of Blended Learning

Benefits for the learner. When asked how students learn best in a blended learning environment, three of the nine participants mentioned emotional and cognitive flexibility as genuine advantages. This flexibility adds more depth to the learning experience by allowing instructors and learners to share in the production and co-construction of knowledge. In addition, the cognitive flexibility offers an array of ways to "get at the learning" (Instructor M).

Table 4

Summary of Participants' Beliefs About Differences Between Teaching in a Traditional Face-to-Face (f2f) Environment and a Blended Learning Environment

Teaching in a traditional f2f environment	Teaching in a blended learning environment
Assuming the instructor role	Assuming multiple roles
More guidance and hand holding	More open and thought-provoking questions
Transmission way of teaching and learning	Innovative and different
Less options and variety for students and instructors	More options and variety for students and instructors
Less energetic/interactive	The blend makes it more energetic/interactive
Time restriction	The asynchronous part is self-paced but to maximize the experience instructors must consider students time carefully in the f2f part
Less demanding in terms of skills	A virtual space that requires different sets of skills

Cognitive flexibility provides learners with various ways to facilitate and demonstrate their own learning, and to learn from one another. Participants reported high levels of learner engagement in addition to increased interaction and collaboration with other learners. The most commonly reported benefits of blending learning for students were accessibility, flexibility, and convenience, which was consistent with prior research (Bonk & Graham, 2006; Bonk et al., 2005; Welker & Berardino, 2005).

Theme 3: CoI Elements as Evidence of Constructivism

This study examined the extent to which elements of CoI—and therefore principles of constructivist learning—were evident in instructors' teaching approaches in blended learning environments. Participants identified their practices in terms of four areas that correlate with the

CoI framework: (a) design, organization, and structure; (b) facilitation of learning and instruction; (c) social interaction, communication, and connectedness; and d) teaching strategies.

Results indicated that participants' could not clearly differentiate among the four elements of the CoI, which led to considerable overlap in responding. Also, it appeared that most of the participants did not address each aspect individually. This is not as surprising given that these elements are interrelated and, thus, discussions about one element often had implied implications for the other three.

Design, orientation, and structure. When discussing the design, organization, and structure of a blended learning course, all of the participants explained the importance of knowing the learner and building the course around the complexity associated with individual students and their experiences (Cercone, 2008). It was deemed a crucial step because, as Olka (2005) explained, post-secondary learners identify with their experiences and use them as a resource. Instructors emphasized creating a learning environment that was most suitable for the learners.

The participants were divided regarding their expectations of learners. Some participants appreciated a course being well structured and having a clear and a concise set of expectations, while others preferred being more fluid in their expectations, goals, and overall approach. The instructors who used a more fluid approach claimed it allowed for greater learner creativity. Both groups, however, agreed that simplicity, clarity in communication, and being flexible were crucial to providing a better learning experience.

The following codes emerged in participants' discussion of the process involved in designing learning opportunities:

1. focusing the design on theoretical principles that are linked to effectiveness,
2. designing the opportunities primarily on face-to-face teaching concepts,

3. being methodical, and
4. following a purposeful and logical steps to ensure continuity and coherence.

Facilitation of learning and instruction. When it came to instructions and the facilitation of learning, most instructors discussed the complexity of their roles (Timus, 2015). The majority of the instructors discussed assuming several roles such as a facilitator, commentator, instructor, observer, and presenter. These roles shifted as the learning progressed and were, to some extent, dependent on learners' progress. Two participants identified more as instructors than facilitators. They raised the issue of self-reliability and self-direction for learning (Palloff & Pratt, 2003), acknowledging that blended learning increased their sense of personal responsibility (Gecer & Dag, 2012). Instructors explained that they could facilitate learning, however, engaging with the content and in the learning experience fell primarily on the learners.

Blended learning instructors shared the responsibility of teaching with the learners and held them accountable for their own learning, as they were expected to play their part in the process. As previously discussed, this is the reason why the CoI model utilizes the term *teaching presence* as opposed to *teacher presence* (Vaughan et al., 2013).

Clear and open lines of communication between learners and instructors were necessary and being present throughout the learning experience was critical to establishing a sense of community, stability, and safety for learners (Garrison & Vaughan, 2008). Being present, however, must be done carefully so as to not overshadow or overpower learners and limit their freedom. According to the participants, the key was balance, flexibility, and familiarity with the underlying principles of blended learning. According to Palloff and Pratt (2011), establishing a presence and a learning community with the ability to facilitate a virtual course identify excellent online instructors.

Social interaction, communication, and connectedness. When it came to the social aspect of learning, participants discussed at length the importance of building a safe and open community. Openness manifested in students sharing their personal identity and experience; feeling less inhibited to interact; and feeling more encouraged to listen, engage, and participate. Only when safety was established, could real social interaction occur. In this case, the social element went well beyond mere interaction; it is also incorporated a sense of connectedness that led to the meaningful construction of knowledge and deep reflection.

Instructors discussed various ways to facilitate social interaction, including discussion boards, compulsory online participation, capitalizing on the use of the online space, forming groups, and establishing social accountability within these groups. The majority of the instructors referred to the importance of promoting social interaction and building meaningful connection and a sense of community (Garrison, Anderson, & Archer, 2010). Garrison and Vaughan (2008) stated, "a direct teaching presence may be required to reinforce collaboration and a cohesive community of inquiry." One instructor argued that facilitating social interaction is not the instructor's job; rather, it is depends on learners' desire (or lack thereof) to form a connection with their classmates. According to this instructor, instructors are only responsible for providing information; the rest is on the learners. Thus, for this instructor, imposing any form of structure or activities to facilitate social interaction was not considered the responsibility of instructors.

Teaching strategies. Examining teaching strategies elicited various responses. The term *teaching strategy* was considered vague and generic. As mentioned in Chapter 4, analyzing the data indicated that some participants might have considered the terms *approach*, *strategy*, and *instruction* to be synonymous, which may explain the reemergence of some of the themes.

Teaching around the complexity of the learner and understanding post-secondary and adult learning theories was important in teaching blended courses. Instructors referred to the importance of considering the learners as individuals in their own contexts, with unique skills, knowledge bases, and experiences, as well as diverse backgrounds and developmental histories (Cercone, 2008, Olka, 2005).

Creating a highly energized and dynamic learning environment, engaging learners, and playing a complex role emerged as valuable teaching strategies. For instructors, teaching content effectively while also mastering technical skills can be a very challenging process (Timus, 2015). Two participants admitted that they had no strategies at all, but rather adopted more of a "going with the flow and pulling it off" approach. This was done, however, with a sense of purpose and some knowledge of basic post-secondary and adult learning theories.

Theme 4: Suggestions to Improve Blended Learning

The findings in this section are consistent with the existing literature. Time, communication, workload, lack of administrative and institutional support, engaging students in the online component of the course, technological issues, and lack of incentives and funding (Jokinen & Mikkinen, 2013; Lee & Lee, 2008; Maguire, 2005) were some of challenges instructors encountered in their experiences teaching in a blended learning environment.

Recommendations for university administration. The recommendations for administration revolved primarily around professional development and the institution's attitude toward blended learning and instructors using this method of teaching. The participants requested that their efforts be recognized and appreciated. They asked for encouragement and support, given the time and effort needed to adapt to the learning curve associated with teaching in a blended learning environment. They discussed how administrators should foster an open

environment in which instructors are allowed and encouraged to experiment with different learning approaches.

Participants discussed the importance of administrators seeking individuals who are willing to learn and try new things. In addition, participants reported their need for institutional support and training programs designed to facilitate not only the acquisition of technical skills, but also knowledge about alternative instructional approaches suitable for e-learning (Owens, 2012).

The support must extend to include monetary incentives and issues related to teaching credit, compensation, and tenure must be sorted out. Moreover, incentives must also include reduction in workload, hiring assistants, and considering the adoption of blended learning in promotion and tenure decisions (Ginsberg & Ciabocchi, 2014; Porter et al., 2014). This may help attract more professors to teaching in online and blended learning environments.

Furthermore, instructors discussed the lack of infrastructure, technical help, institutional support, and professional development (Lee & Lee, 2008). Some of the participants did not mind the traditional workshops, while others asked for workshops to be delivered online or modeled in a blended format, which would make them more convenient.

Recommendations for university instructors. When asked about suggestions for fellow instructors, participants discussed the importance of knowing the learners, including understanding their context and experiences. Participants provided an array of suggestions, including the following:

- consider advanced preplanning because blended learning creates additional work (Welker & Berardino, 2005);
- have some prior knowledge and be familiar with the content, pedagogy, and the format (Ginsberg & Ciabocchi, 2014);

- find your approach and make sure it fits your style;
- be creative, flexible, and open to new strategies and approaches of teaching to maximize the potential of the online component (Carbonell et al., 2013);
- be open to challenging yourself and learning from students;
- be patient;
- consider yourself as well as your learners—your time commitments and availability;
- understand your learners in a holistic way (i.e., experience, attributes, expectations) and keep them engaged (Cercone, 2008);
- provide various tools and resources for learning;
- consider how to organize, present, and use the material online;
- understand adult learning theories; and
- make some time to attend workshops.

Recommendations for university students. While the suggestions for fellow instructors covered a wide range of aspects, suggestions for learners focused primarily on their effort and attitude. Participants discussed how students must put forth an effort to independently learn and embrace the blended mode of learning. Participants indicated that some students had a negative view of blended learning either due to their own personal experiences or classmates' experiences, particularly regarding challenges with time management, computer literacy, and accountability (Moule et al., 2010; Vaughan, 2008).

Instructors encouraged students to be open, to acknowledge their skill sets, to value themselves as contributors to the learning process, and to maintain a positive attitude. The indicated that the effectiveness of the experience relies heavily on students' attitude. Further, they discussed how students must put an effort into being more driven and self-directed. Instructors

reported that most of the students struggled with managing blended learning courses due to a lack of self-discipline, motivation, and self-direction, which were required to manage time, tasks, and responsibilities (Kougo & Nojima, 2004; as cited in Kitazawa et al.,2008).

Discussion

The purpose of this study was to explore instructors' teaching approaches, underlying learning theories, and perceptions of blended learning environments at the University of Manitoba. To date, there is limited research on instructors' teaching practices in blended environments in higher education (Torrisi-Steele & Drew, 2013). This suggests that blended instructors base their decisions largely on their own preferences and teaching styles, without necessarily referring to literature on the optimal conditions for blended learning.

In this study, participants did not reach a consensus regarding the definition of blended learning, nor did they agree regarding the extent to which blended learning should be regulated at the University of Manitoba (via the Center for the Advancement of Teaching and Learning). The term blended learning meant different things to different instructors. Some thought of it on a macro level (i.e., generally combining media with face-to-face instruction), while others were more concerned with the details of the process of combining face-to-face and online instruction. The complexity and breadth of the definition—which included an array of methods and modalities—caused frustration, confusion, and uncertainty for some instructors. The lack of "conceptual clarity" (McDonald, 2014, p. 216) was challenging for instructors who struggled to determine effective ways to combine and harvest the benefits of both online and face-to-face learning.

Some of the participants were unclear even before participating in the interviews whether they were engaged in blended learning and qualified for the study. This indicates an insecurity

that likely stems from a lack of knowledge, skills, and/or familiarity with blended learning. They asked questions such as the following: “Is this the right way of blending?” “I am not sure this is blended. Is it?” “Is it supposed to be 50/50?” “I don’t know. How many definitions are there for blended learning?” “I am new to this. What’s the right way to do it?” This lack of clarity highlights the need for tutorials and or workshops to educate instructors about blended learning. Professional development can help instructors throughout the year to deal with issues related to teaching, managing, and evaluating blended learning courses.

The division of the content between the two modes remained a critical issue. Numerous factors played into decisions regarding how to divide instruction. Instructors were unclear whether blended courses should be 30% face-to-face and 70% online or 70% face-to-face and 30% online. However the time was divided, continuity was critical to ensure learners effectively engaged with the content. Participants discussed the importance of being intentional in how they combined online and face-to-face activities. This was similar to Garrison and Vaughan (2008), who described the importance of “thoughtfully” dividing content when designing blended courses. According to Garrison and Vaughan (2008) blended learning involves the “organic integration of thoughtfully selected and complementary face-to-face and online approaches” (p. 148).

According to Vaughan (2013), blended learning classrooms must focus on the theory and practice of blended learning because traditional approaches fail to provide students with the best learning experience in technology-integrated classrooms. The notion behind blended learning is not merely to enhance the learning experience by using technology, but rather to improve learning quality by challenging students and expanding their horizons in various ways that are not possible through traditional face-to-face instruction. Participants in this study discussed how a major

advantage of blended learning is the limitless design possibilities available for instructors to capitalize on the benefits of both traditional face-to-face and online learning.

Thus, the focus should not be on trying to find the right equation for blended learning because the reality is there is no one right approach. This is why the qualitative definition of blended learning is effective because it imposes no restriction on educators' abilities and creativity. Instructors need to understand that regardless of the definition, approach, or type of blended learning utilized, they must fulfill the goal of carefully incorporating online activities and traditional face-to-face instruction (Vaughan, 2013).

The instructors recognized the tangible benefits of blended learning. They appreciate its unique structure and how it contributed to creating better learning opportunities. From convenience and accessibility to providing multiple platforms for learning, the benefits that emerged in the findings reflected the advantages cited in the literature: convenience and flexibility (Bonk et al., 2005); pedagogical benefits (Futch, 2005); overcoming the limitations of online learning (Valejs, 2003); and promoting activity, engagement, and student-centered learning (Monsakul, 2008).

Interview questions in this study were modeled after the CoI model in order to identify theoretical elements underlying teaching practices. The CoI model is a holistic and constructivist. The interview questions were intended to elicit thoughtful reflection regarding teaching practices—including cognitive, social, and teaching elements of practices. It is important for educators to understand their learners and question the effectiveness of their methods. Instructors in this study utilized a range of teaching methods and held diverse attitudes toward blended learning. As mentioned in the findings, some depended on trial and error, while others modeled their experience based on their expertise in teaching traditional face-to-face classes—which is a

common practice among instructors teaching blended learning courses. This finding was expected, as the instructors had no formal guidelines from the university regarding how to teach in blended learning environments. Hence, instructors held diverse perceptions of blended learning and demonstrated a range of teaching practices.

In examining the theoretical components of their approaches, the researcher observed that with the exception of some references to adult learning theories, none of the participants based their teaching practices on a particular theory, nor did they adhere to a particular instructional model or framework. The instructors drew upon their own personal experiences teaching traditional face-to-face courses and relied on what they believed were effective instructional practices. For example, one instructor discussed using "what [was] known to be successful." It appears that the planning of a blended learning course was, on the whole, easier than the actual implementation, as most of the participants struggled in deciding what exactly to do and how to go about it.

Findings revealed that regardless of the different approaches, instructors were focused on improving student learning to the best of their abilities. They attempted to consider the characteristics of their learners and, in one form or another, adopted principles of social constructivism. This finding was not surprising as constructivism has been emphasized in learning in technology-infused classrooms. In this study, instructors were largely unfamiliar with the CoI model. When discussing their theoretical philosophies to approaching blended learning, none of the participants mentioned the CoI model; however, their teaching strategies did cover a wide range of activities across the three elements of the model: (a) social presence, (b) teaching presence, and (c) cognitive presence. Some participants mentioned the term *community of inquiry*; however, they were not referring to the CoI model per se, but rather were using the term

loosely to describe creating a community of learners in a constructivist environment—a foundational component of the CoI model.

Developed by Garrison et al. (2000), the CoI model has been used extensively to help instructors and students understand the complex nature of teaching and learning in blended environments (Garrison et al., 2000; Garrison, Anderson, & Archer, 2010; Garrison, Cleveland-Innes, & Fung, 2010). The CoI model serves as a framework for collaborative engagement and dialogical teaching, which promotes quality learning and knowledge construction (Shea & Bidjerano, 2010). The goal of the CoI model is to provide an optimal educative experience by encouraging open communication, collaboration, discussion, dialogue, and critical reflection.

The CoI model consists of three interactive, overlapping elements that are essential to the learning process: (a) social presence, (b) teaching presence, and (c) cognitive presence (Akyol et al., 2009). The cyclic and dynamic interaction among elements in the model leads to meaning construction through deep inquiry (Garrison, Cleveland- Innes, & Fung, 2010). In this study, instructors' teaching practices incorporated elements of social constructivism. Though instructors did not have prior knowledge of the CoI model—nor did they directly reference CoI elements—it was apparent that they implicitly recognized the value of these elements in their teaching practices.

Attention to social presence manifested through the instructors' focus on social relationships, communication, immediacy in learning, and feedback and interaction. Instructors highlighted the importance of instructor–student interactions as well as students' interactions with their classmates. They emphasized collaboration and the sharing of positions (i.e., facilitator and learner), as well as the importance of synergy.

Cognitive presence is reflected in the practical inquiry cycle (i.e., trigger, exploration, integration, and resolution; Garrison, et al., 2001). This process is not linear and is interconnected with the social and teaching elements. Cognitive presence was evident in the data through references to the co-construction of knowledge; levels of engagement with the content, other learners, and the learning process; strategies for facilitating information acquisition; and the achievement of deep learning.

Teaching presence brings the other two elements together and is concerned with the facilitation of learning. Participants referred to teaching presence in a number of ways. For example, they discussed the different roles they played in the learning experience. There was a general consensus among participants regarding the need to play different roles (i.e., facilitator, commentator, presenter, guide, instructor) depending on where the learners were in the learning process. Playing different roles allowed students to share the teaching responsibilities, which is the essence of teaching presence (Vaughan, 2013).

Understanding, collaboration, interaction, and safety were key terms used to describe the learning process. This confirms the need to shift the focus from a traditional hierarchy in the classroom to one of shared responsibility, ultimately fostering a more "complete" learning experience. Findings demonstrated the holistic nature of the CoI model. The social constructivist principles undergirding the model are not only applicable to online and blended learning, but also to face-to-face learning. With the careful design and thoughtful implementation of technology, the CoI model can guide educators in creating successful learning environments.

Suggestions to improve the learning experience for both instructors and learners were reflective of suggestions in prior studies. They echoed many of the recommendations in the Blended and Online Learning Task Force (2014) report. Instructors discussed the importance of

being well prepared technically and pedagogically. One of the most important recommendations was to provide a safe environment and encourage instructors to experiment with technology and different delivery systems. Through experimentation, instructors can gain more skills and knowledge. Skibba (2014) reported that instructors who were given the opportunity to experiment and deliver courses in multiple formats learned a lot pedagogically. They were able to demonstrate a better understanding of the benefits of each format and improved their teaching practices.

Participants discussed the importance of having a solid technological infrastructure at the university. They recommended that administration use incentives and consider the teaching of blended courses in compensation and tenure-related decisions. This would encourage instructors to experiment with new practices for teaching blended and online classes. Participants discussed how it is important for administration to provide support in order to educate instructors in blended learning practices. They recommended hosting a variety of workshops and/or tutorial sessions to assist instructors. Overall, instructors wanted administration to recognize the time commitment and workload required when administering blended courses.

Instructors also pointed out the role students play in making the learning experience successful. They discussed how it is critical for students to approach blended learning with openness and a positive attitude. They indicated that blended courses require a great amount of effort, discipline, motivation, and self-management on behalf of the students.

Summary

In this chapter, findings from the study were discussed in detail. In general, instructors had positive experiences teaching blended learning courses. Lack of conceptual clarity, limited familiarity with blended learning, and lack of pedagogical knowledge impacted instructors'

teaching practices in various ways, causing the majority to rely on their prior experiences teaching face-to-face classes. More theoretical models of blended learning are needed to help inform best practices in blended environments. Despite limited familiarity with the CoI model, its elements—social presence, cognitive presence, and teaching presence—were evident in instructors' teaching practices. Instructors would benefit from further education on the CoI model, and its applications to blended courses at the University of Manitoba should be further explored.

CHAPTER 6: CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

The main purpose of this study was to explore current teaching practices in blended learning environments at the University of Manitoba, and to understand theoretical principles underlying instructors' approaches to blended learning. Instructors' experiences varied widely, though they were generally positive. It is possible that this positivity was related to selection bias. Blended learning was rendered beneficial for students in that it offered convenience, accessibility, and pedagogical variety and flexibility. Additionally, blended learning was found to be engaging and interactive for learners because it afforded them the opportunity to learn from one another. The interactive aspects of blended learning simulated everyday life interactions, such as those with cellphones and other technological devices.

Instructors in this study appeared to adopt social constructivist principles in their blended classrooms. They put a great deal of effort into turning away from traditional face-to-face approaches toward learning environments that fostered collaboration. There was a strong emphasis on creating a socially safe environment that encouraged learners to share responsibility for their learning and construct meaning by engaging with the content, instructors, and one another. The CoI model was not readily recognized by instructors, though they appeared to incorporate CoI elements in their instruction.

Questions about the definition and right mix of face-to-face versus online components in blended learning emerged prior to the interviews. Instructors also had varying opinions about the benefits of regulating versus not regulating blended learning at the University of Manitoba. This indicates that there is a need for faculty-based and university-wide discussions about technology and learning, most importantly about teaching strategies in technology-infused classrooms.

The instructors individually designed and taught their blended learning courses. Each instructor decided on the percentage of face-to-face versus e-learning, the teaching method utilized, and the form of delivery. While other universities have adopted blended learning at the institutional level (i.e., Missouri State University, Indiana University), there were no guidelines set by the University of Manitoba to assist instructors in understanding, designing, and teaching in blended learning environments. Adopting an institutional definition of blended learning is a crucial first step to eliminate confusion surrounding the term among instructors and students, and to clarify expectations and provide appropriate support. The Centre for the Advancement of Teaching and Learning (CATL) works with instructors and supports them in the implementation of blended learning. Currently, they offer a variety of workshops focused on introducing blended learning to instructors and professors, reflective and evaluative practice, cultural diversity, and how to develop dynamic discussions with adult learners. While encouraging, there is still a need to better conceptualize blended learning at the university. To be able to fully explore the depth and diversity of blended learning, CATL, in collaboration with administrators and other involved members of the university community, must identify what would works best for instructors. Surveys and focus groups, for example, could help gain more understanding regarding instructors' attitudes toward blended learning. They would also help to formulate effective professional development programs. Questions that need to be considered and thoroughly discussed prior to launching such development programs include the following: Should blended learning programs at the university be theory-based? Should the instructors be classified by their experience, skills, and/or attitudes toward blended learning? What are the pivotal factors in developing workshops/programs? How would these programs be evaluated? How can we engage instructors in these programs?

When this step is completed, CATL and the university community can then focus on designing and organizing workshops to (a) introduce instructors to various concepts in blended learning, (b) familiarize them with the learning management systems being used at the university and (c) establish quality assessment standards to continuously measure the quality of the blended learning courses. CATL may consider working with specialists in technology and adult learning that are perceived to be peers to facilitate workshops for faculty.

It is important to remember that face-to-face courses do not follow set guidelines, and each instructor is free to decide which content to address, how to teach the content, and how to assess student learning. This is part of academic freedom. Thus, any specific guidelines for blended learning courses must be carefully constructed so as not to limit the freedom of instructors to develop and teach the course the way they consider "best."

Instructors must be well prepared in terms of skills, pedagogy, andragogy and self- direction (Palloff & Pratt, 2007) and knowledge. According to Ginsberg and Ciabocchi (2014), universities follow various procedures when developing, designing, and teaching online and blended courses. Some universities require instructors to complete a few courses/programs prior to teaching online and blended learning courses.

Ginsberg and Ciabocchi (2014) examined faculty development programs across 500 establishments that focused on integrating technology with learning and offered online and blended education. One of the questions asked was, "Which elements of the faculty development program for blended teaching have been most/least successful and why?" (Ginsberg & Ciabocchi, 2014, p. 197). Program design, quality of instructions, convenience of the delivery format, and faculty involvement were identified as the most successful elements of faculty development for blended

learning instruction, with comments pointing out the importance of institutional support, financial incentives, and quality training (Ginsberg & Ciabocchi, 2014).

Respondents to Ginsberg and Ciabocchi's (2014) survey recommended sufficient incentives to compensate for the amount of time and effort required to deal with the learning curve. They suggested that the institutions make training mandatory to increase the number of qualified staff and to increase the funding. Implementing these suggestions at the University of Manitoba campus could potentially attract instructors and professors who object to blended learning courses or who are hesitant about trying blended learning or incorporating technology into their teaching.

Limitations of the Study

The foremost limitation of this study was the small number of participants (only nine interviews were conducted over a year). The study included interviewing instructors who taught graduate and undergraduate blended learning courses at the University of Manitoba. The study targeted instructors in the four faculties that had the most blended learning activities at the University of Manitoba: the Faculty of Dentistry, the Faculty of Social Work, the Faculty of Arts, and the Faculty of Science. However, owing to limited interest, only three participants were recruited from these faculties. Instructors were thus recruited from additional faculties. As mentioned in Chapter 1, due to the voluntary nature of the recruitment process, it was difficult to gain access to many instructors who, for various reasons, could not or chose not to participate due to workload, illness, or stress.

In addition, because of the qualitative nature of this study, and the use of a self-selected sample, findings are not generalizable to the larger population. It should be pointed out that generalizability was not the main purpose of this study. Rather, the main purpose was to explore instructors' experience with teaching in blended learning environments.

Fittingness, or transferability, is different from generalizability. It refers to the applicability of the findings to other settings (Guba, 1981). According to Krefting (1991), researchers must provide sufficient descriptive data to allow readers to assess the transferability of the findings. To ensure transferability, it is critical to provide detailed information about the participants and the context and use member checking and triangulation, which allow the reader to evaluate the data and make judgements accordingly.

Beck (1993) listed a few questions that can help readers to assess the applicability of findings in a research study:

1. Did the researchers establish the typicality of the informants and their responses?
2. Did the researchers check for the representativeness of the data as a whole?
3. Did the theoretical sampling result in range of informants experiencing the phenomenon under study?
4. Were the data made to appear more similar or congruent than they really were?
5. Did the study results fit the data from which they were generated? (p. 265)

Unlike generalizability, transferability falls on the readers, as they make the connection between pasts of the study and their own experience (Krefting, 1991). In this study, the instructors' experiences may transfer to other instructors who are teaching in similar learning environments in other university or college settings.

This study is further constrained by the type of blended learning that is being implemented by the specific learning management system at the University of Manitoba (UM Learn). As mentioned earlier, lack of conceptual clarity surrounding blended learning impacted the instructors' approaches to designing and implementing their blended learning courses. There were no discussions regarding the learning management system currently being used at the University of

Manitoba. It was briefly referred to several times in the context of comparing it to the two previous learning management systems (D2L and Blackboard). The instructors described the UM Learn as a better alternative to the previous systems, but no further discussion occurred. Also, it was notable that the terms *strategies*, *instructions*, and *approaches* caused confusion for three instructors. Several considered these terms to be synonymous, thus rendering the interview questions redundant, while a couple asked for further explanation to determine the meaning of each term.

Finally, my own biases, as stated in my researcher position section, may have skewed my interpretation and may have guided me to focus more on finding certain themes. One of the limitations could have been my expectation regarding participants' knowledge and familiarity with pedagogical theory. Nevertheless, I believe that this did not affect the quality of the findings. Further, I used participant quotes to reduce uncertainty and to provide support for the themes I identified.

Implications for Future Research

Suggestions for further research were based on the findings of this study including employing a larger sample and recruiting instructors from various universities in the city or across Canada, rather than limiting it to one university. It would be interesting to explore how factors such as years of experience, faculty, number of students, attitudes toward technology, and levels of skill and familiarity with blended learning impacted individuals' experiences.

A replication of this study at educational establishments that have adopted a unified concept of blended learning could be conducted using a quantitative survey based on the CoI model. This would offer more specific information regarding the presence of each of the CoI elements in the blended learning environment. Also, a CoI survey could be distributed to students who have taken blended learning courses to examine their experiences in direct relation to the CoI model. This

would assist in understanding students' perspectives on the current teaching practices. It would also help to determine which elements need more attention in classrooms as well as how the dynamic relationships among the elements impact the learning experience.

Conducting interviews, focus groups, in addition to observation and document analysis prior, during, and post-completion of the blended courses would provide better insight into how instructors approach blended learning courses in terms of preparation, design, organization, utilization of support, and specific teaching strategies utilized. Moreover, conducting focus groups with instructors who have taught blended learning courses would allow for a comparison of definitions, attitudes, and experiences with teaching blended learning.

In addition, conducting interviews with students after the completion of a course would shed light on their experiences with blended learning and may point out gaps between instructors' stated plans and actual actions in the classrooms. It may also provide more information about how to work better with post-secondary learners in technology-integrated classrooms.

Finally, it would be quite beneficial to conduct interviews with staff working at CATL to explore how they plan to approach the process of adopting blended learning at the university. example interview questions are as follows: Is the plan theory-based? With whom will the office be collaborating? Are staff qualified? Are instructors required to engage in training? Is the plan based on particular learning theories or curriculum models? How would the training be delivered? How many blended learning workshops are offered to instructors? What are the major factors being considered in the initial planning? How are they planning to attract faculty to attend these workshops and or teach blended learning courses?

Implications for Theory

Social constructivism served as the theoretical underpinning of this study, which is the foundation of the CoI model. This study aimed to uncover and understand the theories underpinning teaching practices in blended learning environments at the University of Manitoba. The results revealed that participants' practices were not theory-guided but rather based more on their expertise in teaching traditional classes.

A few instructors referred to adult learning theories as a foundation for their practices and decisions. Theories related to the nature of adult learner (i.e., complex, multilayered), self-motivation, self-dependence, and self-management were considered essential when teaching adult learners.

Elements of social constructivism were found to be strongly embedded in instructors' teaching practices and strategies. Instructors referred to using the following practices, which were indicative of social constructivism: giving learners a voice in the classroom; negotiating with learners; fostering cognitive and emotional flexibility; encouraging the construction of meaning through interacting with others; fostering togetherness in learning; playing multiple roles in the learning process; considering learners' positions, beliefs, and experiences; and collaborative learning.

The CoI model is a holistic model based on adopting constructivist principles to create an educative experience. It focuses on the cognitive, teaching, and social aspects of learning. I believe this model is quite beneficial to use as the foundation for workshops/tutorials for instructors to guide their effort in preparing, designing, organizing, and teaching online and blended learning courses. The model breaks down the learning process to its basic elements and demonstrates how to work on

each element while thoughtfully combining online and face-to-face instruction; further, it does not restrict instructors to following a certain method or specific set of activities.

Conclusion

This study provides a snapshot of how blended learning was conceptualized and implemented by nine instructors at the University of Manitoba. Particularly, this study depicted how instructors defined blended learning and implemented it into their teaching practices in higher education. Given the diversity in their experience, it is not surprising to find considerable differences in how the instructors defined blended learning, which explains the variation in the effort, implementation, and teaching approaches.

The primary purpose of this study was to explore instructors' teaching practices in blended learning environments at the University of Manitoba, and to understand the theoretical principles underlying these practices. The CoI model was used as a benchmark to examine the instructors' teaching experiences on multiple levels. Interview questions focused on exploring instructors' teaching practices in terms of social, cognitive, and teaching elements. They also elicited instructors' suggestions for improving the experience of teaching and learning in blended learning contexts. Findings indicated that the nine instructors adopted aspects of social constructivism in their teaching practices. This comes as no surprise in that constructivism is deemed to work quite well with the characteristics of e-learning.

In Chapters 4 and 5, an in-depth analysis was presented of how instructors perceived their experience, conceptualized their role, and taught in blended learning environments. This analysis also included instructors' suggestions for administration, fellow instructors, and students. While this study confirmed the findings of other research on teaching in blended learning environments, it also elaborated on the findings of the Blended and Online Learning Task Force report (2014).

Moreover, It adds to the sparse literature on teaching practices in blended learning as there is a severe lack of literature regarding the examination of current teaching practices in blended learning environments and examining how and why faculty approach blended learning in a certain way (Torrisi-Steele & Drew, 2014). The study introduced novel data that may contribute to advancing the University of Manitoba's approaches to blended learning in higher education. It presents insights into teaching practices in blended learning courses in higher education, and provides helpful suggestions to improve the teaching and learning experience in the blended learning environment.

REFERENCES

Akyol, Z., Garrison, D. R., & Ozden, Y. M. (2009). Development of a community of inquiry in online and blended learning contexts. *Procedia - Social and Behavioral Sciences, 1*, 1834–1838. doi:10.1016/j.sbspro.2009.01.324

Albion, P., & Redmond, P. (2006). Returning the favour: Using insights from online learning to enhance on-campus courses. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education international conference 2006* (pp. 2458–2464). Chesapeake, VA: Association for the Advancement of Computing in Education.

Allen, I. E., Seaman, J., & Garrett, R. (2007). *Blending in: The extent and promise of blended education in the United States*. Retrieved from http://www.onlinelearningsurvey.com /reports/blending-in.pdf

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning Networks, 5*(2), 1–17. doi:10.1.1.95.9117

Annand, D. (2011). Social presence within the community of inquiry framework. *International Review of Research in Open and Distance Learning, 12*(5). doi:10.19173/irrodl.v12i5.924

Appana, S. (2008). A review of benefits and limitations of online learning in the context of the student, the instructor and the tenured faculty. *International Journal on E-Learning, 7*, 5–22. Retrieved from http://www.aace.org/pubs/ijel/

Arbaugh, J. B. (2008). Does the community of inquiry framework predict outcomes in online MBA courses? *International Review of Research in Open and Distance Learning, 9*(2). Retrieved from http://www.irrodl.org/index.php/irrodl/index

Arbaugh, J. B., & Hwang, A. (2006). Does "teaching presence" exist in online MBA courses? *The Internet and Higher Education, 9*, 9–21. doi:10.1016/j.iheduc.2005.12.001

Atleo, M. R., Menzies, C., Syed, A., & Vogt, R. (2010, October). *Engaging in blended learning: Collaborative inquiry in adult and post-secondary programming*. Paper presented at the Conference on Blended Learning: Ensuring Quality and Cost Effectiveness, York University, Toronto, Canada.

Ausburn, L. (2004). Course design elements most valued by adult learners in blended online education environments: An American perspective. *Educational Media International, 41*, 327–337. doi:10.1080/0952398042000314820

Baker, E., McGaw, B., & Peterson, P. (Eds.). (2007). *International encyclopedia of education* (3rd ed.). Oxford, United Kingdom: Elsevier.

Barker, P. (2006). Motivating learners: Can blended learning help? In T. Reeves & S. Yamashita (Eds.), *Proceedings of World Conference on e-Learning in Corporate, Government, Healthcare, and Higher Education 2006* (pp. 1849–1854). Chesapeake, VA: Association for the Advancement of Computing in Education.

Beck, C. T. (1993). Qualitative research: The evaluation of its credibility, fittingness, and auditability. *Western Journal of Nursing Research, 15*, 263–266. doi:10.1177/019394599301500212

Bennett, S., Maton, K., & Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology, 39*, 775–786. doi:10.1111/j.1467-8535.2007.00793.x

Bogdan, R., & Biklen, S. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston, MA: Pearson.

Bergsteiner, H., Avery, G. C., & Neumann, R. (2010). Kolb's experiential learning model: Critique from a modelling perspective. *Studies in Continuing Education, 32*, 29–46. doi:10.1080/01580370903534355

Boghossian, P. (2012). Critical thinking and constructivism: Mambo dog fish to the banana patch. *Journal of Philosophy of Education, 46*, 73–84. doi:10.1111/j.1467-9752.2011.00832.x

Bonk, C. J., & Graham, C. R. (2006). *The handbook of blended learning environments: Global perspectives, local designs*. San Francisco, CA: Jossey-Bass/Pfeiffer.

Bonk, C., Kim, K. J., & Zeng, T. (2005). Future directions of blended learning in higher education and workplace learning settings. In P. Kommers & G. Richards (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2005* (pp. 3644–3649). Chesapeake, VA: Association for the Advancement of Computing in Education.

Butler Battaglino, T., Haldeman, M., & Laurans, E. (2012). *The costs of online learning*. Retrieved from the Thomas B. Fordham Institute website: http://edex.s3-us-west-2.amazonaws.com/publication/pdfs/20120110-the-costs-of-online-learning_7.pdf

Carbonell, K. B., Dailey-Hebert, A., & Gijselaers, W. (2013). Unleashing the creative potential of faculty to create blended learning. *Internet and Higher Education, 18*, 29–37. doi:10.1016/j.iheduc.2012.10.004

Chamberlain, M., & Reynolds, C. (2007). Blended learning initiatives in higher education: Opportunities and challenges. In C. Montgomerie & J. Seale (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2007* (pp. 2397–2402). Chesapeake, VA: Association for the Advancement of Computing in Education.

Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE Journal, 16*, 137–159. Retrieved from http://www.editlib.org/j/AACEJ/

Chickering, A., & Gamson, Z. (1989). Seven principles for good practice in undergraduate education. *Biochemical Education, 17*, 140–141. doi:10.1016/0307-4412(89)90094-0

Cisco Systems. (2001). *Internet Learning Solutions Group e-learning glossary*. Retrieved from http://www.puw.pl/sites/default/files/content_files/zasob_do_pobrania/358/elearning-glossary-cisco.pdf

Cobern, W. W. (1993). Constructivism. *Journal of Educational and Psychological Consultation, 4*, 105–112. doi:10.1207/s1532768xjepc0401_8

Collins, A., & Halverson, R. (2009). *Rethinking education in the age of technology*. New York, NY: Teachers College Press.

Conrad, D. (2005). Building and maintaining community in cohort based online learning. *International Journal of e-Learning & Distance Education, 20*, 1–20. Retrieved from http://www.ijede.ca

Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano Clark, V. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

DeMartino, D. J. (1999). Employing adult education principles in instructional design. In J. Price, J. Willis, D. A. Willis, M. Jost, & S. Boger-Mehall (Eds.), *Proceedings of Society for Information Technology & Teacher Education international conference 1999* (pp. 783–788). Chesapeake, VA: Association for the Advancement of Computing in Education.

Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.

Dewey, J. (1938). *Experience and education*. New York, NY: Collier.

Dewey, J. (1997). *How we think*. Mineola, NY: Dover. (Original work published 1910)

Delialioglu, O., & Yidirim, Z. (2008). Design and development of a technology enhanced hybrid instruction based on MOLTA model: Its effectiveness in comparison to traditional instruction. *Computers & Education, 51*, 474–483. doi:10.1016/j.compedu.2007.06.006

DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education, 40*, 314–321. doi:10.1111/j.1365-2929.2006.02418.x

Driver, R., Asoko, H., Leach, J., Motimer, E., & Scott, P. (1994). Constructing scientific knowledge in the classroom. *Educational Researcher, 23*(7), 5–12. doi:10.3102/0013189X023007005

Drysdale, J. F., Graham, C. R., Spring, K. J., & Halverson, L. R. (2013). An analysis of research trends in dissertations and theses studying blended learning. *The Internet and Higher Education, 17*, 90–100. doi:10.1016/j.bbr.2011.03.031

Dziuban, C. D., Hartman, J. L., & Moskal, P. D. (2004). Blended learning. *EDUCAUSE Center for Applied Research Bulletin, 7*, 1–12. Retrieved from http://www.educause.edu/ecar/research-publications

Edginton, A. (2010). Blended learning approach to teaching basic pharmacokinetics and the significance of face-to-face interaction. *American Journal of Pharmaceutical Education, 74*(5), 88. doi:10.5688/aj740588

Eryilmaz, M. (2015). The effectiveness of blended learning environments. *Contemporary Issues in Education Research, 8*, 251–256. doi.org/10.19030/cier.v8i4.9433

Fischer, C. T. (2009). Bracketing in qualitative research: Conceptual and practical matters, *Psychotherapy Research, 19*, 583–590. doi:10.1080/10503300902798375

Fisher, M., King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *Nurse Education Today, 21*, 516–525. doi:10.1054/nedt.2001.0589

Futch, L. (2005). *A study of blended learning at a metropolitan research university* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3193475)

Franks, P. C. (2002). Blended learning: What is it? How does it impact student retention and performance? In M. Driscoll & T. Reeves (Eds.), *Proceedings of World Conference on e-Learning in Corporate, Government, Healthcare, and Higher Education 2002* (pp. 1480–1482). Chesapeake, VA: Association for the Advancement of Computing in Education.

Francis, R., & Shannon, S. J. (2013). Engaging with blended learning to improve students' learning outcomes. *European Journal of Engineering Education, 38*, 359–369. doi:10.1080/03043797.2013.766679

Freire, P. (2006). *Pedagogy of the oppressed*. New York, NY: Continuum International. (Original work published 1970)

Friesen, N. (2012, August). *Defining blended learning*. Retrieved from http://learningspaces.org /papers/Defining_Blended_Learning_NF.pdf

Frumkin, L. A., Mimirinis, M., Dimitrova, M. T., & Murphy, A (2004). From e-learning to b-learning: How students use e-learning material in a blended learning environment. In *Proceedings of World Conference on e-Learning in Corporate, Government, Healthcare, and Higher Education 2004* (pp. 1870–1875). Chesapeake, VA: Association for the Advancement of Computing in Education.

Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *The Internet and Higher Education, 10*, 157–172. doi:10.1016/j.iheduc.2007.04.001

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education, 2*, 87–105. doi:10.1016/S1096-7516(00)00016-6

Garrison, D. R., Anderson, T., & Archer W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education, 15*, 7–23. doi:10.1080/08923640109527071

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education, 13*, 5–9. doi:10.1016/j.iheduc.2009.10.003

Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *Internet and Higher Education, 10*, 157−172 doi:10.1016/j.iheduc.2007.04.001

Garrison, D. R., Cleveland-Innes, M., & Fung, T. S (2004). Student role adjustment in online communities of inquiry: Model and instrument validation. *Journal of Asynchronous Learning Networks, 8*, 61–74. Retrieved from http://onlinelearningconsortium.org /read/online-learning-journal/

Garrison, D. R., Cleveland-Innes, M., & Fung, T. S. (2010). Exploring causal relationships among teaching, cognitive and social presence: Student perceptions of the community of inquiry framework. *The Internet and Higher Education, 13*, 31–36. doi:10.1016/j.iheduc.2009.10.002

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education, 7*, 95–105. doi:10.1016/j.iheduc.2004.02.001

Garrison, R., & Vaughan, H. (2008). *Blended learning in higher education: Framework, principles and guidelines.* San Francisco, CA: Jossey-Bass.

Garzitto-Michals, E. (2012). Learning should be fun! Drama, meaningful education and the new three "R"s. *Journal of Meaning-Centered Education, 1*. Retrieved from http://www.meaningcentered.org/

Gecer, A., & Dag, F. (2012). A blended learning experience. *Educational Sciences: Theory & Practice, 12*, 438–442. Retrieved from http://www.edam.com.tr/kuyeb/en/default.asp

Ginsberg, A., & Ciabocchi, E. (2104). Growing your own blended faculty: A Review of current faculty development practices in traditional, not-for-profit higher education institutions. In A. Picciano, C. Dziuban, & C. Graham (Eds.), *Blended learning: Research perspectives* (Vol. 2, pp. 190–202). New York, NY: Routledge.

Graham, C. R., & Kaleta, R. (2002). Introduction to hybrid courses. *Teaching With Technology Today, 8*(10). Retrieved from http://www.engr.wisc.edu/services/elc/waysknow.htm

Graham, C. R., Allen, S., & Ure, D. (2003). *Blended learning environments: A review of the research literature*. Unpublished manuscript, Provo, UT.

Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *The Internet and Higher Education, 18*, 4–14. doi:10.1016/j.iheduc.2012.09.003

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Technology Research & Development, 29*(75). doi:10.1007/BF02766777

Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousand Oaks, CA: Sage.

Hadjerrouit, S. (2008). Evaluating the pedagogical value of blended learning in informatics and mathematics education: A comparative study. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2008* (pp. 3751–3760). Chesapeake, VA: Association for the Advancement of Computing in Education.

Halverson, L. R., Graham, C. R., Spring, K. J., & Drysdale, J. S. (2012). An analysis of high impact scholarship and publication trends in blended learning. *Distance Education, 33*, 381–413. doi:10.1080/01587919.2012.723166

Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies, 14*, 575–599. doi:10.2307/3178066

Hathaway, R. (1995). Assumptions underlying quantitative and qualitative research: Implications for institutional research. *Research in Higher Education, 36*, 535–562. doi:10.1007/BF02208830

Helsper, E. J., & Eynon, R. (2010). Digital natives: Where is the evidence? *British Educational Research Journal, 36*, 503–520. doi:10.1080/01411920902989227

Higher Education Funding Council for England. (2008, October). *HEFCE strategy for e-learning*. Retrieved from https://www.hefce.ac.uk/media/hefce/content/pubs/indirreports/2008/missing/Review%20of%20the%202005%20HEFCE%20Strategy%20for%20e-Learning.pdf

Hinkelman, D. (2005). Blended learning: Issues driving an end to laboratory-based CALL. *JALT Hokkaido Journal, 9*, 17–31. Retrieved from http://jalthokkaido.org/jh_journal/journal_index.html

Hinson, J. M., & LaPrairie, K. N. (2005). Learning to teach online: Promoting success through professional development. *Community College Journal of Research and Practice, 29*, 483–493. doi:10.1080/10668920590934198

Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2012). Rigour in qualitative case-study research. *Nurse Researcher, 20*(4), 12–17. doi:10.7748/nr2013.03.20.4.12.e326

Hsul, L., & Hsieh, I. (2011). Effects of a blended learning module on self-reported learning performances in baccalaureate nursing students. *Journal of Advanced Nursing, 67*, 2435–2444. doi:10.1111/j.1365-2648.2011.05684.x

Huang, M. H., Ulrich, R., & Liaw, S. S. (2010). Investigating learners' attitudes toward virtual reality learning environments: Based on a constructivist approach. *Computer & Education, 55*, 1171–1182. doi:10.1016/j.compedu.2010.05.014

Jokinen, P., & Mikkonen, I. (2013). Teachers' experiences of teaching in a blended learning environment. *Nurse Education in Practice, 13*, 524–528. doi:10.1016/j.nepr.2013.03.014

Kala, S., Isaramalai, S., & Pohthong, A. (2010). Electronic learning and constructivism: A model for nursing education. *Nurse Education Today, 30*, 61–66. doi:10.1016/j.nedt.2009.06.002

Kaldis, B. (2013). *Encyclopedia of philosophy and the social sciences*. Thousand Oaks, CA: Sage.

Kaur, M. (2013). Blended learning-its future and challenges. *Procedia - Social and Behavioral Sciences, 93*, 612–617. doi:10.1016/j.sbspro.2013.09.248

Keengwe, J., Kidd, T. T., & Kyei-Blankson, L. (2009). Faculty and technology: Implications for faculty training and technology leadership. *Journal of Science Education and Technology, 18*, 23–28. doi:10.1007/s10956-008-9126-2

Kliebard, H. M. (1970). The Tyler rationale. *The School Review, 78*, 259–272. doi:10.1086/442905

Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. New York, NY: Association Press.

Kitazawa, T., Nagai, M., & Ueno, J. (2008). Effects of e-learning system in blended learning environments: Exploring the relationship between motivational beliefs and self-regulated learning strategies. In K. McFerrin et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education international conference 2008* (pp. 2658–2664). Chesapeake, VA: Association for the Advancement of Computing in Education.

Kocaman, A., Kiraz, E., & Ozden, M. Y. (2006). Blended learning approach in teacher education: Teacher candidates' perceptions and experiences from Turkey. In E. Pearson & P. Bohman (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2006* (pp. 2841–2847). Chesapeake, VA: Association for the Advancement of Computing in Education.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Upper Saddle River, NJ: Prentice-Hall.

Koohang, A., Britz, J., & Seymour, T. (2006, June). Panel discussion: Hybrid/blended instruction, advantages, challenges, design, and future directions. In *Proceedings of Informing Science & Information Technology Education Conference*. Retrieved from http://proceedings.informingscience.org/InSITE2006/ProcKooh121.pdf

Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *American Journal of Occupational Therapy, 45*, 214–222. doi:10.5014/ajot.45.3.214

Kuo, Y. C., Eastmond, J. N., Bennett, L. J. & Schroder, K. E. E. (2009). Student perceptions of interactions and course satisfaction in a blended learning environment. In G. Siemens & C. Fulford (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2009* (pp. 4372–4380). Chesapeake, VA: Association for the Advancement of Computing in Education.

Lai, K.-W., & Hong, K.-S. (2015). Technology use and learning characteristics of students in higher education: Do generational differences exist? *British Journal of Educational Technology, 46*, 725–738. doi:10.1111/bjet.12161

Laifer, E., & Rahimi, I. (2010). Blended learning: Effective technology and methodology in higher education. In D. Gibson & B. Dodge (Eds.), *Proceedings of Society for Information Technology & Teacher Education international conference 2010* (pp. 609–610). Chesapeake, VA: Association for the Advancement of Computing in Education.

Langer, M. M (1989). *Merleau-Ponty's phenomenology of perception: A guide and commentary*. Tallahassee: Florida State University Press.

Lee, S., & Lee, H. (2008). Professors' perceptions and needs on blended e-learning. In C. Bonk et al. (Eds.), *Proceedings of World Conference on e-Learning in Corporate, Government, Healthcare, and Higher Education 2008* (pp. 984–993). Chesapeake, VA: Association for the Advancement of Computing in Education.

Lindlof, T. R. (1995). *Qualitative communication research methods*. Thousand Oaks, CA: Sage.

Lincoln, Y. S., & Guba, E. (1985). *Naturalistic enquiry*. Beverley Hills, CA: Sage.

Lincoln, Y. S., & Guba, E. (2013). *The constructivist credo*. Walnut Creek, CA: Left Coast Press.

Lindeman, E. C. (1989). *The meaning of adult education in the United States* (5th ed.). Syosset, NY: Harvest House.

Lynch, D. (2002). Professors should embrace technology in courses. *The Chronicle of Higher Education, 48*(19), 15–17. Retrieved from http://chronicle.com

Maguire, L. (2005). Literature review – faculty participation in online distance education: Barriers and motivators. *Online Journal of Distance Learning Administration, 8*(1). Retrieved from http://www.westga.edu/~distance/ojdla/

Manitoba Education, Citizenship, and Youth. (2006). *A continuum model for literacy with ICT. across the curriculum.* Retrieved from http://www.edu.gov.mb.ca/k12/tech/lict /resources/handbook/lict.pdf

Marton, F., Wen, Q., & Wong, K. C. (2005). 'Read a hundred times and the meaning will appear . . .' Changes in Chinese university students' views of the temporal structure of learning. *Higher Education, 29*, 291–318. doi:10.1007%2Fs10734-004-6667-z

McDonald, P. L. (2012). *Adult learners and blended learning: A phenomenographic study of variation in adult learners' experiences of blended learning in higher education* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3502645)

McDonald, P. L. (2014). Variations in adult learners' experiences of blended learning in higher education. In A. Picciano, C. Dziuban, & C. Graham (Eds.), *Blended learning: Research perspectives* (Vol. 2, 216–234). New York, NY: Routledge.

McKenzie, W. A., Perini, E., Rohlf, V., Toukhsati, S., Conduit, R., & Sanson, G. (2013). A blended learning lecture delivery model for large and diverse undergraduate cohorts. *Computers & Education, 64*, 116–126. doi:10.1016/j.compedu.2013.01.009

McLaren, P. (1999). A pedagogy of possibility: Reflecting upon Paulo Freire's politics of education. *Educational Researcher, 28*(2), 49–54. doi:10.3102/0013189X028002049

McMillan, J. H. (2008). *Educational research: Fundamental for the consumer*. Boston, MA: Pearson.

Mehlenbacher, B. (2010). *Instruction and technology: Designs for everyday learning*. Cambridge, MA: The MIT Press.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2006). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Jossey-Bass.

Meyer, K. A. (2003). Face-to-face versus threaded discussion: The role of time and higher order thinking. *Journal of Asynchronous Learning Networks, 7*(3), 55–63. Retrieved from http://onlinelearningconsortium.org/read/online-learning-journal/

Michinov, N., Brunot, S., Le Bohec, O., Juhel, J., & Delaval, M. (2011). Procrastination, participation, and performance in online learning environments. *Computers & Education, 56*, 243–252. doi:10.1016/j.compedu.2010.07.025

Monsakul, J. (2008). A research synthesis of instructional technology in higher education. In K. McFerrin et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education international conference* (pp. 2134–2139). Chesapeake, VA: Association for the Advancement of Computing in Education.

Morrison, N. (2016, January 29). Blended learning: The future of higher education? *Forbes*. Retrieved from https://www.forbes.com

Moule, P., Ward, R., & Lockyer, L. (2010). Issues with e-learning in nursing and health education in the UK: Are new technologies being embraced in the teaching and learning environments? *Journal of Research in Nursing, 16*, 77–90. doi:10.1177/1744987110370940

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Mortera-Gutiérrez, F. (2006). Faculty best practices using blended learning in e-learning and face-to-face instruction. *International Journal on E-Learning, 5*, 313–337. Retrieved from http://www.aace.org/pubs/ijel/

Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea? *The Internet and Higher Education, 18*, 15–23. doi:10.1016/j.iheduc.2012.12.001

Muijs, D. (2011). *Doing quantitative research in education with SPSS* (2nd ed.). Thousand Oaks, CA: Sage.

Napier, N., Dekhane, S., & Smith, S. (2011). Transitioning to blended learning: Understanding student and faculty perceptions. *Online Learning, 15*, 20–32. doi:10.24059/olj.v15i1.188

Oliver, M., & Trigwell, K. (2005). Can "blended learning" be redeemed? *e-Learning, 2*, 17–26. doi:10.2304/elea.2005.2.1.2

Olka, K. (2005). Creating e-learning based on adult learning theory. In P. Kommers & G. Richards (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2005* (pp. 2924–2931). Chesapeake, VA: Association for the Advancement of Computing in Education.

Olson, D. M. (2003). *Student perceptions of hybrid classes at a notebook university* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3107189)

Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning environments, definitions and directions. *Quarterly Review of Distance Education, 4*, 227–233. Retrieved from http://www.infoagepub.com/quarterly-review-of-distance-education.html

Owens, T. (2012). Hitting the nail on the head: the importance of specific staff development for effective blended learning. *Innovations in Education and Teaching International, 49*, 389–400. doi:10.1080/14703297.2012.728877

Ozkan, S., & Koseler, R. (2009). Multi-dimensional students' evaluation of e-learning systems in the higher education context: An empirical investigation. *Computers & Education, 53*, 1285–1296. doi:10.1016/j.compedu.2009.06.011

Palloff, R. M., & Pratt, K. (2003). The virtual student: A profile and guide to working with online learners. San Francisco, CA: Jossey-Bass.

Palloff, R. M., & Pratt, K. (2007). Building online learning communities: Effective strategies for the virtual classroom (2nd ed.). San Francisco, CA: Jossey-Bass.

Palloff, R. M., & Pratt, K. (2011). The excellent online instructor: strategies for professional development. Retrieved from https://ebookcentral.proquest.com

Pellerin, M. (2007). Blended learning (BL) approach for language teacher preparation program delivery: Blending online learning (OL) with face-to-face (F2F) classroom venue. In C. Montgomerie & J. Seale (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2007* (pp. 2294–2300). Chesapeake, VA: Association for the Advancement of Computing in Education.

Pereira, J., Pleguezuelos, E., Meri, A., Molina-Ros, A., Molina-Tomas, M. C., & Masdeu, C. (2007). Effectiveness of using blended learning strategies for teaching and learning human anatomy. *Medical Education, 41*, 189–195. doi:10.1111/j.1365-2929.2006.02672.x

Picciano, A. G. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Learning Networks, 6*, 21–40. Retrieved from https://secure.onlinelearningconsortium.org/publications/olj_main

Picciano, A. G., Seaman, J., Shea, P., & Swan, K. (2012). Examining the extent and nature of online learning in American K-12 education: The research initiatives of the Alfred P. Sloan Foundation. *The Internet and Higher Education, 15*, 127–135. doi:10.1016/j.iheduc.2011.07.004

Poplin, M. S. (1988). Holistic/constructivist principles of teaching/learning process: Implications of the field of the learning disabilities. *Journal of Learning Disabilities, 21*, 401–416. doi:10.1177/002221948802100703

Porter, W. W., Graham, C. R., Spring, K. A., & Welch, K. R. (2014). Blended learning in higher education: Institutional adoption and implementation. *Computers & Education, 75*, 185–195. doi:10.1016/j.compedu.2014.02.011

Prensky, M. (2007). How to teach with technology: Keeping both teachers and students comfortable in an era of exponential change. In L. Bryant et al. (Eds.), *Emerging technologies for learning* (Vol. 2, pp. 40–46). Coventry, United Kingdom: British Educational Communications and Technology Agency.

Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting & Management, 8*, 238–264. doi:10.1108/11766091111162070

Quirkos. (2016). (Version 1.4) [Computer software]. Retrieved from http://www.quirkos.com

Ramsden, P. (1992). *Learning to teach in higher education*. London, United Kingdom: Routledge.

Rovai, A. P, & Jordan, H. M. (2004). Blended learning and sense of community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning, 5*(2). Retrieved from http://www.irrodl.org/

Schreiber, L. M., & Valle, B. E. (2013). Social constructivist teaching strategies in the small group classroom. *Small Group Research, 44*, 395–411. doi:10.1177/1046496413488422

Shachar, M., & Neumann, Y. (2003). Differences between traditional and distance education academic performances: A meta-analytic approach. *International Review of Research in Open and Distance Learning, 4*(2), 1–20. Retrieved from http://www.irrodl.org/

Sharts-Hopko, N. (2002). Assessing rigor in qualitative research. *Journal of the Association of Nurses in AIDS Care, 13*(4), 84–86. doi:10.1016/S1055-3290(06)60374-9

Shea, P., & Bidjerano, T. (2010). Learning presence: Towards a theory of self- efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments. *Computers & Education, 55*, 1721–1731. doi:10.1016/j.compedu.2010.07.017

Skibba, K. (2014). Choice does matter: Faculty lessons learned teaching adults in a blended program. In A. Picciano, C. Dziuban, & C. Graham (Eds.), *Blended learning: Research perspectives* (Vol. 2, pp. 2013–211). New York, NY: Routledge.

Small, G., & Vorgan, G. (2009). *iBrain: Surviving the technological alteration of the modern mind*. New York, NY: Harper Collins.

Smyth, S., Houghton, C., Cooney, A., & Casey, D. (2012). Students' experiences of blended learning across a range of postgraduate programmes. *Nurse Education Today, 32*, 464–468. doi:10.1016/j.nedt.2011.05.014

Stirling, D., Bitter, G., & Skiera, P. (2015). *A research report: Odysseyware instructional design & strategies*. Retrieved from Arizona State University website: https://glndocs.s3.amazonaws.com/odw/marketing-resources/pdfs/ASU_Report_2015.pdf

St. Pierre Hirtle, J. (1996). Coming to terms: Social constructivism. *English Journal, 85*, 91–92. Retrieved from http://www.ncte.org/journals/ej

Stubbs, M., Martin, I., & Endlar, L. (2006). The structuration of blended learning: Putting design into practice. *British Journal of Educational Technology, 37*, 163–175. doi:10.1111/j.1467-8535.2006.00530.x

Svinicki, M. D., & Dixon, N. M. (1987). The Kolb model modified for classroom activities. *College Teaching, 35*, 141–146. doi:10.1080/87567555.1987.9925469

Swan, K. P. (2002). Building learning communities in online courses: The importance of interaction. *Education, Communication & Information, 2*, 23–49. doi:10.1080/1463631022000005016

Swan, K. P., Garrison, D. R., & Richardson, J. C. (2009). A constructivist approach to online learning: the community of inquiry framework. In Payne, C. R. (Ed.) *Information technology and constructivism in higher education: Progressive learning frameworks* (pp. 43–57). Hershey, PA: IGI Global.

Tabor, S. (2007). Narrowing the distance implementing a hybrid learning model for information security education. *Quarterly Review of Distance Education, 8*, 47–57. Retrieved from http://www.infoagepub.com/quarterly-review-of-distance-education.html

Tapscott, D. (2009). *Grown up digital*. New York, NY: McGraw-Hill.

Taylor, J. A., & Newton, D. (2012). Beyond blended learning: A case study of institutional change at an Australian regional university. *The Internet and Higher Education, 18*, 54-60. doi:10.1016/j.iheduc.2012.10.003

Tyler, R. (2003). *Basic principles of curriculum and instruction*. Chicago: The University of Chicago Press. (Original work published 1949)

Tenenbaum, G., Naidu, S., Jegede, O., & Austin, J. (2001). Constructivist pedagogy in conventional on-campus and distance learning practice: An exploratory investigation. *Learning and Instruction, 11*, 87–111. doi:10.1016/S0959-4752(00)00017- 7

Timus, N. (2015). From challenge to advantage: Innovating the curriculum across geographic boundaries. In A. Dailey-Hebert & K. S. Dennis (Eds.), *Transformative perspectives and processes in higher education* (Vol. 6, pp. 137–153). New York, NY: Springer.

Torrisi-Steele, G., & Drew, S. (2013). The literature landscape of blended learning in higher education: The need for better understanding of academic blended practice. *International Journal for Academic Development, 18*, 371–383. doi:10.1080/1360144x.2013.786720

Tynan, B., Ryan, Y., & Lamont-Mills, A. (2015). Examining workload models in online and blended teaching. *British Journal of Educational Technology, 46*, 5–15. doi:10.1111/bjet.12111

Vaughan, N. (2007). Perspectives on blended learning in higher education. *International Journal on E-Learning, 6*, 81–94. Retrieved from Retrieved from http://www.aace.org/pubs/ijel/

Vaughan, N., Cleveland-Innes, M., & Garrison, D. R. (2013). *Teaching in blended learning environments*. Edmonton, Canada: Athabasca University Press.

Valejs, J. (2003). Continuing education tiptoes online: Where are the quality guidelines? *Journal of Education for Library and Information Science, 44*, 332–335. Retrieved from http://www.alise.org/jelis-2

Wallace, L., & Young, J. (2010). *Implementing blended learning: Policy implications for universities*. Retrieved from http://www.westga.edu/~distance/ojdla/winter134 /wallace_young134.html

Welker, J., & Berardino, L. (2005). Blended learning: Understanding the middle ground between traditional classroom and fully online instruction. *Journal of Educational Technology Systems, 34*, 33–55. doi:10.2190/67fx-b7p8-pyux-tdup

Wonacott, M. E. (2002). *Blending face-to-face and distance learning methods in adult and career-technical education* (Practice Application Brief No. 23). Available from ERIC database. (Accession No. ED470783)

Woodson Day, B., Lovato, S., Tull, C. M., & Ross-Gordon, J. (2011). Faculty perceptions of adult learners in college classrooms. *Journal of Continuing Higher Education, 59*, 77–84. doi:10.1080/07377363.2011.568813

Xin, C. (2012). A critique of the community of inquiry framework. *Journal of e-Learning & Distance Education, 26*(1). Retrieved from http://www.ijede.ca

Yakimovicz, A. D., & Murphy, K. L. (1995). Constructivism and collaboration on the internet: Case study of a graduate class. *Computers in Education, 24*, 203–209. doi:10.1016/0360-1315(95)00015-E

Zhang, Y., & Wildemuth, B. (2009). Qualitative analysis of content. In B. Wildemuth (Ed.), *Applications of social research methods to questions in information and library science* (pp. 308–319). Westport, CT: Libraries Unlimited.

APPENDIX A: COMMUNITY OF INQUIRY SURVEY INSTRUMENT

Teaching Presence

Design and Organization

1. The instructor clearly communicated important course topics.
2. The instructor clearly communicated important course goals.
3. The instructor provided clear instructions on how to participate in course learning activities.
4. The instructor clearly communicated important due dates/time frames for learning activities.

Facilitation

5. The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.
6. The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.
7. The instructor helped to keep course participants engaged and participating in productive dialogue.
8. The instructor helped keep the course participants on task in a way that helped me to learn.
9. The instructor encouraged course participants to explore new concepts in this course.
10. Instructor actions reinforced the development of a sense of community among course participants.

Direct Instruction

11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn.

12. The instructor provided feedback that helped me understand my strengths and weaknesses.
13. The instructor provided feedback in a timely fashion.

Social Presence

Affective Expression

14. Getting to know other course participants gave me a sense of belonging in the course.
15. I was able to form distinct impressions of some course participants.
16. Online or web-based communication is an excellent medium for social interaction.

Open Communication

17. I felt comfortable conversing through the online medium.
18. I felt comfortable participating in the course discussions.
19. I felt comfortable interacting with other course participants.

Group Cohesion

20. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.
21. I felt that my point of view was acknowledged by other course participants.
22. Online discussions help me to develop a sense of collaboration.

Cognitive Presence

Triggering Event

23. Problems posed increased my interest in course issues.
24. Course activities piqued my curiosity.
25. I felt motivated to explore content related questions.

Exploration

26. I utilized a variety of information sources to explore problems posed in this course.

27. Brainstorming and finding relevant information helped me resolve content related questions.
28. Online discussions were valuable in helping me appreciate different perspectives.

Integration

29. Combining new information helped me answer questions raised in course activities.
30. Learning activities helped me construct explanations/solutions.
31. Reflection on course content and discussions helped me understand fundamental concepts in this class.

Resolution

32. I can describe ways to test and apply the knowledge created in this course.
33. I have developed solutions to course problems that can be applied in practice.
34. I can apply the knowledge created in this course to my work or other non-class related activities.

5-point Likert scale

1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*

APPENDIX B: INFORMED CONSENT LETTER FOR PARTICIPANTS

UNIVERSITY OF MANITOBA

Faculty of Education

Date:

Dear Participant:

My name is Maha Telmesani, and I am a Doctoral student in the area of Post Secondary and Adult Education at the University of Manitoba. I am writing to invite you to participate in a research project, as part of the requirements for my PhD degree in Education. The purpose of this research is to explore the ways in which learning theories impact the design of what constitutes effective learning environments in blended learning contexts.

Research project title: "Effective Blended Learning for Post Secondary Learners: Instructors' Perspectives"

Researcher: Maha Telmesani
Sponsor: University of Manitoba.

This letter will provide you the basic idea of what this research is about and what your participation will involve. If you would you like more detail about something mentioned here, or information not included here, feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of my study is to explore the ways in which learning theories impact the design of what constitutes effective learning environments in blended learning contexts. This study in particular aims to explore how instructors perceive effective learning in blended settings, approach teaching blended learning courses, the extent to which the elements of the CoI (designed on social constructive learning principles) are supported in their perceptions of what constitutes as effective blended learning, and the extent to which the elements of the CoI model are evident in their approach of teaching blended courses taught and implemented at the University of Manitoba and the implications this has for effective instruction and learning in higher education contexts. The results of such projects will benefit other researchers in the blended learning field, and establish a foundation to provide useful suggestions for future research regarding creating better and effective blended learning for post secondary learners.
Most importantly the study will make suggestions on the potential impacts that the learning theories evidenced in instructors' perceptions may impact on teaching and learning in blended learning courses in post-secondary contexts, particularly as it relates to the quality of the student learning experience and faculty teaching experience.

I am asking you to consider taking part in this study and to participate in an individual, face- to-face interview which should take approximately an hour of your time and will be audio taped. The questions I will ask relate to your personal experience as an instructor who have taught at least

one academic blended leaning course at an undergraduate level with the term blended here referring to the combination of online and face to face learning. You have, of course, the right to answer only those questions you feel most comfortable answering, and you can withdraw from the study at any time. Should you choose to withdraw, your interview will not be used in the final reporting, and there will be no penalty associated with your withdrawal.

Any quotations, I use, from participants in writing the report on this study, will be attributed to pseudonyms in all published results. No one individual will be identifiable or identified in the results. All of your responses will be kept strictly anonymous and confidential. Should any comments suggest the identity of a person, that data will simply not be used. All results will be reported in a general format.

A transcript of the interview will be returned to you for five days prior to writing the report, so that you can add, delete, or change any responses and to ensure that all identifying information has been omitted. This will occur before the analysis of the data begins. If I do not hear from you within the five days, I will assume that there are no changes with your transcript. If you require more time, to read over the transcript, you can e-mail me with your request. You will be asked to offer factual information regarding your personal experience with teaching blended learning courses and your perception of what constitutes effective blended learning. Only aggregate data will be reported to further protect the confidentiality of all participants. Should any data allow for the identifying of any individual, it will simply not be used in the results. The interview data will be securely stored on a password protected computer file as is required by the University of Manitoba guidelines and all printed data (transcribed interviews) will be stored in a locked file cabinet in my home. Only the principle researcher, a professional transcriber and my dissertation advisor, Dr. Marlene Atleo, will have access to all the data. All data and surveys will be destroyed after five years.

There are no risks involved in this study to subjects, or to third party, since participation is entirely voluntary and the results will be reported only in their generalized format in the final report. In no way will individuals be identifiable and/or identified in the reporting and of study results.

Should you wish to participate, please sign the consent form on the bottom of this page. Keep one copy of this letter and the form for yourself, and give a second copy to me for my records. If you do not wish to participate, please discard the information.

Note that this research has been approved by ENREB (Education Nursing Research Ethical Board). If you have any concerns or complaints about this project you may contact me or contact the Human Ethics Coordinator at xxxxxxxxxxx, or by e-mail at xxxxxxxxxxx. You may also contact my advisor, Dr. Marlene Atleo, at xxxxxxxxxxxxx

Sincerely,

Maha Telmesani University of Manitoba
Tel: xxxxxxxxxxxxx
E-mail: xxxxxxxxxxxxxx

APPENDIX C: INITIAL EMAIL LETTER OF INVITATION TO PARTICIPATE

UNIVERSITY OF MANITOBA

Faculty of

Education Date:

Dear X,

My name is Maha Telmesani, and I am a Doctorate student specializing in post-secondary education. I am conducting a study about teaching and learning in a blended learning environment, and the ways in which instructors and students perceive blended learning and what constitutes effective blended learning. The study is titled: Effective Blended Learning for Post-Secondary Learners: Instructor and Learner Perspectives.

I am writing to ask if (a) you would be willing to participate in a single 60 minute interview about your own experiences in teaching blended courses at an undergraduate level; (b) if you would send an invitation/recruitment letter that I have prepared via D2L email to your students asking them to participate in filling an online survey regarding their experiences with blended learning, and or joining focus groups that will be set up later asking them about their views of effective blended learning environments; or, (c) if you would provide me with permission to visit your classes for 5 minutes to hand out a recruitment letter with a brief study introduction.

If you would be interested in participating in my study regarding the opportunities and challenges in creating an effective learning environment as a blended learning instructor, I will interview you about your blended teaching experiences for not more than 60 minutes at a place and time convenience for you. During the interview, I will ask questions about the Design and organization of the course; Facilitation of learning and instructions; Social interaction, connection and communication; Teaching strategies to enable learning; and suggestions to offer that could help to offer blended courses that will better lead to optimum learning. You will receive a copy of the interview questions prior to the interview via email.

You will have the right, of course, to answer only those questions that you feel comfortable answering. You will also have the right to withdraw from the study at any time, including during the interview itself or even following the interview (in that case data from your interview will not be used in the study). I will audio record the interview with a digital audio recorder so that it can later be transcribed for further analysis. Interviews will be transcribed by a professional typist from an agency that provides secretarial and transcription services, and who will sign a confidentiality pledge. As a condition of employment in the agency, the typist has already taken an oath of confidentiality. She/he will have no involvement in the research study once the transcriptions have been made, and in any case, she/he will have no personal knowledge of or relationship to the study participants.

If you participate you will be able to review the transcripts and it would take approximately 30 minutes to review. I will send the transcript to you via email. In writing the dissertation report of the study, I will likely quote comments that you or other participants have made.

Nevertheless, all protocols for confidentiality, anonymity and ethical procedures as outlined by University of Manitoba guidelines will be respected. In all cases, anonymity will be assured through the use of pseudonyms for students and/or instructors in all analysis and dissemination processes. The data will be used for purposes of completing my PhD. dissertation, and may be used for presentation and publication purposes. I and an official transcriber will be the only individuals to have access to non-anonymized data. The transcriber will sign a pledge of confidentiality prior to transcribing the interviews. My advisors (Dr. Marlene Atleo), will have access to anonymized data. No essential information will be withheld from participants, nor will any misleading information about the research or its purposes be provided. The research does not involve deception, nor does it include the necessity of waived informed consent.

The interview and focus group data will be securely stored on a password protected computer as is required by the University of Manitoba guidelines and all printed data (transcribed interviews, focus group transcriptions, and any printed survey data) will be stored in a locked file cabinet in my home. All data will be destroyed after the study is complete, anticipated to be August 2016. Digital and electronic data will be trashed, and all hard copy or printed data will be shredded at the end of the study, anticipated to be August 2016.

This research has been approved by the Education/Nursing Research Ethics Board (ENREB). If you have any concerns or complaints about it, you may contact me directly at xxxxxxxxxx (email:xxxxxxxxxx), or contact the Human Ethics Coordinator at xxxxxxxxxx, or by e-mail at xxxxxxxxxx. You may also contact my advisor, Dr. Marlene Atleo, at xxxxxxxxxx or xxxxxxxxxx.

If you are willing to participate in this study in any capacity (an interview, posting the invitation on D2L or allowing me to come to your classroom to pass out the recruitment letter), please inform me by contacting me at my phone number xxxxxxxxxx or at my email address xxxxxxxxxx. If you would prefer not to become involved, I thank you for considering this request.

Sincerely,

Maha Telmesani Faculty of Education University of Manitoba

APPENDIX D: ETHICS APPROVAL

UNIVERSITY OF MANITOBA | Research Ethics and Compliance
Office of the Vice-President (Research and International)

Human Ethics
208-194 Dafoe Road
Winnipeg, MB
Canada R3T 2N2
Phone +204-474-7122
Fax +204-269-7173

APPROVAL CERTIFICATE

June 11, 2015

TO: **Maha Telmesani** (Advisors B. Temple/M. Atleo)
Principal Investigator

FROM: **Donna Martin, Acting Chair**
Education/Nursing Research Ethics Board (ENREB)

Re: **Protocol #E2015:047**
"Effective Blended Learning for Post-Secondary Learners: Instructor and Learner Perspectives"

Please be advised that your above-referenced protocol has received human ethics approval by the **Education/Nursing Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement (2). **This approval is valid for one year only**.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

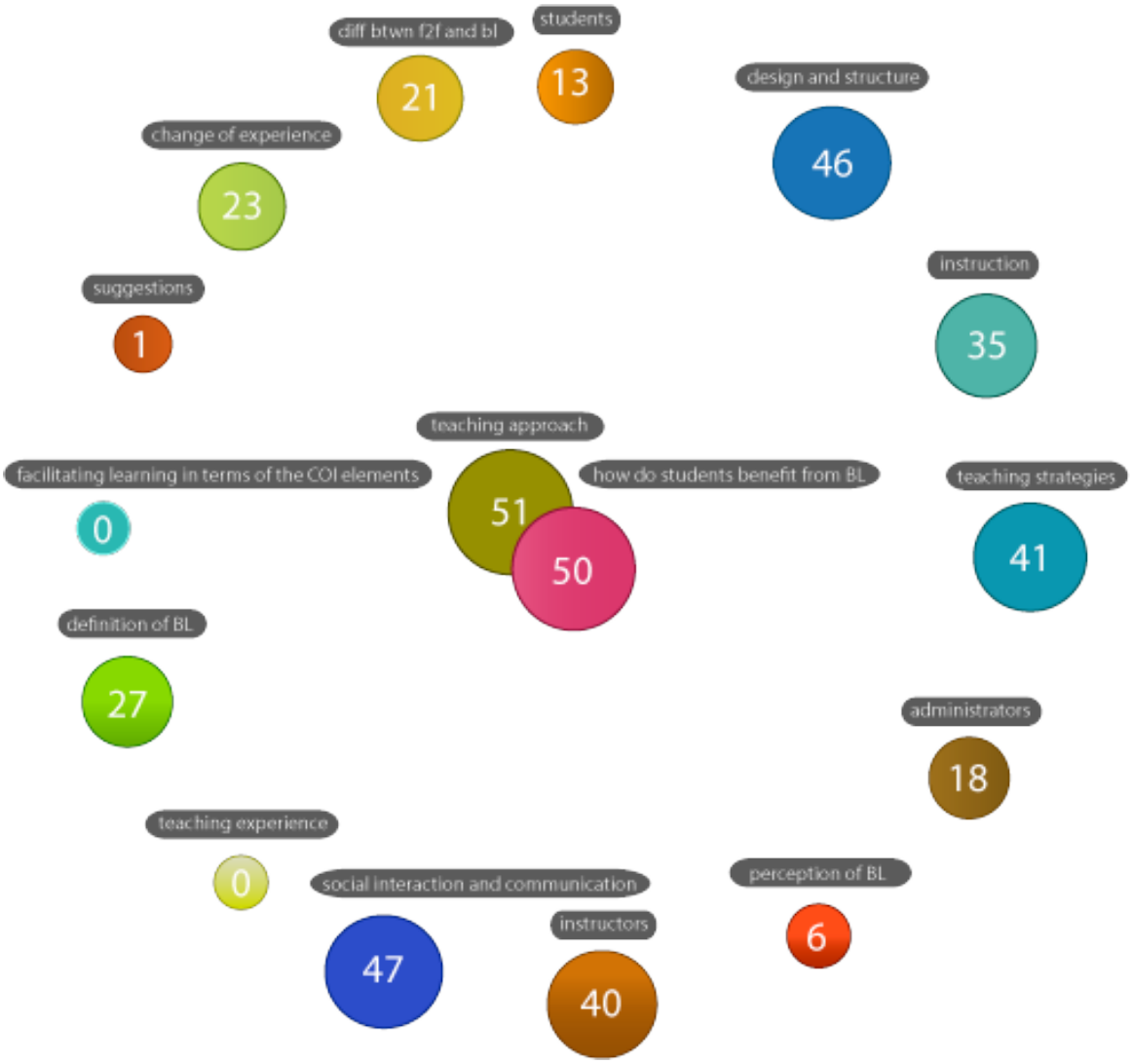
- **If you have funds pending human ethics approval, please mail/e-mail/fax (261-0325) a copy of this Approval (identifying the related UM Project Number) to the Research Grants Officer in ORS in order to initiate fund setup. (How to find your UM Project Number: http://umanitoba.ca/research/ors/mrt-faq.html#pr0)**

- **if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.**

The Research Quality Management Office may request to review research documentation from this project to demonstrate compliance with this approved protocol and the University of Manitoba *Ethics of Research Involving Humans*.

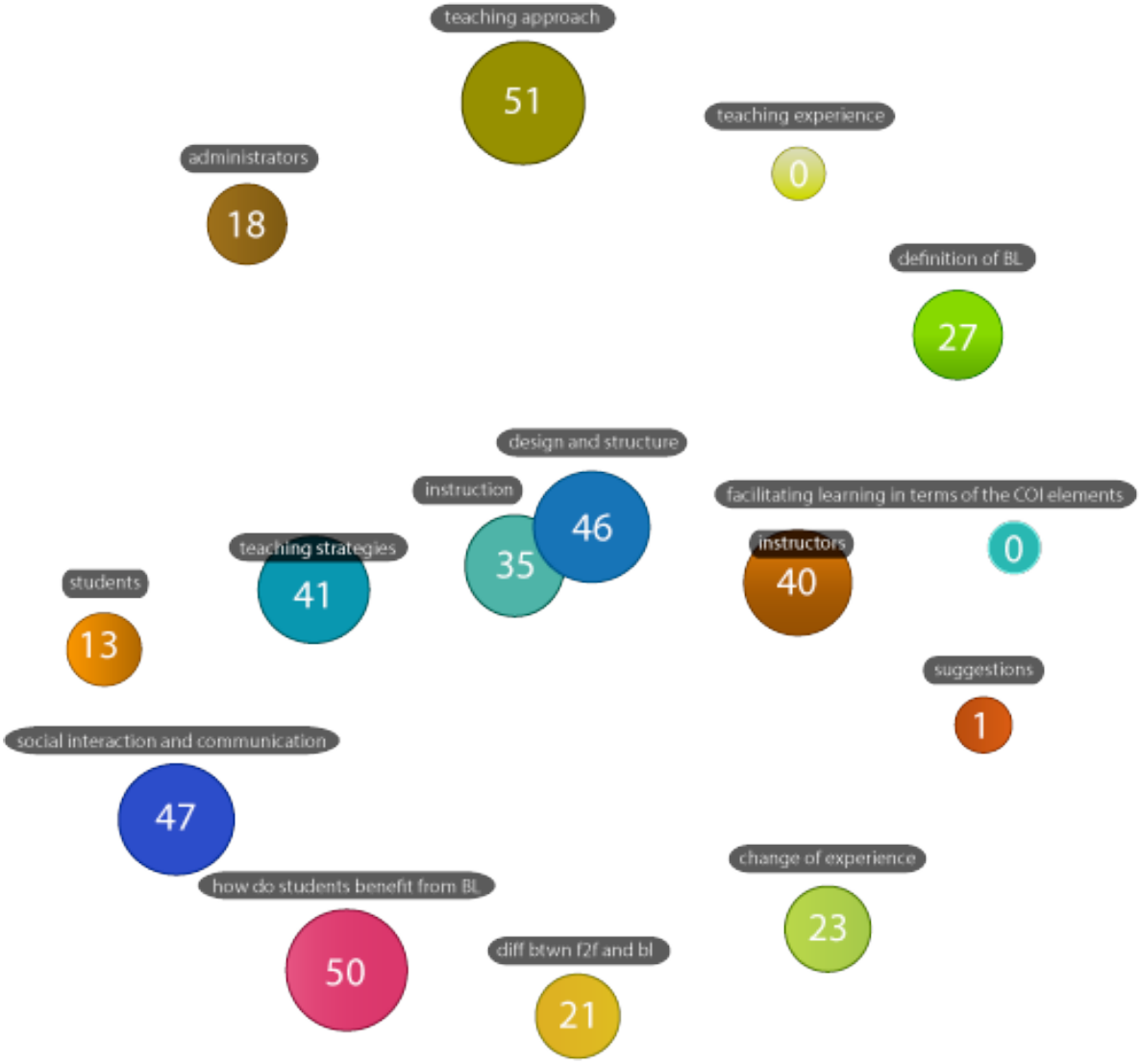
The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/orec/ethics/human_ethics_REB_forms_guidelines.html) **in order to be in compliance with Tri-Council Guidelines.**

APPENDIX E: OVERLAP VIEW OF TEACHING APPROACH

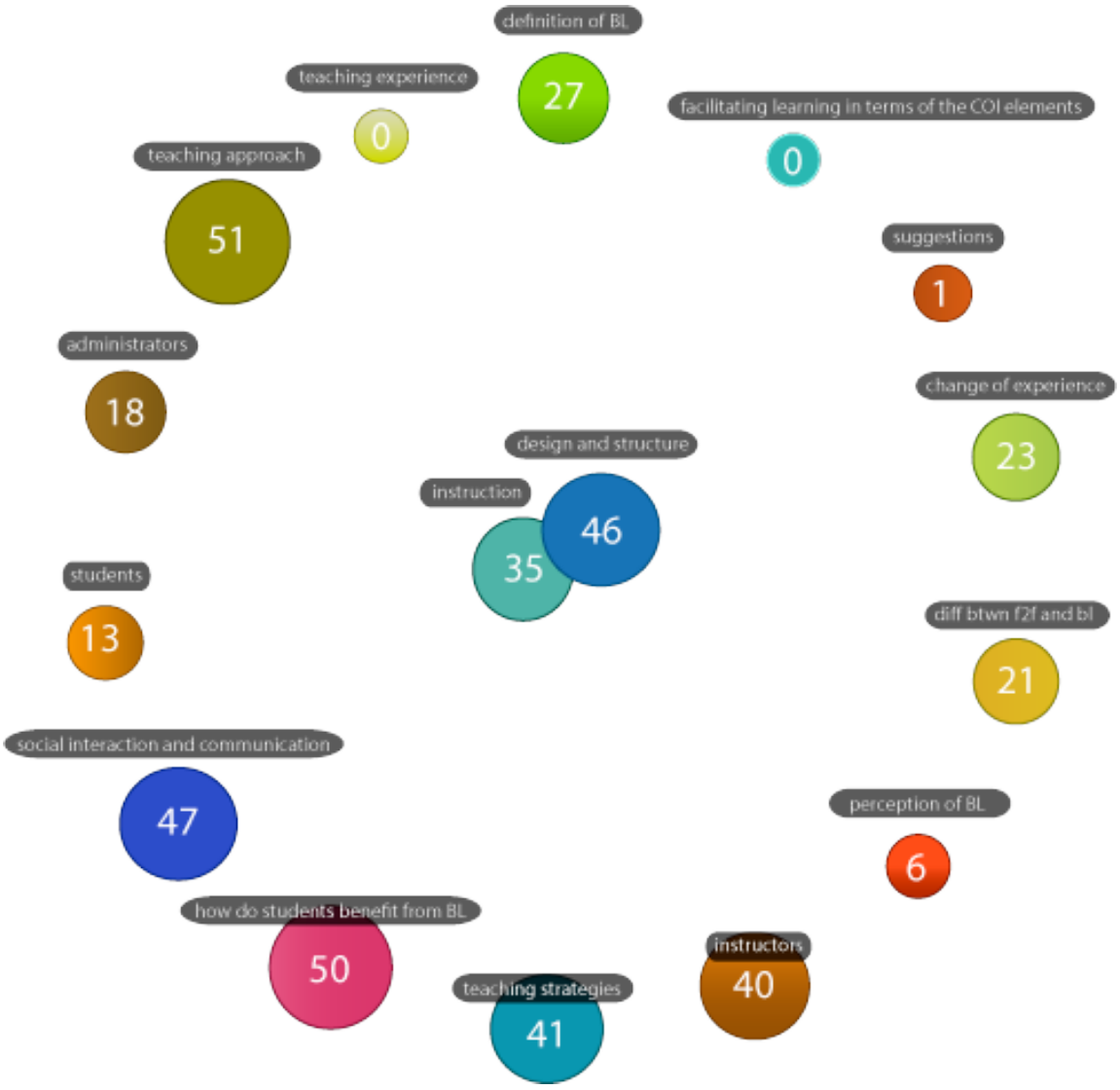


APPENDIX F: OVERLAP VIEW OF STUDENTS BENEFITS

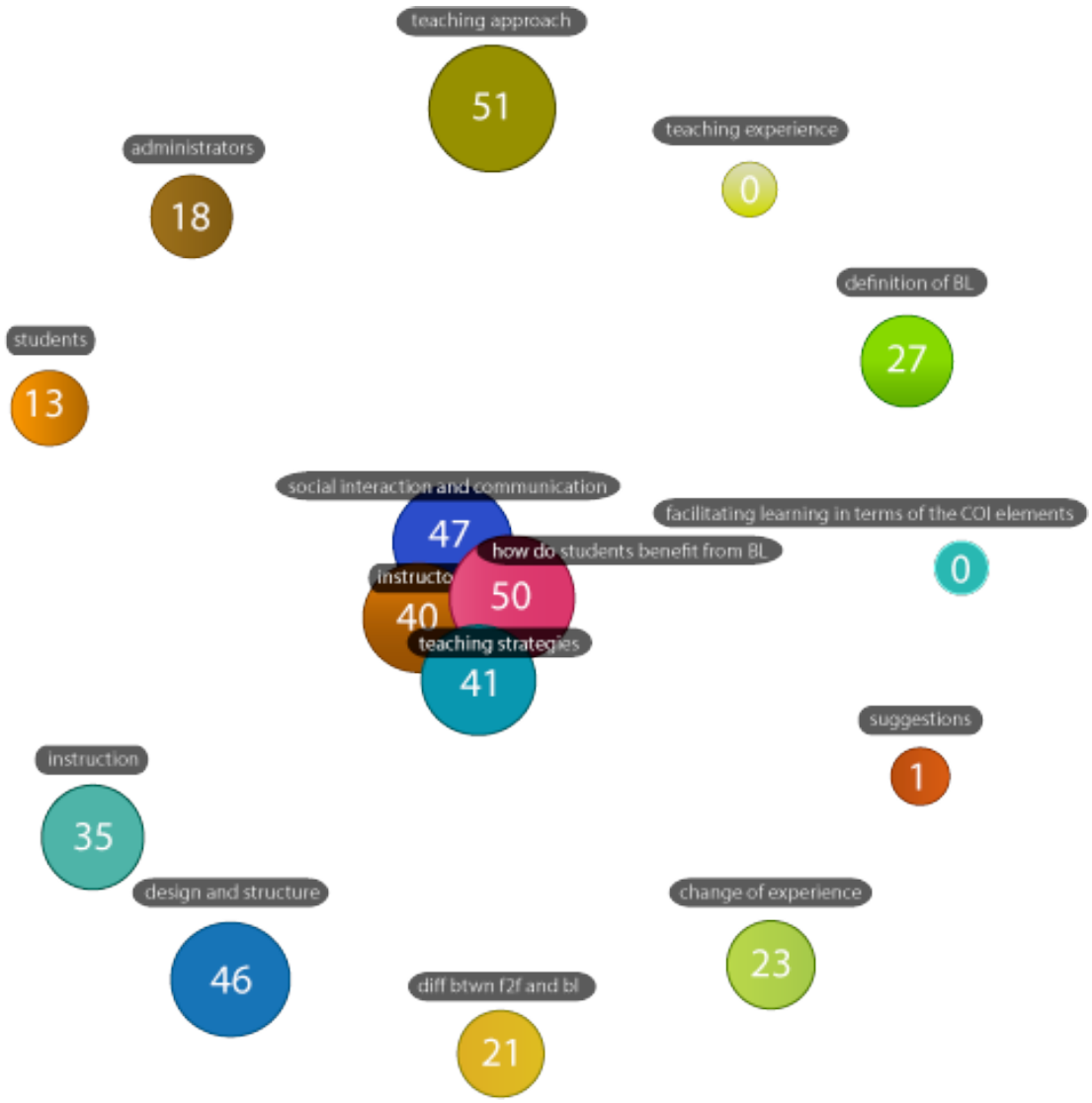
APPENDIX G: OVERLAP VIEW OF DESIGN AND STRUCTURE



APPENDIX H: OVERLAP VIEW OF INSTRUCTIONS



APPENDIX I: OVERLAP VIEW OF SOCIAL INTERACTION AND COMMUNICATION



APPENDIX J: OVERLAP VIEW: TEACHING STRATEGIES