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Understanding the Perspectives of Online Graduate Students:  
Implications for Educational Leaders

by

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## Abstract

This doctoral study explored the leadership implications for delivering online learning in mainstream higher education institutions by examining the characteristics, motivations, and perceptions of 163 graduate students enrolled in online academic programs at a western Canadian university. Through the use of mixed research methods, and drawing on survey, focus group, and interview data, findings revealed the diverse views and needs of participants. Findings included the characteristics and motives of the online learners along with their perceptions of online learning.

On average, participants were middle aged, female, and married. They were North American and lived in an urban or rural setting. It had been over seven years since they were in a formal degree program, and they had taken more than four fully online courses. Their technical and information literacy skills were adequate enough to manage online learning. Logistically, participants were concerned about the online programs' costs and credibility. Personally, they were uncertain if they could learn online, or feared they lacked the necessary technical skills. Participants shared their perceptions of online learning, as well, and spoke about their need for support from faculty and staff members. They also spoke about their need for an engaging online learning environment, instructor, and activities, and further requested online communities and rich communication. Structurally, participants asked for online learning to be designed well, and that it consider the nature of the online environment and distant learner.

As a context for discussing leadership implications, issues and concerns were addressed while considering the needs of participants. For instance, program issues were addressed and included the credibility and costs of online programs. As well, faculty

presence and development for online environments were raised as issues by participants. They also mentioned online student services as an area of concern, such as offering various online communities, providing program information, and developing students' technology and information literacy skills. An added discussion presented further questions about learner needs when studying online. Leadership suggestions for effectively planning, implementing, and delivering online learning were given, as well as marketing online programs. Additionally, developing good human relationships in online learning was recommended, such as working effectively with faculty and ensuring students had quality online experiences.

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## Dedication

I dedicate this dissertation to my husband, Mark Edmonds. He has been my greatest supporter by helping me through three consecutive degree programs. He does not know me as anything other than a student, and his commitment and pride in me has never wavered. There were countless times when he had to read my term papers, make dinners, pay fees, and carry my conference bags. Now, I hope I can support him in attaining his dreams.

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## CHAPTER 1: NATURE OF STUDY

### Introduction

This study focused on implications for higher education leaders who deliver learning online by examining the input of graduate students at a mainstream, traditional university. More specifically, this study examined the characteristics and perceptions of online learning as described by graduate students who were enrolled in online master's and doctoral degree programs in a graduate division at a faculty of education at a Western Canadian university. Input from participants has the potential to inform leaders about planning and policy development as well as infrastructure building and staff management. Also, participant input can provide suggestions for program and course development, and essential staff, resources, and support required for online learning environments.

The higher education field in North America is experiencing change impacted by globalization, evolving economies, emerging technologies, growing populations, and shifting student demographics (Beaudoin, 2007; Duderstadt, 2005; Eddy & VanDerLinden, 2006; Freeman & Thomas, 2005; Henshaw, 2008; Lai, Pratt, & Grant, 2003; Muirhead, 2005; Organization for Economic Co-operation and Development [OECD], 2008b; Winkler, 2008). These conditions have led to calls for education that address market demands, is accessible, and incorporates technology (Canadian Council on Learning [CCL], 2009; New Media Consortium, 2007). To address these changes, mainstream higher education institutions and their leaders must find innovative strategies for delivering education, such as with online learning (Conole, 2008). Online learning

increases access to education through emerging technologies, and reduces costs and travel time for students (Romiszowski, 2005). Yet, educational leaders who manage online learning must recognize it is a different mode of delivery than traditional methods, as with classroom-based teaching. With online learning, educational leaders must consider necessary resources and support, faculty involvement, instructional design, program planning, and policy development (Anderson, 2008a). Also important, educational leaders must take into account the needs of an expanding and diverse student population. Therefore, the intent of this study was to explore effective leadership practices for managing online learning programs in mainstream universities. Input for this study was gained from online graduate students who provided feedback on online programs, resources, services, instruction, and instructional design. They also shared how they learned best online along with descriptions of needed support. More specifically, this study examined the characteristics, motivations, and perceptions of graduate student who were enrolled in an online academic program in a graduate division in a faculty of education at a Western Canadian university.

### *Background*

The background section includes a discussion of the current demands on higher education institutions, and describes the issues educational leaders are addressing. As well, a history of online learning and its place in higher education is provided. As such, these demands and trends provide the significance of the issues being explored in this study.

### *Emerging Pressures in Higher Education*

The field of higher education in North America is experiencing interesting changes, which is affecting educational leadership (Duderstadt, 2005; Freeman & Thomas, 2005). Due to the emergence of a technology- and knowledge-based era more education is needed by a wider array of people (Association of Universities and Colleges in Canada [AUCC], 2007; Canadian Council on Learning [CCL], 2009). As well, there is an anticipated shortage of educated workers. For instance, over the next decade 1.42 million university graduate students will be needed to fill 5.5 million job openings (CCL, 2009). At the same time, there will be record retirements among those from the baby boomer generation. Thus, there is concern whether Canada will have enough graduates to fulfill the workforce needs. Following this trend, AUCC (2007) claimed, “the number of full-time jobs filled by graduate degree holders has grown from 550,000 in 1990 to more than one million in 2006” (p. 5). As well, governments facing a globalized world want a skilled workforce to compete with international markets and enrich national industries with innovation (McIntosh & Varoglu, 2005). Furthermore, those currently employed need upgraded skills such as information and technology literacy skills, and communication and networking abilities (American Library Association, 2000; Aro & Olkinuora, 2007; Barbour, Gavin & Canfield, 2004; CANARIE, 2002; National Education Association, 2003; O’Hanlon, 2002; Peters, 2004). Thus, as a result of these changes, people are returning to school looking for further education and credentials to secure employment (Bates, 2005; Hanna, 2000; King, 2008; OECD, 2008b). Though undergraduate enrolment in Canada is expected to decline due to shrinking youth populations, demand for graduate studies is expected to increase up to the year 2026

(AUCC, 2007). To add to this enrolment demand, there is an increase in senior citizens pursuing credit and non-credit courses for lifelong learning purposes (CCL, 2009).

Additionally, Henshaw (2008) stated between the years 2003 and 2025 there will be a 70% increase in the number of international students studying in Canada. Following this, the Organization for Economic Co-operation and Development [OECD] (2008a) expects an influx in the migration of international students into developed countries, and wonders how the increase in the demand for education will be met.

Additionally, the evolution of the Internet along with advanced learning, information, and communication technologies have further changed formal education (Anderson, 2008a; Bates, 2005; Conole, 2008; Hanna, 2000). For instance, mainstream universities must consider incorporating technology into their organizations and learning programs to compete with institutions worldwide that use technologies to serve students better (Bates, 2005; Hanna, 2000). As well, they need to prepare students to be technically literate for the workplace, and by implementing technology in the educational setting learners can develop these skills (Bates, 2008; McIntosh & Varoglu, 2005; Downes, 2008; Johnson, Levine, & Smith, 2009). To add to these pressures, the choice of educational institutions to attend is increasing considering the advent of technological advancements (Bates, 2005; Beaudoin, 2007). As such, mainstream universities are experiencing competition from emerging non-mainstream higher education institutes, such as for-profit and virtual universities (Bates, 2005; Camp & DeBlois, 2007; Hanna, 2000; Webber, 2008). For-profit universities have the ability to change and pursue innovation more quickly as they are not burdened by historical structures like those characterizing public universities (Freeman & Thomas, 2005). While mainstream

institutes have focused on securing renowned professors and researchers, newer institutions have focused on market demands and providing access to education through online venues (de la Harpe & Radloff, 2008; Hanna, 2000; Henshaw, 2008; Murray, 2008; Parchoma, 2006).

Considering that a greater number of people require a variety of educational programs that are accessible, the offering of distance education through web-based environments has the potential to fulfill these needs. For instance, online learning is emerging as a favoured method by allowing for diverse, flexible, and accessible education through advanced information, communication, and learning technologies (Anderson, 2008a; Blair & Monske, 2003; CANARIE, 2002; Cookson, 2000; Frydenberg, 2002; Garrison & Anderson, 2003; Hanna, 2000; Howell, Williams & Lindsay, 2003; Marginson & Van Der Wende, 2006; Parchoma, 2006; Robertson & Webber, 2004; Winkler, 2008). With online learning students from various backgrounds can access the education they want. However, the influx of returning students presents educational leaders with another dilemma. They must address a body of students with a wide range of needs and dissimilar socio-economic backgrounds, ethnicities, and previous education (Henshaw, 2008; Scott & Dixon, 2008; OECD, 2008a). As well, universities are experiencing an increase in the enrolment of part-time students who have family and work responsibilities (King, 2008; OECD, 2008b; Ramsden, 2008; Statistics Canada, 2008). Yet, King stated, “Part-time students are consistently disadvantaged by the current system” (p. 4) with schedules and services designed for full-time students, and offered during restricted times. Some solutions are using technologies, such as web-based and mobile devices, to develop innovative learning spaces and to transform rigid traditional

organizational structures, curriculum delivery, timetables, and services into more flexible formats (Downes, 2008; King, 2008; Webber, 2008).

In short, considering the emerging economies, technologies, and globalization, along with increased world populations, student enrolment, and student diversity, educational leaders in mainstream higher education institutions face many challenges, and must look for innovative strategies to sustain their organizations while improving access and student experience (Duderstadt, 2005; Freeman & Thomas, 2005). Offering learning online is one viable solution, and understanding its characteristics and evolution will provide an opportunity to explore important possibilities and issues.

#### *Trends in Online Learning*

The field of distance education has evolved over five generations (Anderson, 2008b). In 1840, distance education was developed by Isaac Pitman offering the first recognized correspondence course in England (Sumner, 2000). By the end of the 19<sup>th</sup> century, the first generation of distance education experienced a significant increase in correspondence studies and adult education brought on by the Industrial Revolution. The second generation of distance education emerged in the late 1960s integrating print material with media, such as radio and television broadcasts, and audio and video cassettes. By the end of the 1980s printed materials continued to dominate distance studies (Sumner, 2000). During the 1990s and into the 21<sup>st</sup> century, the third generation of distance education emerged along with the information age. The independent learning format of distance education continued in the third generation, but was further enhanced by personal computers, Internet connections, communication technologies, and electronic resources. Technologies during this generation supported live and dynamic interactions



and dialogues, moving from a one-way communication connection to a many-to-many connection (Lankshear, Peters, & Knobel, 2000).

Less defined, the fourth and fifth stages of distance education emerged quickly over the last five years taking advantage of interactive software and networked worlds that were accessible from desktop computers giving learners more flexibility and control over their learning (Anderson, 2008b; Hutchinson, Tin & Cao, 2008; Kinkshuk, 2003; McIntosh & Varoglu, 2005). During this time, new trends in technologies emerged, but their potential for supporting learning has been questioned in higher education. For instance, notions of Web2.0 strategies view the creation and use of knowledge differently than in the past (Renner, 2006). Following this, many scholars predict newer ways to access and engage with information in education will be through online technologies, networks, and informal resources, such as web feeds, virtual worlds, and gaming (Anderson, 2008a; Henshaw, 2008; Katz, 2008; Kim & Bonk, 2006; Romiszowski, 2005). Kim and Bonk (2006) queried college professors, instructional designers, and administrators from American higher education institutions and determined that learning management systems will increase in use, as will video streaming and learning object libraries. Also, they found wireless technologies, reusable content, multimedia, and interactive simulations delivered over the Internet will impact the delivery of online education. However, Johnson, Levine, and Smith (2008) found in their study that Web 2.0 strategies and technologies will likely decline in use in higher education over the next few years. Instead, they believed institutions and instructors will utilize more commonly used online communication tools, such as asynchronous discussion boards and email software. Furthermore, as a result of emerging technologies, learners are accessing vast

amounts of content through web-based resources, networks, and global connections. With this, Johnson, Levine, and Smith (2009) found learners are sharing their findings and ideas with others online, and creating what is called collective intelligences. They furthered,

The notions of collective intelligence and mass amateurization are redefining scholarship as we grapple with issues of top-down control and grassroots scholarship. Today's learners want to be active participants in the learning process – not mere listeners; they have a need to control their environments, and they are used to easy access to the staggering amount of content and knowledge available at their fingertips. (p. 5)

Delich, Kelly, and McIntosh (2008) also saw the potential for learning as technologies converge. For example, cell phones are emerging with multiple capabilities such as connecting to the Internet and displaying media-rich objects. Such technologies allow for more innovative educational practices, and distributed, collaborative, and student-centered learning. However, the authors are concerned educational institutions will be slow to use newer technologies and notions of learning, thus not meeting the needs of students.

Other technological trends in learning are deep tagging tools that allow the insertion of textual annotations into segments of multimedia products such as podcasts and video clips as well as an increase in powerful devices that enhance the portability and accessibility of information (Johnson, Levine, & Smith, 2009). Also, interesting new trends are the move from formal education to the offering of learning and information freely through open education resources (OER) along with accrediting informal learning

(Anderson, 2008a; Bates, 2008; Kim & Bonk, 2006). Following this, Downes (2008) and Romiszowski (2005) foresee the emergence of loose structures of informal learning where people pursue their own learning goals through communities of practice and personal learning environments (PLE), which provide resources based on their interest, aptitude, and educational level.

### *Online Learning in Higher Education*

Over the years, mainstream universities have delivered distance education through extension programs and separate departments (Bates, 2005; Hanna, 2000). For instance, the dual-mode traditional university provides distance education through campus-based venues and satellite campuses along with a mix of technologies to adults living at a distance or occupied with employment. Distance education in these types of institutions has come to include programs that are fully online (Bates, 2005; Allen & Seaman, 2007). Placing education fully online involves delivering curriculum completely through the Internet with supplemental text placed online or being mailed to students. Additionally, with online learning there is the possibility of never meeting face-to-face. Also, online learning involves communicating through web-based applications, and accessing most materials and services online (Hanna, 2000; Lai, Pratt & Grant, 2003). Some mainstream universities offer a mixed approach where students learn foremost through online venues, but also attend short-term courses on campus, such as with summer institutes or weekend classes (Bates, 2005).

The evolution of online programs in western institutions, similar to the institution studied in this project, provides a view of how virtual learning is emerging. For instance, in Canada, the number of universities that offer courses and programs online is

expanding. For instance, Statistics Canada (2007a) found that in 2005 over one quarter of Canadian adults, estimated as 6.4 million people, went online for educational purposes. A further quarter of this population, 1.6 million people, used the Internet to access distance education. In 2002, CANARIE (2002) found that online courses were offered by more than half of the postsecondary institutions in Canada, with “on-campus students ... sometimes [opting] for online learning activities in preference to those of the classroom” (p. 8). A Canadian institution that offers mainly online programs and courses is Athabasca University. As the only virtual university in Canada, this institution delivers education to over 37,000 undergraduate and graduate students from a distance (Athabasca University, 2009). Furthermore, Canada is a leader in the use of information and communications technologies, and one of the most Internet-connected countries in the world with broadband access to rural and remote communities (CANARIE, 2002). CANARIE continued that in Canada, “a rapidly, vibrant e-learning industrial sector has started to emerge as entrepreneurial firms develop multimedia content for clientele ranging from large corporations to educational institutions” (p. 11).

Internationally, online learning is becoming a popular way to deliver education. For instance, the Johnson, Levine, and Smith (2008) questioned 289 global online executives in higher education and corporate sectors, and found two-thirds of respondents currently offered online courses. As well, in the United States enrolment in online education has increased by 12% annually since 2003, compared to an overall enrolment increase of two percent (Allen & Seaman, 2007; Bates, 2008). Lee and Nguyen (2007) claimed enrolment in online learning has increased by 40% since the early 70s compared to three percent enrolment in traditional classroom-based courses. In 2007, 3.9 million

American students enrolled in a course online (Allen & Seaman, 2007). Furthermore, it was found that over 96% of the largest American institutions, mostly research based, had online offerings with two-thirds having programs placed fully online (Camp & DeBlois, 2007). Though these figures are impressive, online enrolment remains a small portion compared to the total student population with only 8% of undergraduate and 10% of graduate students enrolled in these programs (Lee, 2009). Yet, Lee expected this percentage to change as the demand for convenient and flexible education increases, and as institutions respond to competition such as with for-profit schools. Furthermore, compared to a study in 2003 educational leaders in the United States have increased their satisfaction with online education, and view it as equivalent to or better than face-to-face education. Those who thought online learning was more superior to traditional education rose by 40% (Camp & DeBlois, 2007). Despite increases in the popularity of online learning, in the fall of 2007 there was a small decline in the number of institutions who thought online learning would be critical to their long-term strategy (Allen & Seaman, 2007).

Also, Australia has a significant number of postsecondary institutions that provide online courses and programs to local, distant, and international students. The expansion of distance education in Australia into the online environment was to provide flexible educational delivery, increase access for 'second chance' students, raise international education opportunities, and add to institutional revenues (Marginson, 2004; Reid, 2005; Webber & Scott, 2008). In 2002, the Department of Education, Science, and Training surveyed the number of online courses offered at Australian universities. At that time, they found fully online courses were offered by 23 out of 40 universities, with 90% of the

courses designed for postgraduate studies. In another report, the Australian Government (2008) stated that in recent years there has been rapid growth in both online and distance education. Additionally, online education in the United Kingdom continues to evolve from the earlier development of the United Kingdom Open University [UKOU]. For instance, in the United Kingdom, 40% of higher education students are part-time and are enrolled in 60 different institutions, including the UKOU who delivers studies online (King, 2008). It was predicted there will be continuous enrolment of older students, between the ages of 30 and 39, over the next twenty-five years in the United Kingdom. Also, predicted for that country are increases in the enrolment of part-time, postgraduate, and International students calling for education that will accommodate these learners (UK Universities, 2008).

Furthermore, in response to the demand for more accessible education new structures of higher education institutions are evolving in North America (Bates, 2005; Hanna, 2000; Katz, 2008). These alternative institutions, whether public or private, are deemed more entrepreneurial with a focus on the marketplace, and are acquiring revenues through industry as well as tuition fees. Examples of these institutions are University of Phoenix Online, a private for-profit university in the United States, and NextED, a private company coordinating educational services for a consortium of 13 universities and colleges in Australia, New Zealand, the United Kingdom, and the United States (Bates, 2005; Hanna, 2000). These institutions are taking advantage of Internet access, computer-mediated conferencing systems, and web-based applications to deliver education that is flexible, accessible, interactive, and resource rich (Hanna, 2000).

### Study Focus

This study focused on implications for educational leaders who deliver learning online by examining the input of graduate students at a mainstream, traditional university. More specifically, this study examined the characteristics and perceptions of online learning as described by graduate students who were enrolled in online Master's and doctoral degree programs in a graduate division at a faculty of education at a Western Canadian university. Input from participants has the potential to inform leaders about planning and policy development as well as infrastructure building and staff management. Also, participant input can provide suggestions for program and course structures, and essential staff, resources, services, and support required in online learning environments.

More important, educational leaders ought to regard student perspectives due to the important role they play in academia. For instance, more students today are pursuing a formal degree than in the past (Cote & Allahar, 2007; Scott, Issa, & Issa, 2008). Cote and Allahar (2007) suggested this is due to an increased need to obtain credentials in order to secure better positions in the workplace. Added to this, the authors thought the consumer mentality of today's society was increasing with its view of buying anything with money, including credentials. Richardson (2005) also reflected on the notion of consumerism, and stated the level of student satisfaction could be determined by the gap between their expectations and perceptions of educational delivery. Considering these views, Cote and Allahar sensed students entering universities might approach their education with full consumer rights, and with intentions to buy a degree. This attitude

places pressure on educational leaders and faculty members in universities to ensure that students obtain the degree they are ‘buying’.

In turn, considering the feedback from students might help to meet some of their needs. Scott, Issa, and Issa (2008) found that input from students was vital as they were key players in universities, and should be included as partners in developing their learning paths. Ramsden (1991) considered feedback from the perspective of students useful and accurate as they were exposed to a large amount of teaching, and were immersed in academic environments. Ramsden, Prosser, Trigwell, and Martin (2007) agreed that a focus on students and their understandings would better improve student learning. As well, Scott, Issa, and Issa determined the benefits of considering student input could in turn increase student retention, perceptions of quality teaching and learning, and appreciation of good instructors. Along with these authors, Richardson (2005) stated that student feedback could provide information for prospective students, thus increasing enrolment possibilities. Richardson furthered that unless students see that their feedback leads to changes they may not continue to provide suggestions.

Furthermore, important feedback from students should include their views on teaching and learning as well as on facilities and student services; adding the latter offers feedback on the wider student experience (Richardson, 2005). Furthermore, Ramsden, Prosser, Trigwell, and Martin (2007) suggested that student perceptions of the quality of teaching is associated with their views of the academic environment showing that the entire student experience should be considered, as pursued in this study.



### *Conceptual Framework*

The conceptual framework used in this study drew on the notion that online learners in mainstream higher education institutions are not the same as traditional face-to-face students in terms of characteristics, motivations, and learning needs (Coleman, 2005; Garland, 2003; Mullen & Tallent-Runnels, 2006; Song, Singleton, Hill, & Koh, 2004). Drawing on this perspective, the assumptions made for this study were that online graduate students:

- Have distinguishing characteristics from traditional learners
- Possess specific motivations to engage in online learning, and
- Due to the online learning environment, have unique needs

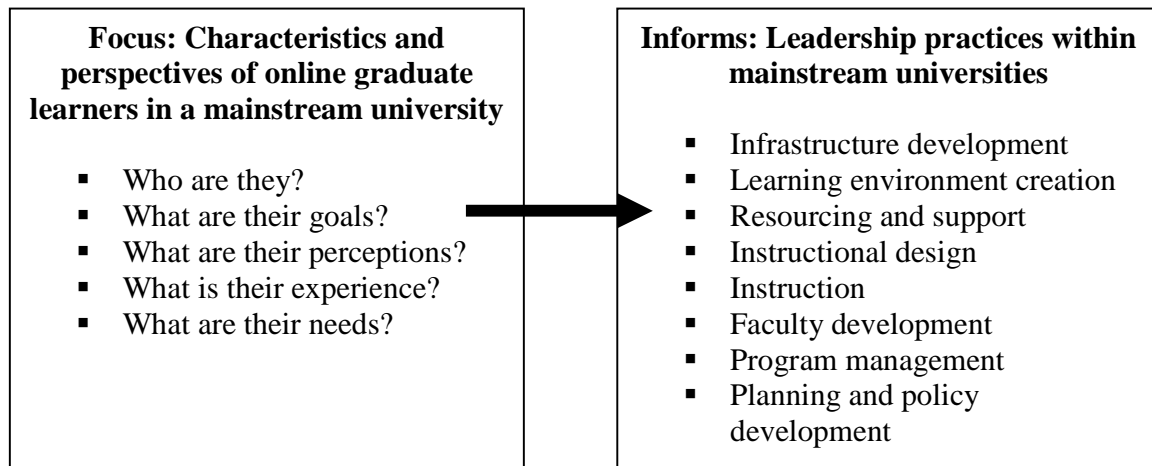
Supporting these assumptions, a number of studies examined differences between traditional campus-based students and online learners at higher education institutions in terms of their characteristics, motivations, and learning needs (Bates, 2005; Coleman, 2005; Garland, 2003; Mullen & Tallent-Runnels, 2006; Song, Singleton, Hill & Koh, 2004). They found distance learners were more apt to be older, and have careers and families than campus students. As well, it was determined learners' motivation, time management, and comfortableness with technology impacted their performance online implying these characteristics need to be more developed. Fillion, Limayen, Laferriere, and Mantha (2009) discovered online learners were more satisfied with their course than campus students as they enjoyed the autonomy of a self-directed environment.

As well, a number of studies examined the reasons for graduate students to enrol in online programs and courses. The reasons were online learning offered accessibility, flexibility, and convenience for students who lived at a distance and/or had work and

family responsibilities (Altarac, 2008; Braun, 2008; Beard, Harper, & Riley, 2004; Bocchi, Eastman, & Swift, 2004; Butler, 2004; Loeffler, 2005; Mansouri, 2003; Payne & Johnson, 2005; Rodriguez, Omms, Montanez, & Yan, 2005; Stewart, 2006; Young & Norgard, 2006). As well, compared to the traditional classroom the online learning environment was deemed to have unique features affecting student learning and their needs. For instance, online environments were thought to have newer forms of communication, interaction, and learning compared to campus courses. Added to this, McPherson and Nunes (2004) found that students had more responsibilities in online classrooms than traditional settings as they needed to be active learners. Bowman (2006), Dove (2006), Loeffler (2005), Klinger (2003) and Campbell and Khalideen (2008) found that learning online created greater workloads for students than with campus classes. Additionally, online learners were found to be more impacted by affective support from instructors than traditional students (Mullen & Tallent-Runnels, 2006). Bates (2005) furthered administrative services at universities such as “marketing, advising, credit transfer, prior learning assessment, learner support, and credentialing requirements remain distinct for most distance learners” (p.39). Thus, the types and degree of communication, interaction, participation, workload, support, and services seemed to be different for online learners when compared to campus-based students.

Figure 1 depicts the focus of this study, and argues that descriptions of student characteristics, needs, and perceptions can inform the practices of educational leaders who manage online learning in higher education.

Figure 1. Focus of study



#### *Research Questions*

The research questions explored were:

1. What are the implications for leaders who lead online learning in mainstream higher education institutions?
2. What are the characteristics of online graduate students in the graduate division under study?
3. What are their motivations for enrolling in an online program?
4. How do they perceive the benefits and challenges of online learning?

#### *Significance of the Study*

Parchoma (2006) warned, “The educational sector cannot hope to escape the influence of the new economy, including its disruptive technologies; therefore,

universities may need to consider how to adapt to this influence” (p. 233). Furthermore, Beaudoin (2007) stated,

Every new technological innovation applied to education at a distance changes things. These changes may be in the intellectual, social, political, economic, or ecological domain, and the effective leader cannot afford to be ignorant of the advantages and also the possible disadvantages of what such technology creates. (p.401)

Through the pursuit and review of research educational leaders can come to understand the significant features and issues of online learning, such as sustaining program quality and effectively integrating technology (Conole, 2008; EDUCAUSE, 2009; Price & Kirkwood, 2008; Turpin, 2005). Yet, educational technology is an emerging field that is constantly changing, and requiring continual research on how to learn best with technologies (CANARIE, 2002; Czerniewicz, 2008; Jonassen, 2004). Current areas of research focus on broader questions about the effectiveness of technology in learning, new forms of teaching and learning, pedagogical models, and the affordances of technologies (Conole, 2008). More focused questions being asked are about effective learning activities, student assessment, e-learning material development, and student learning styles. As well, important questions are being raised about students’ views of e-learning systems as well as how they communicate and interact with tools, and what support mechanisms, guidance, and feedback they require (Conole, 2008).

Furthermore, from a review of the literature it was determined that online learners were not the same as traditional face-to-face students in terms of characteristics, educational experiences, and learning needs (Coleman, 2005; Garland, 2003; Mullen &

Tallent-Runnels, 2006; Song, Singleton, Hill & Koh, 2004). Bates (2005) claimed that distance learners have specific characteristics requiring specialized learning supports. Arguing along the same lines, Tallent-Runnels et al. (2006) conducted a meta-review of research on online teaching and learning with a focus on learner characteristics. They concluded that more research was required to understand current and future populations of online students in order to grasp the complex relationship between learner characteristics, delivery technologies, and instructional design. Furthermore, the Canadian Council on Learning (2009) stated that “adult learners have life circumstances and attitudinal perspectives that are different from the average 18- to 24-year-old student and need to be taken into account” (p. 9). However, the current postsecondary sector in Canada lacks the ability to assess the needs and demands of learners due to the absence of a pan-Canadian educational ministry and network (Canadian Council on Learning, 2009).

Supporting the focus of this study, Beaudoin (2007) discovered that few studies have referred to the impact of distance education on leadership. Conole (2008) offered, “More research is needed ... into understanding the ways in which technologies can be used to support education. The findings can then be used to both inform and shape future policy in this area and help improve practice” (p. 10). Adding to this, Gunawardena and McIsaac (2004) saw a need for research that examines the impact of online learning on educational systems considering its comparatively short history in higher education. Beaudoin (2007) stated that one of the biggest challenges for educational leaders in higher education will be to overcome the stubborn resistance of organizations to change. Thus, educational leaders find themselves in the role of change agents persuading staff, administration, and policymakers about the value of online learning (Moore, 2004;

Robertson & Webber, 2002), and further encouraging changes to institutional goals and policies (Hanna, 2000). Thus, the results from this study can be used by leaders to influence those governing the university about essential supports and developments needed for providing quality online learning for graduate students (Beaudoin, 2007).

This study used mixed methods to examine survey, focus group, and interview data in order to develop a broader understanding of how to best develop and manage online learning for graduate students. These findings can be used to inform leaders about the importance of online learning and the management of online environments. As well, they can inform leaders about the need for offering essential resources and support for faculty, staff, and graduate students along with advice on supporting effective instructional design and instruction, and developing appropriate programs and policies.

### Definition of Terms

The terms used throughout this paper are based on definitions found in the literature. Though some of these terms are continuously changing as new forms of educational technology emerge, the outlined definitions were used for the purpose of this dissertation.

*E-learning*: This term has many forms, such as e-learning, elearning, e-Learning, and eLearning. The form e-learning is used in this paper. Overall, e-learning is a general term used to refer to any teaching and learning methods that uses technology in its delivery, but not necessarily for distance education (Bates, 2005; Boggs & Pirani, 2003; Guri-Rosenbilt, 2003, 2005). As such, e-learning modes can be used to deliver education to students that are on campus, commuting, or at a distance (Oblinger & Hawkins, 2005).

As well, the term, e-learning, is changing due to the evolving nature of the field (Conole, 2008).

*Blended learning:* This type of learning is hybrid in nature and mixes some classroom components with virtual sessions where instruction, learning activities, and resources are provided online, or vice versa (Bates, 2005; Boggs & Pirani, 2003).

Garrison and Vaughan (2007) defined blended learning as the thoughtful merging of campus and online educational experiences for quality learning purposes, and gives students some control over their learning pace and timing (McIntosh & Varoglu, 2005). As well, this form of learning can be referred to as flexible learning (Oblinger & Hawkins, 2005).

*Online learning:* This also is referred to as online distance learning. In this mode, the instructor conducts all classes online through the Internet using course management and computer-mediated communication systems, and not requiring students to meet face-to-face with the instructor (Bates, 2005; Boggs & Pirani, 2003; Oblinger & Hawkins, 2005).

*Distance learning:* This term can be used interchangeably with distance education. It implies students are separated by space and time from the instructor and the place of instruction; more so, distance learning may not necessarily use technology in its delivery or include online learning (Guri-Rosenbilt, 2005). Distance education includes flexible and open learning, which are student-centred modes of delivery allowing students to learn where, when, how, and what they need (Lai, Pratt & Grant, 2003).

*Face-to-face learning:* This includes instructing classes in a physical classroom where people interact in person, or face-to-face. In this setting technology can be used

such as instructing with PowerPoint or working in a computer lab (Boggs & Pirani, 2003).

*Mainstream universities:* This is also referred to as traditional or conventional universities or higher education institutions. Mainstream universities have a non-profit financial status, recognized accreditation, independent board of trustees, resident student body, and recognized geographic service area. Also, they have full-time faculty who teach and engage in research along with physical buildings and central libraries, and are defined by the level of degree programs offered (Hanna, 2000). As well, not all mainstream institution engage in online learning, e-learning, or blended learning.

### Limitations and Delimitations

#### *Limitations*

A major limitation of this study is that data were collected from one university, rendering the findings less generalisable. Thus, the convenient and purposeful sample of this study limits the wide use of its outcomes. Though an assumption might be made that institutions with similar online programs may consider the findings as useful, the data were collected from a single population. However, providing a thorough description of the context under study may help readers who are from similar institutions and programs to generalize the findings to their situation (Stake, 1995). As well, the voluntary participation of participants might have produced different results than from those who decided not to participate.

As well, the researcher's bias may pose another problem. The researcher is a long-time online learner who pursued three academic degrees, including two graduate



degrees, offered through distance education by Canadian universities. It was imperative to reveal her background and perspectives on online learning. This will give readers the opportunity to understand her frame of reference.

As well, the validity and reliability of the survey instrument is questionable being that it was designed and analyzed solely by the researcher. However, the survey was designed using the literature to develop essential items and categories, and was further tested by fellow doctoral students and supervisory committee. However, it must be considered that these validations are based on human judgment. Thus, the validity of the item constructs, content, or criterion was not necessarily tested, and may be questioned by other researchers. Additionally, validity of survey results may be limited by the participants' self-reported responses, and problems of self-deception and poor memory (Paulhus & Vazire, 2007). However, Goffin and Gellatly (2001) in testing the validity of self-reporting found self-reporters' responses were based on observations and experience, and not defensive reactions to questioning. Additionally, Spector (1994) claimed self-reported data produces valid sources of people's feelings and views, such as those requested in this study. As well, a case can be made that the subsequent focus groups and individual interviews attempted to validate the self-reported entries. Yet, with the focus group and interview process there was a limitation of time as interviewing, transcribing, and coding data is time-consuming, forcing the sample size to be small. Also, there was the possible existence of researcher bias affecting the focus groups and interview sessions.

*Delimitations*

This study was delimited to a specific population of graduate students pursuing school and workplace education that was delivered online. The sample consisted of graduate students enrolled in an online academic program at a mainstream Canadian university. The selection of a sample of participants that were exclusively pursuing an online graduate degree gave the outcomes a focus and the themes a degree of validity. This focused sample strengthened the study's findings and possible implications for this population.

Additionally, this study was delimited by reducing the initial sample size of 138 survey participants to 21 focus group members, and then to 15 interviewees. Initially graduate students responded to survey questions about their demographics, characteristics, and perceptions. Exploring these responses deeper through focus groups and interviews intentionally enriched the larger set of data. As well, limiting the data collection to one academic year gave a representational snapshot of the population.

Additionally, though specific discussions are important about student motivation, human-computer interaction, human behaviour, communication theories, and learning theories, these topics were not addressed deeply in this study. Furthermore, a deep examination of student learning preferences, teaching practices, online curriculum, or the design of instruction was not closely explored; rather they became part of the many elements of online learning that educational leaders must consider. For instance, leadership issues emerged from the data about online programming, such as credibility and costs, and the need for certain online student services. As well, questions about

learners' needs emerged from the data, such as identifying the features of online pedagogy and assessing students' learning styles in order to inform instructors.

Again, the primary focus of this study was to help change and shape leadership practices in mainstream higher education when dealing with online learning for graduate students. Thus, the leadership strategies addressed were researching, planning, implementing, marketing, and delivering effective online programs. Also discussed were working closely with online faculty to create effective online learning, and ensuring a quality educational experience for online graduate students.

## CHAPTER 2: LITERATURE REVIEW

### Introduction

A survey of empirical and theoretical literature was conducted to find studies and articles that focused on online learning and leadership implications. More specifically, literature was gathered that referred to graduate students and their experience with online courses and programs in mainstream higher education institutions in North America. As well, literature was sought on the challenges and strategies of leaders in higher education who dealt with online programs. Google Scholar, Academic Premier, ProQuest, and ERIC were the databases used for the search. Keywords for searching the literature included terms such as the following: online, e-learn, virtual, distance, graduate, student, learner, adult, characteristics, demographics, motivations, perceptions, learn, and needs. For literature pertaining to leadership implications, keywords consisted of the following: online, e-learn, virtual, distance, leader, leadership, university, and higher education. These keywords closely followed the context of the study's research questions. Figure 2 displays the focus of the literature review.

Focus 1.

Higher education

Mainstream institutions

North America

Graduate students

Accredited programs

Online learners

Characteristics, demographics,  
motivations, perceptions, learn, and  
needs

## Focus 2.

Higher Education

Mainstream institutions

Worldwide

Online

Leader/leadership

*Figure 2. Literature review focus*

One hundred and thirty empirical studies were found that focused on online graduate students and leadership implications within the higher education context. All studies focused on graduate students enrolled in online courses or programs in North American universities with the exception of four studies that focused on Australian participants. Of these, 51 studies were dissertations from the ProQuest database, and 79 studies were found through Google Scholar, Academic Premier, and ERIC databases. Of the 130 studies, 40 were quantitative studies, 35 were qualitative studies, 23 used mixed methods, and 6 were literature reviews. Additionally, over 90 articles and chapters were found in peer-reviewed journals and published books. These sources referred to online learning, graduate students, and leadership in higher education on a worldwide scale.

Three areas of research and theory emerged from the literature. One set of literature focused on graduate student characteristics to determine if online graduate

learners had distinct qualities. These sources addressed personality types, self-efficacy levels, learning styles, demographics, employment status, previous education, technology skills as well as learning barriers, needs, and readiness. The second area of research focused on graduate students' perceptions of and experience with online learning. This included graduate students' perceptions of online learning, their motivations to enrol in online programs, and their successes and struggles in virtual environments. Many studies investigated these characteristics and perceptions in relation to student academic achievement, retention, and satisfaction. Third, literature about leadership implications referred to strategies and challenges when dealing with online learning programs in higher education settings. It also addressed faculty perceptions, motivations, and struggles when developing and delivering online courses.

### Literature Outcomes

Two distinct areas in the literature were pertinent to the argument of this study. They were the characteristics, perceptions, and needs of online graduate students, and the implications for educational leaders who manage online learning in higher education settings. Theory is woven throughout this section along with the findings from studies to provide a thorough review of the literature.

#### *Online Learner Characteristics and Perceptions*

Findings in the literature about online graduate student characteristics were divided between significant or non-significant results. That is, studies either found no typical characteristics with online learners while others did. As well, studies and literature on graduate student perceptions of online learning tended to focus on their satisfaction,

frustration, and persistence within virtual environments. Other studies and literature focused on graduate student perceptions of online instructional design, faculty support, communication, and communities as well as adult learner needs.

#### *Non-Significant Findings Regarding Online Learners*

Some studies found no significant differences in the data when examining the characteristics and perceptions of online graduate learners with other variables. Table 1 outlines the characteristics and attributes of online learners that did not affect their perceptions, performance, satisfaction, or retention when learning online.

Table 1.

#### *Non-Significant Online Student Characteristics*

No Significant Difference between	and	Studies
Student demographic characteristics	Perceived effectiveness of online courses	Lovik-Powers (2004) Webb (2002) Zobdeh-Asadi (2004)
Generation of student	Perception of online interaction Perception of instructor feedback Perception of learning activities	Billings, Skiba, and Connors (2005)
Student age External commitments Proximity to campus	Learner satisfaction	Ellis (2008)
Family support Family demands	Student perceptions of success	Armstrong (2002)
Student personality	Exam outcomes	Tonkin (2003)
Student learning style	Perceived effectiveness of online courses Student performance Student persistence	Colorado (2006) Eom, Ashill, and Wen (2006) Garland (2003)

	Student engagement online	Holder (2007) Klinger (2003) Loeffler (2005) Stewart (2006) Webb (2002)
Student critical thinking skills	Examination outcomes Student retention	Gomez (2006) Tonkin (2003)
Student previous experiences	Perceived effectiveness of online courses	Lovik-Powers (2004) Webb (2002) Zobdeh-Asadi (2004)
Student motivation	Perceived effectiveness of online courses Student performance Student persistence	Eom, Ashill, and Wen (2006) Colorado (2006) Holder (2007) Loeffler (2005) Stewart (2006) Webb (2002)
New online learner computer anxiety	Perceived effectiveness of online courses	Webb (2002)
Learning outcomes of online learner	Learning outcomes of face-to-face students	Anstine & Skidmore (2005) Gropper, Schaninger, & Niebuhr (2005) Kelly, Ponton, & Rovai (2007) Kim & Hudson (2002) Topper (2007) Wilson-Gentry, Gerlowski, Pritchett, Ross, & Martin (2007)
Satisfaction of online students	Satisfaction of face-to-face students	Anstine & Skidmore (2005) Gropper, Schaninger, & Niebuhr (2005) Kelly, Ponton, & Rovai (2007) Kim & Hudson (2002) Topper (2007) Wilson-Gentry, Gerlowski, Pritchett, Ross, & Martin (2007)



### *Significant Findings Regarding Online Learners*

On the other hand, many studies showed significant differences and strong relationships among variables and the perceptions of online learners enrolled in graduate programs. These studies examined online students' characteristics as well as reasons for their satisfaction, frustration, and persistence. To supplement this information, fundamental literature was explored to review the needs of adult learners, which included their learning styles and reasons for motivation, along with best teaching practices. Added to this, studies about online graduate student needs included their wish for particular faculty support, online instruction, communication, and community.

### *Online Student Characteristics*

A number of studies examined the characteristics and motivations of graduate students to determine the reasons for their satisfaction and success with online learning. For instance, some studies focused on the personality traits of online graduate students; whereas, other studies determined their characteristics at the time of entering online programs, and their motivation to enrol in a virtual program.

### *Personality Traits*

Contrary to the studies previously mentioned that showed no significant difference, many found a strong relationship between graduate student characteristics, and online learning satisfaction and success. For instance, a correlation was found between students' personality traits, learning style, self-efficacy, self-directed readiness, internal control, prior experience, and their satisfaction with and academic performance in online courses (Artino, 2008; Bayram, Deniz, & Erdoğan, 2008; Corbeil, 2003; Eom,

Ashill, & Wen, 2006; Howland & Moore, 2002; Wang, Peng, Huang, Hou, & Wang, 2008; Wilson, 2007). As well, Armstrong (2002) found that students' academic confidence, the impact of online learning on other areas of their life, and their ability to manage life affected their perceptions of learning success. Pival, Lock, and Hunter (2008) found that online graduate students were competent in using technology and searching scholarly material through an online library catalogue.

### *Entry Characteristics*

Furthermore, a relationship was found between graduate students' entry characteristics and their success with online learning. Entry characteristics were defined as age, grade point average, enrolment status, number of degrees attained, and time since their last online course (Colorado, 2006). For instance, it was determined most online graduate student were Caucasian, female, and married (Bocchi, Eastman, & Swift, 2004; Butler, 2004; Colorado, 2006; Gottwald, 2005; Kearsley, 2002; Loeffler, 2005; Stewart, 2006; Tallent-Runnels et al., 2006). Also, most were near the age of 40 years old. Additionally, these participants had a high grade point average, took previous online courses, had strong computer skills, studied part-time, worked fulltime, and travelled occasionally. Alstete and Beutell (2004) found that older students were better performers in online discussions and gained better grades. Sokol (2007) discovered those born last in a family were more likely to be attracted to online learning; whereas, the oldest sibling was deemed more traditional and sought more conventional methods of learning. Vafa (2002) found that students who worked full-time perceived themselves as being more motivated and responsible than those who worked part-time or were unemployed.

### *Enrolment Motivations*

As well, a number of studies determined the motivations for graduate students to enrol in online classes were to obtain accreditation or experience personal enrichment; other important reasons were online learning was considered more accessible and convenient for learners who had work and family responsibilities (Altarac, 2008; Beard, Harper, & Riley, 2004; Bocchi, Eastman, & Swift, 2004; Butler, 2004; Loeffler, 2005; Mansouri, 2003; Payne & Johnson, 2005; Rodriguez, Omms, Montanez, & Yan, 2005; Stewart, 2006; Young & Norgard, 2006). Following this, Braun (2008) found that flexibility was a main reason for students to enrol in online programs, and that it outweighed the need for instructor and peer interaction. Payne and Johnson (2005) revealed if it were not for distance programs, many graduate students could not pursue higher education. Altarac (2008) found that graduate students were more likely to choose an online program than those pursuing a certificate or undergraduate degree. Also, Payne and Johnson (2005) found the least likely reasons to enrol in an online course were a student's proximity to an institution or an employer's influence to gain more education. Rodriguez, Omms, Montanez, and Yan (2005) discovered students' comfort with technology, whether high or low, did not determine if they would enrol in an online course.

Bird and Morgan (2003) examined the reasons students hesitated to enrol online. They were deemed as fear of the virtual environment, student identity change, program suitability, and lack of home support and academic preparedness. Muilenburg and Berge (2005) found that students hesitated to enrol in an online program because of administrative issues, a lack of time and support for studies, and the cost of Internet

access. Other inhibiting factors for enrolling in an online program were the perceived quality of online courses, accessibility of instructors, reliability of hardware, and students' previous knowledge of the topic. Tabatabaei, Schrottner, and Reichgelt (2005) found that compared to full-time students part-time learners were more reluctant to enrol in an online program.

### *Online Student Satisfaction, Frustration, and Persistence*

Studies revealed a number of reasons for student satisfaction and frustration with online learning as well as their persistence in completing an online course. Again, all participants presented in these studies were graduate-level students and enrolled in an online program.

#### *Student Satisfaction*

Measuring and presenting results based on student satisfaction can vary requiring care in interpreting the outcomes (Appleton-Knapper & Krentler, 2006; Ramsden, 1991). For instance, the studies presented below examined different aspects of student satisfaction, and do not provide a conclusion about the factors that satisfy online learners. A number of studies determined most participants were satisfied with their online learning experience with students stating they would take another online course (Beard, Harper, & Riley, 2004; Braun, 2008; Butler, 2004; Chang, 2001; Fujita & Freeman, 2006; Kearsley, 2002; Loeffler, 2005; Turner, 2006; Webb, 2002; Webber, 2008). It was discovered that the more online courses students took the more satisfied they were with them, and better able to judge them (Arbaugh, 2004; Eichelberger, Hoffman, & Menchaca, 2006; Ellis, 2008; Young & Norgard, 2006). Yet, other studies revealed satisfaction remained high regardless of the number of online courses taken (Ivankova &

Stick, 2007; Lovik-Powers, 2004; Rodriguez, Omms, Montanez, & Yan, 2005).

Participants in Bowman's (2006) study thought they learned better in a web-based environment. Bruff, Dean, and Nolan (2005) found that though online courses were perceived favourably by some students, campus courses were still considered necessary because they offered face-to-face interaction.

As well, most graduate students enjoyed the flexibility, accessibility, and independence of online learning as well as the different communication modes, immediate feedback, and increased technological skills that such venues provided (Arbaugh, 2004; Bowman, 2006; Butler, 2004; Eom, Ashill, & Wen, 2006; Harkins, 2005; Kim & Hudson, 2002; Campbell & Khalideen, 2008; Dove, 2006; Klinger, 2003; Maxfield, 2008; Young & Norgard, 2006). Menchaca and Bekele (2008) discovered that the use of multiple technology tools satisfied the various learning styles of online students. Harmon and Jones (2000) and Woods (2004) revealed a correlation between satisfaction with online learning and good instructional practices, technologies that were well integrated, and activities based on multiple learning styles. Young and Norgard (2006) and Ukpokodu (2008) found that students valued courses that were rigorous, and where instructors demanded high quality work. Though Styer (2007) found that adults were highly motivated, valued online learning, and employed the necessary cognitive strategies, they still might be unsuccessful. To succeed online adult learners needed a well organized curriculum that was frequently updated with current information, revised deadlines, changed assignment details, and new learning materials. They also needed to be given choice in course activities as well as have control over their learning, such as deciding to participate with others or not (Dixon & Scott, 2008; LaPointe & Reisetter,

2008; Styer, 2007). Artino (2008) found that student satisfaction and perceptions of learning was higher in online courses where adults could choose to enrol rather than be mandated. Added to this, Fillion, Limayen, Laferriere, and Mantha (2009) discovered the degree to which a student is autonomous and actively participating online affected their learning.

Shinkareva (2007), Rodriguez, Omms, Montanez, and Yan (2005), Menchaca and Bekele (2008) and Harmon and Jones (2000) found that students' comfort with technology and motivation to be more technical was related to their satisfaction and perceived quality of online courses. Turner (2006) discovered students' ability to use technology affected their competence in interacting with content and others online. Garcia and Qin (2007) found that older students (36 years and older) were less comfortable using technology, such as with online discussion boards and presentation software, than younger students who were between the ages of twenty-one and twenty-five. As well, older students felt less comfortable in networked environments as they were more accustomed to working in isolation with their own computers.

In contrast, Zobdeh-Asadi (2004) and Menchaca and Bekele (2008) found that some graduate students preferred traditional, campus-based education more than online learning. As well, Maxfield (2008) found that students had conflicting notions about the value of online learning, and wondered if they were confused about its potential by drawing on perceptions of traditional classroom-based courses to compare with virtual settings. Fillion, Limayen, Laferriere, and Mantha (2009) discovered online learners were more satisfied with their course than campus students, because they enjoyed the

autonomy of a self-directed environment; however, campus students performed better due to their onsite presence and level of participation.

### *Student Frustrations*

Rovai, Ponton, Derrick, and Davis (2006) found that online graduate learners tended to respond more negatively about their learning experience than face-to-face learners. As well, a number of studies revealed that online graduate learners were frustrated with feelings of isolation, using new technologies, and restricted socializing (Coleman, 2005; Mansouri, 2003; Song, Singleton, Hill, & Koh, 2004). Additionally, studies found that students complained about technology problems, Internet connection speeds, and the lack of technical support (Beard, Harper, & Riley, 2004; Campbell & Khalideen, 2008; Chang, 2001; Dove, 2006; Harmon & Jones, 2000; Kearsley, 2002; Menchaca & Bekele, 2008; Muilenburg & Berge, 2005). Yet, Tallent-Runnels, Lan, Fryer, Thomas, Cooper, and Wang (2005) discovered that the more technical problems online students experienced the more they rated the course highly, suggesting instructors were not the reason for low evaluations on technology use. Furthermore, Campbell and Khalideen (2008) and Vonderwell and Zachariah (2005) found that online learners were frustrated with dry content and high workloads as well as large class sizes and group project completions. However, this could be the view of campus students, as well. For instance, Chickering and Ehrmann (1996) suggested effective teaching practices are applicable to all classrooms, whether instructors were using technology or not. Lao (2002), Maxfield (2008), Young and Norgard (2006) and Menchaca and Bekele (2008) determined online graduate students were frustrated with the lack of clear expectations, poor course organization, impersonal communication, and tardy feedback. They also

were frustrated with instructors' weak online skills, such as designing effective online courses, providing timely communication and interaction, and having basic computer and Internet skills. This was followed by Beard, Harper, and Riley (2004) who found some graduate students ranked the quality of online interaction and curriculum quite low. Webb (2002), Lee (2009) and Turner (2006) learned graduate students were dissatisfied with the amount of time needed to spend on online studies, as with weekly readings and summaries, researching vast amounts of information, and fixing technology problems. Furthermore, Bowman (2006), Dove (2006), Loeffler (2005), Klinger (2003) and Campbell and Khalideen (2008) found that learning online created greater workloads for students than those in traditional campus classes. McPherson and Nunes (2004) found that students had more responsibilities in online classrooms than traditional settings because they needed to be active learners.

Coleman (2005) and Mansouri (2003) found a remarkable consistency in the growing pains of new online learners and their challenges with using new forms of communication, learning, and interaction. Scott-Fredericks (1998) discovered that online learners progressed through stages from novice to experienced user, and that instructors played a vital role in this development. Thus, the level of direction and support learners needed was determined by their online development stage. Stodel, Thompson, and MacDonald (2006) found that participants new to online environments did not feel confident about engaging in that setting. Mansouri (2003) found that it was important to be sensitive to new online learners in order to lessen their anxiety in a virtual environment, and help them develop online management skills.



*Student Persistence*

Many studies examined students' persistence in completing online courses and programs. Gomez (2006) and Holder (2007) found that the most significant factors for persisting were online graduate students having strong self-efficacy as well as self-regulation and self-leadership skills. Yet, those with high program application scores and learner autonomy were more likely to drop out (Gomez, 2006; Holder, 2007). Other significant factors contributing to course completions were the flexibility and quality of online learning, students' previous academic experience, and their access to technology (Campbell & Khalideen, 2008; Hodge-Thompson, 2001; Ivankova, 2004; Song, Singleton, Hill, & Koh, 2004). Hodge-Thompson (2001) found a direct relationship between persistence and student characteristics such as age, gender, grade point average, and study major; for instance, older students seemed to value education more, and females were more likely to complete their education. Ivankova and Stick (2007) discovered that persistence in online learning was predicted by students' perception of the online program, learning environment, support services, and faculty member. They found that more intrinsic factors, such as having a love for learning, were more significant towards persistence than extrinsic factors, such as support. Yet, in their study the online format became the main reason for quitting the program though all students were equally motivated to obtain the degree. Perry, Boman, Care, Edwards, and Park (2008) and Tello (2007) determined the reasons for students not completing online programs were due to personal situations, such as work commitments, or a mismatch between learning styles and course design. However, Willging and Johnson (2004) could not find any consistent reasons for non-completions, and considered they varied and were unique to each student.

### *Student Learning Needs*

In this section, literature is provided that reveals the essential learning needs of both adult learners and online graduate students. Important subjects emerged, such as learning styles, motivation, and effective teaching practices when considering adults. As well, studies that focused on online learners revealed graduate students required faculty support, certain instruction, effective communication, and online communities.

### *Adult Learning Needs*

This discussion addresses the needs of adult learners, regardless of delivery mode, adding to a richer discussion about online graduate students. Defining adult learning was found to be complex and not prone to simple categorization as adults tended to have differing goals, values, and views (Brookfield, 1986). As well, learning was considered a personal process (Merriam, 2001; Merriam & Caffarella, 1999). Additionally, adult education could be delivered in different formats and locations. However, Brookfield offered two distinguishing features about adult learning – the need for personal autonomy in the act of learning, and using personal experiences as a learning resource. Dixon and Scott (2008) and Vanderbilt (2009) also found that adult learners had certain needs such as wanting to direct their own learning, using their experience when learning, and needing content that is applicable to their context.

As well, it was argued that adult learners could not be narrowly characterized (Long, 2003). They were seen to have complex and multifaceted lives and needs, and the context of their lives shaped what, where, and when they wanted to learn (Brookfield, 1986; Knowles, Holton, & Swanson, 2005; Merriam, 2001; Merriam & Caffarella, 1999). As well, Knowles, Holton, and Swanson (1998, 2005) stated adult learners had unique

characteristics, such as being self-driven, goal-oriented, and experienced; additionally, they tended to look for program studies that could accommodate these characteristics and were life centered. Jarvis (2004) considered different elements of adult learners, such as the effects of aging and physical decline, and that life experiences contributed to both a personal and social sense of the self. Knowles, Holton, and Swanson (2005) continued that adult learning needs were situational, and could be influenced by personal learning styles, social orientation, previous learning socialization, locus of control as well as past experience with the subject.

Following this, Long (2003) suggested approaching the characterization of adults using a complete view. That is, understanding adults entailed considering their various physical, cognitive, personality, experiential, and role characteristics. For instance, the affects of aging was found important to consider when working with adults as well as their ways of behaving. How they organized their experiences and the roles they played in their lives was found to influence how they learned. Added to this, their prior experiences, attitudes, beliefs, and physical and emotional state was deemed to affect their cognitive processes.

### *Adult Learning Styles*

Furthermore, adults were said to have preferred ways of learning. There has been much literature and theories written on this subject, such as people learn better visually than orally, are more independent than participatory learners, are introverted rather than extroverted, have multiple intelligences, and display certain personality traits. However, Dunn and Griggs (2000) offered advice about adult learning styles. They shared the Dunn and Dunn Learning Style model, which drew on five main elements to determine a

learning style. These elements included the learning environment as well as the emotional, sociological, physiological, and psychological aspects of learners. This complete view of understanding adult also was suggested by Long (2003), Merriam (2001) and Merriam and Caffarella (1999). Furthermore, Dunn and Dunn posited that any adult could learn and every learner had different strengths. They found that by providing a responsive instructional environment that considered learner differences, along with appropriate resources and teaching approaches, students could achieve higher scores. They suggested instructors could include learning styles in their approach to teaching, and students could learn to draw on their strengths, especially when encountering new and difficult information. Kolb (1984) also offered a means to work with certain adult strengths. He created four learning styles and suggested learners were more prominent in one style, but also had capacity for the others. His categories defined learners as a diverger, converger, accommodator, or assimilator. The diverger was a learner who reflected on how an idea could produce diverse outcomes, and preferred to experiment hands-on. Convergents enjoyed working alone and gathering facts to consider how objects or ideas worked, and how they could be used in practice. The accommodator worked creatively and preferred to learn concretely with hands-on experiments than reading about a concept or technique. Last, the assimilator had the most cognitive approach and preferred to learn about abstract concepts through lectures from experts.

#### *Adult Motivation*

Additionally, it was discovered that adult learners could be motivated in certain ways. However, Wlodkowski (2003) warned motivation was a hypothetical construct, yet provided a way to understand how adult learners behaved and performed. More

important, understanding the motivation of adult learners provided insight into gaining and sustaining their attention while learning. Gaining the attention of a learner included understanding the reasons they were pursuing education. Merriam (2001), Merriam and Caffarella (1999) and Cross (1981) determined the two main reasons adults enrolled in educational programs was to improve their position in life, such as gaining better employment, and to engage in personal development. Vanderbilt (2009) found that adult learners were motivated for various reasons such as financial rewards, recognition, and interacting with others. However, Merriam (2001), Merriam and Caffarella (1999) and Cross (1981) suggested barriers to education for adults must also be explored. They suggested barriers to engage in learning might include situational problems such as a lack of time, finances, and support as well as having work and family responsibilities. They furthered external and institutional barriers might entail the cost of programs, inflexible schedules, strict admission requirements, lack of information, and inconvenient locations. As well, internal or dispositional barriers included a lack of confidence, interest, and ability to learn, and struggling with personal problems.

Additionally, certain teaching and learning strategies were found to sustain the interest and motivation of adult learners. For instance, it was found that adult learners preferred problem-oriented rather than subject-centered lessons, and they wanted to explore practical application as well as theory in their studies (Brookfield, 1986; Cranton, 1992; Knowles, Holton, & Swanson, 1998; Long, 2003). Brookfield determined that adult learners enjoyed working with others as they found it challenging and exciting to explore beliefs, values, and practices together. Most important, they preferred choice in what, how, and when they learned (Knowles, Holton, & Swanson, 1998; Cranton, 1992;

Wlodkowski, 2003). Added to this, Brookfield (1986) and Cranton (1992) found that the prior experiences of adults influenced what and how they learned.

Following this, adults seemed to prefer self-directed learning as it gave them choice (Cranton, 1992; Cross, 1981; Knowles, Holton, & Swanson, 2005). Merriam (2003) stated as adults matured they developed a sense of independence and become more self-directed. Knowles, Holton, and Swanson (2005) suggested the need to be self-directed might mean adult learners want to collaborate on program planning and facilitation. However, these authors and Cranton (1992) warned that adult learners might have differing experiences with, and capacity for, self-directed learning and personal autonomy. That is, they might want more or less self-directed learning, such as drawing on the expertise and guidance of the educator, and should be free to choose their level of autonomy. Knowles, Holton, and Swanson (1998) stated a learner's engagement in self-directed learning can be affected by his or her learning style, prior experience, social orientation, locus of control, and level of self-efficiency. Cross (1981) felt to raise participation in self-directed learning an instructor needed to understand individual motives and students' life transitions as well as increase learner confidence, build positive educational attitudes, and meet individual goals and expectations. Wlodkowski (2003), a long time scholar on enhancing adult motivation, offered a summary of key elements that motivated adult learners. He stated adult learners needed to feel they could succeed in their learning pursuits, they had the choice to learn, they found learning worthy, and they enjoyed the experience. Thus, they were motivated by success, and a sense of volition, value, and enjoyment.

### *Effective Teaching Practices*

Advice was given about the purpose of adult learning and effective teaching strategies for adult students. More specifically, educators were encouraged to help adult students attain a sense of self-actualization, reflect critically, and develop autonomy in their learning (Brookfield, 1986; Cross, 1981). Cross (1981) stated autonomous students could better define problems, locate resources, demonstrate knowledge, and apply their learning to their work, home, and personal life. The learning environment should support these goals as well as encourage students to examine their perspectives and consider alternatives (Galbraith, 2003; Ramsden, 2003). To support the purpose of adult learning, Brookfield (1986) stated, “The task of the teacher of adults is to help them to realize that the bodies of knowledge, accepted truths, commonly held values, and customary behaviors comprising their worlds are contextual and culturally constructed” (p.125). In this advice, he recommended helping adults learners become more critical reflectors in order to consider alternative ideas that might better their lives, solve their problems, and organize their personal worlds.

Along with these goals, there were a number of teaching strategies that were considered effective to increase adult learning success and satisfaction (Anderson, Rourke, Garrison, & Archer, 2001; Brookfield, 1986; Chickering & Gamson, 1999; Chickering & Ehrmann, 1996; Cranton, 1992; Cross, 1981; Galbraith, 2003; Knowles, Holton, & Swanson, 2005; Merriam, 2001; Merriam & Caffarella, 1999; Ramsden, 2003). They were:

Focusing on the Learner -

- Respect students, their learning, and individuality;

- Allow students choice, control, and cooperation;
- Encourage independence;
- Anticipate diverse needs;
- Be sensitive to different characteristics;
- Understand who participates and why, and
- Create contact with students.

#### Role of the Instructor -

- Be present and available to students;
- Share expertise and experiences;
- Adapt to new demands;
- Be enthusiastic about the subject matter;
- Explain content at a student level, and
- Build trust with and among learners.

#### Designing Learning -

- Have high expectations of learners;
- Develop high quality learning opportunities;
- Provide deep learning;
- Provide clear objectives and expectations;
- Design curriculum for active learning;
- Facilitate as well as allow collaboration;
- Help find appropriate resources;
- Give prompt and consistent feedback, and
- Use valid assessments.



Following good teaching practices for mature students, Wlodkowski (2003) suggested applying various teaching strategies during different phases of learning to motivate adult learners. For instance, he advised that in the beginning of a course create a positive attitude towards learning. A positive attitude should be present in the teacher, and could be created through quality instruction, prompt feedback, and showing the learning was worthwhile. Also important at the start of the learning was understanding and being sensitive to learners' needs, and allowing them to share what they had learned. During the process of a course, it was suggested to provide stimulating learning in order to motivate students, with stimulation that could be invigorating or frustrating. Changing teaching methods, materials, and types of interaction could be stimulating. Most important was avoiding boredom as adult learners might not make learning a priority considering their other life responsibilities. As well, during the learning process activities that were affective in nature were considered motivating, such as blending emotions and thinking within a learning activity, or personalizing abstract content and offering cooperative learning. There were suggestions for teaching strategies near the end of the learning process that might motivate adult learners. These were to show adult students they had mastered their learning as well as provide prompt and consistent feedback, and positive reinforcements that revealed how learners had been effective.

In order to meet the needs of adult learners, instructors needed to understand their students. For instance, an exploration of adult learner characteristics and needs as well as how they learn would be beneficial (Brookfield, 1986; Cranton, 1992). Another important subject to study was adult development and how it interfaced with learning (Merriam, 2001; Merriam & Caffarella, 1999). Also, investigating how to best guide self-directed

learning would prepare instructors to support changes in student beliefs, values, and assumptions, if that occurred (Cranton, 1992). Knowles, Holton, and Swanson (1998) found most educators focused on the control aspect of self-directed learning, and not student motivation or self monitoring. All three aspects were needed to facilitate self-directed learning. As important, instructors needed to explore their own philosophies and beliefs about learning, and rationales for teaching in certain ways (Brookfield, 1986; Galbraith, 2003). They needed to reflect on their teaching practices to determine its effectiveness, recognize existing barriers to learning, understand how they used content, and consider possible changes (Galbraith, 2003).

#### *Faculty Support*

Following the discussion on good practices for teaching adult students, online graduate learners ranked faculty commitment, participation, and communication as factors that positively affected their learning (Eom, Ashill & Wen, 2006; Gottwald, 2005; Ivankova & Stick, 2007; Lao, 2002; LaPointe & Reissetter, 2008; Powell, 2007; Robertson, Grant, & Jackson, 2005; Stewart, 2006; Young & Norgard, 2006). Yet, some online graduate learners found that communication with an instructor was a concern (Webb, 2002). Also, the amount of affective support given by instructors was found to be significant for online learners, which included listening with care, encouraging students, and providing humour (Mullen & Tallnet-Runnels, 2006; Stewart, 2006). Conrad (2002) found it was important for instructors to offer a functional role at the beginning of the course, and Kearsley (2002) found that they needed to manage group projects. Garcia and Qin (2007) and Wikeley and Muschamp (2004) learned that higher education students believed the instructor was responsible for the curriculum and leading discussions, and

that they needed to support online learners as they worked with technologies. To add to this, Lao (2002) and Menchaca and Bekele (2008) found that effective online facilitation strategies included motivating students, selecting appropriate technologies and learning activities, being organized and flexible, monitoring the online course, and having computer knowledge.

#### *Online Instructional Needs*

As well, a number of studies examined the instructional needs of online graduate students. Abdul-Hamid and Lewis (2005) determined online graduate students wanted faculty to keep courses well organized, and Stewart (2006) found that online graduate learners needed clear course objectives as they were more isolated and had to learn independently. As well, Conrad (2002) and Kelly, Ponton, and Rovai (2007) found that online graduate learners' sense of engagement was more related to their connection with learning materials than with instructors. Conrad (2002) determined online students needed adequate time to prepare in advance for course work. Added to this, Garcia and Qin (2007) found that online learners who were over 36 years old needed more time and clear instructions when dealing with tasks that used technology that were outside their comfort zone.

Furthermore, Abdul-Hamid and Lewis (2005) and Ali, Hodson-Carlton, and Ryan (2004) found online graduate students wanted to be actively engaged in their learning, such as partaking in real life applications, explorative activities, peer collaboration, and resource sharing. Menchaca and Bekele (2008) revealed that the use of multiple technology tools provided opportunity for participation and collaboration, and appealed to a variety of learning styles. Stodel, Thompson, and MacDonald (2006) discovered

graduate students liked online discussions as it provided time for reflection and creating thoughtful postings, and Stewart (2006) found that participants ranked the practical application of their education important for their learning. However, Vafa (2002) found that the least favoured learning activities online by graduate students were using electronic journals, engaging in group activities, and working with video assignments. Furthermore, Garcia and Qin (2007) found that students struggled with group projects implying more explanations were needed to establish and maintain group work online. Butler (2004) found that graduate students considered some learning activities too busy and appreciated ones that were sensitive to their time constraints.

#### *Communication*

Another important need for online graduate learners found in studies was good communication. Simmons (2009) found that participants were satisfied with the variety of communication methods, and that the quality of interactions was further enhanced by the instructor's ability to use technology tools. Vanderbilt (2009) discovered online students needed a safe place to communicate and interact. Mansouri (2003), Bowman (2006) and Abdul-Hamid and Lewis (2005) discovered a prime advantage to online learning was the method, quality, and speed of communication, and Payne and Johnson (2005) found that the quick responses of everyone, including supervisors, increased the level of personal contact for graduate students. As well, Alstete and Beutell (2004) determined the number of times students participated in online discussion boards impacted their performance. Also, Kim and Hudson (2002) discovered that student learning was positively affected when audio and text chats were used in place of face-to-face discussions. However, Stodel, Thompson, and MacDonald (2006) discovered that

students were conscientious of their online postings and worried about offending others. This made communication more formal and less spontaneous than with face-to-face conversations. Additionally, Harkins (2005), Menchaca and Bekele (2008) and Orr and Bantow (2005) found that participants preferred some face-to-face meetings, and Jakobsdóttir (2008) discovered online students wanted to meet in person two or three times a term for a few days. Those desiring face-to-face meetings wanted to gain a feeling of togetherness, and preferred engaging in social learning activities than listening to an instructor's lecture.

### *Community*

Additionally, studies showed that online graduate students had certain views about online communities. Melrose (2005), Payne and Johnson (2005) and Menchaca and Bekele (2008) indicated that supportive networks for online learners were important, and should include instructors, fellow classmates, family, friends, and co-workers. Stodel, Thompson, and MacDonald (2006) learned a participant's sense of community derived from his or her social relations with peers and instructors. Maxfield (2008) found that students appreciated learning from one another, and Young and Norgard (2006) stated that interaction with peers and instructors positively affected students. Kim, Liu, and Bonk (2005) learned that participants favoured virtual teams due to their real-world form and the challenge it brought to their learning. Martin and Woods (2008) and Wikeley and Muschamp (2004) reported that connecting to an online academic community was imperative for doctoral students to overcome feelings of isolation, and to complete programs in a timely manner. As well, these students seemed to have different needs for an online community as they progressed through a program.

Yet, LaPointe and Reisetter (2008) discovered some students found online communities superfluous, inconvenient, and not supportive of their learning. As well, Wilson (2007) found no correlation between learner satisfaction and online interaction, and some graduate students ranked learning from others, such as fellow students, as the least important factor for their learning (Stewart, 2006). McPherson and Nunes (2004) learned that graduate students struggled to interact online due to a lack of community as well as not having the time or skills to engage online. In the end, they preferred studying alone. Additionally, graduate students stated it was harder to relate to others online, and they were less willing to collaborate with fellow learners (Webb, 2002). Kazmer (2007) found that online graduate students who did not meet face-to-face had less sense of a community, and were less successful with group work and establishing friendships with online peers.

### *Leadership Implications*

It was determined that delivering education at a distance can challenge institutions and their leaders as they must plan, budget, and strategize differently than with traditional programs (Portugal, 2007). However, there was a lack of literature and studies on the impact of distance education on leaders (Beaudoin, 2007; Marcus, 2004; McKenzie, Özkan, & Layton, 2005). While a number of studies focused on practical issues, few focused on theoretical implications. Furthermore, Beaudoin deemed leadership for distance education has been based on traditional principles and strategies. However, leading online programs requires understanding the impact of technology (Marcus, 2004). The literature used focused on leadership perceptions of online learning as well as leadership issues and strategies when dealing with online programs.

### *Leadership Perceptions*

Levernier (2005) found that a group of leaders in higher education thought online education was an appropriate method for learning and considered its rigor, quality, and effectiveness comparable to traditional classrooms. He found that leaders were ready to use this delivery method without pressure from superiors. Yick, Patrick, and Costin (2005) learned that higher education leaders thought online learning was still deemed by others as less credible than traditional learning, but it would gradually become more acceptable. They thought attention to research and scholarship were important to increase the credibility of online learning. They also determined an investment in institutional resources, skills, and knowledge as well as the participation and commitment of stakeholders were needed to build quality online programs. Tabor (2004) found that the move to online learning in higher education was a matter of leadership foresight, institutional knowledge and skills, and timing. Herman (2005) found that there were concerns about online learning among educational leaders such as the academic honesty of higher education learners along with wavering student motivation and self-direction.

### *Leadership Issues*

Leaders in higher education have had a number of challenges as they endeavoured to implement and deliver learning online. These issues included faculty resistance, structural barriers, program credibility, funding sources, student access, and legal concerns.

#### *Faculty Resistance*

Learning online was seen with scepticism in higher education (Parker, 2008). For instance, not all faculty members at universities embraced online learning creating

tension and uneven participation (Hanna, 2000; Henshaw, 2008; Ruth, Sammons, & Poulin, 2007; Webber, 2008). Faculty members were concerned with the increase in the amount of online programs offered in higher education, and ensuing risk of commodifying education into saleable packages. This raised questions about the quality and credibility of online programs (Blair & Monske, 2003; Georgina & Olson, 2008; Howell, Williams, & Lindsay, 2003; Parchoma, 2006; Romiszowski, 2005; Ruth, Sammons, & Poulin, 2007). It was the entrepreneurial approach to delivering online learning in higher education that was most troubling for the academic culture, and the resistance was significant considering faculty members controlled most of the curriculum development (Hanna, 2000). Though online initiatives have potential to address access and equity problems in higher education, in the end it was criticized as an economic solution (Bates, 2005).

As well, some faculty members struggled with integrating their personal pedagogy with technology, and tended to rely on their face-to-face teaching experiences and past assumptions about teaching and learning (Conrad, 2004; Georgina & Olson, 2008; McQuiggan, 2007; Nkonge, 2004; Reid, 2009). Added to this, Price and Kirkwood (2008) learned some faculty had not developed an understanding of sound pedagogical practices. This would further hinder their ability to design effective curriculum that incorporates technology. As well, Yang and Cornelius (2005) and McQuiggan (2007) found that faculty members struggled with their changing roles when teaching online such as addressing diverse student needs, interacting differently with learners, facilitating rather than teaching, working with technical experts, and providing students with technical, emotional, and instructional support. Faculty seemed to struggle with their



identity as professors and experts when working in online environments (McQuiggan, 2007). As well, there was a concern about the transactional distance between instructors and students adding to the scepticism about the effectiveness of online learning (Ni & Aust, 2008; Romiszowski, 2005; Smith, Heindel, & Torres-Ayala, 2008; Wikeley & Muschamp, 2004). At times, faculty members felt isolated and unsupported when trying to integrate technology into their teaching. For instance, they experienced barriers to being innovative due to high workloads, insufficient rewards systems, poor technical infrastructures, belittled teaching values, deficient policies, and unsupportive leadership (de la Harpe & Radloff, 2008; Dixon & Scott, 2008; Georgina & Olson, 2008; Hiltz, Kim, & Shea, 2007; Johnson, Levine, & Smith, 2008; Nkonge, 2004; Romiszowski, 2005; Wolcott & Shattuk, 2007). Georgina and Olson (2008) discovered that faculty members believed the academy was responsible for their technology training as they felt technical infrastructures were implemented without their input.

Also, faculty perceived there was more work involved with an online course due to increased interaction with students, management of electronic materials, and preparation of online courses (Dixon & Scott, 2008; Hiltz, Kim, & Shea, 2007; McLain, 2005; Reid, 2009). However, McLain (2005) and Hislop and Ellis (2004) found that the amount of time faculty spent on online courses was the same as traditional face-to-face classes. Yet, Perry, Boman, Care, Edwards, and Park (2008) discovered online instructors burned out from working online at all hours during the day as they were worried about job security and the need to help struggling students. As well, faculty members who worked at a distance from home found it harder to balance their personal and academic life, working more hours online to a point of burnout (Ng, 2006). Issues of academic freedom and

intellectual property rights were concerns for faculty members as instructional design teams with technical experts became more involved in curriculum development; due to their involvement, it became questionable who owned the curriculum (Cameron, 1996; Freeman & Thomas, 2005; Scott & Dixon, 2008).

On the other hand, it was discovered many faculty members enjoyed using information and communication technologies, and stated it improved their teaching, allowed for creative instruction, and helped them organize their curriculum (Fillion, Limayen, Laferriere, & Mantha, 2009; Fish & Gill, 2009; Hiltz, Kim, & Shea, 2007; Nkonge, 2004; Peterson & Slotta, 2009; Vanderbilt, 2009). Also, faculty found online learning increased student learning, autonomy, motivation, and interaction. However, it also increased student anxiety of working in the online environment. As well, Grimes (2005), Lucas (2002) and Fish and Gill (2009) found that faculty members with a more positive perception of online learning usually had previous online instructional experience along with a preference for teaching in that environment. Conceicao (2007) stated that as instructors became more comfortable with online learning they tended to experiment more with new teaching strategies. Ledbetter (2004) found that successful online instructors possessed transformational classroom leadership skills. Drawing on Burns (1978) and Bass and Avolio (1994), Ledbetter determined instructors who possessed transformational leadership skills sought to motivate students, satisfy their higher needs, and engage them as full people. They did this by developing a rapport and personal relationship with students as well as creating reciprocal trust, building shared goals, providing role-modeling, and mentoring and dialoguing with students. These instructors built a rapport and trusting relationship with online students, and were

confident in assigning meaningful and applicable assignments. Yet, other studies determined that online teaching was not suitable for every faculty member, and it would be difficult to encourage them to get involved if they were satisfied with their present teaching methods (Ensminger, Surry, & Miller, 2002; Yick, Patrick, & Costin, 2005).

### *Structural Barriers*

Furthermore, the organizational structure of universities was considered a barrier when implementing innovative programs. The bureaucratic system of academia was perceived as slow to respond and difficult to navigate with its many layers of governance (Matthews, Pickar, & Schneid, 2007; Murray, 2008). For instance, the average number of years for universities to adopt innovation was determined to be about 25 to 30 years after its initial appearance (Murray, 2008). Murray furthered that the reason mainstream higher education institutions were slow to embrace change is they tended to enjoy a self governing status with few measures to judge their performance, and they did not have stakeholders expecting profitable returns. As well, top administrators seemed less interested in instructional technology concerns (Marcus, 2004). Bates (2008) saw the lack of incentive to change in higher education institutions evidenced by deficient faculty rewards and management training, and a lack of understanding about societal needs for information and knowledge. Henshaw (2008) predicted old models of governance in academia will change as institutions become more driven by the knowledge economy, displacing those that do not change with the current times. He furthered, though some models of higher education have persisted since the Middle Ages, newer concepts of how knowledge is formed will prevail and be embraced by upcoming academic generations.

*Funding Sources*

Delivering learning online in higher education was considered costly due to the changes needed to programs, thus concerning educational leaders about the return on investment (Bates, 2005; King, 2008; Ramsden, 2008). For instance, “the more flexible, interactive and supportive a course, the more expensive it is” due to the expense of online tutoring, development of multimedia products, and requirement of staff time (Lai, Pratt, & Grant, 2003, p. 19). Also, Anderson (2008b), of Athabasca University, found that online programs were costly because of the low student to instructor ratio, and suggested finding ways to improve the economy of scale or change instructional processes. As well, higher education leaders felt the pressure of less government support and reduced institutional budgets propelling them to seek new and profitable markets, such as with part-time students, just-in-time professional updating, and content markets (Carr-Chellman, 2005; Howell, Williams, & Lindsay, 2003; Johnson, Levine, & Smith, 2008; Lai, Pratt, & Grant, 2003; Turpin, 2005; Universities UK, 2008; Webber, 2008). To compensate for reduced funding, institutions were advised to find niche markets where there was a demand for online education (Universities UK, 2008). Webber (2008) shared online programs that were designed for cost-recovery helped counter the continual funding cuts to campus-based programs. Also, Netter (2005) found that higher education leaders preferred online programs to be part of the institutional system and not treated as autonomous or funded separately. They considered being part of the wider system would give online programs more economic stability and provide access to institutional resources.

Also, some higher education institutions have shifted to a business or entrepreneurial model, and have partnered with investors and other organizations who shared the costs, resources, and tasks for implementing online education (Beaudoin, 2007; CANARIE, 2002; Camp & DeBlois, 2007; King, 2008; Lai, Pratt, & Grant, 2003; Levy, 2003; Matthews, Pickar, & Schneid, 2007; OECD, 2008a; Winkler, 2008). Yet, Levy (2003) warned such partnerships could either weaken or strengthen a department. As well, the business model approach has caused concern at universities. Criticized as academic capitalism, which was defined as decision-making driven by market forces, the business model approach was seen to threaten the core values of higher education institutions and cause leaders to focus on the wrong areas when making decisions and policies (Anderson, 2001; Rhoades, 2003; Slaughter & Leslie, 1997; Winston, 1999).

#### *Program Credibility*

As well, there was an issue with the perceived credibility of online programs delivered by postsecondary institutions (Johnson, Levine, & Smith, 2008). Adams (2008) and Tinnerman (2008a) found employers and university administrators preferred hiring people with traditional degrees than those with degrees from online programs. They perceived face-to-face instruction and mentoring performed in traditional classrooms as part of quality education, and considered these aspects missing in online learning. However, Webber (2008) stated, “Most western nations have at least one or more universities that specialize in distance teaching and learning ... [and] are perceived by the public and most university faculty members as credible institutions” (p. 196).

### *Student Access*

Another issue with online learning in higher education was student access. At times referred to as digital divide, this issue was described as certain populations having restricted access to learning, communication, and information technologies (Shade & Dechief, 2005). For instance, having access to available and affordable technologies as well as possessing digital skills was less likely in poorer nations (Herman, 2005; Latchem, 2005). Yet, Bates (2005) offered a promising view that “distance education has spread rapidly in economically advanced countries, and even to niche markets in developing countries” (p. 13). Echoing this, Raschke (2003) stated the digital culture is emerging in the developing world. However, Henshaw (2008) advised access issues need to be addressed by higher education institutions in order to cater to all potential students, and not only those in higher socioeconomic levels.

### *Legal Concerns*

As well, legal issues such as intellectual property rights and copyright infringement were concerns for those involved in online higher educational environments (Gasaway, 2005; Marshall, 2008; New Media Consortium, 2007; Wallace, 2004). It was advised that higher education institutions should carefully consider how digital materials are used, created, and disseminated online given that laws regulating these actions were not well developed (McOrmand, 2005; Rao, 2003). That is, copyright laws in Canada were considered ambiguous and tended not to offer effective ways to avoid copyright infringement putting institutions, faculty members, and students at risk (Braman, 2005; Harris, 2005; Hughes, 2005; Oliphant, 2002; Public Interest Advocacy Centre, 2004; Seadle, 2003). For instance, in 2004, together with the faculty bargaining unit at the

University of British Columbia in Canada, Bryson won the right to own a course that was to be developed online as opposed to giving copyright ownership to the institution (CAUT, 2004). However, Anderson (2009b) considered this a ‘hollow victory.’ He was concerned how newer models of curriculum development that incorporate design and technical teams could be addressed as seen in emerging institutions, such as virtual or non-profit schools. In these cases, he suggested revised methods to address copyright ownership will be needed. Furthermore, Marshall (2008) proposed creating new policies in higher education institutions that ensured instructors use copyrighted works properly and with respect, and Simonson (2007) suggested offering professional development workshops to educate faculty about copyright laws and liabilities. Also important was discovering ways to use owned materials that could benefit educators, learners, and copyright holders alike (Marshall, 2008).

### *Leadership Strategies*

A number of strategies were offered for educational leaders who managed distance education and online learning in higher education settings. For instance, Watkins and Kaufman (2007) advised leaders to proactively approach change rather than react to forces that compel institutions to deliver learning online, such as with increasing competition. Furthermore, Otte and Benke (2006) suggested higher education leaders view online learning as a,

logical place to weave together the new and the old, the academic and the administrative, the technological and the traditional. Like the technology it uses, online instruction has an integrative function in the compartmentalized universe that is the university. (p. 27)

Furthermore, implementing learning online included consideration of “structural and organizational issues, the components of a system and the interfaces among them ... and human resources” (Anderson, 2008a, p. 121). More so, higher education leaders were thought to perform and oversee a variety of roles and responsibilities when delivering learning online. Explained further, these roles and responsibilities were outlined by Beaudoin (2007), Davis, Little, and Stewart (2008) and Webber (in press) as:

- Engaging in strategic planning and vision sharing;
- Performing needs assessment and market analyses;
- Determining ethical issues;
- Developing support teams;
- Fitting technology to needs;
- Mobilizing integrated resources and student services;
- Building online infrastructures;
- Developing learning environments and curriculum;
- Training and supporting faculty;
- Collaborating with partners;
- Evaluating programs, and
- Forming policies.

Beaudoin (2007) added that newer strategic approaches for distance education leaders includes donning a global view, expanding current markets, offering distance education exclusively online, and treating virtual entities as freestanding and asynchronous.



*Leadership Styles*

Beaudoin (2007) saw the leadership of online learning different from its management, and defined it as “a set of attitudes and behaviors which create conditions for innovative change, which enable individuals and organizations to share a vision and move in its direction, and which contribute to the operationalization of ideas that advance distance education initiatives” (p. 391). As well, higher education leaders of online learning were thought to hold a transformational role by influencing change and embracing innovative teaching and learning methods; they also were thought of as situational leaders who monitored the readiness of an organization and its stakeholders to embrace change. Together with this, they were also thought of as being systematic by creating the necessary steps and resources to implement online programs (Kim & Bonk, 2006; Marcus, 2004; Otte & Benke, 2006). Yet, Eddy and VanDerLinden (2006) found that distance education administrators saw themselves less as leaders and lower in rank. They also experienced barriers when implementing online programs. Beaudoin (2007) suggested distance education leaders become part of the academic community as conceptualizers and implementers offering vision for innovative learning rather than continue to be advocates and protectors of online programs. He furthered “bold and creative leadership is required to manage as well as evaluate these emerging new structures, driven in large measure by networking technology” (p. 393). Portugal (2007) suggested leaders who have experience in working with distance education and have developed useful insights and strategies will be in demand as more institutions implement online learning. These leaders were perceived as having the ability to operate in complex political organizations, and able to provide the knowledge to implement these programs.

## *Program and Policy Development*

### *Student Needs*

The needs and characteristics of students, and the reasons they enrolled and persisted in online programs, were key considerations for educational leaders who implemented learning online in higher educational contexts (Altarac, 2008; Anderson, 2008a; Conceicao, 2007; Moisey & Hughes, 2008). With increased access, postsecondary students were seen as becoming more diverse and required certain accommodations. For instance, students' diverse backgrounds, prior learning experience, career focus, and learning styles were affecting how higher education was provided (Ramsden, 2008; Webber, 2008). These non-traditional students were looking for relevant, flexible, and world class higher education that was supported and delivered through the web in order to advance their careers and pursue lifelong learning (de la Harpe & Radloff, 2008; King, 2008; Moisey & Hughes, 2008; OECD, 2008b; Ramsden, 2008; Winkler, 2008). As well, it was predicted many future online learners would be between the ages of 35 and 55, and would judge and choose programs based on quality, cost, accreditation, and technology use (Ruth, Sammons, & Poulin, 2007). Thus, to create quality online programs and determine appropriate support, higher education leaders were advised to assess the diverse needs of students, such as their readiness for online learning, access and familiarity with technology, learning styles, language proficiency, and educational goals (Moisey & Hughes, 2008).

### *Program Development*

Before developing programs, Watkins and Kaufman (2007) recommended leaders conduct a rigorous needs assessment to determine if online learning was a solution for

their higher education institution or departments. As well, Price and Kirkwood (2008) warned, “Frequently, university-wide strategic decisions about technology are made without fully understanding the implications for resources, administration, teaching programmes, teaching practices and learning approaches, often resulting in technology-led course design” (p. 83). Following this, Levy (2003) cautioned implementing online programs should be not viewed as merely moulding them into existing campus-based programs. As well, Otte and Benke (2006) advised “that courses offered online [be] commensurate with traditional, on-the-ground courses [and] ... meet the same goals and satisfy the same requirements” (p. 24). They also deemed it was important to create stable and scalable online programs that were integrated with other institutional systems, such as student information and registration. More important, it was advised that developing online learning programs required system-wide support from those governing the university, managing faculties, and providing instructional and technical services (Conole, 2008; Kearsley, 2002; Webber, in press). As a result, it was suggested higher education leaders find a way into the academic mainstream, become valued strategic partners, and orchestrate the integration of all stakeholders (Beaudoin, 2007; Otte & Benke, 2006). Agreeing, Oblinger (2008) suggested leaders, “take a fresh look at institutional governance of IT [information technology] and encourage realignment of those structures with the reality of a networked world (and institution)” (p. ix), all the while considering the varied and conflicting interests among institutional stakeholders. At the same time, it was thought educational leaders must understand the impact of integrating technology, resources, and services on different units, and recognize the

identity, culture, market, and competitors of the institution when implementing online programs (Adams & Seagren, 2004; Otte & Benke, 2006; Portugal, 2007).

Another consideration was whether centralized or decentralized approaches to development, delivery, and support of online higher education programs were more appropriate (Otte & Benke, 2006; Webber, 2008). Centralization was considered more effective with sharing costs and resource management, while decentralization offered more control over instruction. However, a blend of the two systems was thought to provide local ownership and centralized support. Interestingly, faculty tended to be attracted to programs where pedagogical ownership was local and support was offered more widely. This is discussed later in this section. As well, Bates (2005) offered key strategies for selecting appropriate technology for online programs. This included considering wider organizational issues, student access, technology costs, teaching strategies, online interaction, and the novelty, speed, and functionality of technology. Webber (in press) added the pedagogical relevance and optimal use of technology was important to determine for successful online programs.

#### *Policy Development*

It was deemed important for educational leaders to develop policies for online learning programs, though difficult due to the complexity of technology and higher education organizations (Conole, 2008; Lai, Pratt, & Grant, 2003). Regardless, seven areas to consider when developing distance education policies were academic, governance, legal, faculty, students, technical, and philosophical (Simonson, 2007). As well, Watkins and Kaufman (2007) suggested aligning the missions of institutions with academic units in order to work together more effectively. Simonson (2007)

recommended modifying existing institutional policies as opposed to creating new versions, and De Castro (1999), Kovala (2000) and Simonson (2007) furthered that to avoid having online learning treated as secondary service in higher education institutions, it would be important to develop a meta-policy. Such a policy could address quality issues, course development, and essential resources and support for online programs. It could also include faculty contractual needs such as material ownership, evaluation methods, incentives, and workload issues along with student development and tuition levels. Additionally, the OECD (2008a) recommended implementing faculty performance contracts that addressed funding and monitoring systems to ensure quality online education.

However, Beaudoin (2007) warned “premature, administratively driven initiatives will only generate further faculty resistance and impede any prospects for longer-term change” (p. 400). As a solution, Maguire (2009) discovered faculty wanted to be part of distance education policy making and felt they should due to their expertise, experience, and advocacy for students. Therefore, Eddy and VanDerLinden (2006), Ramsden (2008) and the OECD (2008a) recommended policymakers share long-term visions with those involved in higher education, and further obtain the views of different stakeholders, including faculty and students. Thus, taking a team approach to implementing innovative programs and policies at an institutional level was deemed more effective than creating incremental and isolated developments (Beaudoin, 2007; Conole, 2008; Lai, Pratt & Grant, 2003).

Furthermore, Matthews, Pickar, and Schneid (2007) and Otte and Benke (2006) offered guidelines to ensure a successful system-wide implementation of online learning policies and programs in higher education. These were:

- Explain the purpose of online learning to staff, students, and relevant external groups to gain their support and commitment;
- Understand the change process and harness the efforts and commitment of stakeholders;
- Build capacity for online learning, such as with staff skills and knowledge, and appropriate resources;
- Create support services for staff and students, such as instructional design and technology support;
- Develop cultures of learning for people to learn from one another;
- Develop evaluation processes for external and internal accountability;
- Foster coherence between operational, policy, planning, and service units, and the mandate and vision of the university so all units work together, and
- Consider external partnerships to share expertise, costs, and risks.

#### *Program Evaluation*

McKenzie, Özkan, and Layton (2005) suggested it was important to evaluate online programs to see if student needs were being met in higher education programs. They suggested using a variety of evaluation methods such as formative and summative assessments, and needs analysis. Price and Kirkwood (2008) suggested using evidence-based research to evaluate programs. Furthermore, it was recommended that quality assurance initiatives be established, and used as evaluative measures to assess the

effectiveness of programs (Parker, 2008; Price & Kirkwood, 2008). Following this, institutional checklists and peer reviews were found to be helpful in ensuring instructional developers created courses that were quality, consistent, creative, and professional looking (Knowles & Kalata, 2007). It was advised instructors in higher education settings should evaluate their own courses to ensure quality learning conditions and instructional strategies existed (Ali, Hodson-Carlton, & Ryan, 2004). McPherson and Nunes (2004) and Conceico (2007) furthered postsecondary students needed the opportunity to evaluate the instruction in online courses as well as the technology, user interface, and design of the content.

### *Instructional Design*

Moore and Kearsley (1996) offered suggestions for designing effective distance learning environments in higher education. They proposed gaining an understanding of online students, including their reasons for pursuing education and their educational background, in order to design better instruction. They also suggested planning for the pace of instruction, whether this was determined by students or instructors, and the amount and type of interaction between instructor, learners, and content. Additionally, the preparation and experience of online instructors, and the nature of instructional strategies to be employed were important to consider. In general, they stated important elements of design for online learning was good structure, clear objectives, planned participation, stimulation, variety, feedback, and continuous evaluation.

LaPointe and Reissetter (2008) suggested creating effective curriculum and instructional designs was important as it tended to impact student learning and satisfaction in higher education programs. Furthermore, it was suggested that designing

higher education online programs should not focus only on technology or budgetary concerns, but also on critical pedagogical issues (Levy, 2003; Orr & Bantow, 2005). McPherson and Nunes (2004) and Conceico (2007) stated more time and attention is needed on the analysis of higher education learners as well as the planning of content, curriculum, and technology use before designing courses. Otte and Benke (2006) suggested drawing on best practices established for traditional learning settings, and integrate what is new and different into online learning environments. However, it was argued that online learning environments were not the same as traditional face-to-face settings in higher education, and this needed to be considered in the design of programs and courses (Harmon & Jones, 2000; LaPointe & Reisetter, 2008; Orr & Bantow, 2005). Designing online curriculum must consider the separation of instructor and learner in space and time. This accommodation could involve individualized instruction, which would require the preparation and availability of learning materials in advance of a course start (Morrison & Ross, 2007). As a warning, Orr and Bantow (2005) warned online learning cannot adequately meet all quality outcomes for graduate studies, such as with face-to-face interactions, and Hiltz, Kim, and Shea (2007) found that online learning was not suitable for all students.

Additionally, Redmer and Rundle (2006) and Conceico (2007) added online higher education students preferred a variety of instructional methods, and that they expected the quality of online courses to be equivalent to traditional, face-to-face ones. Collaborative and group work seemed to be well received by online graduate learners, and Young and Norgard (2006) found that a consistent course structure was necessary. As well, a debate emerged about the best pedagogical design for online environments.



Some thought courses created for online higher education learners should be designed for social and constructivist type learning (Anderson, 2008a; Conceicao, 2007; Menchaca & Bekele, 2008; Nkonge, 2004; Ukpokodu, 2008; Vanderbilt, 2009), while others favoured independent and self-directed learning approaches where interaction was primarily with the instructor (LaPointe & Reisetter, 2008; Lewis, 2007). Garcia and Qin (2007) found that participants wanted university level courses to be delivered through lectures and readings led by instructors, and not through discussions with fellow classmates.

### *Infrastructure, Resources, and Support*

Infrastructures for online learning, such as course management and administrative systems, were considered a current concern for leaders in higher educational contexts (Camp & DeBlois, 2007; Johnson, Levine, & Smith, 2008). Yet, the administration of online programs was considered daunting (Portugal, 2007), and dual-mode institutions, defined as those with both online and campus programs, had the added challenge of providing support for two different groups (Moisey & Hughes, 2008). More specifically, leaders of online higher education programs were tasked with implementing infrastructures and resources that supported students and staff, and to have worked with faculty to design and delivery online courses (Levy, 2003; Portugal, 2007). Also, they had to hire and secure human resources, such as qualified instructional staff, technical and administrative staff, and instructional designers (Georgina & Olson, 2008; Murray, 2008; Ramsden, 2008; Yang & Cornelius, 2005). Following this, one concern for higher education leaders was obtaining adequate instructional design and technical experts, and retaining staff of the highest quality considering the prospective bulge of upcoming retirements (CANARIE, 2002; Johnson, Levine, & Smith, 2008; Portugal, 2007;

Universities UK, 2008). Additionally, resources such as online library, bookstore, and registration services were considered important for online learners (Georgina & Olson, 2008; Murray, 2008; Ramsden, 2008). In the higher educational field, library services have been expanding to provide access to a diverse selection of publications in print and digital forms supplemented by technology tools, such as annotating resources and email reference services (Johnson, Trabelsi, & Fabbro, 2008). One main concern for librarians was to increase student information literacy skills by offering online tutorials, librarian weblogs, and learning management systems.

Webber (2008) found that providing strong support for online graduate learners helped with their retention, yet Levy (2003) discovered student services were the least discussed topic in the literature. Student services included non-instructional activities that supported learners such as online access to program information, admission and payment services, material acquisition, library resources, course grades, and student transcripts (Levy, 2003; Moisey & Hughes, 2008). As well, Harris and Jones (2007) and Meyer (2008) suggested universities create better public websites so essential information could be easily accessed by students with queries. As well, technology orientations, training, and support were considered imperative for students to succeed, especially for new online learners (Conceicao, 2007; Kearsley, 2002; Nkonge, 2004; Reid, 2009; Turner, 2006; Young & Norgard, 2006). However, most services were typically designed for campus-based students, and needed to be accessible off site and after regular office hours (Moisey & Hughes, 2008; Otte & Benke, 2006; Simonson, 2007; Young & Norgard, 2006). Kondra, Huber, Michalczuk, and Woudstra (2008) suggested developing call centres for online learners where staff could offer program advice, and provide answers to content

queries and technical questions. It was suggested that perhaps some student services could be outsourced to external providers (Matthews, Pickar, & Schneid, 2007).

### *Faculty Development and Support*

It was advised that faculty who designed and taught online higher education courses must consider innovative approaches to curriculum and learning (Levy, 2003). As well, it was thought they must have technology literacy skills as well as local, national, and global cultural literacy skills (Webber, in press). Thus, Yang and Cornelius (2005) found that it was imperative to prepare instructors to teach online by helping them understand their role as well as present them with effective design and teaching strategies. This required carefully designed faculty training, mentoring, and support, with a focus on instructional strategies and effective technology use (Grant, 2004; Lewis, 2007; McKenzie, Özkan, & Layton, 2005; Turner, 2006; Yang & Cornelius, 2005). Training was seen as especially important to sustain quality courses as institutions turned more to non-permanent part-time instructional staff for online teaching (Ruth, Sammons, & Poulin, 2007). As well, Otte and Benke (2006) suggested developing a culture of professional development as it is the “greatest shot at institutional and cultural transformation” (p. 25). Along with this, Price and Kirkwood (2008) advised university departments to promote the improvement of student learning as it would positively affect faculty development of online courses. Yet, Kearsley (2002) found that training faculty in mastering software tools and delivery systems was difficult, and most instructors resorted to self-education. However, it was found professional development that was decentralized was favoured by faculty as it provided more local support through small group work and one-on-one training (Georgina & Olson, 2008; Grant, 2004). Viewing this differently,

Dixon and Scott (2008) suggested professional development should be offered on a wider scale to transcend boundaries increasing the ability to share resources, reflections, and action planning. Tallent-Runnels et al. (2006) and Georgina and Olson (2008) found that few universities had written guidelines, policies, or technical support for faculty who taught online.

More specifically, it was thought faculty development should include the benefits of online learning rather than just improving instructors' technology skills (Price & Kirkwood, 2008). Overall, it was suggested that faculty development could include training in instructional design, experimenting with teaching and learning in an online environment, honing course organizational and management skills, experimenting with multimedia, and learning how to provide feedback and technical support to online students (Lewis, 2007; Price & Kirkwood, 2008; Reid, 2009). As well, McQuiggan (2007) and Price and Kirkwood (2008) suggested challenging instructors' beliefs and assumptions about teaching and learning through critical reflection in order to think about new pedagogical strategies. Lewis (2007) found that the type of support and training needed by faculty depended on their educational background and technological experience. As well, Reid (2009) determined online instructors moved through different phases of their online learning experience, and their needs changed at each stage. Furthermore, considering educational leaders were responsible for the quality of online programs and instruction they also needed to engage in professional development, and experiment with online learning environments, infrastructures, and technologies (McKenzie, Özkan, & Layton, 2005; Yang & Cornelius, 2005). It was assumed this experience would help to inform their decisions and strategies for implementing and

maintaining successful online programs. Yet, Webber (in press) found most professional development programs were designed for teachers rather than leaders, and should include leadership theory and educational trends and issues.

Also, having support from the institution and other colleagues was considered important for faculty members who taught online in higher education settings (Lewis, 2007). Young and Norgard (2006) warned an instructor's online role can be more difficult than one experienced in traditional classrooms. Online instructors were thought to have the extra burden of preparing courses well in advance, constantly facilitating the course, modeling good communication skills, and adjusting courses for the varied needs of students. Hogan and McKnight (2007) found that online instructors burned out unless given adequate support, clearly defined roles, and manageable workloads. Caplan and Graham (2008) and Wolcott and Shattuck (2007) advised online instructors needed to locate and connect with available resources and support services, such as technology training units, instruction consultation, and material production. Also, it was suggested that those in technology support units focus on the academic purpose of online programs along with the technical aspect, and become more adaptive and less mechanized (Otte & Benke, 2006).

Additionally, Netter (2005) found that providing extra compensation, such as financial incentives and course release time, helped elicit the commitment of faculty to develop and teach online courses in higher education. Grant (2004) found that faculty members were both intrinsically and extrinsically motivated to develop and teach online courses. Intrinsically, they favoured the convenience, comfort, and future potential of online learning; whereas, extrinsically they were motivated by external pressures from

the institution to get involved. When implementing new programs, Ensminger, Surry, and Miller (2002) discovered rewards and incentives were important to entice faculty as well as allowing their participation in decision making and instructional development.

Knowles and Kalata (2007) determined if online learning was recognized more in the promotion and tenure process it would encourage faculty to partake. However, Wolcott and Shattuck (2007) found that intrinsic motives, such as job satisfaction and trying new technology tools and teaching strategies, were the most influential factors in faculty decisions to get involved in online learning. They found that faculty who wanted to participate were least influenced by extrinsic motivations such as monetary support, course release time, and tenure and promotion credit.

Furthermore, some universities who did not provide faculty release time to develop online courses have had other staff members do this work, as with instructional designers, multimedia developers, and technology experts (Levy, 2003; Netter, 2005; Yang & Cornelius, 2005). This has caused concern among faculty as they questioned the intellectual property of the courses and their rights to academic freedom. However, Yick, Patrick, and Costin (2005) suggested academic freedom and tenure policies should be reworked to encourage the pursuit of innovative developments such as online learning. As well, honouring the teaching preferences and needs of faculty was found to be important when implementing online courses (Dirkin, 2009). For instance, Lewis (2007) discovered though instructors wanted autonomy in structuring or changing their online courses, they still required support from instructional designers. Including others in the design of courses was seen as beneficial, and collaboration among faculty, designers, and

technical experts was seen to enhance online products (Ali, Hodson-Carlton, & Ryan, 2004; Knowles & Kalata, 2007; Reid, 2009).

### Summary

The literature offered implications for educational leaders, who managed online learning in higher education settings, by addressing their concerns about effective policies, quality programs, institutional support, essential resources, faculty involvement, and student experience. The summary is divided between online student characteristics, perceptions, and needs, and leadership implications for online higher education programs.

### Student Characteristics and Perceptions

#### *Student characteristics*

Some studies found that the characteristics, motivations, previous online experience, learning styles, and technology comfort of online graduate students did not necessarily affect their perception of online learning. Nor did these attributes seem to affect their academic performance. Although profiles of learners showed some consistency, it seemed findings did not produce typical characteristics of online graduate students (Stewart, 2006). However, a number of other studies did find significant correlations between student entry characteristics, personality traits, learning styles, self-efficacy, technology skills, and their satisfaction with and performance in an online graduate course. For the most part, studies found that online graduate learners were motivated, middle-aged professionals with self-directed abilities and strong educational backgrounds capable of gaining high grades and succeeding online. However, the

learning styles of successful online graduate learners varied. For the most part, students appreciated the convenience of online programs as they were burdened with responsibilities and time constraints. Though online learning seemed a possible solution to overcome life restrictions students still had a number of concerns about the online mode such as available support, course quality, and program suitability as well as their academic preparedness.

#### *Student Satisfaction, Frustration, and Persistence*

Most graduate students were satisfied with their online courses, but some still preferred traditional face-to-face classrooms. It seemed the main reasons for student satisfaction with online learning were its flexible nature, and the various tools and activities to suit multiple learning styles. The more comfortable online graduate students were with technology the more satisfied they became; however, older students struggled with using technology and this affected their learning. As well, online graduate learners insisted on good instructional practice and rigorous course work. On the other hand, the main reasons for graduate student frustrations with online learning were due to technical problems, unclear expectations, poor instructor online skills, heavy workloads, and communication problems. New online learners seemed to struggle the most with virtual settings. As well, it was determined online learning involved more work than traditional face-to-face courses for graduate learners. Furthermore, a main reason graduate students persisted online was because of strong characteristics, such as having motivation, self-leadership and technology skills, experience with online learning, and a positive perception of the online format. As well, the flexibility and quality of online learning and their access to technology also helped with student persistence.



### *Online Learner Needs*

Online learners had a number of needs. First, as adults online graduate learners wanted choice and control over their learning, yet still needed support, guidance, and encouragement. Second, they wanted good instruction and design including organized online courses, clear objectives and instruction, quality learning materials, and appropriate technology. Third, they wanted the instructor to participate online, manage the virtual environment, lead discussions, and provide technical support. Fourth, they wanted learning activities to be engaging such as with peer collaboration, online discussions, and practical applications. Some graduate learners found that online activities were too demanding and asked that students' restricted time be considered. Fifth, online graduate learners wanted quality communication and interaction supplemented by a variety of technology tools. As well, they wanted face-to-face interactions through campus meetings and online communication technologies. Sixth, graduate students desired an online community for academic and personal support, peer interaction, and overcoming feelings of isolation. However, some students did not want an online community finding them inconvenient. They preferred studying alone.

## Leadership Implications

### *Leadership Perceptions*

For the most part, educational leaders in higher educational settings thought online learning was a viable mode of delivery. They contended that findings from evidence-based research as well as institutional support and commitment were needed to create quality online programs.

*Leadership Issues*

There were a number of issues that higher education leaders had to address. For example, faculty members were sceptical about the quality of online programs, and were concerned about the commodification of education for profitable reasons. As well, faculty struggled with integrating their pedagogical approach with technology, and their changing role as an online instructor. There was a debate whether the workload was higher for online instructors than those in traditional courses. Regardless, instructors were thought to burn out from working too many hours online. As well, studies found that faculty could be a powerful support for online initiatives if it appealed to them.

Additionally, the organizational structure of mainstream higher education institutions was considered a barrier to implementing online learning. For instance, there was little incentive to be innovative, however it was predicted that with the evolving knowledge economy institutions would have to become more responsive to survive. Also, online programs were considered costly and needed wider institutional support, especially in light of less government funding and reduced institutional budgets. Redesigning the structure of courses, such as increasing the student to instructor ratio, was thought to reduce costs. Another solution offered was shifting to a business model and inviting partners from external agencies to share risks and costs with online programs.

Another issue for educational leaders was the credibility of online higher education programs, which was questioned by employers in industry and academia. As well, there was a concern about the ability for students in lower socioeconomic realms to

access online higher education. Becoming more prevalent was the issue of copyrights and the proper use of digital material.

### *Leadership Strategies*

#### *Program and Policy Development*

Leaders of distance education in higher educational settings were seen as being in a unique role that was becoming more defined. It was determined they needed to become part of the academic community bringing with them their insights, strategies, and plans for online programs. As well, they were advised to conduct a needs assessment to determine if online learning was a solution for their institution or department. Also, program and policy development for online learning were considered important, and should include the needs of a diverse student body as well as the selection of appropriate technology.

It was suggested that online higher education programs should be treated like existing ones and be stable, scalable, and have system-wide support. Integrating online learning and support for distant learners into the main higher education system required understanding the impact on other academic units. It also required understanding the culture and goals of the institution. Integration not isolation was advised to develop quality online programs. As well, a combination of centralized support and decentralized course development seemed to satisfied faculty. Along with this, creating meta-policies ensured the consideration of online learning across the whole institution by addressing issues such as faculty needs, quality development, and essential resources. It was suggested stakeholders involved in online learning be part of policy development, including instructors, students, technology staff, and instructional designers. Continual

evaluation of online programs was deemed necessary to ensure program and instructional quality, and student needs were being met. A variety of evaluation methods was considered important such as course assessments, evidence-based research, and student evaluations.

### *Resources and Instructional Design*

Infrastructures and resources for online learning was a leading concern for educational leaders in higher education. As well, acquiring and retaining specialized staff for online programs was a challenge. Creating support for online postsecondary students included many services such as with library resources, admission and payments services, and technical support. Providing a call centre to help online students with program, technical, and content questions was suggested as well as outsourcing student services.

The design quality of online higher education courses was considered the hallmark of their success as it impacted student learning and success. Instructional design for online courses was about the pedagogy and not only the technology. However, there was a growing debate on the pedagogical design of online courses. Some claimed social constructivist approaches were best while others suggested independent study designs were more beneficial. As well, some suggested it was best to draw on the instructional designs of traditional courses in higher education, while others argued online learning was not the same and required different considerations. Graduate students seemed to enjoy collaborative activities and expected the same quality of learning as with campus courses.

*Faculty Support*

Faculty members in higher educational settings who designed and taught online course needed significant support. However, few institutions had policies or support for staff involved in online programs. Yet, online learning required innovative approaches to design, instruction, and technology use, and it was suggested faculty must be trained for this. Implementing a professional development culture and an attitude to support student learning was considered effective in encouraging faculty to engage in online learning and design. Intrinsic as well as extrinsic motivations, such as rewards and course release time, were considered important to engage faculty. As well, it was advised for faculty development to include understanding the pedagogy and benefits of online learning, upgrading technology skills, and learning how to administer student support online. Educational leaders needed professional development as well. Also, a team approach to developing online courses was deemed important to produce quality designs; however instructors preferred creating their own courses while protecting their academic freedom rights.

## CHAPTER 3: METHODOLOGY

### Study Design

#### *Purpose*

The purpose of this study was to examine the characteristics of graduate students together with their motives and perceptions of online learning to inform leadership practices. The study sample was drawn from a population of graduate students enrolled in an online degree program within a graduate division of a faculty of education at a western Canadian university. Care was taken to create a rigorous methodology. For instance, mixed methods were used to ensure a broader view of participant characteristics and perceptions was pursued. As well, study results were strengthened by using multiple sources and types of data, collecting data over several months, conducting three stages of data collection and analysis, and drawing on the same population at each stage. Additionally, reiterating between the various sets of data, and analyzing them through constant comparison aided in finding salient themes. Inductive thinking pursued in earlier stages of analysis was blended with deductive thinking performed later in the process and supported by a developed analytical framework. This analytical process strengthened and connected the various data, sources, and stages to produce trustworthy results that answered the research questions.

Furthermore, the conceptual framework for this study drew on the notion that online learners in mainstream higher education institutions are not the same as traditional face-to-face students in terms of characteristics, educational experiences, and learning needs (Coleman, 2005; Garland, 2003; Mullen & Tallnet-Runnels, 2006; Song, Singleton, Hill & Koh, 2004). Building on this perspective, the study's assumptions were

that online graduate students have distinguishing characteristics from traditional learners, possess specific motivations to engage in online learning, and, due to the online learning environment, have unique needs.

### *Research Questions*

The research questions explored were:

1. What are the implications for leaders who lead online learning in higher education institutions?
2. What are the characteristics of online graduate students in the graduate division under study?
3. What are their motivations for enrolling in an online program?
4. How do they perceive the benefits and challenges of online learning?

### *Using Student Perspectives*

Using student feedback was considered controversial. The literature showed there were advantages and disadvantages to obtaining and using student input to improve teaching and learning, and other academic services. For instance, critics of student feedback stated it was subjective data, but Marsh (1987) found that consistent patterns could be seen in results if enough data were collected. Also, Ramsden (1991) determined that student feedback was useful and accurate as learners were exposed to large amounts of teaching, and were immersed in academic environments. He found their input reliable, valid, and not overly affected by other variables. Following this, Goffin and Gellatly (2001) and Spector (1994) found self-reported data produced valid sources of people's feelings and views. They found the feedback was based on observations and experience, and not defensive reactions to questioning.

Agreeing, Scott, Issa, and Issa (2008) found students had the capability to assess good teaching, and could provide constructive advice that was balanced. Marsh (1987) suggested that students could understand the difference between a good performance and good teaching. Furthermore, Richardson (2005) and Ramden (1991) stated student feedback on teaching could provide helpful suggestions for teachers as well as information for administration when making decisions about tenure, promotion, and appointment. Added to this, Ramsden, Prosser, Trigwell, and Martin (2007) deemed that a focus on students and their understandings could provide valuable information about improving student learning.

However, there were potential disadvantages and challenges when using student input. For instance, Cote and Allahar (2007) stated students were entering universities with expectations of getting a degree with high grades; however, they also expected to apply less effort to obtain these goals. The authors suggested the cause of these unrealistic expectations about their performance was due to the inflated grades administered in high schools in order to motivate students. In turn, when students received lower grades than expected in university they tended to 'blame' the instructor and provide negative feedback. Cote and Allahar stated other factors influencing student feedback was the charisma of the teacher, amount of work assigned, and level of difficulty of the course. Richardson (2005) and Marsh (1987) shared there was resistance to using student feedback on the quality of teaching as it might be influenced by the instructor's popularity, and students might not understand the components of effective teaching. Also, Richardson (2005) questioned whether the notion of satisfaction should be used as a criterion to examine teaching effectiveness as this notion was complex and



influenced by many contextual factors. For instance, learning could be uncomfortable and discomfort was associated with intellectual growth. Thus, students might view this discomfort as unsatisfactory and negatively assess the teaching associated with it. To offset this, Marsh (1987) stated other forms of input about teaching and learning quality should be sought other than student feedback.

As well, some questioned if student evaluations and feedback were used by instructors or disregarded, making the data ineffective (Bhattacharyya, 2004; Richardson, 2005). Reasons for disregarding student feedback might be that instructors needed guidance on interpreting the data, there was little external incentive to use the information to improve teaching, and institutions undervalued quality teaching. Marsh (1987) also stated that faculty members were sceptical about the use of student feedback to determine merit, promotion, and assignment. As well, Bhattacharyya (2004) claimed that perhaps fully tenured professors were less likely to be affected or motivated by student feedback; whereas, sessional instructors would be. In turn, this might cause sessional instructors to instruct according to the feedback in order to acquire positive results.

In this study, a large amount of feedback was obtained on participants' online learning experience. The volume of input, nearly 400 pages of text from surveys as well as focus groups and interviews, provided significant patterns in the data (Marsh, 1987). However, as discussed previously, with the limitations of this study the data cannot be overly generalized, and student self-reporting and input must be examined critically by using rigorous research methods. Thus, this study relied on mixed methods, multiple data sources, and combined data to discover significant emerging themes about student characteristics, motivations, and perceptions.

### *Methodology of Literature Studies*

The studies found in the literature used a variety of research methodologies. Most quantitative studies tended to gather data using survey instruments that were either pre-designed by other scholars, and modified at times by researchers, or internally designed by researchers. Surveys were emailed, posted online, or hand delivered to participants. Examples of pre-designed instruments were *Distance Education Student Progress* (Kember, Lai, Murphy, Siam & Yuen, 1994), *Telecourse Evaluation Questionnaire* (Sorenson, 1995), *Online Web-Based Instruction Survey* (Bannan & Milheim, 1997), *Online Learning Survey* (Leonard & Guha, 2001), *Motivated Strategy for Learning Questionnaire* (Duncan & McKeachie, 2005), *Learning Orientation Questionnaire* (Martinez, 2005), *Self-Esteem Scale* (Rosenberg, 1965), *Index of Learning Styles* (Soloman & Felder, 1999), *Kolb Learning Styles Inventory* (Kolb, 1985), *Myers-Briggs Type Indicator* (Myers-Briggs, 1962), *Seven Principles of Good Practice for Online Learning* (Chickering & Erhmann, 1996) and *Oddi Continuing Learning Inventory* (Oddi, 1985). Surveys created internally by researchers were designed to gather data that answered research questions, and drew on the literature for essential concepts to be used in the instruments. At times, researchers collected student information through university records as well as course evaluations. The quantitative studies used a number of data analysis methods that measured the frequencies of survey responses and correlations among variables. Qualitative methods looked for themes and patterns that emerged from the data derived from interviews, participant journals, online discussion postings, and observations. Participants in all studies were graduate students enrolled in online university courses or programs in the United States except for nine studies that focused

on Canadian institutions and four on Australian ones. Other studies examined the perceptions of faculty members and leaders involved in online graduate programs at higher education institutions.

### *Mixed Method*

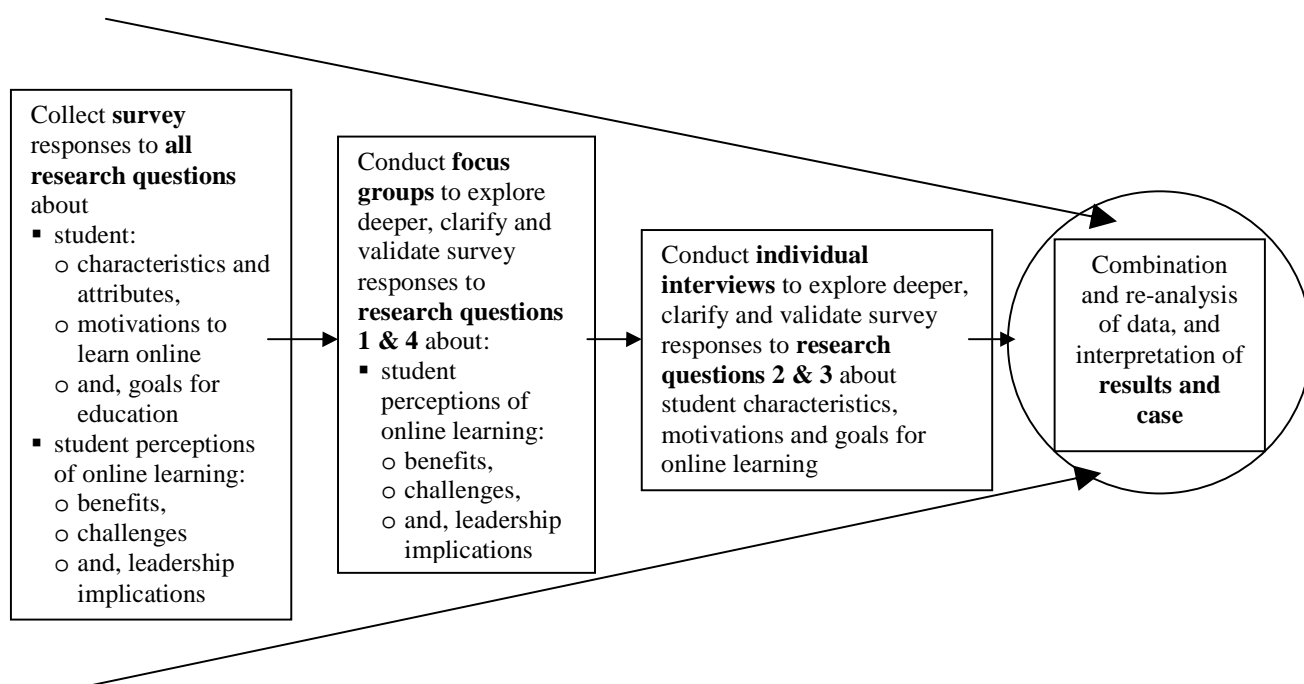
This case study used a sequenced, explanatory mixed-method approach (Creswell, 2003). Epistemologically, a mixed method study draws on both realist and relativist views in that “reality is both interpreted and contextual, but also enduring and connected. The world is both of our making and beyond our making. Our methods must take into account all these aspects of social life” (Smith, 2006, p.472). The mixed method approach uses quantitative methods, such as surveys, and qualitative methods, such as interviews, to collect and interpret findings. Data collected through mixed methods contribute to methodological rigor by offering a broader view of research findings (Patton, 2002). For instance, quantitative methods provide a way to collect and measure large amounts of descriptive data, while qualitative methods can “add more depth, detail and nuance to quantitative findings” (Patton, 2002, p. 220). The rationale for mixing the two methods is that neither type on its own can capture the explicit description of student characteristics, or the richness and intensity of student perceptions (Tashakkori & Teddlie, 2003).

### *Tri-Phased Study*

Data were collected and analyzed over three stages. In the first stage, quantitative and qualitative data were collected from a survey delivered online to participants. These data were analyzed to inform the second stage of inquiry. In the second stage of the study, qualitative data from focus groups were collected and analyzed. The focus group

results helped to inform the third stage. The third and final stage of the study involved the collection and examination of data from individual interviews. Figure 3 displays the study design.

This sequence of data collection and analysis was designed as “a funnel for gathering more data on fewer, but progressively more vital, dimensions in the data set” (Miles & Huberman, 1994, p. 86). As well, this sequence allowed for a deeper exploration of the data at each stage by sifting through the data for salient themes, and by discovering any surprising responses to be clarified at a later stage of inquiry. Thus, using a sequenced approach to collecting and analyzing data enhanced the clarification and validation of findings (Creswell, 2003).



*Figure 3.* Study design

The first stage of the study entailed gathering characteristic data and perceptions of graduate students through a web-based survey. The survey was issued to the total

population of online graduate students in a graduate division at a faculty of education at a western Canadian university. The purpose of the survey was to guide a deeper exploration of the findings, and not become a single source of information (Chromy, 2006). Thus, the second stage of the study selected a number of participants from the survey sample to partake in focus groups in order to clarify and question the survey data. Glesne (1999) suggested it is best with qualitative studies to select purposeful samples that are rich in information in order to learn a greater amount about central issues. The focus groups were used to gather and examine participant perspectives on the benefits and challenges of online learning as well as implications for higher education leaders (Vaughn, Schumm & Sinagub, 1996). In the third stage, and using the same survey sample, a small selection of participants was interviewed individually to gain a deeper understanding of the personal information given in survey responses. These interviewees were asked about their characteristics as well as their motivation and goals for pursuing online learning.

### *Case Study*

This research was designed as a case study to examine the uniqueness and complexity of a single case (Stake, 1995). The case in this study consisted of a collection of graduate students within a particular context, and therefore cannot be expected to represent a general population of online graduate learners in North American. As well, this case study represented a certain point in time, namely the spring of 2008, with an understanding that populations, technology, and educational contexts change. For the most part, case studies are best applied to studies that seek to understand the characteristics, motives, and perceptions of a sample (Stake, 1995), and have descriptive

or explanatory questions (Yin, 2006). Though each case is unique, commonalities to other cases may emerge and possibly offer generalizations (Stake, 1995). Thus, the intent of this case study was to build a descriptive and interpreted understanding of a sample of online graduate students at a mainstream Canadian university, with an aim to provide insights for similar cases (Stake, 1995; Vaughn, Schumm & Sinagub, 1996; Yin, 2006).

### *Program Description*

The graduate division is within a faculty of education at a western Canadian university. This division offered five graduate degree programs. The degree programs were the Master of Education (MEd), Master of Art in Education (MA), Master of Science in Education (MSc), Doctor of Philosophy in Education (PhD), and Doctor of Education (EdD). As well, there were certificate and diploma programs focusing on the same specializations as the degree programs. The division offered 11 program specializations such as Educational Leadership; Higher Education Leadership/Administration; Workplace and Adult Learning; Educational Technology; Curriculum, Teaching and Learning; Teaching English as a Second Language; Second Language Teaching; Gifted Education; Interpretive Studies in Education; Educational Contexts; and Community Rehabilitation and Disability Studies.

Eight of the specializations offered a Master of Education [MEd] degree program online as well as on campus, and two offered a Doctor of Education [EdD] degree in the same manner. For these programs, students had the choice of whether to pursue their programs online or on campus. The Master degree programs took about two years to complete, and the doctoral programs approximately four years. The MEd and the EdD programs had a number of course requirements entailing students to complete up to

twelve half courses, which were three credits each. Those who chose the online format had most of their courses delivered through a web-based venue; however, with the EdD online program approximately four of the required courses were delivered on campus and over two summer terms.

For those taking courses online, all classes were delivered through a learning management system called, *Blackboard*<sup>®</sup>. Through this password-protected platform, students accessed their instructor and classmates, course content, and learning resources through the Internet. Students and instructors communicated through various tools in *Blackboard*<sup>®</sup> as well as through email software. Additionally, over the term of a course students accessed live instructional sessions online through a secure Voice-Over-Internet Protocol [VoIP] synchronous classroom program called, *Elluminate Live!*<sup>®</sup>. Those who could not attend live sessions were provided a recording of the *Elluminate Live!*<sup>®</sup> session archived from the live conference. Furthermore, the university examined in this study had an extensive online library resource, with over 27,000 e-journal subscriptions and digitized books to serve both local and distant students. Additional online services included access to the university's bookstore, information technology services, and the Faculty of Graduate Studies.

### *Participants*

Participants were selected from a group of graduate students enrolled in online certificate, diploma, and degree programs within a graduate division at a faculty of education at a western Canadian university. More specifically, the study looked for participants who were graduate students and were currently enrolled part-time or full-time in an online program delivered by a graduate division during the time of the study. It

did not matter if participants were taking a course at that time of the study as long as they were currently enrolled; it was their experience as online learners that was of interest. At the time of the study, approximately 650 students were pursuing a Doctor of Education or a Master of Education degree. It was uncertain from the statistics how many students pursued their degree online; however, an assumption was made that a majority of them were registered in an online program as both degree programs seemed mainly to be pursued at a distance. However, the same assumption cannot be made for the other degree, diploma, or certificate programs.

Before participants were recruited, approval to conduct the research study was granted by the university's research ethics board. This process ensured the protection of vulnerable students and their anonymity (Patton, 2002). A copy of the ethics approval is in Appendix A. Once approval was gained, a recruitment notice was posted twice on an email listserve that reached staff and students in the graduate division who were registered with the emailing service. A copy of this notice is in Appendix B. The response rate was moderate. Considering approximately 650 online graduate students might have subscribed to the listserve, 21% or 138 students volunteered to participate in the study. Students were invited to participate in each of the three distinct stages of the study, but could partake in any stage they chose. For instance, participants could choose to participate in the online survey, focus groups, and/or individual interviews. However, all those who chose to participate responded to the online survey questions first, and further indicated on the last page of the survey if they were interested in participating in focus groups and/or interviews. As well, participants willing to participate further provided their email address in the survey for contact purposes. After students responded



to the survey, a purposeful sample was drawn from those willing to participate in focus groups and interviews. Forty-four participants (31.88% of survey participants) indicated that they wanted to participate in focus groups, and an additional thirty participants (21.74% of survey participants) indicated they were willing to be interviewed. All of these participants were contacted, but not all responded. This resulted in four focus groups of three to eight participants each, totalling 21 in all, and 15 interviewees. Furthermore, Morgan (1993) suggested dividing focus group members into sets of similar qualities, such as location or profession. He claimed this helped group members interact better, and establish a comparative relationship between groups. For this study, focus groups were organized by the field of employment as indicated by participants in the survey. Choosing participants based on a variety of employment fields provided a range of perspectives (Morgan, 1993). As well, this created four focus groups with members being from the postsecondary, K-12 education, business and government, and health sector. The fifteen interviewees were purposefully selected based on their profession, as well.

### Data Collection

Three sets of data were collected. First, there were participant characteristic and perceptual data taken from a web-based survey. Second, more in-depth perceptions of participants came from focus group responses, and third, additional participant characteristic and perceptual data were drawn from individual interviews. Each stage of the data collection offered insights for inquiry of the next. By the end of the third stage, the inquiry and interpretation of the data became deeper and more focused on significant characteristics, motives, goals, and perceptions of the participants (Creswell, 2003).

During and after each data collection stage, the researcher produced notes that included data collection methods, clarification of incidents, reflective thoughts, and questions; as well, the notes included simple analysis of emerging themes and early interpretations (Glesne, 1999; Miles & Huberman, 1994; Patton, 2002). A schedule of the data collected is presented in Table 2.

Table 2

*Schedule of Data Collection*

Data Stage	Data Collected
Stage 1: Web-based survey	<ul style="list-style-type: none"> <li>▪ Demographic data</li> <li>▪ Employment information</li> <li>▪ Education status</li> <li>▪ Technology literacy skills</li> <li>▪ Information literacy skills</li> <li>▪ Online experience</li> <li>▪ Motivation to enrol online</li> <li>▪ Hesitation to enrol online</li> <li>▪ Goals for using the degree</li> <li>▪ Perceptions of the benefits and challenges of online learning</li> <li>▪ Perceptions of leadership implications for online education</li> <li>▪ Researcher's notes</li> <li>▪ Interim report</li> <li>▪ Primary pattern codes</li> <li>▪ New and probing questions</li> <li>▪ Focus group and interview questions</li> </ul>

Stage 2: Focus group interviews	<ul style="list-style-type: none"> <li>▪ Deeper meaning behind perceptions of online learning and leadership implications</li> <li>▪ New and probing questions</li> <li>▪ Focus group and researcher's notes</li> <li>▪ Interim report</li> <li>▪ Emerging themes</li> </ul>
Stage 3: Individual interviews	<ul style="list-style-type: none"> <li>▪ Deeper understanding of students' characteristics, attributes, motives, and goals</li> <li>▪ New and probing questions</li> <li>▪ Interview and researcher's notes</li> <li>▪ Interim report</li> <li>▪ Emerging themes and categories</li> <li>▪ Analytical framework</li> </ul>

### *Survey Data Collection*

The survey used in this study served to answer all the research questions, and was designed to collect descriptive and perceptual data (Oppenheim, 2000). This entailed collecting responses about student characteristics, motivations, and perceptions of online learning through the self reports of participants (Berends, 2006; Fowler, 2001; Gay, Mills, & Airasian, 2008). The survey was delivered through an online survey service called QuestionPro™. This service required a small annual fee and allowed the customized creation of multiple-question surveys. As well, the online service collected all survey responses and presented the results in basic formats, such as frequency counts and textual responses. These data were stored in an Excel spreadsheet. Access to the data was password protected, and could be downloaded onto the researcher's computer at anytime. A link to the survey was provided to participants in the recruitment advertisement posted

on the graduate division email listserve. Participants willing to participate in the study simply accessed the survey online and answered the survey questions. A copy of the web-based survey is provided in Appendix C.

### *Survey Construction*

It is important to provide surveys that aim for precision, are understandable, have clear directions, and offer an incentive to complete (Berends, 2006; Oppenheim, 2000). The survey in this study was created by the researcher. It had an opening section that included the study purpose, consent form, contact information, and an option to provide a pseudonym. With permission from the ethics board previously mentioned, the consent form was embedded in the survey. This consent form indicated that by completing the online survey participants were consenting to participate in the study. The closing section of the survey thanked participants for their time, and requested their participation in focus groups and/or individual interviews. In order to create ease of access to the online survey with minimal downloading time and reduced chance of connection interruption, the opening section was displayed on one web page, and the rest of the survey, including the body and closing section, were displayed on a second web page (Best & Harrison, 2008).

The body of the survey held the questions, which were organized to have participants respond to open-ended questions first, then closed-ended questions second. It was felt that the open-ended questions better reflected the purpose of the study, and would be on the mind of the students entering the survey. As well, it was thought that respondents might tire of the survey before extracting valuable information. For instance, the open-ended questions at the start of the survey required long answers that queried participants about their perceptions of online learning. If upon reaching the final survey

questions, which contained demographic and biographical information in a closed-ended question format, and participants decided to terminate the survey the bulk of information captured would still be useable (Alfeck & Settle, 1985). Also, the remaining closed-ended questions were considered to be quick to read and answer, and would be more desirable to complete by participants; whereas, open-ended questions were considered least desirable to answer and should be used minimally as they take thought and time to write (Gay, Mills, & Airasian, 2008; Oppenheim, 2000). The survey questions were organized into distinct topics such as perceptions of online learning, online leadership suggestions, demographic data, education and employment information, technology and information literacy skill levels, and online experiences (Oppenheim, 2000). The survey was completed, approved, and opened for access in early February of 2008. The first recruitment notice was posted on the graduate division email listserve February 19, 2008, with the second notice posted on March 3, 2008. The survey was closed in the summer of 2008 when all data were collected. The last survey entry by a participant was in April of 2008. A total of 138 participants entered responses into the survey. All data were downloaded onto the researcher's computer, in Excel spreadsheet formats, and further stored on external disks and hard drive. As of December 2008, all data and the survey files were removed from the server of QuestionPro™ and the account was closed.

The construction of questionnaire items depended upon the intent of the question and the data needed to be collected (Berends, 2006; Fowler, 2001). The survey consisted of 23 structured (closed-ended) questions, and 10 unstructured (open-ended) questions, and were carefully chosen depending on the data required, such as with factual information or participant perceptions (Oppenheim, 2000). The choice of data to collect

from the survey and the construction of items were drawn from the literature. Table 3 presents the sources used to develop the survey items.

Table 3

*Survey Instrument Sources*

Closed-ended questions	
Demographic information	California Postsecondary Education Commission, 1999; Coomes, 2004; Coomes & DeBard, 2004; Loeffler, 2005; Oblinger, 2003; Statistics Canada, 2007b; Stewart, 2006
Educational status	Butler, 2004; Colorado, 2006; Loeffler, 2005; Stewart, 2006
Employment status	Statistics Canada, 2003
Information and technology literacy skill levels	American Library Association, 2000, Aro & Olkinuora, 2007; Herman, 2005; International Computer Driving License [ICDL], 2005; ISTE, 2007; Kim and Hudson, 2002; North Central Regional Educational Laboratory, 2003
Online work habits	Butler, 2004; Colorado, 2006; Loeffler, 2005
Open-ended questions	
Motivation to enrol online	Butler, 2004; Stewart, 2006

Perceptions of online learning	Butler, 2004; Hudson, 2005; Herman, 2005; Loeffler, 2005
Online leadership implications <ul style="list-style-type: none"> <li>• Elements needed to manage effective online environments: <ul style="list-style-type: none"> <li>○ Design</li> <li>○ Infrastructure</li> <li>○ Policy</li> <li>○ Student support</li> <li>○ Resources</li> <li>○ Instruction</li> <li>○ Faculty development</li> <li>○ Faculty support</li> </ul> </li> </ul>	De Castro, 1999; Grimes, 2005; Levernier, 2005; Lucas, 2002

Of the 23 structured questions, 21 were multiple choice questions with categorical items that required the selection of single or multiple responses. Care was taken to ensure categorical items in each question represented a single question and concept, and were specific, understandable, all-inclusive, and mutually exclusive (Berends, 2006; Fowler, 2001; Gay, Mills, & Airasian, 2008; Merriam, 1998). Some of the questions allowed participants to add further comments if none of the categories were applicable to them, such as with their location, program name, and employment field. The two remaining closed-ended questions required choosing responses using a 5-point Likert scale. The Likert-scale items used a numerical rating scale with five statements to give a range of

choice including a middle or neutral position, thus not forcing an answer (Fowler, 2001). The two Likert-scale questions asked about participants' perceptions of their technology and information literacy skills. This required selecting responses from a range of having no skills (value of one) to having expert-level skills (value of five). Instructions for using the scales were given. Also, care was taken to ensure the skill ranges within the Likert scales were evenly distributed, or equidistant (Alreck & Settle, 1985; Fowler, 2001).

The online survey service, QuestionPro™, performed basic analysis of the data. Frequency counts, as well as means, variance, and standard deviation values for all close-ended questions were provided and placed in multiple Excel spreadsheets. With this data, 47 bar graphs of frequency counts were created by the researcher, and placed alongside the statistics. In the bar graphs, the categories for each item were placed along the X axis, and participants' response rates (percentages) were placed along the Y axis.

The open-ended questions in the survey inquired into participants' reasons for enrolling in an online program and their goals for using the degree. Also, they asked about participants' perceptions of online learning and implications for leaders in online education. Participants were asked to type in responses to these questions. A decision not to use available statistical data from the Office of Institutional Analysis at the university under study was due to a desire to collect additional responses about personal motives and perceptions of online learning. As well, information was needed about employment specifics and other data not available from this source.

### *Survey Testing*

To increase the validity and reliability of the survey, a pilot was conducted before the instrument was administered (Gay, Mills, & Airasian, 2008; Oppenheim, 2000). Pilot



work can aid in the wording of the introductory letter, ordering of questions, reduction of non-response rates, and appropriate design for certain populations (Oppenheim, 2000). To pilot the survey, a small purposefully selected group was chosen; this group consisted of peers within the online doctoral program who were familiar with the researcher and the theoretical constructs of the study (Berends, 2006). These participants tested the vocabulary, clarity, usefulness, and cultural appropriateness of the questions, and the functionality of the instrument (Berends, 2006; Glesne, 1999; Merriam, 1998; Oppenheim, 2000). As well, the participants performing the test were asked to provide written feedback on items they found confusing. They typed feedback in the survey and/or provided general comments in an email message to the researcher. As well, the researcher's supervisory committee reviewed and commented on the survey construction. They asked for further improvements before widely dispersing it to the targeted population.

#### *Focus Group Data Collection*

Next, survey responses were explored further in focus groups. In this study, focus groups were used with other research methods to understand the data more, such as with survey data and in-depth interviews (Morgan, 1996; Vaughn, Schumm & Sinagub, 1996). As most focus groups are small they should not be used to represent a particular population, but instead be used to explore research inquiries more deeply (Morgan, 1993). Furthermore, focus groups have distinct advantages. They draw on the synergy and interaction of a group, have the potential for discussions to snowball and stimulate ideas, give participants the sense of security from being in numbers, and offer the choice to respond or not (Greenbaum, 2000; Morgan, 1993; Vaughn, Schumm & Sinagub,

1996). As well, focus groups provide “insights into the sources of complex behaviours and motivations” derived from the groups’ interactions and synergy (Morgan, 1996, p. 139). In this regard, participants can be openly asked to compare experiences, clarifications, and examples rather than the researcher making assumptions about similarities or differences (Vaughn, Schumm & Sinagub, 1996). Interestingly, Morgan (1993) suggested focus groups rarely push for conformity among participants, but contribute to the goal of expressing a variety of perspectives. As well, the multiplicity of perspectives helps establish major themes, whereas micro-analyzed details are better gathered from individual interviews (Morgan, 1996; Patton, 2002). It is this possibility and the dynamic social setting that distinguishes focus groups from other research methods (Greenbaum, 2000; Morgan, 1996; Vaughn, Schumm & Sinagub, 1996). However, disadvantages of using focus groups are participants may feel intimidated by the presence of more senior people or dominant speakers, participants may be less inclined to reveal personal information, and the selection of participants may not be homogenous in nature (Mansell, Bennett, Northway, Mead, & Moseley, 2004; Morgan, 1996). As well, focus group data can be voluminous, unstructured, and difficult to summarize (Wilkinson, 2003).

#### *Participant Selection*

A select number of survey respondents were invited to participate in one of four focus groups, placing approximately five people in each group. Before participating, focus group participants signed and returned a consent form. During April of 2008, focus group members were interviewed for one to two hours. Glesne suggested “an hour of steady talk is generally an appropriate length before diminishing returns set in for both

parties” (1999, p. 78). Of the 44 participants who indicated on the survey that they would be willing to participate in a focus group, only 21 readily joined. Vaughn, Schumm, and Sinagub (1996) stated that there should be sufficient numbers of groups to obtain adequate amounts of data in order to reflect a range of perspectives. Initially in the design of this study it was hoped that six focus groups of ten participants each would be formed, but the lack of willing participants reduced this plan. However, it was felt that four focus groups would provide rich data. As well, drawing the focus group members from the same population as the survey respondents connected the study stages and data (Creswell, 2003).

Furthermore, the selection of participants for focus groups should represent a variety of characteristics and perspectives. Variety provides a richer case study and better opportunity to learn about commonalities as well as unique characteristics (Stake, 1995). In addition, Stake advised, “balance and variety are important; opportunity to learn is of primary importance” (1995, p. 6). In this case, focus group members were chosen to represent a variety of employment fields, while at the same time were controlled for similar characteristics such as being learners in an online academic program (Morgan, 1993). Also, focus groups were separated into homogenous groups. Thus, participants were placed in one of the four distinct groups representing employment fields, such as postsecondary, K-12 education, health, and business and government. Focus groups that are relatively homogeneous enhance the flow of conversation, and make participants feel more comfortable among peers (Greenbaum, 2000; Morgan, 1993; Vaughn, Schumm & Sinagub, 1996).

*Focus Group Recordings*

The focus group sessions were moderated by the researcher, structured with prewritten questions, and recorded using digital technologies (Glesne, 1999; Morgan, 1996). Considering most focus group participants lived at a distance from the location of researcher, sessions were arranged to be conducted virtually (Glesne, 1999). Thus, sessions were conducted in a VoIP synchronous classroom program, namely *Elluminate Live!*<sup>®</sup>. The researcher electronically set-up all Elluminate-based sessions through a *Blackboard*<sup>®</sup> shell granted to her by her faculty. Within the *Blackboard*<sup>®</sup> learning management system, *Elluminate Live!*<sup>®</sup> sessions could be created, recorded, and saved. All participants were given access to the *Blackboard*<sup>®</sup> platform, which provided information about the study and access to consent forms. As well, participants could access the scheduled *Elluminate Live!*<sup>®</sup> session through the *Blackboard*<sup>®</sup> system, or through a hyperlink emailed by the researcher. Each focus group member had experience using these platforms in their online programs implying they would be more competent to engage in a virtual interview. Conducting focus groups through online environments has advantages and disadvantages (Greenbaum, 1998). The advantages of online sessions could be convenience, cost savings, and opportunity for greater inclusion. However, disadvantages could be an interviewer would overly control the setting. Other concerns were there may be a lack of nonverbal cues, questionable attention of participants, and inhibited cohesion of groups. As well, the security of information could be problematic. These concerns were addressed by allowing free access to the microphone during the focus group sessions until all participants felt they had spoken enough. Also, there was the use of emoticons and text messaging within the VoIP synchronous classroom

program to encourage some level of interaction. Additionally, all participants were experienced online learners and had completed at least one online course that used *Illuminate Live!*<sup>®</sup>; this made them more comfortable in the synchronous online environment. As well, participant information and responses were made secure by having all online sessions password protected, and by promptly capturing and deleting the recorded interview from the university's server.

Recordings of the online focus group sessions were captured in digital form by the *Illuminate Live!*<sup>®</sup> program, and stored on the university's server. These recordings were accessed and viewed on the researcher's desktop computer at home. Furthermore, the image and sound of the recorded *Illuminate Live!*<sup>®</sup> sessions were captured on the researcher's computer by a software application called, *Camtasia*<sup>®</sup>. Once captured, the recordings were converted to an MP3 format for further use. Recordings were stored on CD storage disks and an external drive of the researcher's computer, and once stored the *Illuminate Live!*<sup>®</sup> files were deleted from the university's server. This procedure was done on the same day as the focus group sessions, or the next day if the sessions were late at night. The digital recordings were given to a professional transcriber to create transcriptions of the sessions. The transcriber provided a written consent claiming neither the digital files nor the typed transcripts would be kept by her office. Instead, they would be destroyed once completely transcribed. The letter of agreement from the transcriber is in Appendix D.

### *Focus Group Questions*

Focus groups tend to offer multiple perspectives about a given context (Vaughn, Schumm & Sinagub, 1996). As well, focus groups can draw on the synergy and

interaction of group members, which further stimulates ideas and discussions (Greenbaum, 2000; Morgan, 1993; Vaughn, Schumm & Sinagub, 1996). Furthermore, focus groups provide “insights into the sources of complex behaviours and motivations” (Morgan, 1996, p. 139). Therefore, it is best to ask participants to compare experiences and clarifications rather than have the researcher be presumptuous about similarities or differences (Vaughn, Schumm & Sinagub, 1996). Interestingly, Morgan (1993) suggested focus groups rarely push for conformity among participants, but instead endeavour to express a variety of perspectives. As such, they provide a sense of security from being in a group, and give a choice to respond (Greenbaum, 2000; Morgan, 1993; Vaughn, Schumm & Sinagub, 1996).

In this study, focus group questions were drawn from the research questions (questions one and four) as well as from the responses found in the survey data and the researcher’s reflective notes. These sources provided topics and issues to explore with group members (Glesne, 1999; Miles & Huberman, 1994). Focus groups were asked questions to gain greater clarity of students’ perceptions about online learning, and leadership implications for online education. To supplement focus group questions, a preliminary analysis of survey data provided themes of participants’ perceptions; these early themes provided props to help focus group members recall their experiences and perceptions about online learning (Glesne, 1999). Also, sharing the preliminary analyses of survey outcomes with focus group members furthered the exploration of survey data, and addressed divergent and surprising responses (Creswell, 2003). The preliminary survey results, along with the focus group questions, were written in a Word document and PowerPoint file. Participants were emailed the Word document before the interview,

and presented the slides during the focus group sessions, which took place in *Illuminate Live!*<sup>®</sup>. Questions and preliminary analysis information presented during the focus group interviews are presented in Appendix E.

It was important to use a limited number of focus group questions due to the potential complexity of participant interaction, overabundant number of participant responses, and limited session time (Patton, 2002). The limited questions created and maintained a focus during the interview. As well, structuring focus group procedures and questions, while allowing some interactive dialogue, aided the cross comparison of session results between the four focus groups (Morgan, 1996; Patton, 2002; Vaughn, Schumm & Sinagub, 1996). During the focus group sessions, the researcher made notes about participants' responses, key ideas, and suggestions for subsequent group sessions (Glesne, 1999). Also, responses by group members were quickly noted in case of technical difficulties with the recording device (Glesne, 1999). Upon concluding the focus group sessions, the researcher asked for feedback from participants on significant ideas emerging from the group sessions; this discussion was noted and added clarity when analyzing the data (Greenbaum, 2000; Vaughn, Schumm & Sinagub, 1996).

#### *Individual Interview Data Collection*

Next, from the same survey sample, a small selection of participants was interviewed individually. Interviews were conducted to delve deeper into survey responses deriving from research questions two and three (Glesne, 1999). These two research questions specifically asked about the characteristics of participants, their motivation for enrolling in an online program, and their goals for that education.

Individual interviews are better suited for exploring personal information, attributes, goals, and expectations; also, they reveal how participants categorize themselves and make meaning of their experiences (Brenner, 2006; Glesne, 1999; Merriam, 1998; Patton, 2002). Furthermore, interviewing is a method to discover what cannot be observed, and attempts to understand what is “in and on someone else’s mind” (Merriam, 1998, p. 71). In short, “interviewing is an occasion for close researcher-other interaction” (Glesne, 1999, p. 93), and allows for personal questioning and interactions that may not be possible with focus groups (Brenner, 2006). Approaching each interviewee as a unique story within a case can later be aggregated with others to build a richer set of data (Stake, 1995).

Those participants who indicated in the survey that they were willing to be interviewed were contacted. A total of 15 participants agreed to be interviewed. These interviewees were selected from a list of 30 participants initially willing to participate, but had withdrawn subsequently. Before participating, interviewees signed and returned a consent form. As with focus groups, interviewees were selected to represent a wide range of employment fields such as education, business, government, and health sector. This created diverse perspectives (Glesne, 1999). The individual interviews were semi-structured and used open-ended questions to allow participants to respond in their own words and uniquely define their world (Brenner, 2006; Glesne, 1999; Merriam, 1998; Patton, 2002). Like the focus groups, the preliminary analysis of survey data provided themes and questions to explore deeper (Glesne, 1999). Again, interview questions and preliminary analysis of survey data were provided to participants in a Word document before interviews and in a PowerPoint slide during interviews. The questions and



preliminary analysis information presented during the individual interviews are in Appendix F.

Interviews took place in May and June of 2008. Each of the fifteen interviews were one to two hours long, and were performed either face-to-face or within a VoIP synchronous classroom program, as with *Elluminate Live!*<sup>®</sup>. Two face-to-face interviews took place in a private office in the faculty of education at the university under study, and were captured using the microphone of a portable MP3 player. The remaining thirteen interviews took place in *Elluminate Live!*<sup>®</sup> in order to meet virtually and synchronously. Interview recordings were captured and recorded in the same manner as the focus groups. Responses by the interviewees were quickly noted in case of technical problems with the recording device. As well, during and after the interview, the researcher wrote notes that captured main ideas, characteristics of participants, reflections on the data, and ideas for other interviews (Glesne, 1999).

### Data Analyses

As a tri-phased study, quantitative and qualitative data were collected first through an online survey, followed by two sets of qualitative data collected from focus groups and individual interviews. After each collection stage, data were inductively analyzed for emerging themes (Glesne, 1999; Patton, 2002). During the analysis of the qualitative data, regularities and themes emerged through an intuitive process; data analysis was “systematic and informed by the study’s purpose, the investigator’s orientation and knowledge, and the meanings made explicit by the participants themselves” (Merriam, 1998, p. 179). Glaser and Strauss added that “the subjective world of informants is analyzed to produce conceptual understanding specific to data collected

through systematic methods and procedures” (1967 as cited in Brenner, 2006, p. 360).

The quantitative data were analyzed statistically to reveal the frequency of responses to close-ended questions (Gorard, 2001). In short, from the qualitative data content analyses were conducted, and from the quantitative data statistical analyses were performed (Bazerman, 2006; Patton, 2002).

Data analysis followed a process of first describing, then analyzing and interpreting the data, and finally displaying the results; thus, the data analysis process moved from organization to meaning, while at the same time being iterative and cyclical (Brenner, 2006; Glesne, 1999; Miles & Huberman, 1994; Wolcott, 2001). More specifically, describing the data meant presenting it as originally given; whereas, analyzing it identified key factors, patterns, and relationships in the data, and interpreting it offered an explanation of the results (Glesne, 1999; Wolcott, 2001). Furthermore, with a tri-phased study the analysis of each stage of data revealed emerging themes and patterns, which were used in the inquiry of the next study stage leading to deeper analysis (Creswell, 2003; Patton, 2002). A final analysis of data from all three stages was performed deductively drawing on a developed analytical framework representing emerging themes from all findings (Miles & Huberman, 1994; Patton, 2002). Stake suggested analysis is not a separate action and has no particular beginning; rather, data analysis is an ongoing back and forth process with participants, data, and interpretation (1995). Table 4 is a visual display of the data analysis process for this study, which was based upon Miles and Huberman’s (1994) diagram labelled, *The Ladder of Analytical Abstraction*. This diagram shows an analysis process that Miles and Huberman (1994) recommended beginning,

with a text, trying out code categories on it, then moving to identify themes and trends, and then to testing hunches and findings, aiming first to delineate the 'deeper structure' and then to integrate the data into an explanatory framework, thus transforming the data by condensing, sorting and linking it. (p. 91)

Table 4

*Data Analysis Process*

Analysis Stages	Procedures	Outcomes
Preliminary analysis of survey data	-Review open-ended responses -Statistically analyze closed-ended responses	-Notes on concerns and needs of participants -Categorical and statistical data used in interviews
Broad theme development	↓ -Develop broad themes from research questions, literature, preliminary survey data, and draft focus group and interview transcripts	-List of broad themes for organization and analysis of survey data -Researcher's notes
Second analysis of survey data	↓ -Organize and analyze survey data according to broad themes -Produce descriptive coding, themes, and subthemes from open-ended data -Identify salient categories in quantitative data analyzed earlier	-Primary pattern codes -Researcher's notes -Interim summary
Focus group data analysis	↓ -Use primary pattern codes to develop checklist matrices to organize and analyze data -Develop a meta-matrix from matrices of each focus group -Cross compare group data -Review all data again	- List of evolving themes and subthemes -Researcher's notes -Interim summary
Interview data analysis	↓ Use primary pattern codes to develop checklist matrices to organize and analyze data -Cross compare data -Review all data again	-Updated and refined list of themes, subthemes, and categories -Researcher's notes -Interim summary
Final data analysis	↓ - Develop an analytical framework from theme list - Re-read and re-analyze data from all stages of study using analytical framework - Refine themes, subthemes, and categories - Interpret findings and draw conclusions	-Final list of themes, subthemes, and categories -Study's findings

## Survey Data Analysis

A diagram, Figure 4, was created to show the process used for analyzing the survey data.

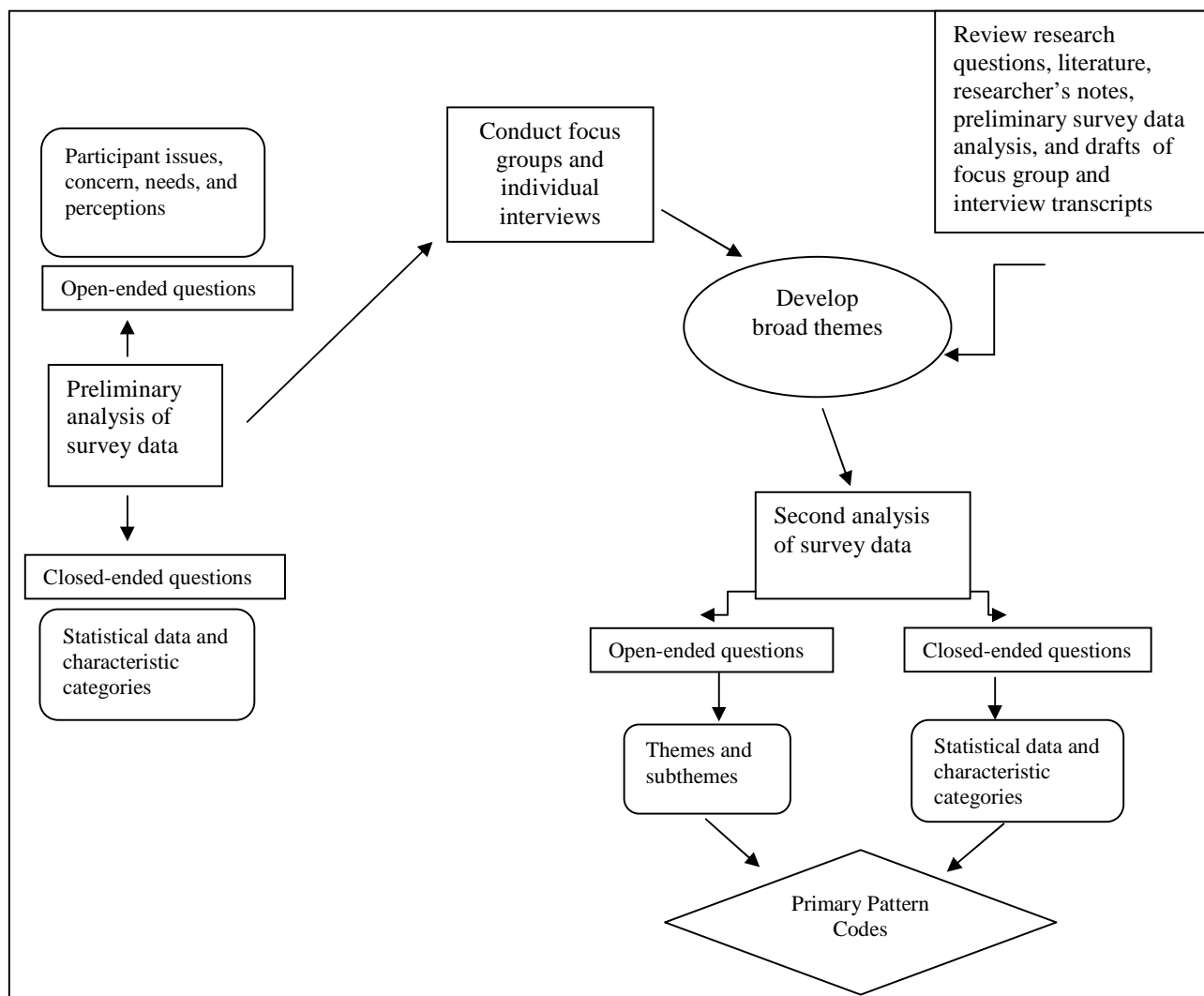


Figure 4. Analysis process of survey data

### Preliminary Analysis

For preliminary analysis purposes, the responses from the surveys were analyzed shortly after the data were collected. Glesne (1999), Merriam (1998) and Miles and Huberman (1994) considered it important to examine the data early in the data collection stage to focus and shape the study, and generate strategies to collect better data. In the end, the survey data were analyzed

twice. For instance, a preliminary analysis was conducted to discover issues, concerns, needs, and perceptions of online learners in order to explore them deeper in the focus groups and individual interviews. Then, a deeper analysis of the data was conducted to reveal patterns and themes.

In order to perform a preliminary analysis of survey data, responses to the open-ended questions, from the 138 participants, were gathered. The participants' typed answers were stored in an Excel spreadsheet created by the online survey service, QuestionPro™. The service organized data by placing typed responses to each survey question into a separate worksheet in one Excel file, thus creating multiple worksheets. Each cell within a worksheet had one participant response that could be one or more lines long. To better analyze the data, the data were copied and pasted into Word documents in the same organization. That is, ten different documents were created and stored under a label similar to the associated research question. As such, the data were organized within one of the ten survey question referring to a variety of subjects such as student motivations or hesitations to enrol online, perceptions of good and poor online teaching strategies, suggested benefits and challenges to online learning, and advice for leaders who managed online learning. This organization produced approximately ninety pages of text. The organization of the data in this manner was used again in the second analysis of the survey data.

The data from open-ended questions revealed important issues, concerns, needs, and perceptions of online learners. While working with this data, notes were made and later reviewed to distil key ideas and produce basic groupings of students' perceptions and concerns with online learning (Glesne, 1999; Nespor, 2006; Wolcott, 2001). As well, the data from closed-ended questions in the survey, thus quantitative data, provided participants' demographic and other personal information such as age range, location, and employment field (Gorard, 2001). The

analysis of the quantitative data is discussed next. Data from both the open-ended and closed-ended questions were explored deeper in the focus groups and individual interviews. As mentioned previously, to explore this data deeper focus group members and interviewees were presented with the key issues arising from the preliminary analysis of survey data. That is, participants were aware of the preliminary results of the survey data, and were asked to consider them in their responses. Again, the information and questions presented during focus group sessions and individual interviews are provided in Appendix E and F.

#### *Analysis of Closed-Ended Question Data*

To summarize and analyze the data from the closed-ended questions, frequency distributions were calculated (Gorard, 2001). The data were analyzed shortly after collection and before focus groups and interviews began. All variables taken from the quantitative data were treated as categorical as opposed to continuous values (Gay, Mills, & Airasian, 2008). For example, the items questioning participants' age had categorical ranges such as 20-30 years, 31-40 years, etc. These were further fitted into generational categories, such as Generation X and Baby Boomers. As well, simple categories were created for all other closed-ended items such as gender, marital status, ethnicity, location, and education and employment statuses (Glesne, 1999). Tables and graphs were created from the results of each survey item, and displayed frequency counts, median values, variances, standard deviations, and percentages for each category (Stockburger, 1996). The statistical information showed patterns in the data by stratifying the data, thus enabling the analysis of significant characteristics, as well as revealing variances, empty categories, and outliers (Gorard, 2001). For instance, each item presented the highest frequency count for its categories, such as the majority of participants in this study were enrolled in the Educational Leadership program specialization. To keep with the qualitative focus of this study, all quantitative data were qualified by developing written themes from the

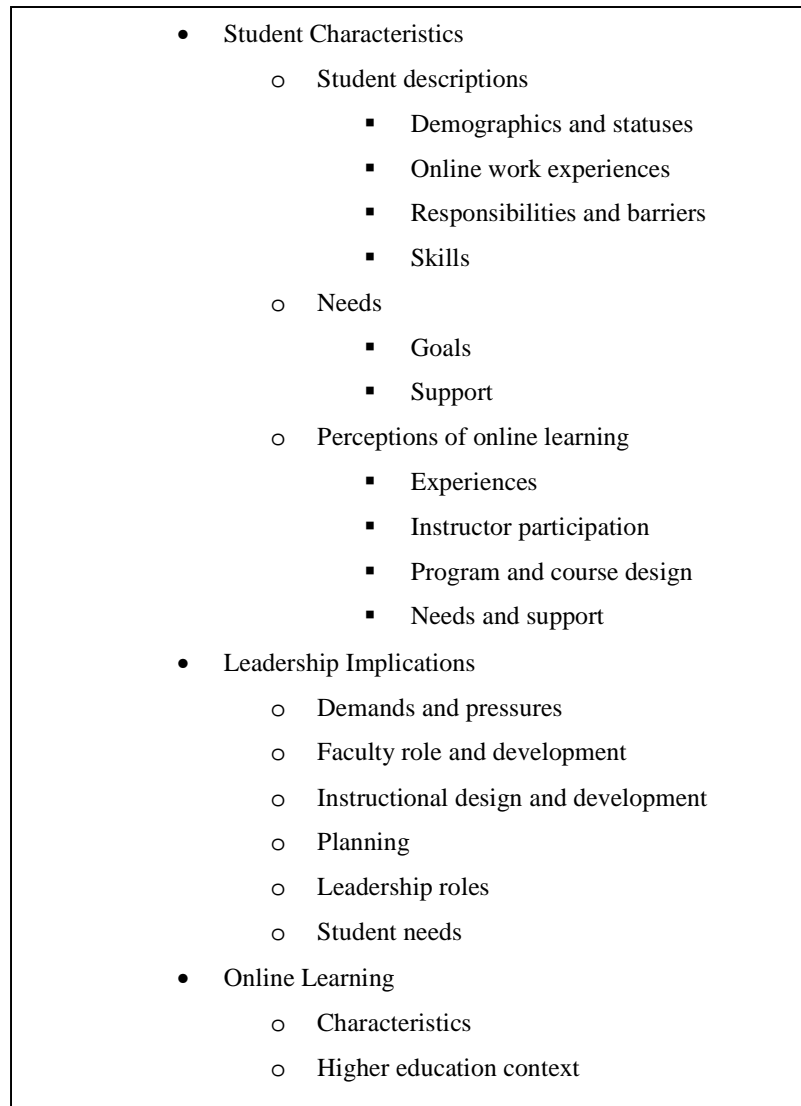
statistics (Creswell, 2003). An example is 94 percent of participants resided in North America. Thus, all survey data were presented in textual and not statistical form.

### *Broad Theme Development*

Once focus groups and interviews were completed, broad themes were created to aid a second analysis of the survey data; the broad themes helped to sort the units of meaning found in the data (Merriam, 1998; Wolcott, 2001). Devising thematic categories is both an intuitive and systematic process informed by the research purpose, meanings made by participants, and researcher's knowledge (Merriam, 1998). To generate broad themes, considered a starting list of codes (Miles & Huberman, 1994), issues, concerns, needs, and perceptions revealed in the preliminary analysis of the survey data were brought together with the research questions, concepts found in the literature, researcher's notes, and early findings from draft focus group and interview notes.

In order to create broad themes, separate concept maps were produced that represented emerging themes found in the various sources just mentioned (preliminary survey data, research questions, literature review, and draft notes of focus group sessions and interviews). Themes from each of the sources were distilled, reduced, and entered in three distinct concept maps. A merging of all maps created a new concept map revealing broad themes. Each broad theme represented a concept (Glesne, 1999). Having an initial set of simple codes helped to better organize large amounts of data, but without firmly setting the themes too early in the analysis process (Glesne, 1999; Miles & Huberman, 1994; Patton, 2002). Finally, broad themes were documented, given descriptions, and added to a code book (Glesne, 1999). Wolcott (2001) advised to have only two or three categories when initially sorting data. Therefore, the three main categories created were student characteristics, leadership implications, and online learning as a phenomenon. A list of broad themes is given in Figure 5.





*Figure 5. Broad themes*

### *Second Analysis of Survey Data*

#### *Open-Ended Question Data*

Once focus group and individual interviews were completed and broad themes developed, the survey data were analyzed again and more in-depth. The broad themes developed earlier were used to organize the survey data (Glesne, 1999). To commence analysis, a new set of Word documents were created for each broad theme. This amounted to 18 new document files, which followed the broad themes given in Figure 5. Analysis comprised of carefully

reading each survey response in the initial document files that were organized around the research questions. Sorting the data into the new files required cutting and pasting each response into the appropriate broad theme. Once all entries, or participant survey responses, were placed into a broad theme, further analysis of subthemes was conducted (Glesne, 1999). Beside each entry (participant survey response) a label, or code, was inserted. Codes were short descriptive titles that represented a subtheme within a broad theme (Miles & Huberman, 1994). There were, at the most, one or two levels of detailed coding for each entry to ensure accurate description of data, while at the same time keeping the coding manageable and simple (Givens & Olsen, 2003). Merriam (1998) stated that “the fewer the categories, the greater the level of abstraction, and the greater ease with which you can communicate your findings to others” (p. 185). Givens and Olsen (2003) suggested data codes need to be specific, precise, exhaustible, and recallable. To be specific, codes needed to be concrete in nature, and represent clear meanings that rose from the data versus being interpreted. As well, codes needed to be conceptual in nature and not technical in order to add some value and context to the codes. Additionally, codes should be precise and exhaustible in order to name and include all relevant data. The subthemes were further reviewed to ensure two levels of detail were created to maintain similar specificity and inclusion among data. This specificity then created four or five levels of descriptive coding when placed alongside the broad themes. As an example, the label ‘student characteristics/needs/goals/career advancement’ represented four levels of coding.

With the constant comparison of data, subthemes for each broad theme were refined, merged, and reduced to present a range of themes that were logical and inclusive as well as mutually exclusive and conceptually congruent (Glesne, 1999; Givens & Olsen, 2003; Merriam, 1998). However, not all data were relevant and captured, such as general remarks about liking the online environment without offering any explanation. As such, it was important to winnow

the data and choose those that supported the research focus (Wolcott, 2001). The choice of coding labels came from concepts derived from the researcher, literature, and participants (Merriam, 1998). For instance, the original research questions, composed by the researcher, offered nouns and verbs to be used as labels, such as characteristics, strategies, and motivations. As well, the literature revealed significant aspects of online learning such as communication, communities of learners, student services, and adult learners (Nespor, 2006). The participants, through their responses, offered labels for themes such as ‘online pedagogy’. However, most coding labels emerged from the data and informed the naming of themes, especially units of meaning that were repeated constantly (Glesne, 1999; Patton, 2002). Together, these sources influenced the development of coded themes. As well, the subthemes within each broad theme were then counted for their frequency, thus revealing patterns in the data (Miles & Huberman, 1994). The frequency counts were recorded at the bottom of the document file for each broad theme along with a short description of the themes and subthemes. As well, the researcher recorded her perceptions and comments about the findings, offering an early explanation.

Next, all broad themes and subthemes were listed in a single document to further analyze. From this grand list of themes, a list of primary pattern codes emerged (Miles & Huberman, 1994). To develop primary pattern codes, the themes, subthemes, data, and researcher’s notes were constantly compared for conceptual relationships and links (Merriam, 1998; Miles & Huberman, 1994; Nespor, 2006). For instance, it was noted that, “just naming or classifying what is out there is usually not enough. We need to understand the patterns, the recurrences, [and] the plausible whys” (Miles & Huberman, 1994, p. 69). Following this advice, pattern codes were created to identify and explain emerging themes. For instance, some themes emerged from participants’ concern for technical problems; this evolved into subthemes and reasons for the technical problems, such as Internet connection, technology functionality, technical support, and

training. Merely naming the problem as ‘technical’ reveals little about its context. Thus, themes and codes must be rich in description, and must be treated as though they were relational (Nespor, 2006).

As an overview, the themes moved from broad themes, to survey themes and subthemes, and then to primary pattern themes. This step in the analysis of data provided simple and descriptive coding with each major theme represented as a central idea (Brenner, 2006; Givens & Olsen, 2003; Glesne, 1999). Furthermore, developing the primary pattern codes helped reduce large amounts of data into smaller analytical units and aided further data analysis (Miles & Huberman, 1994). However, Miles and Huberman cautioned that early coding schemes are considered incomplete representations of data, and should be considered loose chunks of meaning. Also, early coding schemes should be developed further, and reshaped at each stage of the study.

During the analysis of survey data, research notes were kept on the development of codes, themes, and patterns (Givens & Olsen, 2003). These notes explained why themes or subthemes were named, renamed, merged, deleted, and examined again. Notes also provided descriptions and explanations of themes and subthemes, which were taken into consideration when developing the primary pattern codes. Supporting this, Wolcott (2001) advised to describe the data in draft form prior to completing the analysis, which provides a check for later analyses. Glesne furthered, “keeping up with data [involves] writing memos to yourself” (1999, p. 134). Furthermore, an interim summary was created to provide an early interpretation of the data. This summary provided a context to the data, questioned results, and helped in managing the information (Glesne, 1999; Givens & Olsen, 2003; Smith, 2006). Wolcott (2001) considered interpretations comes from researchers’ sense making and draws on their intuition and past experience. At this point, the primary pattern themes were reviewed again along with the

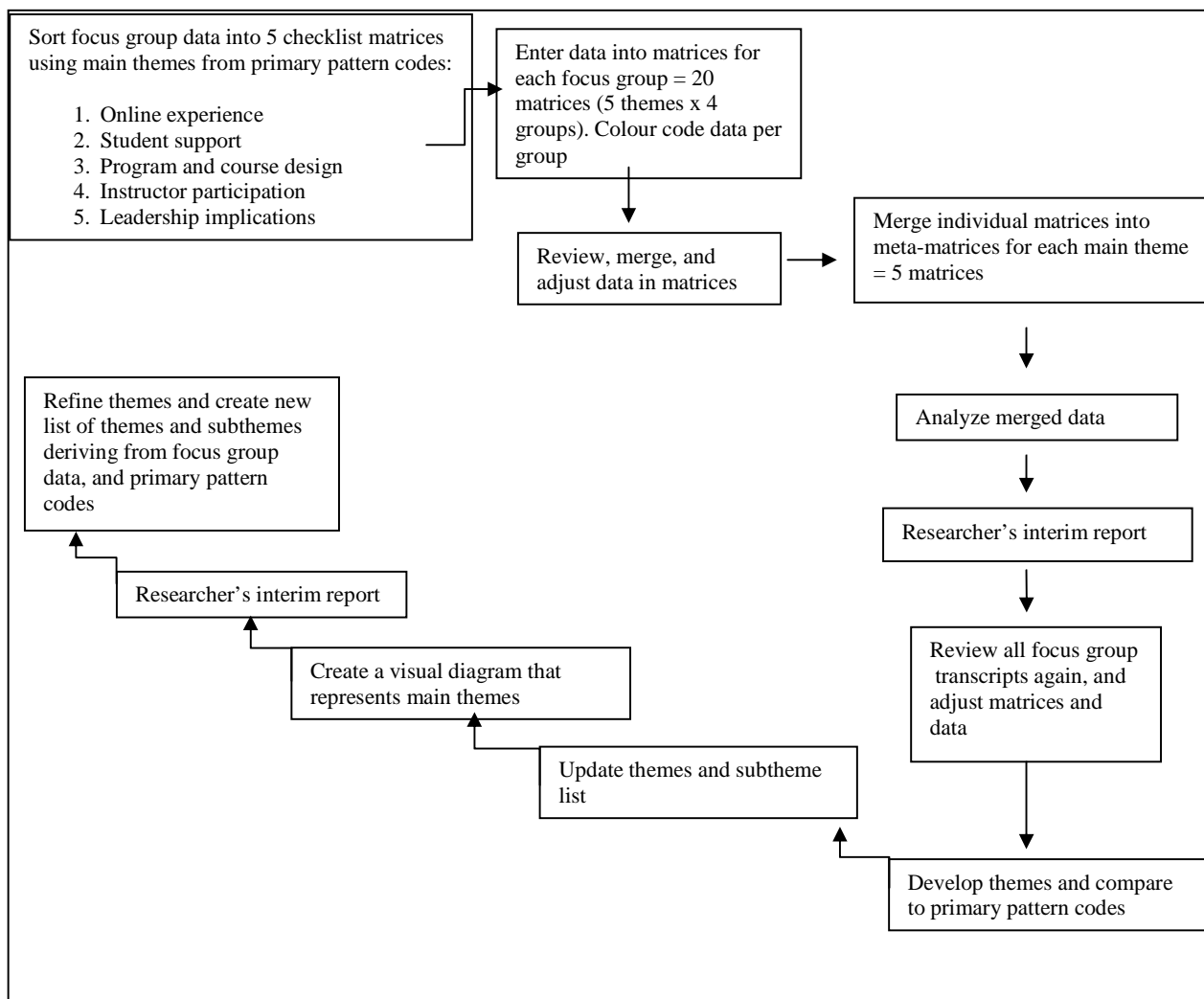
researcher's notes and interim summary to refine the list of themes. This entailed removing redundant codes, and merging similar subthemes and concepts. Another review also ensured themes reflected the purpose of the study, and were cohesive, exhaustive, mutually exclusive, sensitive in meaning, and conceptually congruent with other categories (Givens & Olsen, 2003; Merriam, 1998).

#### *Closed-Ended Question Data*

The quantitative data from the survey were sorted into categories and not themes. For instance, categories emerged from demographic information, employment status, online work positions, life barriers and responsibilities, literacy skill levels, educational goals, and online work patterns. These categories were used to build a comprehensive profile of participants. The quantitative data had already been analyzed during the preliminary analysis of the survey data. Statistical analyses were conducted on the data given in closed-ended survey questions. Tables and graphs were created displaying frequency counts, median values, variances, and standard deviations as well as the percentages for each category in comparison to the total (Stockburger, 1996). The statistical information showed patterns in the data by stratifying the data, thus enabling the analysis of significant characteristics as well as revealing variances, empty categories, and outliers (Gorard, 2001). During a second review of the statistical data, the most salient categories in each item were entered into the evolving list of themes and subthemes, and expanded the primary pattern codes to include categories.

### *Focus Group Data Analysis*

A diagram was created to show the analysis process used with focus group data. This can be viewed in the following Figure 6.



*Figure 6.* Focus group data analysis process

There were a series of focus group sessions. Four focus groups that included twenty-one participants were conducted. Focus group responses derived from deep questioning and clarification of survey responses about participants' perception of the benefits and challenges of online learning, and leadership implications for online education (Morgan, 1996). This step inquired further into research questions one and four. Digital recordings of the focus group

sessions were transcribed by a professional transcriber, and carefully reviewed for accuracy by the researcher (Glense, 1999). The focus group transcriptions produced 48 pages of data. Data were reviewed for emerging themes and patterns while drawing on the primary pattern codes developed earlier (Miles & Huberman, 1994; Morgan, 1993; Vaughn, Schumm & Sinagub, 1996). Working with the previously developed codes strengthened validity and verified patterns in the data (Miles & Huberman, 1994). The primary pattern codes were tested against the focus group data, and explored for concepts that fit or did not fit the data, leading to further development of the codes. A review of the findings, reflections on the data analyses, insights about the themes, and amendments to codes were documented by the researcher in ongoing notes and interim summaries (Miles & Huberman, 1994).

#### *Data Matrices*

The data from each focus group session were analyzed individually first, then cross-compared between the four focus groups. Analyzing data derived from homogenous groups helped with comparison of perspectives, attitudes, and opinions (Morgan, 1993). Furthermore, Miles and Huberman (1994) recommended an analysis method by creating a display chart that organized and condensed data. They recommended this method rather than working with poorly ordered and bulky text. They suggested a display chart provides a viewing of the full set of data that is arranged systematically to answer the research questions. As well, charted data allows for the testing of relationships and easier comparison of data across groups. Wolcott agreed that “to make sense, you have to start combining things, aggregating data, and discerning patterns” (2001, p. 34). More specifically, Miles and Huberman advised using a partially ordered data display, such as a checklist matrix, where categories of key variables found in the data are placed in rows and columns, and evidence from the data is placed in cells. For instance, there were five matrices for each focus group, totalling twenty matrices. The five matrices focused on main

themes found in the primary patterns codes, and were labelled student support, program and course design, instructor participation, participant online experience, and leadership implications.

Each matrix was designed the same and fashioned as a checklist matrix. A checklist matrix “is a format for analyzing field data on a ... general domain of interest... [which] includes several components of a single, coherent variable, though it does not necessarily order the components” (Miles & Huberman, 1994, p. 105). As well, checklist matrices help to compare multiple cases by giving them parallel measures. In the matrices, the criterion for each theme was placed in the rows of the matrix. These criteria were the subthemes of the primary pattern codes. For instance, under the main theme ‘student support’, subthemes were technology, resources, costs, and people. Each of these subthemes was placed in a row. The columns of the matrices were reserved for rating measurements that represented conditions or qualifiers (Miles & Huberman, 1994). These also emerged from the data. For example, when discussing student support participants tended to indicate if the support they desired was lacking, needed improvement, was helpful, or was extremely helpful to them. These indications became the qualifying headings for the columns. All matrices were designed the same with one exception. The matrix referring to the main theme ‘leadership’ had different qualifying elements in the columns, and depended on the level of leadership suggested by participants. For instance, suggestions for leadership could apply to individual or departmental levels (micro levels), or faculty or university levels (macro levels). These became the labels for the columns. A list of matrix themes and criteria for each of the five matrices is given in Figure 7, which were drawn from the primary pattern codes.



- |  |
|--|
| <ol style="list-style-type: none"> <li>1. Student Support Needed <ul style="list-style-type: none"> <li>• Technology</li> <li>• Resources</li> <li>• People</li> <li>• Costs</li> </ul> </li> <li>2. Program and Course Design <ul style="list-style-type: none"> <li>• Online pedagogy</li> <li>• Program</li> <li>• Course</li> <li>• Learning activities</li> </ul> </li> <li>3. Instructor Participation <ul style="list-style-type: none"> <li>• Facilitation</li> <li>• Contact</li> <li>• Feedback</li> <li>• Preparation</li> <li>• Student treatment</li> <li>• Clarity</li> </ul> </li> <li>4. Participant Online Experience <ul style="list-style-type: none"> <li>• Relationships</li> <li>• Issues</li> <li>• Identity</li> </ul> </li> <li>5. Leadership Implications for Managing Online Learning <ul style="list-style-type: none"> <li>• Faculty leadership</li> <li>• Planning</li> <li>• Student needs</li> <li>• Instructional design</li> </ul> </li> </ol> |
|--|

*Figure 7.* List of matrix themes

Once the matrices were designed, focus group transcripts were read, and units of data were selected and placed in the matrices' cells. A unit of data could be a short statement, sentence, or longer entry (Merriam, 1998). Next, to condense a unit of data a summary phrase, or label, was composed. This was placed in an appropriate cell along with direct quotes from the data as evidence (Eisenhart, 2006; Miles & Huberman, 1994). It was ensured that the phrasing of the label was representative of the meaning given by the participants (Givens & Olsen, 2003).

For example, one unit of data indicated a resource found lacking by participants, which was the late shipment of materials. This was entered in the matrix for student support with a summary label 'late material', placed in the row criteria for 'resources', and under the column condition 'lacking'. To supplement this entry, a quote was added to justify and illuminate the statement (Miles & Huberman, 1994). As well, the naming of labels continually reflected the focus of the study, and formed answers to the research questions (Merriam, 1998). Depending on the unit of data and its meaning, the data could be entered into any of the five themed matrices. This process was continued until all transcript data from each focus group was entered. Again, each of the four focus groups was analyzed separately in order to cross compare later. This created twenty matrices.

Once all focus group data were entered into the matrices, they were further analyzed, partitioned, clustered, and reduced to become more ordered (Miles & Huberman, 1994). Organizing the data into matrices helped to summarize and compare data, explore and test for data relationships, and search for patterns (Glesne, 1999). Early conclusions and interpretations for each matrix were created and entered at the bottom of each of the twenty matrices. Also, an interim summary was written that expanded on the meaning of summary phrases, connections seen between data and themes, and contradictory ideas, themes, and questions (Miles & Huberman, 1994; Morgan, 1993; Smith, 2006). Last, due to the complexity and depth of the data in the matrices, themes were displayed in a concept map that revealed significant elements in the data, which aided further analysis (Glesne, 1999; Patton, 2002). Additionally, themes within and across each group that were common and interesting were noted.

### *Merged Data*

Next, each group's matrices were used to compare data between focus groups. Cross-case analysis reveals similarities and differences across cases, deepens description and explanations of

data, and enhances generalisability (Miles & Huberman, 1994; Morgan, 1993; Vaughn, Schumm, & Sinagub, 1996). In order to compare group data, a new display, a meta-matrix, was created to bring together the data from all focus groups (Miles & Huberman, 1994). A meta-matrix was created for each theme, such as student support, program and course design, instructor participation, participant online experience, and leadership implications. The summary phrases from each matrix was copied and pasted into a meta-matrix. Each focus group had their text coloured to keep group themes separate. To supplement the analysis of the merged data, the researcher's comments, conclusions, and interpretations entered in each matrix document was gathered into one Word document. This information, along with the concept map of emerging focus group themes, was used during the analysis of the meta-matrix data. Data in the meta-matrices were analyzed, compared, and furthered partitioned, clustered, and conceptualized (Merriam, 1998; Miles & Huberman, 1994). The themes emerging from the merged data (Merriam, 1998) consisted of either student needs or recommended strategies for leaders. In order to have conceptually congruent themes (Givens & Olsen, 2003; Merriam, 1998), needs given by participants were converted to strategies to create action-based topics that best served the study's purpose in addressing leadership implications. Also, more strategies than needs were given by participants. For instance, under the theme 'program and course design' needs included wanting better instruction online. This was converted to a theme called, 'quality instruction.' Also under the theme 'instructor participation,' the need for more instructor presence in the online learning environment was converted to a strategy simply called, 'instructor presence.'

More important, considering advice from Miles and Huberman (1994) a number of cautions were followed. For instance, they advised it was important to preserve each focus group's results separately before cross comparing. As well, they suggested to refrain from

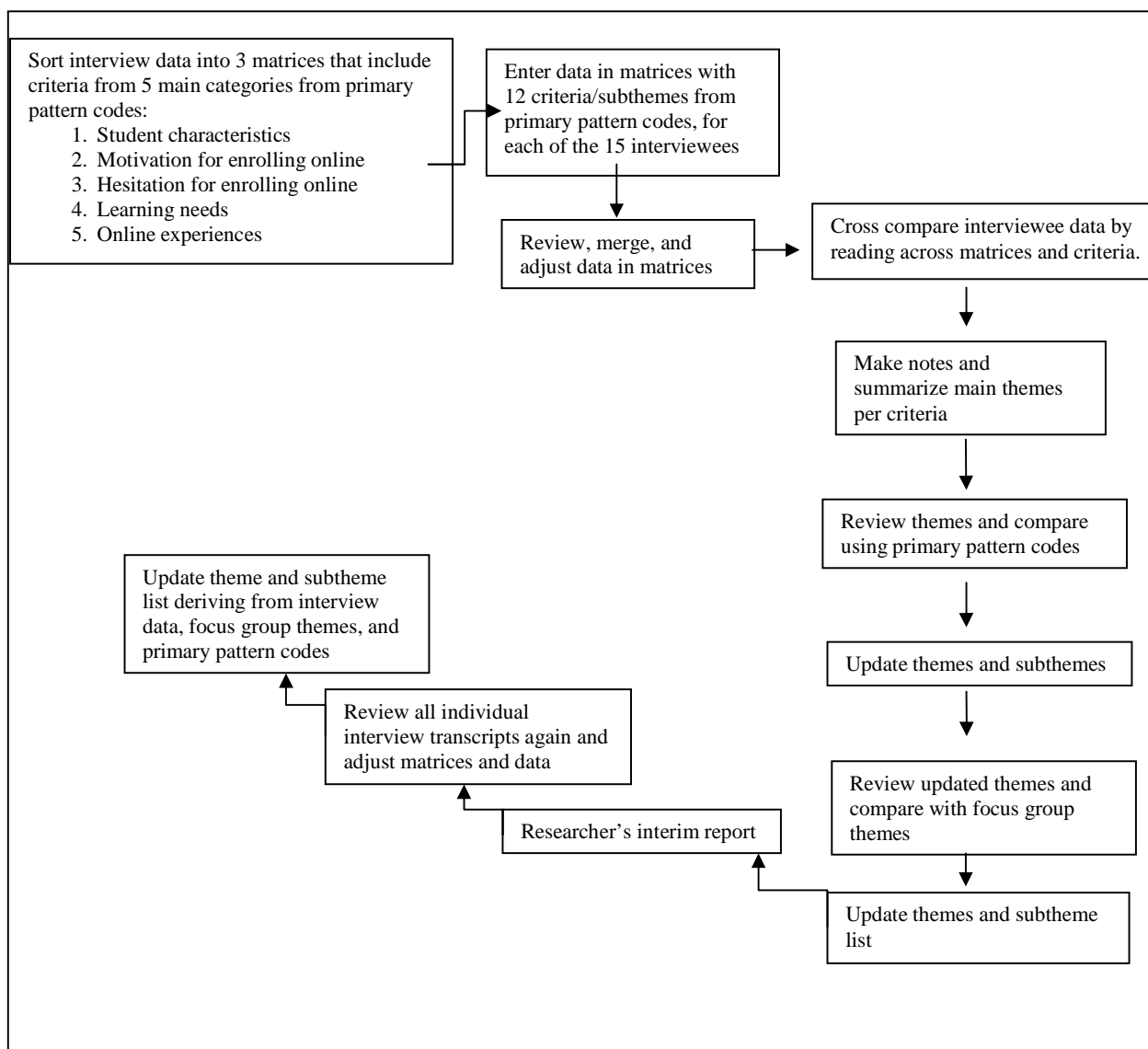
conceptually shaping the data too quickly, to create data charts that were loosely ordered, and to refine analysis later in the study process.

### *Theme Revision*

After the analysis of meta-matrices was completed, another review of the focus group transcripts was conducted (Patton, 2002). Notes were made on apparent themes in the transcripts, and then compared to the data entered in the meta-matrices. From this, further changes were made to the themes. Then, the emerging focus group themes were compared with the previously developed primary pattern codes to reveal similarities, differences, inconsistencies, and gaps (Merriam, 1998). Analyzing this further, the primary pattern codes were rearranged, merged, removed, or relabelled to reveal significant themes. This created a new list of themes and subthemes, deemed the third version, with the first being the broad themes, and the second being the primary pattern codes. Working with the newly updated themes, a diagram displaying the main themes from the data was created to understand and represent the patterns and relationships in the data (Wolcott, 2001). Moreover, written entries were made into an interim report providing ongoing interpretations and questions about the data (Eisenhart, 2006; Nespore, 2006). A final reflection on the emerging themes and the reiteration of survey and focus group data provoked more changes and alterations to the list of themes, becoming the fourth version. More important, the analysis of focus group data moved the themes from descriptive to explanatory, further answering the research questions (Merriam, 1998; Miles & Huberman, 1994). The fourth version of the theme listing became the final version of themes emerging from the focus group and survey data.

### *Interview Data Analysis*

A diagram was created to show the analysis process conducted with the individual interview data. This can be viewed in the following Figure 8.



*Figure 8.* Individual interview data analysis process

The individual interviews explored more deeply the characteristics of participants, their motivation to enrol in an online degree program, and the intentions for their education. This step inquired further into the survey responses to research questions two and three, which explored personal information and motives. Individual interviews are best suited for exploring personal

information (Brenner, 2006; Glesne, 1999; Merriam, 1998; Patton, 2002). Each recorded interview was professionally transcribed and produced 162 pages of typed text, giving the study a total of 300 pages of data.

### *Data Matrices*

The transcribed data from each interview was read and organized into primary pattern codes previously developed from the survey data. Data from the interviews were categorical and not thematic, and pertained specifically to student characteristics, attributes, motivations, and goals (Bazerman, 2006; Miles & Huberman, 1994; Patton, 2002). Following the same method of ordering, displaying, and comparing data as the focus group data, a checklist matrix method was used. Again, the matrices presented key variables from the data, such as the characteristics of participants, with criteria being placed in the rows and columns and evidence being placed in the cells (Miles & Huberman, 1994). For this set of data, the columns in the matrices were the names of interviewees, and the rows were the various criteria, or subthemes, from the primary pattern codes. Reading down the columns gave a thumbnail profile of each participant, and reading across rows helped compare data (Miles & Huberman, 1994).

Three matrices were created that held the data of five interviewees each. It was designed this way to condense data into fewer charts, and make comparison of the data from the fifteen interviews easier. The criteria for the rows consisted of twelve elements that represented student characteristics and motivations. These criteria were demographic information, educational status, educational goals, employment status, life responsibilities and barriers, technology literacy skills, information literacy skills, and online work habits. Also, criteria that were more thematic in nature included participants' learning styles, online learning needs, and motivations and hesitations to enrol in an online program.

Once the matrices were constructed, interview transcripts were read. As with the analysis method for the focus group data, units of data comprising of short statements, sentences, or longer entries were entered into an appropriate cell of a matrix (Miles & Huberman, 1994). For instance, data for employment information would be placed under the correct interviewee name and in the row criterion for 'employment status.' Units of data were given a summary phrase and entered into a cell along with supporting quotes. Significant quotes were used to provide context for later analysis as well as build thick descriptions (Miles & Huberman, 1994). Once all data were entered, the summary phrases in the matrices were analyzed and compared, and furthered partitioned, clustered, and conceptualized (Merriam, 1998; Miles & Huberman, 1994).

### *Cross Comparisons*

After each matrix was completed and reviewed, data were read across each criterion to discover emerging categories (Merriam, 1998; Miles & Huberman, 1994). The constant comparison of units of data and emerging categories produced significant information and more developed characteristic categories. As well, cross comparing data revealed commonalities in participants' responses, and gave some order and explanation to the data (Brenner, 2006; Glesne, 1999; Merriam, 1998; Miles & Huberman, 1994). During this process, notes were made on prevalent responses and emerging categories as well as apparent differences and inconsistencies in the data (Patton, 2002). These notes were further analyzed to develop main categories that supported the essence of the study (Wolcott, 2001). For instance, the average age of interviewees was 44 years old, and most were Canadian. Additionally, themes, and not categories, emerged from interview questions about participants' motivations and hesitations to enrol in an online program as well as their learning styles and online learning needs. With the constant comparison of this data, subthemes were refined, merged, and reduced to present a cohesive and inclusive set of themes that were mutually exclusive and conceptually congruent (Givens & Olsen, 2003;

Merriam, 1998). Thus, analysis of interview data created significant characteristic categories and themes.

### *Category and Theme Revision*

The emerging characteristic categories and themes from the interview data were then compared to previous lists of themes, subthemes, and categories created from the analysis of survey and focus group data. Categories and themes were updated after comparison and reflection on patterns. During comparison of categories and themes, notes were made on those that were prevalent, less significant, and inconsistent (Patton, 2002). Stake (1995) suggested analysis is not a separate action and has no particular beginning; rather, data analysis is an ongoing back and forth process between participants, data, and interpretation. Thus, the constant comparison and iteration of the data included reviewing new categories and themes within the matrix data, the cross-compared data, the previous listing of themes and categories, and researcher notes; the main goal was to compose coherent and representational categories and themes of the data (Brenner, 2006; Miles & Huberman, 1994). As well, the researcher continued to record notes on decisions made during the analysis as well as descriptions of evolving categories and themes. Additionally, an interim summary offered the researcher's perceptions, reflections, and interpretation of the interview data along with emerging categories and themes (Glesne, 1999; Merriam, 1998; Miles & Huberman, 1994). At this point, the research notes and interim reports amounted to over 250 pages of handwritten entries. These notes helped with further analytical and interpretive processes.

Once the category and theme list was updated, the individual interview transcripts were read again and more notes were taken. During this activity, emerging, prevalent, and repeated themes were identified. From this information, a seventh version of themes and categories was



created after comparing, renaming, merging, and organizing themes into a logical order (Glesne, 1999).

### Final Analysis

As a last step in the analysis of the data, all three stages of collected and analyzed data were brought together. To recount these stages, the survey data were analyzed preliminarily. After this broad themes were created by reviewing the research questions, preliminary analysis of survey data, draft focus group and interview notes, literature review, and research notes. Next, a second analysis of survey data revealed themes, categories, and significant findings to all the research questions about student characteristics, motives, and goals as well as perceptions of online learning and leadership implications. In the second stage of collection and analysis of focus group data, emerging themes revealed students' perceptions on the challenges and benefits of online learning, and leadership implications. In the third stage, data analysis revealed emerging categories and themes from individual interviews about personal characteristics, motives, goals, and learning needs. At this point, a listing of evolving themes and categories provided a framework that offered meaning and portrayed the conceptual relationship among data (Patton, 2002)

In finalizing the findings, another reading of all original data was performed to determine if the preliminary themes, subthemes, and categories were reasonable (Bazerman, 2006; Brenner, 2006; Glesne, 1999; Stake, 1995). Prevalent and emerging themes and categories were noted during the reading of data, while deductively analyzing the data using the latest version of themes, subthemes, and categories as a guide. The rereading of the data while drawing on previously constructed themes offered a different perspective of the data and revealed new insights and gaps (Bazerman, 2006; Brenner, 2006; Glesne, 1999; Stake, 1995). After rereading all data, an analysis of earlier developed themes and categories was conducted in order to create

of more abstract and conceptual list. This created an analytical framework displaying themes, subthemes, and categories emerging from the data in an organized and representational way (Miles & Huberman, 1994). More important, prominent themes and categories revealed during the final reading of all data were presented as boldfaced in a final list. The final list is presented in Appendix G.

### Presenting Findings

At this point, a lengthy interim report was created to provide an explanation of the main themes and concepts found in the data. This report offered the needs, perceptions, and cursory description of participants, thus creating a preliminary case study (Stake, 1995). Explanation of descriptive data made sense of the data, and provided an “otherwise imposing order on an unruly but surely patterned world” (Patton, 2002; p. 480). More so, thematic data were linked together to present a holistic picture of the case study (Eisenhart, 2006; Patton, 2002; Stake, 1995). As such, a final diagram presenting the major themes in the data and their relationship was created (Miles & Huberman, 1994). A copy of the diagram is provided in Chapter 4. Wolcott (2001) stated graphs as opposed to tables provide a better means for representing relationships and similarities between concepts. From the written description of the findings, themes, subthemes, and categories were further refined and adjusted to present the most salient results in an organized and coherent manner.

This last stage of analysis offered information to be placed in the findings section, Chapter 4, which presented the “theory of organization and meaning of the events” (Eisenhart, 2006, p. 571). In the findings section, thick descriptions of the data were provided and included thematic patterns, contexts, and direct quotes found in the data (Stake, 1995; Wolcott, 2001; Yin, 2006). More specifically, the characteristics, perceptions, and needs of online graduate students within the graduate division of a faculty of education at a western Canadian university were

presented. The findings section followed an outline for case studies as given by Stake (1995). He suggested first providing the context of the case so readers can understand the participants and their world. Next, issues found in the study should be presented as emerging themes and subthemes. Also, themes and subthemes should include detailed descriptions and evidence of the findings. Last, a summary of the findings should be presented and interpreted as the case under study.

### Discussion and Implications

In Chapter 5, the findings of the study were discussed. First, a summary of the study's purpose was presented along with discoveries and questions arising from the study (Wolcott, 2001). This served in presenting the case, which was then discussed and compared to findings in the literature review. This discussion expanded the understanding and interpretation of the results. As well, implications for the findings were offered. These implications presented suggestions for leaders who manage online learning in higher education, and drew on the literature to support, contradict, and provide new ideas. Devising implications not only provided possible strategies for educational leaders, but also provided questions, tensions, and concerns (Wolcott, 2001). Additionally, limitations of the study and future research suggestions were included (Brenner, 2006; Patton, 2002; Wolcott, 2001).

### Study Rigor, Reliability, and Validity,

As mentioned previously, care was taken to ensure a rigorous methodology along with quality data collection and analysis. Additionally, the reliability and validity of the study were considered when designing the methodology. However, influencing the outcomes of the study were the researcher's experience with and views of online learning. Considering this, a rigorous methodology was used to ensure the results were not influenced by her biased thinking. The

rigor, reliability, and validity of the methodology, and the researcher's relationship to the study focus are discussed next.

### *Study Rigor*

Care was taken to create a rigorous methodology. For instance, mixed methods were used to capture a broader view of participant characteristics and perceptions (Creswell, 2003). As well, multiple sources and types of data were pursued, which strengthened the results and lessened researcher bias (Glesne, 1999, Patton, 2002, Stake, 1995; Yin, 2006). Added to this, the study was conducted over several months and three stages of data collection, with each stage drawing on the same population (Creswell, 2003; Glesne, 1999). Each stage explored phenomena and findings on a progressively deeper level, thus sequencing and funnelling the data into fewer vital dimensions (Miles & Huberman, 1994). The 300 pages of textual data collected from survey opened-ended questions, focus group transcripts, and interview transcripts along with 47 charts created from statistical data provided rich data and descriptions of participants' characteristics, motives, and perceptions (Merriam, 1998). As well, analyzing data through constant comparison aided in finding salient themes (Miles & Huberman, 1994). Furthermore, inductive thinking from earlier stages of analysis was blended with deductive thinking and an analytical framework of themes and categories in later stages. This blending of analytical processes strengthened and connected the various data, sources, and stages to produce trustworthy results that answered the research questions (Bazerman, 2006; Brenner, 2006; Glesne, 1999; Miles & Huberman, 1994; Patton, 2002; Stake, 1995).

### *Reliability and Validity*

A main goal in qualitative research is to increase the validity and reliability of the data as well as increase the transferability of results to other settings. This can be done by using methods that produce trustworthy, rigorous, and quality research (Givens & Olsen, 2003; Golafshani,

2003). For instance, the validity of qualitative studies can be attained by using certain research methods, such as prolonged engagement of a study and compiling thick descriptions (Glesne, 1999). This study performed multiple investigations with the same population, and used data that was collected and analyzed over three stages (Glesne, 1999). Also with this study, combining the multiple data sources and methods increased the trustworthiness of results, produced robust data, and controlled for researcher bias (Glesne, 1999, Patton, 2002, Stake, 1995; Yin, 2006).

Additionally, this study conducted cross-case comparisons of data from surveys, focus groups, and individual interviews further validating the data (Patton, 2002). The cross-case comparisons also provided the opportunity to assess the reliability of data collected across the various study stages (Morgan, 1993). As well, careful construction of the survey instrument increased its validity. For instance, other studies found in the literature were used to inform the construction of survey questions and items, and the survey was tested for validity (Patton, 2002). Thus, the validity and reliability of this study was enhanced through careful design, multiple sources, and rich data (Nespor, 2006; Morgan, 1996).

#### *Researcher as Instrument*

The researcher was an instrument of the study. Providing her experience, insights, and reflections added quality and trustworthiness to the study (Patton, 2002). In this section, readers were informed of her experience with online learning, and prior knowledge of virtual settings (Patton, 2002). Being aware of one's own biases can assist in producing trustworthy work, and it was important the researcher created reflective notes while performing the study (Brenner, 2006; Glesne, 1999). Continuously reflecting on one's background and experiences is important to lessen biasness in a study (Patton, 2002).

To situate myself in the research, I will share my involvement with online learning in higher education. I am also an online graduate student and have pursued three degrees online at

Canadian universities. Through distance education, I received my Bachelor of Education degree specializing in adult education from the University of Alberta, and my Master of Education degree specializing in educational technology from the University of Calgary. As well, to supplement my teacher education I pursued a minor in psychology through online courses with Athabasca University. At present, I am completing a Doctor of Education degree in higher education leadership through the distance program in the Graduate Division of Educational Research in the Faculty of Education at the University of Calgary. Altogether, I have experienced over 30 online academic courses and three online degree programs with mainstream Canadian universities. I recognize my online learning experience influences my view of online learning, yet I also realize it has allowed me to understand the experiences of other students. More important, it has caused me to query the delivery of online education in mainstream postsecondary institutions. For instance, my first experience with enrolling in an online degree program, in 1999, was with complete relief. I was living in a remote town on Vancouver Island in British Columbia. Living in this location forced me to travel to larger centres on the main island, or to travel by ferry to the city of Vancouver, to pursue higher education. I welcomed the convenience of online learning as I could study at my leisure in my own home, reducing both my travel time and costs. At that time, I was a single woman supporting myself. However, I also experienced frustrations with online learning of which some were shared by my participants. As I sat day and night working online from 1999 to 2007 through three degrees, I wondered how other learners were experiencing the learning, instruction, communication, collaboration, resource access, and design within online courses and programs. For instance, I found learning online to be very isolating, causing me to use my own wits, determination, and resourcefulness to survive and succeed. More important, I saw the significance of online learning and its future growth in postsecondary. I found it could reach more students unable or unwilling to attend

postsecondary institutions in the traditional sense, such as with face-to-face classes. In short, I saw the potential of online education in its ability to increase educational opportunities and access for more people. These views provoked me to study in the area of online learning in higher education through the context of leadership, learning, and design, of which my three degrees contributed.

In order to overcome researcher's bias, a rigorous research methodology was used (Patton, 2002). The use of a tri-phased method to examine multiple stages and types of data, such as quantitative and qualitative, along with combining the results ensured that themes emerged from the data and were not influenced by the researcher.

## CHAPTER 4: FINDINGS

### Study Purpose and Background

The purpose of this study was to examine the characteristics and perceptions of online graduate students in a graduate division at a faculty of education at a western Canadian university. The intention was to explore, through graduate student perspectives, leadership implications for managing online learning programs in mainstream universities. This chapter provides the details of the findings. To begin, the characteristics and motivations of the participants are presented to provide the context of the case study. Next, key themes and subthemes emerging from the data are provided in order of importance to participants, and accompanied by direct quotes from the data. The key themes were derived from the participants' perceptions of online learning. In Appendix G, a list of key themes and prevalent subthemes emerging from the data is given. As well, the final section of this chapter presents a summary of the findings, and portrays the whole case study.

### Case Context

This research was designed to be a case study focusing on a particular group of people in a certain situation (Stake, 1995). This particular group of participants consisted of students in a graduate division who were learning online to earn a graduate degree. As well, in this case study certain assumptions were made about the characteristics and motivations of online graduate students. For instance, it was assumed online graduate students were older, career-oriented adults, had family responsibilities, and lived at a distance. These characteristics became the core reasons participants enrolled online, and why they appreciated the accessibility, flexibility, and convenience of virtual learning environments. As well, most participants engaged exclusively online, except for those who took some occasional or summer courses on campus. Participants



lived far and wide in relation to the university under study, and some lived outside of Canada in the Middle East. Many participants were North American, middle-aged, female, married, parents, and full-time workers in the field of education. From there, the differences increased. Participants differed in their educational goals, literacy skill levels, learning style and needs, online work habits, online learning experiences, and perceptions of online learning.

To provide context for this case study, the characteristics of participants are presented. Descriptions of the participants are taken from responses to the closed-ended and open-ended survey questions (statistics and long answers), and enriched by participant responses from the individual interviews. Focus groups did not respond to questions about characteristics, but rather responded to queries about their perceptions of online learning. Participant characteristics comprised of personal and online characteristics. Personal characteristics included data on demographic information, educational status, educational goals, employment information, life commitments, and information and technology literacy skill levels. Online characteristics included data on participants' motivation and hesitation to enrol in an online program, online employment experience, online study patterns and past experience, and perceived learning styles and challenges. The participants' personal and online characteristics provided a context of their personal, educational, and work lives, and created insight into the identity of online graduate students in a graduate division at a western Canadian university. Following the findings on the characteristics and motives of participants, a deeper description of their perceptions and needs in online learning environments will be given.

### *Personal Characteristics*

#### *Demographics*

From the survey data, it was found over seventy percent (72.99%) of the survey participants were between the ages of 24 and 47 years old, and approximately 26% were in an age range of 48 to 65 years old. The age groups were created to align with generation groups. Thus, the majority of participants were labelled, Generation X, and were people born between 1961 and 1981 (Coomes & DeBard, 2004). Over seventy percent of the participants were female and married. As well, survey participants identified their origin as primarily North American (approximately 45%), European (approximately 25%), and British (approximately 18%), representing 88% of the sample. Most participants were located in an urban setting (approximately 65%), with the remainder living in small towns or rural settings (24 and 11% respectively). An overwhelming 94% lived in North America. Interviewees had similar demographics. For instance, of the 15 interviewees, the average participant was 44 years old, married, female, Caucasian, Canadian, and living in North America. Also, about 71% of interviewees lived in a city, and 29% lived in rural settings or small towns.

#### *Educational Status*

About 50% of the participants were part-time students, 42% were full-time students, and another 8% were waiting to graduate. The majority of participants were pursuing a Master of Education degree (approximately 65%), or a Doctor of Education degree (approximately 28%) through online means; whereas, the remaining seven percent were pursuing a certificate or a Master of Arts, Master of Science, Master of Continuing Education, or a Doctor of Philosophy degree online. Most survey participants were registered in one of five specializations such as Educational Leadership (approximately 27% of participants), Workplace and Adult Learning

(approximately 20%), Higher Education Leadership (approximately 15%), Curriculum, Learning, and Teaching (approximately 11%), and Educational Technology (approximately 11%), totalling 84% of participants. These outcomes were comparable to those interviewed; however, one main difference was two of the interviewees were in the Teaching English as a Second Language specialization. Also, at the time of the survey, about 69 percent of survey participants had been pursuing their degree for two or fewer years, and all interviewees were in the second or third year of their program. A majority of survey participants claimed to have a high grade point average of 3.6 or more out of 4.0.

#### *Previous Education*

The survey data showed that a large number of participants, approximately 46%, finished their previous degree over ten years ago, with about 21% having completed one within the last ten years. Thus, about 67% of survey participants had not been in a formal degree program since 1998 or before. Also, approximately nine percent earned a degree within the last seven years, seventeen percent earned a degree within the last five years, and seven percent completed a degree two years previously. For those interviewed, most participants obtained a formal degree more than ten years ago. As well, the focus of their past degrees varied, and was on physical therapy, journalism, political science, psychology, business, graphic design, and French language and literature. Some studied in public, adult, and continuing education. Their past education represented a broad range in their background and experience.

#### *Educational Goals*

Survey responses showed participants pursued their online degree for a number of reasons. Two related reasons were career advancement, and increasing workplace skills and knowledge. Those participants interested in career advancement had goals to pursue positions higher than those currently held; whereas, those interested in increasing workplace skills and

knowledge wanted to update their current skills to sustain their employment. Other reasons for pursuing a graduate degree were more personal, such as engaging in self development and fulfilling the dream of attaining a higher education. Interviewees shared similar reasons for pursuing their degree. For instance, an interviewee shared, “Nationally I just didn’t seem to have a voice ... [therefore] maybe to advance my credibility I should look at doing a degree that would be directly related to my [work].” Another claimed, “It’s always been a lifelong dream to pursue a doctoral program. It wasn’t anything to do with career advancement.” As well, another interviewed participant shared, “I love learning and I feel that I’ve kind of tapped into something of myself that probably wasn’t there before, which is why I sort of came back to this midlife.” Two other interviewees wanted to stimulate their thinking by pursuing challenging studies.

### *Employment Status*

About 79% of participants were employed full-time, with 12% employed part-time. Another nine percent were not employed at all. Of those employed, about 85% worked 30 hours or more a week. This was the same work pattern for those interviewed. Interviewees who stated they worked more than 40 hours a week seemed to be either managers and expected to work many hours per week, or teachers who marked assignments and prepared curriculum after school hours. For instance, an interviewed participant said, “As a teacher ... we’re there before school starts and we work at lunch and we work after school and we work on the weekends ... marking at home.” Due to their work and study demands, most interviewees did not volunteer for other activities, except when required. For instance, one such participant had to “continue to take the IBM courses ... [and was] expected to attend what they call the IBM University.” A few interviewees had to travel for work purposes both provincially and internationally. For instance, one interviewed participant had to “travel periodically ... to do presentations or to visit schools.”

Also, those who worked in the K-12 and postsecondary fields of education had an average of 46 days of summer vacation.

### *Field of Employment*

Survey participants worked in various industries. A majority (77% of the participants) worked in the field of education with about 44% working in the K-12 area and 33% working in postsecondary education. Other participants worked in various fields such as healthcare, communications, real estate, transportation, business, air traffic control, professional development as well as with the federal and provincial government. Most of the interviewees described themselves as being in consulting positions such as professional developers, or management positions such as administrative leaders. A few of the interviewees were in teaching positions. This group worked in a variety of fields as well, such as business, education, health, and the government. Of those who taught, they worked for local or international public schools and vocational colleges.

### *Information and Technology Literacy Skills*

In the survey, two questions asked participants to rate their perceived technology and information literacy skills. Survey participants rated their skills on a scale of one to five, with one represented as having no skills and five as having expert-level skills. The majority of survey participants rated themselves as competent in the combined skills; however, a small portion did not deem themselves as very skilled. As well, in the open-text survey questions participants who referred to themselves as not being 'tech savvy,' or lacking technology experience, were labelled as having low technology literacy skills; whereas, those survey participants who thought themselves as having high skills stated they could effectively use a number of software applications and could easily navigate online. The skills ratings and comments from participants were compared to criteria from the literature on different levels of technology and information

literacy skills. These criteria were used to form categories in the survey questions about literacy skills, and used as a guide to determine the level of ability participants claimed in open-ended questions. Interviewees also followed the survey categories during interviewing to give detailed accounts of the skills they felt they had or did not have.

### *Information Literacy Skills*

Through the closed-ended questions, survey participants rated their information literacy skills. The particular skill they thought they had least developed was selecting the most appropriate investigation method for retrieving information (for instance, 8.82% noted their skills as low). For instance, retrieving information included using online databases such as those provided by the library at the university under study. Furthermore, about seven percent did not feel skilled in extracting, recording, or managing the information they retrieved. As well, about four percent felt they might not be skilled enough in critically evaluating information, and approximately six percent felt they did not completely understand the legal, ethical, and sociopolitical issues of using information. However, the rest of the survey participants felt they had these skills. In the open-ended questions, survey participants revealed the same perceptions of their skill levels. However, in contrast to the responses in the closed-ended questions, more participants felt less confident with critically evaluating, and understanding the legal and ethical issues of using information.

Interviewees considered their level of information literacy skills, as well. Following the categories for information literacy skills given in the survey questions, participants commented on their perceived ability. Of the fifteen interviewees, six deemed themselves as having low skills, six as having medium skills, and three as having high skills.

### *Low Level Information Literacy Skills*

Interviewees, with perceived low information literacy skills, felt limited in their ability to search for information and required the help of a librarian. Their perceptions of low literacy skills were mostly due to the technical nature of library databases and online resources. An interviewee shared, “My searches are a little bit better and I do have a favoured site or I guess search engines ... [but] I don’t necessarily know what I’m doing or what it’s called.” However, these interviewed participants felt they could understand the legal, ethical, and sociopolitical issues associated with information, and they could critically evaluate work. These complex skills were likely formed from their work experience as professionals. For instance, one interviewed participant stated, “I am very informed about copyright and business of that nature because I have to teach this to my [students].” As well, some participants attributed their ability to critically evaluate information to their learning experience in previous academic courses. Also, participants with low skills found they developed them only as needed. An interviewee explained, “I usually try and figure [it] out on my own, and I only tend to ... learn what I absolutely need to know.”

### *Medium Level Information Literacy Skills*

Those interviewed who felt they had medium level information literacy skills could effectively search and retrieve information with many formats, such as PDF and HTML. For instance, an interviewed participant shared, “I think my skills around these areas are pretty good. You know things are always changing ... [like] new concerns and questions and regulations ... It’s hard to stay current.” As well, another offered,

This degree has ... hugely changed how I ... go on to the Internet and how I look at information. ... It’s also opened my eyes to how overwhelming the amount of

information is and how it's ultimately a futile endeavour to try and find it all. ... Before I was blissfully ignorant.

However, some participants had troubles retrieving and storing information. For instance, one interviewee said, "[With] retrieving information I feel that I am developing my skills in that area. ... [I] have difficulty narrowing my search still and find that a little bit overwhelming." As well, another mentioned, "I get a little confused sometimes because I save something at home and then I end up saving other things at work." Also, these interviewed participants could read various sources of information ranging from blogs to peer-reviewed articles, and they could present their information in various formats. An interviewed participant shared, "Putting information into a table or a chart, you know, I usually just do that in Word." They had little difficulty reading and deciphering academic work. As well, they felt confident in their composition skills, and their ability to cite others' work and synthesize ideas. Another claimed, "I have three unions that I work with. ... Picking out the key information and key knowledge from articles ... was fairly simple." In short, these participants felt they could teach themselves in order to expand their skills.

### *High Level Information Literacy Skills*

Participants, who considered themselves as highly skilled in information literacy, felt they could use advanced technologies to search vast amounts of information on the World Wide Web. However, even at this level participants were overwhelmed by the amount of information and sources available electronically. For instance, one interviewee stated, "I feel very comfortable using a lot of the different resources available to me. Again, it sometimes becomes a little overwhelming because there's just so much out there." Also, those at this level of skill were good at managing and storing diverse and large amounts of data. An interviewed participant said, "Using End Note. That really helps me to synthesize information, and not lose little pieces of



information that I've been gathering over the years." As well, participants at this level of skill had accumulated years of experience working online, and had continually upgraded their skills. For instance, an interviewee stated, "[With my] position at a board office ... I need to make sure that how I use information is above board." Another shared, "I think I have pretty darn good skills but only because I haven't left [educational studies] in the last ten years ... and I've sort of grown with the technology."

Overall, the key difference among all participants was their ability to use advanced technology to find, retrieve, and store information. For instance, it seemed those who obtained a previous degree seven to ten years ago had the skills to read and critically evaluate academic work, but lacked the skills to use technology effectively to find and store information. For instance, though an interviewed participant taught information literacy in a postsecondary setting she stated,

[With] the particular databases and so forth, I'm not feeling particularly successful there ... [such as with] finding the material in the first place, and then capturing the links or capturing the sources or the materials in an effective way without having to print.

This interviewed participant had not been in a formal program since 1974. As well, some participants struggled with presenting information in a variety of formats, which presumably included the need to use technology. Yet, those with medium skill levels considered that their abilities were expanding and growing with practice and experience. Those with high skill levels were well experienced in using technology, and seemed more capable of working with electronic resources. Additionally, it seemed those who obtained a previous degree more than ten years ago needed to build or relearn both information and technology literacy skills. For these participants, they struggled with deciphering academic text, indicating this skill could diminish over time.

*Technology Literacy Skills*

Through the closed-ended questions, survey participants rated their technology literacy skills. Approximately 28% of these participants rated themselves as having low skills in understanding, using, and maintaining computer hardware and networks. Another 10% felt they could not use or maintain software applications very well. About 26% of participants stated they were not highly skilled in identifying health and security issues when using technology. However, the majority felt they could use the Internet safely. Furthermore, databases were the software applications survey participants perceived they were not competent using or maintaining (23.36% of participants). As well, survey participants were not completely comfortable working with multimedia, whether having to create their own products using software applications (35.04% of participants), or using existing multimedia objects (31.39% of participants). However, 85% of survey participants felt skilled in presenting their work in various formats such as designing presentations and inserting text, images, and objects. Furthermore, most survey participants were comfortable with the Word application, and using Internet browsers and various communication tools. Most (95.59% of participants) felt they could transfer their current knowledge to new technology uses. Participants' responses in the open-ended questions were similar those in the closed-ended ones, with the exception they felt less confident transferring their current knowledge to new technology uses.

Following the categories for technology literacy skills given in the survey questions, interviewees commented on their abilities and experience with each one. As a result, of the fifteen participants interviewed, six deemed themselves as having low technology skills, three as having medium level skills, and six as having high skilled.

*Low Level Technology Literacy Skills*

Participants with low level technology literacy skills felt they could work with desktop computers and printers, navigate the Internet, and understand legal, safety, and ethical issues when using technology. For instance, an interviewee stated, “I’m very, very careful, and obviously I’ve been watching way too much news about identity theft and things that might create some challenge.” As well, another shared, “I can do a minimal amount of troubleshooting but really quite minimal.” These participants mostly used email software for communication. One interviewed participant shared, “With communication and the computer, I am still very much an emailer. ... [I have] some friends who live overseas and they did introduce me to Skype ... [and] listserve. [But] I have no clue what that is.” Also, these participants were confident using Word and PowerPoint applications. An interviewee claimed, “I feel I can really present things in a higher level ... than I’ve seen some of my colleagues do. ... [I] feel that I’ve created high calibre presentations.” As well, taking courses that were online exposed these participants to learning management systems, such as *Blackboard*<sup>®</sup> and sophisticated Voice-Over-Internet Protocol synchronous classroom programs such as *Elluminate Live!*<sup>®</sup>. Through necessity they became familiar with these technologies. However, they had to use support from Information Technology staff at the university or in their workplace, and use online tutorials to learn about specific software applications. One interviewee summarized, “I have very little technical skills because that’s not really the level I work at. ... I have a lot of technical support at work for people to help me.” For the most part, these participants stated they learned only what was required and little more. For instance, an interviewee shared, “[If] I see that new technology is going to benefit me in what I do, and [will] make things more ... faster, than I’m quite happy to take it on.” However, demands on their time gave them little opportunity to increase their

technology skills. An interviewed participant stated, “I tend to learn what I need to know. I don’t spend any time learning things that I don’t need to know.”

### *Medium Level Technology Literacy Skills*

Interviewees, who considered themselves as having medium level technology skills, felt they could work with basic computer hardware and system networks, and organize files and data. An interviewee shared, “I consider myself fairly computer literate but certainly not a geek or top of the line.” She furthered, “My online filing system probably isn’t quite what it should be ... in terms of copying to a CD or to a memory stick.” Also, these participants felt they could proficiently use various communication tools and software applications, and might be able to use databases, spreadsheets, and multimedia. An interviewed participant shared, “Word processing [is] not a problem. I spent many years as a secretary. ... I don’t use database[s] ... [but] I do use Excel a little bit in relation to budgeting.” They felt they could design effective presentations, and were comfortable using Internet browser elements and search engines. Their technology skill level seemed to have been developed through workplace experience, and their confidence allowed them to experiment with new applications. For instance, an interviewee stated, “I’m probably the most competent in Word because I use it all the time and I’m not afraid to experiment.”

### *High Level Technology Literacy Skills*

Those interviewed, who perceived themselves as having high level skills, were most likely to be long time technology users, and held positions at work that extensively relied on various technologies. For instance, an interviewee shared, “I’m tapped into a lot of different technology pieces, software that perhaps someone else even in an academic environment wouldn’t be exposed to.” They seemed more adept at performing multiple tasks that used different technologies. Another interviewee claimed, “I am very techno savvy ... [and] have no

hesitation in trying it and picking it up as I go. ... I don't need to read a manual." Additionally, they felt they could effectively troubleshoot technical problems, upgrade hardware equipment and software applications, and work with storage devices and operating systems. As well, these participants were able to manipulate and use a variety of applications, and integrate them into existing systems for their own use. They felt comfortable working with multimedia, including web designing, and they had a good understanding of security and health issues as related to technology. An interviewed participant shared,

I haven't stumbled across any software that I can't use or that I can't figure out how to use, or I don't know where to go and figure out how to use it. ... It's just because I haven't stopped doing a bazillion hours of homework every week for the last ten years.

Furthermore, these participants were able to transfer their knowledge to new technology uses. One interviewee stated, "I'm expected to continue to ... learn and search outside for what is available."

Taking together the survey responses and interview data, participants gave the impression they were either novice or advanced users of technology. It seemed 50% or more were less skilled in more advanced technology tasks such as manipulating hardware, working with databases and multimedia, and learning new skills. These participants seemed more comfortable working with commonly used software such as word processors, email applications, and the Internet. As such, they had the basic skills to learn online and seemed satisfied to work at this level.

### *Online Characteristics*

#### *Motivation to Enrol Online*

From the perspective of survey participants, online learning proved to be a convenient and flexible way to pursue higher education. Participants needed flexibility in their studies in

order to overcome life barriers and responsibilities. Their barriers and life responsibilities tended to inhibit their ability to attend class on campus at a postsecondary institution. For many, online programs were the only way they could pursue their education. For those living close to a university, online programs gave them an opportunity to study at an institution away from their hometown. Also, participants found the flexibility of online learning allowed them to study at their own pace. Interviewees echoed the same reasons for enrolling in online programs. For instance, one interviewee stated she joined online learning “for the convenience with working full time and having a very young family.” Another summed it up by stating,

[With] an online program I have the flexibility, too, be with my family ... [and] of being able to do this degree online. That characteristic outweighed the cost. ... It eliminates a need for travel [as my town] is a significant distance from Saskatoon and Regina.

As well, interviewees thought the online programs offered by the graduate division fit their needs. For instance, an interviewed participant said she had looked for “programs that would offer second language acquisition or second language learning or teaching programs.” For others, they found the online programs offered by the graduate division were quality and credible as they were delivered by a reputable Canadian university. For instance, an interviewee who lived abroad joined the program to “study in Canada ... even though I’m in a non-English environment. But it helps me to keep that link with what’s going on in the English world ... the western world.” And another stated, “It wasn’t the fact that it was online. ... It’s the content that I went for and the professors.” For a few, the program was recommended by others.

### *Hesitation to Enrol Online*

Interviewees were very explicit about the reasons they may have hesitated to join an online program. Survey participants had the same concerns. For instance, interviewees deemed the tuition fee for the graduate division’s online programs was quite high, and claimed it was

inequitable when compared to the cost of campus-based programs. An interviewee claimed, “Where the costs really kicked in was the doctoral program, and then of course you felt like you were completely disadvantaged with the other people on campus.” Another worried whether he could “afford it with the other costs associated with keeping a family going.” As well, participants felt there was little financial support for online learners through scholarships or employment reimbursements. One interviewee complained about “out of province students who get no funding support at all.” Also, participants wondered whether an online program was deemed as credible as a traditional degree. They worried whether employers or other higher education institutions would deem their education as valid and worthy. An interviewee echoed this concern by stating, “The big thing for me was the validity of the degree and the rigour of it.” Another noticed, “At some of the other places they actually state right on your parchment ‘Online’ or ‘Distant’, and the fact that [this university] doesn’t do that was also a big factor for me.” Yet, another interviewee shared, “It would’ve been the validity of the degree, but that would be true whether it’s online or on campus.” For comparison purposes, a few interviewees had researched other institutions that delivered learning online. One shared, “I had been looking at one in Nottingham and one in Australia.” Additionally, some interviewees were intimidated by the technology they might have to use when learning online, and were concerned if they had the skills to manage this. For instance, an interviewee shared, “I honestly have no idea what I was doing when it meant online learning.” As well, another shared she “was really not familiar with *Illuminate Live!*<sup>®</sup> or even doing research online.” These last concerns were consistent with statements from surveyed and interviewed participants who claimed they had low level technology literacy skills and were intimidated with using new software.

*Barriers and Life Responsibilities*

Interviewees stated the life responsibilities and barriers that caused them to pursue learning online were managing a family, working, and/or living at a distance. Most were affected by all three, and were not willing to leave their work, family, or hometown to pursue a higher education. Family responsibilities included being married and might include raising children. An interviewed participant summed it well by saying, “[I] have all of the other trappings of family responsibility, social responsibility, mortgages, [and] financial obligations.” As well, most participants worked full-time. One interviewee stated even though she lived near the university under study, she had “so many obligations there was no way to fit courses and coming up here [to the institution].” Participants who lived at a distance from the university tended to reside in rural areas, small towns, other provinces, or abroad. For instance, an interviewee shared, “The only university in Newfoundland is Memorial and that’s three and a half hours away. So the primary reason for selecting online ... was because it was convenient.” For survey participants, their barriers to pursuing higher education were the same as those interviewed.

*Online Learning Styles*

Though not asked directly, some comments in the open-ended survey questions referred to learning preferences. For instance, some survey participants considered their learning style as self-directed, and preferred to learn at their own pace. As well, a fair number of participants considered themselves as social constructivists, and felt they learned from the instructor’s input and by dialoguing with others. As well, these latter participants preferred face-to-face and oral exchanges when learning. Interviewees offered further comments about learning styles. For instance, one such participant shared, “I am very much the social learner. I love communication and ... I love to bounce things off of people.” Another stated, “I much prefer in classroom



learning so I'm finding ways ... of getting here on campus rather than distance learning." She found online learning was "not as much fun for me as getting together and discussing."

The attitude of the interviewees towards learning was commendable. They were self-disciplined, and though they found the studies difficult at times were willing to put in the required effort. For instance, an interviewee struggled with "the challenging level of the concepts in terms of the philosophy and methodology", yet was interested in learning new ideas. Another stated, "I would consider myself a hard worker. I can learn on my own that's not a problem. I can self-start." Some interviewees liked challenge and taking risks in their learning. One such participant stated, "I love to be challenged and I think if you invest any energy in online learning you can get so much more from it. ... I'm not afraid to be wrong." As well, some participants enjoyed learning, and becoming more aware of how they learned in the online environment. For example, an interviewee found she was "just curious about all sorts of things, and [wanted] to try and find some answers to some of the questions." Another shared, "[I have] come to understand how students learn and I learn, and what I needed per the different instructors."

### *Online Work Habits*

#### *Accessing Online Courses*

Most survey participants accessed their online courses from home (approximately 60%) and work (approximately 26%). As for the interviewees, 80% accessed their online courses from home and 20% from work. For instance, an interviewed participant stated, "Doing my online courses, I generally did them at home. I might check into the chat group at work at lunch time."

#### *Working Online*

Approximately 33% of survey participants were logged into their online course for under five hours a week, approximately 36% worked online for six to ten hours a week, and another 18% were online for eleven to fifteen hours. A small percentage (13.24%) worked sixteen or

more hours a week logged into their online courses. Thus, about a total of 69% of survey participants worked under ten hours a week online, and 31% worked more hours. For interviewees the average time working online with course work was about eight hours a week. An interviewee shared there was “a lot of expectations around discussion board”, thus increasing the amount of time she had to work online. As well, interviewees shared the types of tasks they performed when working online. Most of the time they read other comments posted in the online discussion board, and added their own. As well, they worked in groups online, and at times were assigned the role of facilitator to lead online posted discussions with fellow students. Also, most participants had to log online to attend live meetings in the VoIP synchronous classroom program, *Elluminate Live!*<sup>®</sup>. These live sessions occurred periodically during the course term. Additionally, about 85% of survey participants stated they used the Internet daily for personal purposes. As well, many interviewees used the Internet frequently for personal purposes, such as accessing travel information, reading news reports, registering for sports events, buying products, or retrieving email messages. However, two interviewed participants used the Internet very little for personal purposes, except for accessing email messages. Most used the Internet for work purposes.

### *Working Offline*

As revealed in the survey data, the number of hours participants worked offline on course work was a bit higher than with working online. For instance, approximately 20% of survey participants worked less than five hours a week offline. However, about 31% of participants worked six to ten hours, and about 26% worked eleven to fifteen hours offline. The remainder (22.72%) worked offline sixteen or more hours a week. Thus, about 51% of survey participants worked offline under ten hours a week, and 49% worked more hours. Interviewees commented their offline hours were consumed with reading assigned work, drafting online discussion

postings, preparing assignments, creating slide presentations, organizing and saving articles, and calling group members by phone. An interviewee added, “I worked offline more than I worked online, because I found that there’s a lot of reading.” Another agreed and added, “Partner projects ... [in a] smaller group ... [was] more intensive and the cycle of communication during the week [would] speed up.” As well, time was taken to print articles, discussion postings, and materials in order to read and highlight the contents. An interviewee shared, “The articles themselves, even if they’re available online, I have to print them off to read them ... because I guess I need that tactile ability to be able to underline, highlight, [and] write margin notes.” Another added, “I did end up printing a fair amount of the articles and stuff off, because I did find that reading online got to be very tiring.” Participants also worked offline to upgrade or fix technology.

### *Working Time*

It seemed the majority of survey participants either worked online in the early or late evening (total of 41.38%) and/or on weekends (29.89% of participants). For the interviewees, there was an even split between those who worked during week nights and those who worked on weekends. Most people with young children worked online during week nights. As well, those with a family found they had to juggle their study time with their personal life, and tended to work online after their children were in bed starting at 9pm. Some frequently worked past midnight. For those who worked both nights and weekends, they handled their work differently. For instance, work during the week consisted of reading, reflecting, writing offline, posting online, and communicating electronically. Also, most *Elluminate Live!*<sup>®</sup> sessions were scheduled at night during the week. During the day, some participants reviewed online posts and communications in the early morning before leaving for work, and again during lunch breaks. However, the weekend was a time for more complex writing and working on assignments. For

those few who worked primarily on the weekend, they did most of their heavier work then. For instance, an interviewed participant shared, “[By] seven o’clock at night it’s usually when I’ve become basically brain dead. I’ve turned off. My best times to work are early Saturday morning and early Sunday morning.” She continued, “I do most of my reading offline and through the week because I’m an avid reader before I go to bed.”

For those in different time zones, their study hours could extend quite late into the evening. For instance, an interviewee said, “The [university] is three and a half hours [earlier than me], so [with] *Elluminate Live!*<sup>®</sup> sessions that start at seven at night sometimes I’m up until one in the morning when I have to go to work.” As well, for participants who lived abroad, their work week was structured differently. For instance, in the Middle East the work week is from Sunday to Thursday, not Monday to Friday. Additionally, they were approximately nine hours ahead of the time zone for the university under study. As a result, those students felt out of sync with the rest of the online class. For instance, the scheduled *Elluminate Live!*<sup>®</sup> synchronous sessions usually took place in the early hours of their morning, such as at 3 am. Also, they experienced a delay in reaction to their asynchronous discussion postings as they started one day earlier in the work week (Sunday). To add to this, they were half a day ahead of others in North America, and found responses to their posting were not immediate. This tended to make posted discussions less spontaneous and more disjointed. One interviewed participant reflected, “We work from Sunday to Thursday and the weekend is Friday, Saturday, and so that’s a little bit different and so it throws off the timing.” As well an interviewee, who lived in Newfoundland, felt the same. She shared, “Being in Newfoundland and three hours and a half ahead of everybody else, I always feel like I miss a day during the week.”

## *Online Experience*

### *Learning-Based Experience*

From the survey data, it was found that the amount of experience participants had with online courses was evenly distributed. For instance, about 28 % of survey participants claimed to have taken one to three fully online courses, and about 23% claimed to have taken four to six of these courses, totalling 51% of participants. Another 25% of survey participants had accumulated experience by taking seven to nine online courses, and an additional 24% had taken ten or more fully online courses, showing 49% of participants were experienced online learners. With the interviewees, half of the group had taken an average of four courses delivered fully online, and the other half had taken an average of twelve, splitting this group into new and experienced online learners.

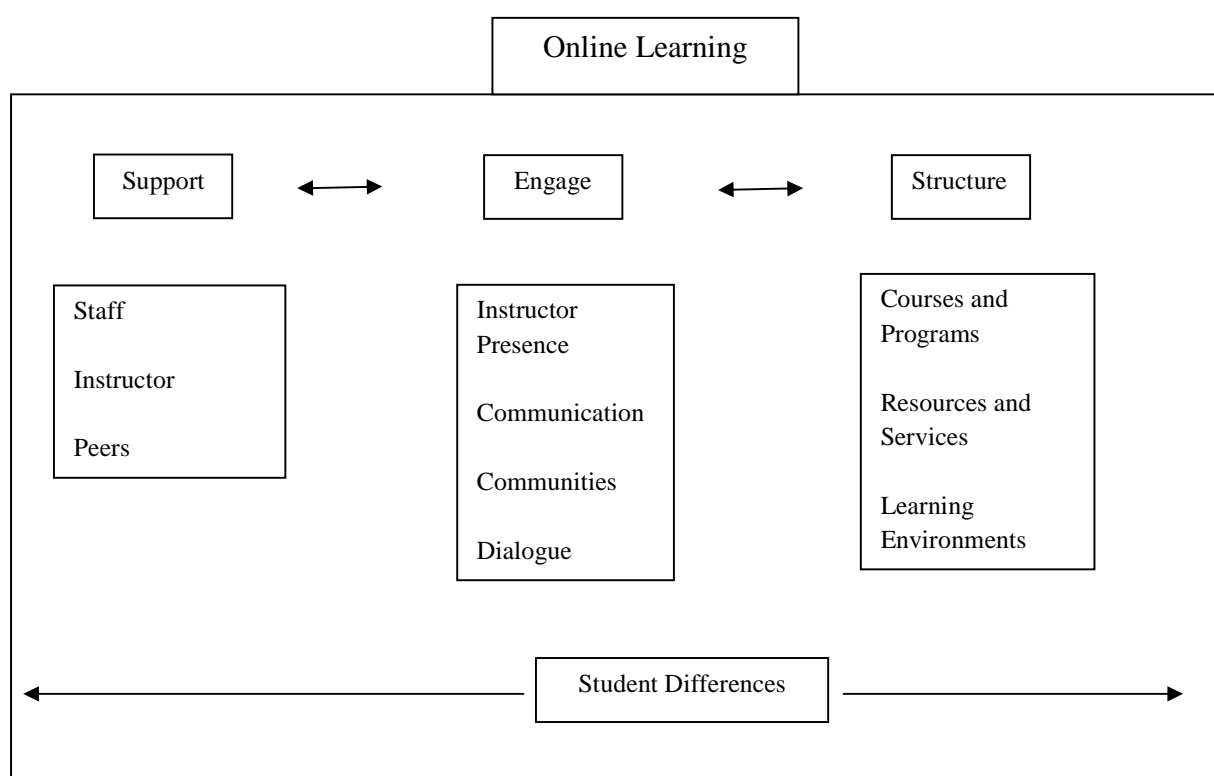
### *Work-Based Experience*

Surveyed and interviewed participants were asked if they had ever experienced managing online learning as a leader. Through open-ended questions, it was found twenty survey participants (14%) indicated they had held positions as an online instructor, whether in public education, postsecondary, or the workplace. These participants were either instructors in formal educational courses or professional development sessions. A few participants had worked with blended instruction, where face-to-face courses included web-based instruction and electronic resources. Also, eleven participants (seven percent of survey participants) indicated they were managers of online learning in various fields. These fields included the government, postsecondary, public schools, and school districts. Their tasks included distance education delivery, course management, instructional development, and technology management. Therefore, the collective online working experience of survey participants (21%) included addressing policy development and quality issues. They also were involved in faculty

development as well as preparing curriculum, teaching online, and working with online students. Interviewees who had managed online learning were employed in the government, postsecondary, health, and business sectors.

### Perceptions of Online Learning

Participants' perceptions of online learning were gathered from survey responses and explored deeper through focus groups and individual interviews. Figure 9 displays the key themes found in the data, and each is explained along with the relationship between them. Following this section each key theme and its subthemes are described in more depth.



*Figure 9. Key themes*

In this study assumptions were made about the unique needs of online learners. It was assumed the types and degrees of communication, interaction, participation, workload, support, and services were different for online learners when compared to campus-based students. The

findings revealed some of these differences by drawing on the perceptions of participants about the benefits and challenges of online education, along with their learning needs and motivations. However, some of the findings could also be representative of the perceptions of traditional students who learn in face-to-face environments. A discussion of the findings, presented in Chapter 5, will focus on issues that are more prevalent for online graduate learners.

Furthermore, patterns in the data revealed participants were concerned about their online educational experience. As an example, and as depicted in Figure 9, participants required support from key people. These people included instructors, information technologists, librarians, administrative staff, and fellow classmates, with technical staff being the most requested support for students. Along with this support, participants also needed learning to be engaging. For example, many participants stated, in order of importance, that they wanted instructors to be present online, effective forms of communication, online communities, and engaging dialogue. As well, participants perceived the online environment different from face-to-face classes. In short, they wanted the uniqueness of their characteristics and the online environment to inform the structure of programs and courses, necessary resources and services, and learning environments, with the first two topics being the most prevalent. Informing the structure of online learning environments were student differences, or diversities, as revealed from the data on student characteristics. Thus, the key themes - Support, Engage and Structure - were considered essential components to create an online learning environment that provided graduate students with a successful learning experience.

### *Theme 1: Support*

The key theme, Support, represents the people that participants felt were vital to their experience and success in online learning. As well, it revealed their need for human contact

when considering essential support. In this case, the people they required the most to help them were staff members who provided assistance with information and communications technologies. Participants also found instructors to be important supports for students, as well as other staff members, such as those working in libraries, administration, and student advising. Participants found their peers important for support, as well.

### *Staff*

The subtheme, Staff, refers to employees of the university other than the instructor, who were seen as vital for supporting online learners. Overall, participants appreciated the commitment of staff members. For instance, an interviewee appreciated,

Being able to email people from the grad department directly and get information if we need information. And the IT help department is a great support. So, all of those aspects helped me to overcome my hesitation in engaging in the technology and learning the technical aspects.

Further to this, an interviewee, who was a director of continuing education at an eastern Canadian university, had experience with online learners. She stated distance students need significant support and must receive responses to their inquiries immediately, not days later. Main subthemes, in order of magnitude, were support staff within the departments of information and communication technologies, libraries, faculty administration, and student advising.

### *Information Technology*

Seventy-nine survey respondents, three interviewees, and participants from two focus groups commented that support from an information and communication technologist was essential. These participants made numerous remarks about the importance and helpfulness of information technology (IT) staff at the university and faculty of education. Help was mostly needed for systems operated by the university such as *Blackboard*<sup>®</sup> and *Elluminate Live!*<sup>®</sup>.



Participants felt when students encountered technical difficulties or had general operation questions immediate contact with IT staff was eminent. A participant in Focus Group 2 stated,

The technical and people support was excellent. I never had a problem that I did not have a response to within 24 hours so that it never had to hold the people up in the class ... whether it was through [the graduate division] or whether it was through the university IT department.

Focus Group 2 shared their appreciation for the level of technical support given. This was also stated by Focus Group 3 who requested that participant's level of comfort with technology should be considered when providing help. For instance, a survey participant stated, "I have found everyone, including dsthelp [distance help service in the graduate division] to be very patient and helpful." This was followed by a participant in Focus Group 3 who appreciated "the level of support and friendliness [where] no question was really too stupid. ... That was really phenomenal." As well, two interviewees wanted technical advice for purchasing computer hardware and software that would help them successfully engage online. For instance, an interviewee stated, "I knew that I needed a new computer when I started doing online learning and I was prepared to do that. ... I got a clear description of what I needed in terms of specs, so I could take that to a computer store and say 'This is what I need'. So, that's really important."

### *Administration*

Twenty-five survey respondents and two interviewees applauded the helpfulness of administrative staff in the graduate division office. For interviewees, both information and support from administration were needed. One survey participant shared, "There was someone in the [graduate division office] who was always ready to give support." Participants found administration staff prompt, and able to answer many questions about program policies,

requirements, and procedures. For instance, a survey participant stated, “The office staff are also great at helping you when you need it as I had to take 2 leaves and get my fees fixed.”

### *Student Advising*

Fourteen survey respondents, two interviewees, and participants from one focus group commented on the need for advice when choosing courses and programs. However, they found this service lacking at times. Focus Group 3 complained about absent program advisors, and interviewees were concerned about finding an advisor in the faculty from a distance. A survey participant shared,

I think this program is extremely weak administratively from an online perspective, particularly when contrasted against the type of support and direction provided to me in my masters program. No clear pathway to completion is articulated to the students on the [graduate division] web site, [and] advisors don’t seem to be required to engage with students online.

Another member from Focus Group 3 said, “I totally gave up so I feel really odd, because other people in masters programs that I know of have strong connections with the faculty advisor.”

The effects from not having advisory support was stated by a survey participant, “The consequence was that when I thought [I] was finally finished I was three quarters of a course shy. A very disappointing discovery.” Yet, one survey participant replied, “I found the [graduate division] online coordinator very helpful in answering questions by e-mail and over the phone.”

Another added that “program advisors are also very helpful and prompt.” Some participants wanted their instructors to help with program advising.

### *Library*

As well, a few participants found the staff at the university library quite helpful. When looking for a particular resource or needing directions on how to navigate the library’s electronic

databases, librarians were able to help them. For the most part, participants contacted the librarian through email. A survey participant claimed, “Technical support from the library ... has always been quite responsive from the [university].” However, another survey participant wrote, “When I made an appointment to meet with a library advisor, she was only marginally helpful.”

### *Instructor*

A number of participants had certain perceptions about the role of online instructors. Participants saw the instructor as a leader who supported students and managed the online environment. Prevalent subthemes, in order of importance to participants, were for instructors to provide student support, student guidance, and feedback.

### *Student support*

Twenty-two survey respondents and four interviewees required support directly from the instructor. Another thirty-one survey respondents and participants from two focus groups stated they wanted encouragement from the online instructor. For instance, a survey participant wanted “some support from prof - not too much, but enough to know that she was involved.” As well, interviewees thought that a supportive instructor would answer their questions and connect with them. A survey participant added, “My very first instructor ... was extrememly [sic] kind and provided great feedback regarding expectations for his assignments, APA, and was open to questions.” Also, interviewees thought it was important to have timely support such as daily responses and feedback from instructors. One survey participant added,

Upon entry into the program, I was sure of my desire to pursue the degree, but uncertain as to my capacity as a learner to do so. It was important to me that [there] was significant and unrestricted access to faculty and support resources.

Focus groups made a comment that students who struggled with handling electronic resources or were inexperienced online needed more support from the instructor. An interviewee

stated “When someone identifies themselves as being new to the online community they may need a few extra, you know, just some sort of confirmation that they’re on track or that [they] are doing things right.”

### *Student Guidance*

It seemed about thirty-nine survey respondents, two interviewees, and participants from two focus groups were looking for more instructor guidance online than in a face-to-face classroom. Survey participants felt guidance could help direct and support their learning. More important, participants wanted to understand the expectations of instructors regarding course requirements in order to be successful. One participant from Focus Group 3 stated at times, “it’s very vague in what they want and how they’re going to critique the assignments.” Whereas, a member of Focus Group 3 appreciated a professor who “goes through what he wants and he makes sure you learn the material.” A participant in Focus Group 1 had an online instructor who took the time in the beginning of a course to describe the weekly work expectations of students, her expectations of online postings, and how students could manage readings and assignments. As stated previously, those new to the online learning environment needed guidance on how to work online. For instance, interviewees felt students who were new to the online environment may need more support such as providing work examples, giving extra feedback, and clarifying expectations for working online.

### *Feedback*

As well, thirty-nine survey respondents, two interviewees, and participants from two focus groups were looking for feedback from instructors that provided them guidance and assurance on their work. For instance, an interviewee had a “need for a little bit of feedback ... [to] make sure I’m heading in the right direction ... in order to develop as a learner.” A survey participant commented, “I especially liked it when professors gave a detailed critique of papers.”

As well, Focus Group 1 felt a need to have personal connection with the instructor in order for the feedback to be more meaningful and not appear as terse judgment. A survey participant offered, "If I really need a professor's immediate feedback I have found that the phone or direct email works well." Yet, some participants found feedback from instructors was somewhat lacking or quite delayed. This confused participants as they wondered if they were meeting the instructor's expectations. For instance, a survey participant commented that "[a]ssignments were not returned in a timely manner to allow for follow up assignments which built on the first version causing stress to students." Also, a participant in Focus Group 2 was concerned about,

the lack of timely feedback ... because we're in an environment that is in many ways unidimensional. We've lost the physicality, we've lost the visual quality, etc. You really feel cut off if you don't have that type of feedback.

### *Peers*

Fifteen participants mentioned the benefits they received from the support of peers. For instance, Focus Group 1 found the people most valuable to them were their online peers who could communicate with them, and who appreciated their views. Focus Group 1 stated they liked working with peers because of the support they received and the perspectives that were shared. For them "it was a joy to get [online]." As well, a participant in Focus Group 3 appreciated "students who had a fair amount of experience in online learning and they created, by their openness ... [a] community ... [and a] very active discussion community." Another survey participant claimed, "I asked questions of students who were further along in their program than I was." However, some survey participants were dismayed at the lack of peer support, but considered it due to the online environment. For instance one stated, "I was concerned with the lack of face to face discussion and support from [sic] classmates." Another stated,

I am finding the lack of human interaction challenging. It is not like I can ask a classmate: 'What did you understand from the reading?' as we enter the lecture hall/classroom. Nor is there an opportunity to have casual conversation[s] about classes. There isn't a lot of feedback about postings at this point so I don't know if I am on track or not.

As well, both Focus Group 1 and 2 members looked for other types of support from peers. For instance one participant stated, “[We need a] representative to give voice to the distance students ... [who] understand online learning.”

### *Theme 2: Engage*

The theme, Engage, refers to the need for online learners to connect and interact with others online. Similar to the Support theme, this implies a need for human contact. Many participants felt learning online was isolating, and they required more connections with others. More specifically, those involved in this study felt to engage well online they needed, in order of importance, instructor presence, effective communication, online communities, and rich dialogue.

#### *Instructor Presence*

Instructors were considered key people and essential support for online graduate students. An overwhelming number of participants asked for more instructor presence online. Participants wanted these instructors to participate and connect with them more. For instance, a survey participant stated, “I believe it is imperative for the instructor to be present online regularly to guide discussions and address emergent issues, questions, and challenges.” In short, they wanted online instructors to show interest in them and their learning. A participant in Focus Group 1 echoed, “I need to feel like the instructor is engaged and is interested in what I have to say and is

giving me feedback and is part of the community.” Prevailing subthemes, in order of importance to participants, were instructor contact, facilitation, and participation.

### *Contact*

Seventy-two survey respondents, two interviewees, and participants from two focus groups felt an instructor’s frequent contact with students was important, helped increase their presence online, and provided a sense of collaboration. As well, participants wanted to be individually contacted by instructors through personal communication devices such as email or telephone. One survey participant wrote, “I have particularly appreciated the courses where the instructors went above and beyond to make a personal connection with each and every student in the class.” Another appreciated “[f]aculty actually calling students to check how things were going and discuss learning issues. (On the phone line.).” Also, participants thought an instructor’s contact should be timely. An interviewee suggested,

If I send you an email at six o’clock in the morning I’ll probably get an email that night, kind of thing. I can’t wait for a week for a response. ... You’re waiting for an answer and you can’t do your assignment.

However, focus group and survey participants did experience a lack of contact from instructors. One survey participant claimed, “There is little communication with professors (in my experience so far).” Another survey participant added, “A lot of problems can be solved by quick questions to professors etc. and that is not possible online.” However, Focus Group 2 felt the instructor contacted them enough through email and face-to-face meetings, but wondered if videoconferencing might be more effective.

### *Facilitation*

A repeated request was for instructors to facilitate the online activities, especially posted discussions. Forty-six survey respondents, two interviewees, and participants from two focus

groups offered comments about the essentialness of instructor facilitation. For instance, a survey participant shared, “Through most of my courses my instructors have been very engaged in the class, providing valuable feedback, sparking discussions and summarizing topics.” A survey participant shared, “I have also found the Eluminate [sic] Live sessions to [be] valuable when the instructor leads discussions and then assigns small groups.” However, many participants felt that the online discussions in *Blackboard*<sup>®</sup> became overwhelming with the number of postings. As well, participants were annoyed at small, meaningless postings by other students and felt that only relevant messages should be posted. In these cases, participants wanted the instructor to provide more facilitation and moderation. For instance, a survey participant suggested that “instructors set parameters around discussion boards.” A participant in Focus Group 4 furthered, “In one of my first courses we had a couple of real keeners that wouldn’t let [up] until the prof actually waded in and told them to cool their jets.” Participants felt that without instructor facilitation there might be safe and unchallenging postings, or discussions that were out of control. A survey participant offered, “When professors are not engaged in the on line discussion I find participation by peers falls off as well so while I recognize it is a big committment [sic] I would encourage professors to participate regularly.”

### *Participation*

A few participants commented on the need for instructors to more actively participate in the online environment. For instance, Focus Group 4 thought it was important that the instructor should participate in all online activities as they needed their input and expertise. A survey participant commented,

One teaching strategy online that caught my eye in a very positive way was one professor who decided to participate as 'one of the gang' through all phases of the online course she facilitated. She stated that she would do this at the outset, and she followed through with



it, thereby setting an example about participation, length, quality and depth of postings, [and] offering additional resources.

A survey participant claimed, “I also enjoyed the opportunities to collaborate with the professor.” More important, interviewees commented they preferred instructors being facilitators who gave feedback, challenged students, and shared their expertise. For instance, one survey participant explained, “The educators in this program (EdD) are sufficiently engaged to provide direction and contact, when needed, but detached [sic] enough to allow us to engage in deep learning through intensive reading requirements, and active discussion with our cohort.” An interviewee added, “I’m not saying the instructor ... dominates. I wouldn’t like that either. But there is a presence and I think it’s comparable to the presence that they would have in a face to face setting.”

However, some participants complained about instructors being absent online. Focus Group 4 felt that instructors who did not engage online were missing the chance to experience learning that was rewarding and rich with multiple perspectives. They could not fathom why instructors did not engage, and wondered if some had the perception that teaching online is easy and takes less involvement than face-to-face classes. For instance, one survey participant claimed, “Courses are really a shell and the course is created by the learners. To some extent that should happen in doctoral courses - I just think there is too much of that and limited faculty presence.”

### *Communication*

Participants commented often about the ways they needed to communicate online. They felt communication methods and devices were more important in the online world as they became the only way for learners to connect with others. Prevalent subthemes, in order of

importance to participants, were the need for live communication, interaction with others, and timely messages.

### *Live Communication*

Eighty-five survey respondents, two interviewees, and participants from two focus groups made remarks that they preferred face-to-face encounters like in physical classrooms. They were worried about the lack of 'human contact' or face-to-face connection in an online environment, and wondered how it might affect their learning. A survey participant claimed, "I really like face-to-face meetings and discussions, so I was concern [sic] about what I would be missing if most of my learning was online." However, a survey participant commented that with online environments "I found it much, much easier to voice my opinions and connected really well with members of my class." Another survey participant stated, "Truth be told, I have enjoyed learning without the noise of sight." In this instance, the survey participant felt she or he could concentrate on the content and lessons of a course rather than being distracted by visual and oral stimulations in a physical classroom. However, participants commented that the lack of body language online inhibited communication. They needed to see other people to communicate well. For instance, an interviewee offered,

I think video conferencing would probably be the kind of thing that would really draw me. ... It would really fulfill that need to see who I'm talking [to]... and pick up on those other elements of communication that come through the visuals.

Another survey participant added,

In a face to face environment ... you can 'look' bored, and this body language (combined with your colleagues' body language) quickly gets the point across. There was no way to do this in an online environment, and when the faculty member didn't get the positive

kudos they were looking for, they blamed the online environment instead of taking responsibility for their lack of engagement.

As well, participants asked for communication that was more verbal in nature as they learned better through oral exchanges. For instance, a participant in Focus Group 1 stated, “talking on the phone brings the humour and the inflection.” Another participant in Focus Group 1 offered, “Everybody can use the little emoticons all they want, but it’s not the same thing as talking.” Also, participants felt that communicating through text could produce misunderstandings. For instance, an interviewed participant stated, “It’s so efficient to be face to face ... [to] clearly understanding [sic] what that person meant. ... [Whereas] this email thing [goes] back and forth. [For] the time it takes, phone them.” Participants wanted communication components found in a face-to-face classroom replicated in the online environment through the use of software tools. For instance, one participant in Focus Group 1 shared, “[I] want to connect with people as a basic human need. If there’s ways that can be built into an online program, so that it’s not just text or *Elluminate Live!*<sup>®</sup>.” As well, a survey participant warned, “The [E]lluminate conferences where you had to push a button to talk [is] not conducive to conversation.” Yet, a survey participant shared, “These [*Elluminate Live!*<sup>®</sup>] sessions allowed the course participants to interact in real time and the opportunity to speak to and hear the voices of peers offered a sense of being in a ‘real classroom’.”

### *Interaction*

Participants found they learned best when they could interact with others. For instance, a survey participant shared, “I liked the [E]lluminate Live sessions because of the interactivity.” Whereas, a survey participant added the online environment was “unmotivating as I had no one to talk with and mull things over.” Another stated, “I regretted the vastly different levels of participation among my online colleagues. Some are always there; some are never there or rarely

there to the point that I wonder what they are doing in such a doctoral level program.” Another survey participant shared,

Many of the students in the on-line course I registered in seemed so cold; it felt that everybody just wanted to post answers for the sake of completing a course requirement rather than really trying to interact with others and sharing ideas.

As well, some participants missed interaction in a face-to-face setting. For instance, a survey participant said, “I miss the on-campus interaction, especially the coffee room type discussions and set class times. Even if I chose to listen more than talk.” A survey participant added, “I work well in a class setting and worried about the lack of interaction with classmates.” Another survey participant stated, “Some of the commentary tended to be 'safe' and 'polite'. I think that students are more able to engage in debate when they are face to face.”

#### *Timeliness*

Five interviewees, eight survey respondents, and participants from one focus group wanted communication to be timely and frequent. Considering they felt more isolated when learning at a distance, participants needed immediate responses to clarify misunderstandings and gain feedback. This need for immediacy applied to communication with instructors, fellow students, and group members. One survey participant stated, “[I] find the hesitancy of online learning frustrating at times.” Another stated it was important “getting quick responses to questions... [and not] waiting for clarification longer than necessary sometimes and sometimes not at all.” Another resigned, “Since communication was through email, it was just a matter of waiting for a response.” Yet, a survey participant felt with online environments a person “[c]an send things asap [sic], and get in touch with people very fast.” Timely and frequent communication made participants feel connected with and valued by instructors and other

students. If communication was too infrequent, participants felt isolated, frustrated, and stagnated in their learning.

### *Online Communities*

There was a strong desire by participants to have an online learning community. For instance, an online community was thought to provide participants with a means to build relationships with fellow peers and continue their connection with them after a course ended. A participant in Focus Group 3 liked “the idea of community. Partly the way it is facilitated by the instructor ... [and] also very much in the way that the students in that particular class take on the responsibility for developing community.” Additionally, for participants, an online community was a means to feel less isolated, and feel included as a member of the university. It made participants feel connected, whereas, the lack of a community made participants feel removed from the larger community and their peers. The instructor was seen as instrumental in developing an online community and partaking as a member.

### *Relationship Building*

One hundred and fifteen participants found building personal and professional relationships with fellow students online enriched their learning. A survey participant stated, “I really like the courses that have some Elluminate component to them, particularly near the beginning of a course [as] a way to set the stage and start building the community.” Survey participants found group and partner work could serve as a community, as well. A participant in Focus Group 1 shared, “[I]t was *Elluminate Live!*<sup>®</sup>, it was a small group, and we did meet on a regular kind of basis ... [and] I think we definitely did sort of get to know each other better.” However, an interviewee found online was “more challenging to build those connections with professors and students. ... Everyone just shows up as a blue or a black font.” As well, one

survey participant shared that with online learning, “I ... wondered if I could truly get to know my scholastic colleagues.” A survey participant echoed,

[It] can be difficult to have a sense of the people you are learning with in the class. Some courses have offered the opportunity to post pictures and biographies that give a sense of knowing each other better. When that doesn't happen, I have a hard time relating to people being more than simply a name at the end of the post.

Adding to this, a participant in Focus Group 3 stated,

When is there ever time to talk like this in class, you know. Even during the summer sessions, if you're doing a doctoral program or you're taking a masters course, it's so busy you can hardly even get to socialize.

In this case, participants commented that the workload was quite high during the two-week summer courses on campus, and felt they had little time to socialize with fellow classmates. During online courses, participants felt burdened by the amount of assigned work, including the amount of discussion postings to read, and their full adult lives attending to work and family responsibilities.

### *Isolation*

Ten survey respondents and participants from three focus groups felt isolated from their peers, instructors, and academy when working online. Many experienced not being able to establish friendships with peers, and stated the online environment felt impersonal. For instance, one participant in Focus Group 4 shared, “Of the ten courses I have taken, I have met one other student face-to-face and only for a few minutes. I have felt isolated but then so did the others. I accept that as part of the package.” Another survey participant shared, “One disadvantage I experience with the online environment is that I do feel isolated. It would be wonderful to bump into classmates and my advisor from time to time without having to travel to [the university].”

As well, participants in Focus Group 1 and 3 felt they could not authentically represent themselves online. One member of Focus Group 3 added, “Identity as a student is a difficulty for me, because I don’t get to know people for who they really are and they don’t get to know me for who I really am.” Another participant in Focus Group 3 shared,

I feel like as a learner online I always have this identity crisis, because I never know how casual I should keep the conversation, you know in terms of the discussion board. I feel like I have this multiple personality disorder ... because I never quite know how to react. ... You don’t want to offend anyone online ... [and the] idea of being super polite all the time ... isn’t really in me.

The lack of face-to-face meetings increased participants’ feeling of isolation. For instance, a survey participant stated that the online environment “can be impersonal, alienating, and lacks face to face communication.” However, focus groups felt face-to-face exchanges, either in person or through technology, would help them overcome feelings of isolation. Also, Focus Group 4 found they could overcome isolation through group work. A member in this group stated, “Group work seemed to, you know, break the ice a little bit. You felt more human contact that way, and I too felt quite isolated at times, so the group work helps.” A survey participant shared, “I really liked the Elluminate Sessions as it provide [sic] me at least with some 'human contact'.”

#### *University Member*

Two interviewees, five survey respondents, and participants from one focus group shared their feelings of being excluded from the academy. They struggled with their identity as online learners, and how they were perceived by the university community. For instance, a participant in Focus Group 2 felt “online students feel ... disenfranchised, alienated, [and] not really part of the overall university community.” As well, survey participants felt marginalized as online

learners and wanted to be more present at the university, faculty, and graduate division. For instance, another participant mentioned, “The one disadvantage I feel/felt is that I feel 'unknown' by the program administrators when I phone or visit the campus.” A survey participant commented, “At times, I felt the university really liked my money but had little time to deal with me as a learner. There is a sense of being a 'second class' citizen on the campus.” Another shared, “I know tech and library support is available to me but I do not access it because I feel somewhat disconnected from the campus.” Interviewees commented they wanted to be part of the academy, and gain the whole student experience like those on campus. A survey participant stated, “[T]he rest of the university acts like we do not exist - we get lots of notes about special lectures, but I don't see information about access to Webcasts or archives of those.” An interviewee felt both academic and non-academic aspects of the university should be offered to online students.

### *Continued Connection*

A few participants missed their fellow students when an online course ended. They still wanted a community and to continue their contact with peers. For instance, a participant in Focus Group 1 appreciated when “there will be some sort of long relationships that will last after the course is done.” As well, a participant in Focus Group 2 shared, “Via email ... I'm still in touch with people from my cohort that I haven't physically seen ... since maybe 2004.” As well, some participants engaged in research after course work, and wanted contact with peers to discuss ideas and gain their encouragement. Some participants were able to meet fellow students in person. One participant in Focus Group 3 shared,

I've always made connections with, you know, at least one or two people. ... We get to build a completely different relationship as colleagues. ... We continue that collaborative learning and that co-construction aspect well after the course, which I think is very cool.



Also, participants looked forward to seeing peers in another class. For instance, a Focus Group 4 member commented,

We've taken more often than not many, many courses together. Occasionally there would be new people in there, but we all knew each other quite well, and I think there was a good flow and there was really good discussion going on even without much feedback or guidance from the faculty person.

Some participants wanted to extend their community beyond their fellow peers. One participant in Focus Group 2 suggested an "integration of the onsite and online communities. ... For example, ... our online courses could be presented to people who are physically in the classroom or physically on campus." Furthering this, a survey participant suggested, "Building a community ... with some faculty and other doctoral students (not in this program) to share knowledge and experiences."

#### *Instructor Leadership*

Last, a few participants felt online instructors were instrumental in building as well as being part of an online community. For instance, Focus Group 1 saw the instructor as someone who could help connect everyone. A survey participant found it effective "[w]hen professors would use activities at the beginning of a course that helped the students get to know each other and build the learning community." Another found helpful the "[c]reation of a social presence initially by all instructors." However, a survey participant noticed with "forming a community [that] some instructors are way more effective at doing this." For instance, a survey participant shared, "[T]he professor did not interact with us during our on-line discussions; he would respond to some students, but did not make a point of responding to others." Focus Group 2 commented that it was important for the instructor to set a tone of respect online. A survey participant agreed by saying,

I found that when the instructor set up expectations for caring and respectful interactions by creating an on-line community through participant introductions as the first week's discussion topic, that set a supportive and positive tone for the rest of the course.

As well, a participant in Focus Group 3 shared that students in one online class were shown a, “netiquette kind of a website ... [on] how you communicate respectfully.”

### *Dialogue*

Dialogue, for many participants, was considered an essential activity to engage online. Participants shared they enjoyed the fact that most online courses had class discussions as a central activity. However, they suggested ways to improve online dialogue. Two important subthemes were providing rich discussions and offering multiple perspectives.

### *Rich Discussions*

Eighty-one survey participants, three interviewees, and participants from three focus groups stated they desired rich discussions and the opportunity to share their thinking along with the thinking of others. For instance, an interviewee stated, “I think in a graduate program discussion with other students is a valuable part of the experience.” Also, participants felt dialogue that was both synchronized and unsynchronized in nature was helpful to their learning. For example, an interviewee commented, “I really enjoy the *Blackboard*® discussions that we take part in. You know, it’s been a very positive experience for me so far.” One survey participant found, “The 2 courses I had that were not discussion board intensive were too isolating. I felt like I might as well be studying on my own.” Yet, quite often participants shared that the amount of postings in online discussion boards was overwhelming. Postings became excessive in numbers and unmanageable, and participants found this hindered their learning. As well, an interviewee stated, “Sometimes I find the discussions wander and people don’t really answer the questions.” Participants asked that online posted discussions be monitored by the

instructor. Yet, in synchronized sessions, participants found long lectures by the instructor did not contribute to rich discussions. For instance, one survey participant shared, “Elive [*Elluminate Live!*<sup>®</sup>] could be better used - in many cases they are a lecture.” Also mentioned was that some of the postings made by peers lacked critical thinking, and participants found reading them time wasting. Focus groups were looking for challenging discourse, and wanted the instructor to interject comments and questions that provoked students to think and respond deeper to the topic. As well, participants expected their fellow peers to be prepared before engaging in rich discussions by reading and reflecting on the topic ahead of time.

### *Multiple Perspectives*

Participants from two focus groups and two interviewees were appreciative of the multiple perspectives offered by peers and instructors. As a result, they encountered thinking and ideas they had not considered, and felt this added to their learning. For instance, an interviewed participant enjoyed the “ability to communicate with others who are finding themselves in both similar and different educational environments. Learning about those experiences is really interesting for me.” As well, a few participants enjoyed connecting with students who lived outside of North America. A participant from Focus Group 3 shared, “I was communicating with people from all over the world, which I found totally amazing as well and it was really, really energizing.”

### *Theme 3: Structure*

Participants offered a number of suggestions for creating online learning environments, and how they could be structured to support their learning. Furthermore, they commented on the resources and services they required online. Subthemes that were prevalent to participants, in

order of importance, were online course and program structures, resources and services, and learning environments.

### *Course and Program Structure*

The theme, Course and Program Structure, refers to the arrangement of courses and programs in the online environment. Instructors, along with instructional designers and technical staff, usually construct online courses; whereas, administration, library, technical, and other staff help create the online program structure. Participants offered comments on both these structures.

#### *Course Structure*

The course structure refers to the arrangement of the curriculum online, and includes syllabi, learning materials, assignment information, learning activities, and digital resources. Survey respondents, focus group participants, and interviewees offered numerous comments on the structural elements of online courses that they found helpful. In order of importance, they shared their views on vital elements of online curricula, and the need for instructors to prepare for online teaching. Next, they shared online courses should offer timely materials, have consistent designs, and take into account the needs of adult learners.

#### *Curricula*

A majority of participants considered the instructor as the sole designer of online curricula. For the most part, curricula provided course information such as learning activities, course expectations, and due dates for assignments. Prevalent subthemes, in order of importance to participants, were comprehensive syllabi, time considerations, and balanced workloads.

#### *Comprehensive Syllabi*

For many participants, syllabi were crucial for their understanding of course expectations and assignments, and for navigating the online environment. Thus, participant asked, in order of

importance, that a syllabus be clear, outline an instructor's expectations for all activities, and be available early in the course.

### *Clear Expectations*

There was a repeated request by fifty-five survey participants, three interviewees, and participants from two focus groups for online syllabi that offered clear course objectives, instructions, and expectations. Without clarity, participants felt lost, uncertain, and frustrated. For instance, one survey participant stated, "A well structured syllabus is key to provide me with the guidance needed to plan." As well, interviewees asked that the curriculum be set and followed as opposed to being constantly changed, which tended to confuse them. For instance, an interviewee stated, "[Sometimes] instructors decide half way through the course it would be better if we changed the time. ... [It is] hard ... trying to schedule things." As well, many participants wanted to understand the instructor's expectations of student work. For instance, they wanted clear assignment details and assessment procedures. Like many, one survey participant asked for "very clear instructions, [and] clear criteria/expectations for assignments and assessment." A survey participant suggested, "I think a forum where students could discuss assignments and their interpretations of expectations would be helpful." More specifically, survey participants asked for clear expectations for student participation in online discussion postings, such as the required number of posts and frequency of participation. As well, participants wanted to see examples of expected work. For instance, one survey participant was satisfied "as long as there is an organized syllabus with examples."

Furthermore, seventeen survey participants, three interviewees, and members in one focus group asked for syllabi to be offered early, and before the course commenced. This gave students time to gather the necessary assigned materials and textbooks, and it allowed them to plan their work and personal schedules. For instance, a survey participant asked for an "early

posting of course syllabus in order to block out online class dates and to get the course text well ahead of time.” Furthermore, interviewees felt a syllabus posted early would give them the necessary information on whether to enrol in a course. One survey participant commented,

The class description is not available early enough to know if a particular class will take the approaches to a subject that you do. thus [sic] you might get stuck in a class that you would not have taken if you had enough information beforehand.

### *Time Considerations*

As well, sixty-five survey respondents, four interviewees, and participants in one focus group asked that online instructors take into consideration participants’ time restrictions when planning curriculum. For instance, a survey participant was concerned with the “number of online sessions per course.” Additionally, interviewees remarked that online courses seemed to involve more study time for students than with face-to-face courses. One survey participant responded,

I think that I've spent a lot more time completing course work than if I'd taken a course on campus. It may be because students have to teach themselves more (we've only had contact with our professor once - for an orientation) and that entails reading and searching for information - a good experience but time consuming.

Furthermore, a number of participants asked instructors to consider time zone differences when they scheduled synchronized sessions, such as with *Elluminate Live!*<sup>®</sup> VoIP meetings. Those living in eastern Canada or abroad struggled with evening activities set at another time zone. For instance, an interviewed participant who lived in the Middle East shared,

Because I live way over here ... when we have *Elluminate Live!*<sup>®</sup> sessions for the class, I was awake at 3 o'clock in the morning and ... I wasn't very happy. [I was] not feeling

really engaged at the time and so working on group work with the time change ... I found that to be challenging.

### *Balanced Workload*

Thirty-three survey respondents, two interviewees, and members from two focus groups asked instructors to balance the course work as some felt the assigned workloads were overwhelming. For instance, focus groups felt both the course and program workloads were too high, which discouraged and lessened their engagement. Participants asked that the requirements for online posted discussions be better balanced as they needed more time to have rich conversations. One survey participant remarked there was “a large amount of work each week which impeded the depth of the discussions on the postings.” One survey participant commented there was,

Too much work in a short time frame. Online learning is different because it takes so much effort to read all of the course information on our own and type our discussion responses. This is much more time consuming than listening to presentations and participating in verbal discussions.

Another commented there was,

Excessive expectations for reading and weekly discussion topics as opposed to more intensive study of a lesser amount of reading over a two-week discussion period. Too much too frequently leaves no time for reflection and really wears a person out.

However, one participant from Focus Group 4 stated, “I must have been lucky, so far all profs courses have been reasonable. Some [were] more work than others but not unreasonably so.” As well, an interviewee offered, “I think everybody who starts online learning goes through a bit of that where they have to check the *Blackboard*<sup>®</sup> every hour and read every single posting. So I think it takes awhile to find the balance.”

### *Preparation*

Seventy-six participants thought that courses needed to be well prepared, and instructors needed to be ready to teach online. Participants suggested a course should be completely finished with content uploaded online before opening it to students. Focus Group 3 participants thought a well organized online course would help their learning and progress. Adding to this, a survey participant appreciated “having access to the powerpoint [sic] presentation prior to the [E]lluminate session, [and being] able to pre-read and get prepared for any questions I may have.” Participants also wanted instructors to be prepared for live lectures held in *Elluminate Live!*<sup>®</sup>, and have the online environment set up and working.

### *Timely Materials*

Participants from two focus groups as well as six survey participants commented on the occasional late distribution of learning materials online, such as reading materials and syllabi. With materials arriving late, participants could not prepare ahead of a lesson by reading materials or readying assignments. As well, before and at times during the course, instructors recommended books to be bought from a bookstore, or ordered from the university library. However, those living in far regions, such as the Middle East, needed time to order and receive textbooks through the mail. Also, some participants wanted reading packages prepared in a timely manner in order to obtain them before the course commenced. Focus Group 2 questioned the feasibility of sending materials by mail, and suggested a courier service might expedite the receipt of important text. Some participants felt this could be arranged at the expense of students.

### *Construction*

A few participants wanted the construction of curriculum to be consistent, yet found they varied. For instance, Focus Group 4 thought there seemed to be an inconsistency among course deadlines, workloads, and assignment requirements. Following this, a survey participant



commented, “[I]t was critical to me that the program offered through distance delivery followed the same program structure, [and] had the same requirements.” Furthermore, participants wanted a well organized online course that allowed them to easily navigate and find the information they needed; whereas, an overly complicated course design hindered student learning as they struggled to find where to post work, locate instructions, and engage in the next set of activities. Adding to this, Focus Group 3 suggested keeping the structure simple and not have various activities scattered throughout the course website. As such, a number of participants asked for simple versus complex course designs.

#### *Adult Learner Needs*

A few participants stated that as adults they required certain accommodations. For instance, Focus Group 1 and 2 shared that adult learners had a number of commitments in their life, and they wanted this recognized when designing online courses. For instance, a participant in Focus Group 2 asked course designers to “respect people’s other lives.” Also, survey participants stated that due to time commitments students needed flexibility, such as with their attendance at synchronized sessions. As well, participants commented they wanted choice in the learning activities. For instance, one survey participant shared, “Minimal choices [were] given to students on dividing into small groups or choosing specific course topics to examine as a group.” As well, a survey participant commented on the “[i]mportance of providing students with choice whenever possible as this facilitates motivation.” Along with this, participants asked for courses that were personalized. For instance, one survey participant asked for “assignments that could be tailored to my practice and were not strictly theoretical.” Whereas, a member from Focus Group 4 stated, “I found that the things I’m getting out of this program are so diverse that it’s opening up some great, great doors for me.” Another group member agreed by saying, “What I’ve

appreciated is that everything I've studied applies to what I do day in and day out in my job.

That's why this program has been so great for me."

### *Program Structure*

There were a number of comments about the structure of online programs. Most prevalent was the credibility of online programs. Another comment was about offering blended programs that had both online and face-to-face components.

### *Program Credibility*

One main reason twenty-four survey, focus group, and interview participants hesitated to enrol in an online graduate program was the perceived lack of credibility and questionable quality of an online degree by others. Participants were aware the programs were delivered online, yet were concerned how other educational institutions and employers might perceive online program certification. For instance, a survey participant commented, "Some employers are still biased against online degrees", and another thought an online "[d]egree [was] not worth as much as a traditional degree." One survey participant wondered "[I]f the transcripts or diploma would say online, thus, hurting its appeal."

As well, survey participants wanted a program that was rigorous. For instance, interviewees valued an online degree program that had significant course and program work, and one from a university with a good reputation. Yet, this view contrasts with participant complaints about high workloads assigned in online classes compared to face-to-face classes. Furthermore, a survey participant warned, "The flexibility afforded by online learning that accomodates [sic] busy career oriented people online must not translate into lowered standards of academic involvement." Focus Group 4 participants praised the online programs in the graduate division for providing an opportunity to learn online, for creating rigorous programs, and for having content that was applicable to their work.

An interviewed participant suggested that online programs be promoted more ardently to outsiders to advocate the amount, level, and quality of work online learners produce. A survey participant echoed,

I initially felt hesitation related to the perceptions about online degrees and their validity.

There is, what I believe to be, a wrongful perception that online learning programs are ‘less legitimate’, and lack the same rigour as comparable on-campus programs. Those who are unfamiliar with various delivery methods compare online programs, such as those offered at the [university], to correspondence programs, or degrees offered through non-accredited schools.

### *Blended Learning*

A few study participants remarked they would like more face-to-face interactions and called for programs with blended learning components. Two interviewees seemed to have worked within this model, either by choosing on-campus courses as part of their program, or being in a program structured as blended. Either way, they enjoyed this mode of delivery. For instance, one interviewee liked the blended model enough to choose a doctoral program designed in the same way. Also, a survey participant enjoyed “[b]lended learning ... [and] getting to see and know my classmates in-person prior to engaging in online learning.” Another interviewee and resident near the university shared, “I was happy when they lifted [on-campus course restrictions]. [It] used to be this [online] degree had to be you could only take a maximum of, I think, five courses in the classroom. ... [Now it is] more blended.” As well, interviewees liked the blended format as it offered a variety of activities and provided better peer support.

Some participants were in doctoral degree programs that had summer courses delivered on campus. These participants found meeting their peers and working with the course content in person helped them work better online. Though they spent a major of their time online in a

program, the opportunity to meet physically helped participants to connect with fellow students. During the face-to-face meetings they valued the live dialogue, clarification of information, and planning of next steps in the course. One participant in Focus Group 1 commented, “It’s only after I’ve seen them or gotten to know them face-to-face where I really do feel I have a connection.” An interviewee shared, “[When] learning together in the classroom we had a session midway through where a bunch of us got together one afternoon ... [and] worked on the final assignment. ... I know I would’ve just slogged through that course if I’d done it online.” Another interviewee added that during a summer session,

We have relationships with [peers] ... because we come from all over and we stay together. We go out to supper together. We go out to lunch together. We go out for drinks together. There’s this bond and I mean we take care of each other in [the] online virtual world, as well.

One participant in Focus Group 4 stated, “I think the university [is] doing the people a disservice if they’re putting them in the second semester and not giving them that face-to-face ahead of time. I think that’s important.” Yet, one survey participant was concerned about the possible number of required site visits, and stated, “In my previous online learning programs at the graduate level there was only one required residency or onsite visit.”

#### *Technology-Based Infrastructures, Resources, and Services*

The theme, Technology-Based Infrastructures, Resources, and Services, refers to the tools and services participants requested to support their learning online. In order of importance, participants were interested in online accessibility, online learning systems, and functional technology. They also were interested in online information, tutorials, and library resources. Two other final concerns were Internet connectivity and equitable tuition fees.

### *Resource Accessibility*

Forty-nine survey participants, one interviewee, and members of one focus group stated how much they appreciated the graduate programs and courses being offered online. If not for the online mode of delivery, they would not have been able to pursue higher education. Furthermore, participants wanted quick and direct access to resources, such as learning materials, as well as services and support people. Focus Group 2 appreciated online access and found it gave them the flexibility they needed. For instance, with courses and resources being placed on the web, participants could access them through any computer, whether at home, work, or other places that had Internet connection. One survey participant appreciated the “[f]lexibility in access [as] I can access wherever I am (as long as I have internet access) whether I’m at a conference or away on personal business.” Echoing this, a survey participant appreciated the “[a]bility to do all things online, including registration, payments, course learning and paper submission.” Another shared,

Access and connecting have been no problem. I’ve noticed major improvements in these areas since I completed my Master’s degree online – some of this could be due to changes in technology, but I think overall the service side has improved as well.

However, one survey participant added a comment about the online student service systems and stated, “Infonet was great and of course it stopped. I think there have been at least 3 changes since then. [Therefore, I] have a black book of user names and passwords to refer to.” As well, some participants struggled with technology problems. For instance, a survey participant added, “The technology (when it is working without a hitch) is simple, quick, efficient, [and] well-organized from the point of view of keeping everything in one place and easily accessible.” Also, participants appreciated that most resources were available continuously through the day, night, and week. As such, they could log on at any time convenient to them and

access courses, support, and learning materials. For instance, one survey participant shared the “24-7 accessibility to Blackboard posts worked well for me.”

### *Online Systems*

Sixty-four survey participants and one interviewee appreciated the web-based resources that supported their learning. They found electronic resources vital to their online learning success. The types of online systems and programs participants liked to use the most were *Blackboard*<sup>®</sup>, *Elluminate Live!*<sup>®</sup>, *PeopleSoft*<sup>™</sup>, and library databases. They appreciated what these systems offered, such as direct access to organized content, learning materials, communication devices, collaborative tools, and online services. For instance, a survey participant commented, “The course I am in provides audio files, [E]lluminate sessions, [and] numerous emails with updates. Not all courses have use of a variety of communicative technologies such as Elluminate and the Blackboard discussion tool.” As well, an interviewee valued “Software program[s] such as *Elluminate Live!*<sup>®</sup> and *Blackboard*<sup>®</sup>. Those kinds of interfaces that work ... are intuitive and ... easy to use and don’t continually crash.” A survey participant appreciated “Having a place where information is retained (blackboard) [sic] and I can access information when I need it.” However, another commented, “Elluminate has a long way to go to be effective. Every [E]lluminate session I had was complicated - people were kicked off, the whole system was down, people couldn’t be heard.” Another survey participant complained about, “Blackboard glitches- I had to write my posts in Word and cut/paste because I lost my post in Blackboard too often.” Another shared, “Elluminate glitches- I have been booted out of classes, I have seen classmates struggle to stay connected, and a couple of times, the whole class was shut down. This doesn’t have to happen very often for it to impede the learning experience.”

### *Functional Technology*

Sixty survey respondents, two interviewees, and participants from one focus group wanted technology that was functional, user friendly, and intuitive to their needs. For the most part, participants found the online course management and communication programs provided by the university, such as *Blackboard*<sup>®</sup> and *Elluminate Live!*<sup>®</sup>, easy to use. For instance, one survey participant stated, “Throughout the duration of my studies, I was impressed with the reliability and functionality of the technical resources, including Blackboard, Library Services, Elluminate, etc.” However, participants shared their frustrations with these systems. One survey participant added, “Blackboard is periodically slow, especially [sic] in the evening (Mountain Standard Time) and it takes a long time to connect to my Elluminate classes.” As well, numerous participants commented they had been disconnected from VoIP synchronized sessions, such as *Elluminate Live!*<sup>®</sup>. Sometimes this was due to technology problems at the university, and other times due to the functionality of their personal computers. One survey participant shared, “The other night for instance half way through a three hour [E]lluminate session, our whole class of 15 participants was shut out. The class had to be rescheduled.”

Also, survey participants recognized they needed to have adequate computers to access online environments with less difficulty. Furthermore, they realized they needed to manage their own firewall and virus software in order to not restrict their access online. For instance, students with dated computers had troubles running the *Elluminate Live!*<sup>®</sup> program on their personal systems. One survey participant declared, “[I] need a good system. ... [It is] fine since [the] upgrade.” A participant in Focus Group 2 shared, “I had a Mac and I rarely made it through every *Elluminate Live!*<sup>®</sup> session. I had been kicked out and after four times of being kicked out I just left. I was tired of it.” Participants commented they needed immediate support when technology operated by the university was not functioning. These technical problems could

restrict accessing information and library databases, or online course management and VoIP synchronous classroom programs such as *Blackboard*® and *Elluminate Live!*®. For instance, a survey participant shared, “[S]ometimes when you were stuck there was no one to talk to for support.” Thus, participants asked for technical support to be available when needed, and to inform students when there were technical issues. Furthering this, Focus Group 2 asked that the contact information for information technology [IT] staff be provided, including their telephone numbers.

### *Information, Tutorials, Orientations, and Presentations*

Thirty-six survey participants, two interviewees, and members from all four focus groups stated they needed access to information online that would aid their studies and help them progress in their programs. For instance, having access to tutorials about using technology was needed. Most participants appreciated pre-recorded as well as live tutorials, orientations, and presentations. Focus Group 3 praised the pre-recorded tutorials, and found them to be an excellent service and support. Some survey participants wanted to see tutorials on useful strategies for learning online. Most pre-recorded tutorials showed viewers how to use technology effectively, such as with electronic library databases. A participant in Focus Group 4 viewed a recorded tutorial “on how to use *Elluminate Live!*®. That was extremely valuable. I really appreciate whoever was ... helping with that because it was amazing.” A participant in Focus Group 3 summed it well by appreciating,

pre-recorded *Elluminate Live!*® session[s] ... on how to access information in the various databases and how to use the library and get materials. ... I had all the information I needed and I could practice at my own ... time when I was available.

As well, live, synchronized sessions were usually orientations, held at the beginning of a program or course, and delivered by academic and support staff. Usually, these orientations were



recorded and available to students who could not attend. A survey participant commented, “The orientation offered by [the university] was very helpful.” Also, participants found accessing the recordings of presentations helpful. Presentations could be class sessions held by instructors and peers, or professional development sessions delivered by the faculty of education. One survey participant shared, “I liked having access to recorded sessions to revisit concepts.” A survey participant liked, “the fact that many presentations were in the form of powerpoint [sic] so I could refer to them later.”

Yet, another survey participant felt tutorials and orientations were “[c]onfusing, overwhelming ‘introductions’ to everything.” A survey participant shared having “[c]onfusing experiences with the databases for online libraries (I sat through the orientation and the library help desk was useful, but it still is difficult to use).” Another survey participant added, “Instructional materials were not accessible to many learners who had technology constraints (i.e. watching a lecture online when you couldn't download on your computer).”

### *Technology Training*

Following this, the participants appreciated any form of training to help improve their technology skills. For instance, one participant from Focus Group 2 shared, “[Though] I’m of a younger generation where I’m very comfortable with technology ... it was still a learning curve and it still continues to be.” An interviewee wanted to learn how to use other technology more efficiently. Thus, a number of participants asked that more training be given outside of the current sources, which were pre-recorded tutorials for using library electronic databases and *Illuminate Live!*<sup>®</sup>. A survey participant suggested, “We should have [E]lluminate sessions teaching us how to make a powerpoint [sic], or use SPSS, or create a WebPage [sic] ... or [D]reamweaver presentations.” Whereas, a survey participant shared, “The best introduction to online learning was my very first course – Learning with Technology. It was a wonderful

introduction to online teaching tools such as Blackboard and Elluminate.” An interviewee wanted it ensured that all students had the skills to work effectively with technology, because when they lacked the ability it hindered her learning. As well, Focus Group 1 mentioned they wanted more training on how to find, retrieve, and handle online resources. For instance, a survey participant commented, “I had a difficult time navigating the online [library] databases and think a mandatory course should be taken by all graduate students to learn the most effective search engines for the purpose they are looking to fulfill.”

### *Library Resources*

Thirty-nine survey participants, one interviewee, and members from one focus group praised the online resources provided by the library. They were impressed with the access to thousands of digitized articles and books; whereas, one survey participant worried, “Would I have access to the research databases necessary to complete my studies?” Speaking for many, one survey participant stated, “I have found the library’s online resources and databases to be easy to use and extremely helpful.” Another stated, “I am outside of Canada, so there are limits to the services I get, but the library has been understanding and done things like photocopy a book chapter if requested.” A participant in Focus Group 2 stated it was “going to be a huge deficit in my practice when I don’t get to access that anymore.” However, there were problems with accessing library resources. A survey participant shared there were “[p]roblems accessing some recommended texts – not available electronically, only one copy [was] available through [the university] library, [and] not available at my local public library.” An interviewee stated, “I’m a bit overwhelmed by the online sources. ... Having to narrow [a search in] databases in a particular discipline is challenging for me.” As well, a number of participants were frustrated with the slow delivery of materials sent by the library through mail. A survey participant had a concern for the “[the university library] loan periods for textbooks – by the time it arrives at my

location I only have a few days to read it before I have to send it back.” Yet, other participants were elated that books would arrive on their doorstep within a week. One survey participant stated, “[the university library] distance delivery – they are wonderful!”

### *Text Material*

There was mixed feelings by a few participants on the usefulness of course textbooks. Some participants enjoyed having a book or course reading package, while others preferred to download and print reading materials from the web. For instance, one participant in Focus Group 1 stated, “I prefer a book that I can put up on my shelf”. Yet, a survey participant stated that by “buying the text books and things from the bookstore ... you always spend more than you meant [and then] they sit on the shelf.” Yet, another commented, “I did not like reading articles online, and would have to print them, which is at a cost to me, plus time spent downloading and printing.” As well, some participant found it hard to organize the digital materials downloaded from the web. Additionally, participants struggled with the availability of textbooks. A survey participant stated, “The bookstore does not always have next semester’s books online as early as I want to order them.” One participant in Focus Group 2 suggested that for “getting them in Egypt maybe it is worth the cost of ... FedEx ... [or] making arrangements, perhaps, with suppliers.” Focus Group 2 suggested offering a photocopy service to copy and distribute books, thus making them cheaper. Another participant from that group suggested for “two and three students to go together ... [and get] special permission to photocopy chapters. ... I have seen that kind of thing done.” Also, one participant in Focus Group 3 had found a way to obtain books. This participant stated, “I find that the books, if they’re available through Chapters, are cheaper than the [university] bookstore. And what I’ve done with this one particular class I bought all my texts on EBay and I’m getting them really cheap.”

### *Internet Connection*

With online learning comes the prominent use and reliance on technology. Twenty-five survey participants and one interviewee had varying comments about the usefulness of technology, and the frustrations they experienced with it. For instance, participants wanted a trouble free and quick connection to the Internet. One survey participant added, “My high speed internet hook-up provided excellent access and connection time.” However, a number of times participants experienced poor or broken Internet connections, which was mostly due to their local Internet Service Providers. Those living outside an urban area experienced connectivity problems, as well. For instance, a few participants in rural settings had less stable Internet connection forcing them to attend live sessions in the evening using their workplace computers. An interviewee shared,

Twice I’ve had trouble with the Internet at the time of an *Elluminate Live!*<sup>®</sup> class, so I’ve run to work and have tried to access it at work. But generally if my problems with Internet are at home usually those problems are at work as well. So it’s connectivity problems.

Also, one student living in the Middle East claimed the local Internet service was unstable. She stated once a cable was cut during construction at a worksite, and Internet service to the entire area was disconnected.

### *Equitable Program Fees*

One of the most prevalent reasons for hesitating to join an online program offered by the graduate division was the high program fees. Thirty-three survey respondents, one interviewee, and participants in two focus groups did not understand why program fees were higher than campus programs. For instance, one survey participant stated,

The classes are VERY expensive. I'm not sure why – it isn't expensive to have a web page set up, and the classes are small, the profs are already at the [university]. I think the cost is so expensive to discourage those who can attend a real university do and those who can't have to pay.

Another survey participant stated, "Fees were high compared to graduate courses I've taken with other institutions." Another wrote, "If I had had a choice, I would not have taken online because it is too expensive." As well, a participant in Focus Group 1 stated needing "to be able to ... work enough hours to pay these ridiculous tuition fees and book fees." Also, Focus Group 3 complained about being unfairly charged for services that distance learners could not access, such as using recreational facilities. Last, participants complained about fees constantly changing, and having additional costs such as printing online texts.

### *Cost Benefits Analysis*

A few participants weighed the program costs against the benefits, and found the benefits more significant. They found the advantages to learning online, such as convenience and flexibility, allowed them to maintain their usual lives with their families, jobs, and local communities. As such, some participants were willing to bear the costs, resigning to the fact that most online programs, worldwide, were costly. To them, the tuition and associated costs were part of the program. A participant in Focus Group 2 offered, "I plan to move overseas next year, and you know, I'll have to pay the costs." One participant in Focus Group 2 concluded there is "always a trade off ... like [with] FedEx ... [and] computers that are sufficiently up to date. ... You have to be prepared for these costs." As well, survey participants wanted a flexible payment schedule. For instance, one survey participant stated that "[s]taggered fee payments made monetary considerations much more manageable."

### *Financial Support*

Two interviewees and members from one focus group were dismayed at the lack of financial support for online learners, such as with student scholarships. They felt disadvantaged compared to campus students and felt they were not eligible to apply for funding support. For instance, a participant in Focus Group 4 stated, “One thing that felt like a disadvantage was the eligibility for scholarships, and I actually learned that the chance of getting a scholarship in this program were very slight.” Another group member shared, “Somebody joked, ‘Doesn’t he know that there’s no scholarships for online EDD students’, and I don’t think that they recognized that I heard that.” As well, some participants found that there was little financial support for those living outside the province of Alberta. Yet, a few participants did receive financial support from other sources. One participant in Focus Group 4 received support from an employer through professional development funds. As well, an interviewee shared, “Alberta learning, the government, offers bursary money for teachers ... pursuing a second language. ... They paid for the cost of my courses in French.”

### *Online payment*

A few survey participants and members from one focus group commented about paying for their fees online. For instance, one survey participant shared, “I feel comfortable in using online to conduct all of the financial transactions related to my education.” Another stated, “I like PeopleSoft, but there is a learning curve.” However, one survey participant stated,

I preferred the system for fee payment that we used to have – it seemed easier to see what

I was paying for and the history of payment seemed easier to understand.

As well, participants remarked about the current university policy to discontinue paying for fees online with a credit card. The university announced that the savings from not paying merchant fees to credit card companies would be put towards student financial support, such as bursaries

and scholarships. However, participants found the discontinuation of using credit cards as a form of payment inconvenient for online learners and wondered how that might affect students. For instance, one survey participant shared, “I appreciated the convenience of paying my fees by credit card as I do not receive my bursary (which reimburses %55 [sic] of my tuition costs) until after I have completed the class.” As well, a participant in Focus Group 4 stated, “I’ve never received any money to help me, so if the money goes to awards and bursaries - it goes to a select group of students, yet all students lose out on the service.” Yet, another member of that group stated, “I, for one, support the university in what they’re doing, because I’d much rather see the students get that money than some big faceless banking corporation.”

### *Learning Environment*

The online learning environment was seen as an important element, and participants felt a well designed one was crucial for successful engagement and learning. More specifically, in order of importance, participants described wanting an environment that offered a variety of learning activities, a positive climate, carefully selected group work, self-directed learning, and flexibility.

### *Learning Activities*

Fifty-six participants wanted to engage in many different activities online, satisfying their need to learn in different ways. For instance, an interviewee liked to have a variety of learning activities that were not constantly the same. As well, those interviewed wanted a mix of flexible and set activities, and most participants wanted a mix of asynchronous and synchronous activities. A survey participant wrote, “The many different activities that instructors created to engage us in learning each week were instrumental in assisting me with online learning.” One survey participant liked a “[b]alance of class interaction with dissemination of information.” Again, they asked that instructors be flexible with their expectations of student attendance and

work. More specifically, prevalent learning activities for participants were asynchronous discussions, synchronous sessions, and group work.

### *Asynchronous Discussions*

Twenty of the participants mentioned above enjoyed online discussions that were asynchronous and felt they added to their learning. For instance, one survey participant stated, “The dialogue on the blackboard [sic] threads has been an excellent source of learning and interaction.” A participant from Focus Group 3 stated, “I am very much introverted and a social loner. I’ve only taken four courses, but all four courses have had a really positive social interaction that I found on the discussion board and I really like the discussion board.” Another member from that group added, “I truly believe that co-construction through the discussion boards incredibly enhanced my learning experience.” As well, survey participants found asynchronous discussions gave them the flexibility to post comments at their own pace. Focus Group 3 found online posted discussions to be transparent. For instance, a participant in that group stated, “I quite enjoy ... the transparency of the conversation, the transparency of the engagement. ... You’re aware of what everybody else is doing ... [and] making a point that could benefit others.” One participant from Focus Group 4 commented, “In a classroom situation ... you may get responses from just those three or four people. ... In contrast, in the online setting ... you can get the perspective of a lot more people.” As well, survey participants wanted posted discussions that encouraged critical thinking and debate. For instance, one survey participant found helpful “[r]eading and discussing applicable pieces from literature to practice, as well as understanding other educators situations and ways of going about resolving issues.” However, one survey participant complained that *Blackboard*® “became a delivery tool for powerpoint [sic] presentations - very boring.” Another furthered that, “The monotony at times of the Blackboard process is tedious--reading a powerpoint [sic], responding to questions, etc.”



As mentioned previously, many survey participants found online asynchronous discussions, at times, became burdensome due to postings that were lengthy, meaningless, and off topic. A suggestion by Focus Group 4 was to place people into small groups so that everyone could contribute to the discussion, then regroup as a class to share main ideas. At times, survey participants found participation was uneven with some students being more dominant online and others being absent. Thus, Focus Group 3 suggested instructors set a limit to the number of postings, and request a certain quality to the asynchronous discussions.

### *Synchronous Sessions*

Six of the participants mentioned that they enjoyed the live, synchronous VoIP sessions. These sessions satisfied a number of needs such as verbal exchange, dynamic interaction, and connection with others. For instance, a survey participant wrote,

I also appreciate monthly Elluminate session to hear the voices of others and to get that immediate [sic] interaction that is lacking online. In my one year long course we actually got very good as a class in discussing online through Elluminate- it took time but it did happen.

One survey participant asked for “more opportunities for live discussions. We need to be able to talk about our research and defend it.” Another wanted a “well planned Elluminate sessions with lots of discussion, [and] break out groups.” Another participant offered, “In addition, some, but again - not too many, synchronous sessions ... to keep me on track.” An interviewee thought “starting the course with a synchronous session is useful. ... The more personal you can make it the better.” However, another interviewee asked for synchronous sessions not to be used for typical lectures. Following this, one survey participant asked to “not use the whiteboard on the Elluminate sessions to provide more information – [but to use it for] more oral presentation[s] (information exchange).”

*Positive Climate*

Forty-two participants thought a positive online learning environment was vital. More specifically, participants thought a positive online environment was one that would be engaging, and would increase their interest in the online course. Focus groups suggested that any teaching strategy or online feature that did not encourage engagement was considered frustrating and of little value. For instance, a survey participant explained that, “[c]lassmates are eager, when set up with motivational probes, to share experience and expertise, challenges, and success.” Focus Group 4 felt they could participate better online than in face-to-face venues, and one survey participant wrote, “Having required discussion posts incorporated into the course requirements encouraged me to stay active and involved in the course, and kept me interacting with peers, perhaps even more so than I would have in a face-to-face forum.” Another stated a positive climate is where “students participated in vigorous discussion, responded honestly and promptly to peers, and created a lively classroom environment.” However, a survey participant shared poor engagement would be the “lack of back and forth discussion ... [and] waiting for others to post something and then taking a long time to respond and someone makes the next post ahead of you.”

*Group Work*

Thirty-one participants (twenty-five survey respondents, two interviewees, and members of all four focus groups) commented on group work conducted online. Survey participants commented that group work was a useful forum for collaboration, and was effective for working in smaller groupings. One survey participant shared, “[G]roup work provided specific interactions.” Another liked using “[g]roup forums on Blackboard and Elluminate to plan group projects.” Also, survey participants stated they liked presentations by their peers, with one participant adding, “Group presentations although cumbersome organizationally at times were a

good way to understand the content.” However, a number of participants were frustrated with online group work. For instance, Focus Group 1 felt anxious about group work as they struggled with poor communication, collaboration, and uncompleted work. Though they recognized the literature promoted group work as an effective learning activity, they found it time consuming and inhibited their learning. One survey participant shared, “Group work online stresses me out. In postings, I have been misinterpreted and find the delay in responding to clarify difficult.” A survey participant commented not liking “[g]roup work - when work is not evenly distributed.” Another survey participant added, “[It is] so labour intensive and it just occupies so much of your week.” As well, Focus Group 2 found group work challenging due to the different learning styles of members, and the different levels of technology skills among the group. They thought group members needed to be prepared to work and engage with others.

Also, participants asked that instructors provide guidance to enhance group work. As an example, one survey participant asked instructors to “[s]et the context and parameters of group work online--how it might be accomplished effectively with examples for learners who have never done online group work.” As well, they felt if the instructor could moderate group work, there would be less frustration with poor communication and work quality. As such, Focus Group 4 suggested instructors should deliberate before using group work as a learning activity.

### *Self-Directed Learning*

Twenty-eight survey respondents, four interviewees, and participants of one focus group liked how the online learning environment was designed for self-directed learning. For instance, Focus Group 4 liked the independence of learning online. Interviewees thought online learners needed to be self-disciplined, and be able to pace their work and time on the computer to balance with the rest of their lives. As well, an interviewee realized she needed to be committed as well as self-motivated to learn online. However, another interviewee had troubles disciplining herself,

and felt she spent too much time on the computer. Some participants found they wanted more structure and guidance given by the instructor as opposed to directing their own learning. However, though they wanted instructors to lead their learning, they did not want them to be too involved.

### *Flexible Environment*

Seven interviewees, members of two focus groups, and a few survey respondents mentioned they wanted a flexible learning environment. For instance, one participant in Focus Group 1 found working online gave her the flexibility to meet other demands in her life, and for the same reason interviewees found it was convenient. As well, participants wanted flexibility with assignment deadlines, course pace, learning activities, and learning outcomes. As an example, interviewees wanted flexibility with assignment deadlines as well as with their attendance at synchronized sessions. That is, if the time of the synchronized session did not fit their schedules or they were traveling for work purposes, they wanted the flexibility to access recordings of live sessions without penalty. This applied to submitting assignments at different times, as well. An interviewee thought instructors should not set synchronized sessions at all as this hindered the flexibility of online learning. However, a survey participant remarked, “[The] willingness of some professors to be flexible was also helpful.” As well, some participants wanted the flexibility in order to work at their own pace. For instance, a survey participant commented, “Having the assigned readings and assignments ahead of time allowed me to manage my busy schedule more effectively.” An interviewee needed to “get assignments at the beginning, not as the semester progresses, so that I can plan out what I need to do, when I need to do it, and if I can get it in early.”

However, a Focus Group 3 participant had difficulties matching her schedule with the online discussion postings by peers, and felt she was not engaging well with the class. Following

this, a survey participant stated, “I felt that online learning would provide me with greater flexibility than it did. The requirement to post three comments each week and the set schedule for Illuminate [sic] Live sessions, reduced the flexibility that I had expected.” Some participants wanted instructors to be flexible by giving them choice with learning activities. For instance, a survey participant found it ineffective when “[i]nstructors ... dictate what a class presentation must consist of, e.g. Illuminate session with PowerPoint presentation and group activities.” However, a participant in Focus Group 3 shared, “My instructor did give us fairly clear instructions as to what she wanted, but also gave us a lot of liberty. There was no judgement about, you know, whether we were completely off in left field.”

### Case Summary

The following is a summary of the findings, and it provides a synopsis of participants’ characteristics and their perceptions of online learning.

### *Characteristics*

#### *Personal Characteristics*

On average, participants were middle aged, female, and married. They might be a parent. They were North American and lived in an urban or rural setting. They worked full-time for over 30 hours a week and in the field of education. They would have been a part-time or full-time student, and probably were pursuing a Masters of Education degree. They would have been in one of three specializations, such as Educational Leadership, Educational Technology, or Curriculum, Teaching, and Learning. They were in a degree program for two or less years, and had a high grade point average. Some had aspirations to pursue a doctorate. It was over seven years since they were in a formal degree program, and they had taken more than four fully online courses. Their technical and information literacy skills were adequate enough to manage online

learning. Overall, they could find, decipher, and store information, and could manage computer-based and web-based technologies, though more skills and support were needed.

### *Online Characteristics*

Participants were very busy adults in high-end careers, with some managing online learning in their workplace. They had full lives with many life and work responsibilities that put demands on their time. Considering their demands, they still managed to apply an average of 20 hours per week towards course work, which was split between online and offline tasks. They found time for organizing course work, reading materials, reflecting on responses, writing discussion postings, completing assignments, and communicating with class peers and instructors. They worked online at home after dinner most nights, and on the weekend. They were self-disciplined. Also, they had the professional drive, money, and technology to pursue online higher education. They felt they could attain a higher degree and could adapt to new environments, such as with online learning. About one fifth of participants were experienced in managing online learning at work, and more than half were experienced from taking a number of fully online courses. Yet, participants still hesitated to enrol in online learning. Logistically, they were concerned about the online program's cost and credibility. Personally, they were uncertain if they could learn online, or feared they lacked the necessary technical skills. Those with low levels of technology literacy skills intentionally formed support systems at work and home. Participants' learning styles varied from active and socially inclined to reflective and independent. As adult learners, they needed some accommodations. For instance, they needed more choice in learning activities. As well, they came to know their learning style through working in different environments as with online, and they expected the instructor to know this as well.

### *Perceptions of Online Learning*

First and foremost, participants appreciated the online programs offered by the graduate division, because of the access and convenience. As well, they shared what they needed in the way of services, support, and resources to learn better online. They wanted support from key people such as staff, instructors, and peers. They also wanted an online learning environment that was engaging where the instructor was present and various activities were offered. To engage more they needed effective communication, online communities, and rich dialogue. As well, they felt it was important to offer well structured courses, and essential resources and services. Basically, participants wanted to succeed in their studies online, and in order of importance, needed to be given the best instructional leadership, support, resources, and learning environment to do so. Each of these needs is addressed.

#### *Instructor Presence and Management*

Instructors who facilitated online activities and frequently contacted students were greatly appreciated by the participants. They considered instructors were important to direct and assess their learning, and provide expertise. Participants wanted instructors to not only guide and support them in their studies, but also in the online environment. They wanted an instructor to be present and participate online as well as create community. As well, they needed instructors to be flexible with deadlines, expectations, and student work. Also, they wanted an instructor who had management, technology, and pedagogical skills for an online learning environment.

#### *Support and Resources*

Participants needed an array of support at their fingertips. This included direct and immediate contact with instructors and peers as well as technologists, administration staff, and librarians. The two types of support people important to participants were information and communication technologists, and administrative staff. As well, participants needed access to

online services such as registration and fee payments considering their distance from the university. Online resources, such as program information, library databases, recorded presentations, and software application tutorials were appreciated. Also, participants wanted training on how to work online including how to effectively apply online learning strategies, search needed information, and use software and other electronic resources. More importantly, participants wanted functional technology. Communication was very important to them, as well. They asked for frequent and timely emails, face-to-face meetings, and online discussions that were live, challenging, and monitored. They felt an online community was vital for building relationships, offering support, and sharing multiple perspectives. They wanted to connect with others inside and outside of course times. More important, participants wanted to be treated the same as campus students by connecting to the university community through technology.

### *Learning Environment*

When learning online, participants wanted an engaging experience as well as a flexible, student-driven environment. To gain this, participants wanted well structured courses with access to clear syllabi and learning materials. They wanted workloads assigned that were balanced between reading, reflecting, writing, and interacting. They wanted time zones and time commitments considered. They deemed important elements for online learning should include a structure that is organized and simple, and provides flexibility and clarity. Added to this, online courses and programs should offer accessible support and resources, and possibly blended-learning opportunities. Participants wanted programs that were credible in the eyes of industry and higher education. There was some discord with tuition fees being too high, and the lack of financial support.

Overall, participants were busy and self-directed adults who wanted structured courses and programs as well as timely and available materials. They were interested in succeeding in



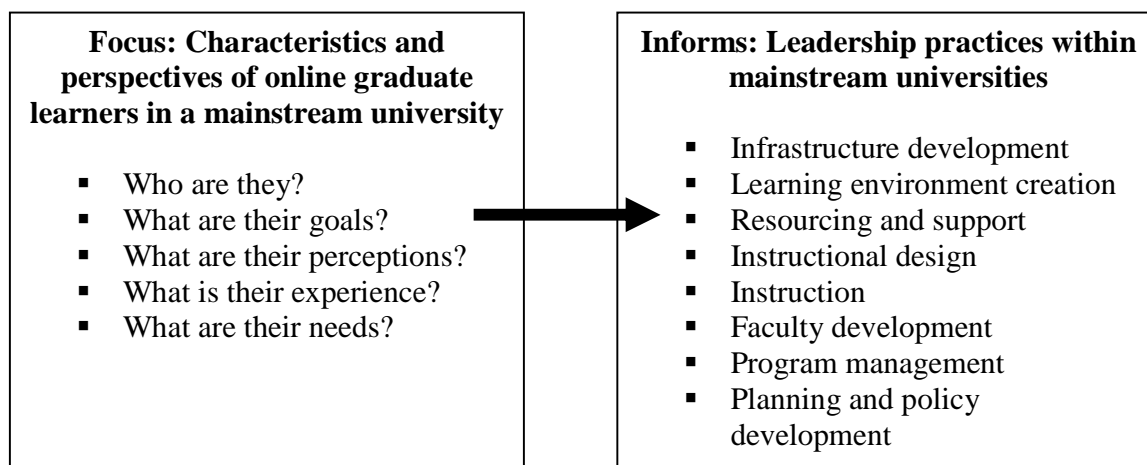
their studies. They were not interested in rushing through course work, but wanted rich learning experiences, and interactions with peers and instructors. They did not want to be isolated in their learning, but instead be engaged with others synchronously, asynchronously, and in small groups. Their education was a learning journey for them. Participants were productive, organized professionals who expected their courses to run in the same manner as their workplaces. Thus, they wanted courses to have a quick pace, high productivity, team work, and available support and resources. Participants wanted a balance between self-directed learning and instructor guidance. They wanted flexibility in course expectations, deadlines, and activity choice. They were ready to learn and needed the right environment to do so.

## CHAPTER 5: DISCUSSION AND IMPLICATIONS

### Introduction

The purpose of this chapter is to provide conclusions based on the study results, and to explore implications for educational leaders who manage online learning programs in North America mainstream universities. However, it is important to bear in mind the case study presented focuses on a particular sample at a western Canadian mainstream university, and the implications and recommendations are applicable to that context. As well, the case was explored during 2008. As such, a number of changes were apt to have emerged since that time, which could have affected the views of participants, context of the setting, and implications for educational leaders. Readers are asked to make their own generalizations based on the discussion given.

The focus of the study is redisplayed in Figure 1 below, and shows the connections made between the study's research questions and findings, and implications for leadership practices in mainstream universities. Significant findings that emerged from the study about student characteristics, needs, motivations, and perceptions are discussed in the context of leadership implications drawn from the literature. In this context, leadership issues, strategies, and practices for managing online learning are discussed.



*Figure 1. Focus of Study*

To revisit the focus of the study, the first research question inquired into the implications for leaders who lead online learning in higher education institutions. This became the context for the discussion of the findings. To provide data to discuss implications for leaders, the second research question explored the unique characteristics of online learners. This information is provided in the first section of this chapter on online and adult learner characteristics, and how it can inform educational leaders about student needs in online programs. The third research question explored the motivation and hesitation of participants when first applying for online programs. Results from this question revealed issues that might be addressed by educational leaders, such as the cost and credibility of online programs. The fourth research question examined participants' perceptions of the benefits and challenges of online learning. The results from this question provided a variety of suggestions for effectively delivering education online with many ideas similar to those found in the literature. In order not to create redundant discourse, only issues that provide challenges for educational leaders of online programs are addressed. Therefore, the results from the second, third, and fourth research questions provide a discussion about leadership issues and challenges with online programs, student services, and learner needs.

## Student Characteristics

### *Online Learner Characteristics and Needs*

In this study, assumptions were made about the characteristics and motives of online graduate students. For instance, it was assumed online graduate students were older, career-oriented adults, had family responsibilities, and lived at a distance. These characteristics became the core reasons participants enrolled online, thus appreciating the accessibility, flexibility, and convenience of virtual learning environments. More specifically, the participants in this study were typical of other online graduate students mentioned in the literature who attended North American mainstream universities (Bocchi, Eastman, & Swift, 2004; Butler, 2004; Colorado, 2006; Gottwald, 2005; Loeffler, 2005; Kearsley, 2002; Stewart, 2006; Tallent-Runnels et al., 2006). They also were middle-aged professionals with family and work responsibilities, had a previous degree, and tended to attain high grades. Most participants in this study lived in North America. They pursued an online degree mainly for the convenience and flexibility of gaining a higher education while handling other life commitments.

Other findings about the characteristics of online graduate learners that were similar to the literature were:

- Reasons for enrolment in an online program were to obtain accreditation and/or personal enrichment, and due to the flexibility and convenience of online learning (Altarac, 2008; Beard, Harper, & Riley, 2004; Bocchi, Eastman, & Swift, 2004; Butler, 2004; Loeffler, 2005; Mansouri, 2003; Payne & Johnson, 2005; Stewart, 2006; Rodriguez, Omms, Montanez, & Yan, 2005; Young & Norgard, 2006);
- Students' comfort with technology did not deter enrolment (Rodriguez, Omms, Montanez, & Yan, 2005);

- Students' hesitation to enrol in an online program was due to fear, and concerns about program suitability, technology reliability, instructor accessibility, and student identity change (Bird & Morgan, 2003; Muilenberg & Berge, 2005);

Yet, unlike studies in the literature, participants did not hesitate to enrol because of their lack of previous knowledge of a topic, academic preparedness, available study time, or home support; nor did they hesitate because of administrative issues or Internet costs (Bird & Morgan, 2003; Muilenberg & Berge, 2005). As well, unlike other studies (Billings, Skiba, & Connors; 2005; Lovik-Powers, 2004; Webb, 2002; Zobdeh-Asadi, 2004), the study participants' previous experience and generation did seem to affect their perceptions of the effectiveness of online learning or their performance. Also, unlike the study by Pival, Lock, and Hunter (2008), not many participants were competent in using technology to seek online library resources. Additionally, not all participants considered themselves as online learners who were self-directed and constructivist type learners (Howland & Moore 2002).

However, there was agreement with the literature (Harmon & Jones, 2000; Kerr, Ryneearson, & Kerr, 2006; Menchaca & Bekele, 2008; Muilenburg & Berge, 2005; Rodriguez, Omms, Montanez, & Yan, 2005; Shinkareva, 2007; Wilson, 2007) in that students' level of technology skills and comfort with computers affected their performance in online environments. In fact, participants who were new to the online environment asked for more support and guidance as discovered by Coleman (2005), Mansouri (2003), Scott-Fredericks (1998), Stodel, Thompson, and MacDonald (2006) and Mansouri (2003). Unlike the study by Armstrong (2002), participants' academic confidence, impact of online learning on other areas of their lives, and ability to manage life did not affect their perceptions of learning success. Though found in the literature, the reasons participants' persisted or dropped out of online programs was not examined.

*Adult Learner Characteristics and Needs*

It was stated in the literature that adult learning and learners were considered complex and difficult to categorize as they had differing goals, values, and views (Brookfield, 1986). Adult learners also were deemed to have different life experiences which contributed to what and how they chose to learn (Brookfield, 1986; Cranton, 1992; Jarvis, 2004; Knowles, Holton, & Swanson, 1998, 2005). This was true of the participants; however, there were some prevalent characteristics as described previously. As well, participants did ask to direct their own learning as stated by Brookfield (1986), Dixon and Scott (2008), Vanderbilt (2009), and Knowles, Holton, and Swanson (1998, 2005). However, as found by Knowles, Holton, and Swanson (2005) and Cranton (1992) participants needed guidance from the instructor and sought to learn from their expertise. Thus, participants had varying degree of needs, experiences, and capacity when approaching self-directed learning. Yet, as outlined by Merriam (2003), the participants were mature adults who developed a sense of independence, and like Wlodkowski (2003) stated participants wanted to succeed in their learning as well as have choice and enjoy the experience. Furthermore, Knowles, Holton, and Swanson (2005) felt learner needs were situational and were influenced by learning styles, social orientation, locus of control, past experience with subject, and previous learning socialization. However, this study did not examine such criteria closely, and cannot offer any conclusions. As well, unlike the literature, no conclusion from this study could be made about the particular learning styles of participants, or the effects of these styles on their perceptions of performance within online learning. Long (2003) also suggested when characterizing adults their various physical, cognitive, personality, and role characteristics as well as their past experience must be taken into consideration. These elements were not examined closely in this study. However, most participants tended to be focused individuals working in professional positions while managing a home life. As suggested by Knowles,

Holton, and Swanson (2005) and Merriam (2003), participants were used to being self reliant, productive, and organized as well as getting results and making decisions; also, they wanted choice and control over their learning. This group of learners understood quality, and had high expectations of their learning experience.

Furthermore, adult learners were deemed to be motivated in certain ways, and had reasons why they engaged in learning and continued their studies. For instance, in this study participants' purposes for pursuing a graduate degree seemed to be for career advancements and/or personal achievement. This also was the two main reasons adults pursued education as found by Merriam (2001), Merriam and Cafferalla (1999) and Cross (1981). Participants' barriers to learning that inhibited enrolling into further education were similar to the literature. These barriers were lack of time, cost of the program, and work and family responsibilities (Cross, 1981; Merriam, 2001; Merriam & Caffarella, 1999). However, due to the nature of online learning, two barriers that participants did not experience, for the most part, were inflexible schedules and inconvenient location.

There also were general teaching and learning strategies that motivated the adult participants. As found by Brookfield (1986) and Vanderbilt (2009) participants were motivated by interacting with others and exploring beliefs, values, and practices together. They also wanted learning that was relevant and more practically oriented as found by Brookfield (1986), Cranton (1992), Knowles, Holton, and Swanson (1998) and Long (2003). Other general teaching strategies that participants, as adults, favoured and were suggested by Brookfield (1986), Chickering and Gamson (1999), Chickering and Ehrmann (1996), Cranton (1992), Cross (1981), Galbraith (2003), Knowles, Holton, and Swanson (2005), Merriam (2001); Merriam and Caffarella (1999), Wlodkowski (2003) and Ramsden (2003) were:

- Respecting students' individuality and learning, and giving them choice;

- Being sensitive to students' diverse characteristics and needs;
- Creating close contact with students and providing prompt feedback;
- Being present and available, and facilitate the learning;
- Creating a positive and stimulating learning environment;
- Allowing opportunity to collaborate with the instructor and fellow students;
- Having the instructor engage in the learning, and sharing expertise and views;
- Providing clear objectives and expectations;
- Having high expectations of learners, and
- Offering high quality and active learning opportunities, and helpful resources.

Effective teaching strategies that participants rarely mentioned were the instructor building trust with learners, encouraging independence, being enthusiastic about the subject matter, using affective teaching methods, and using positive reinforcements and valid assessments.

### *Leadership Implications*

Furthermore, the specific characteristics and needs of online and adult learners were found useful to inform the design of programs, curriculum, and instruction, as presented in Figure 10. For instance, the region where students live can reveal time zone issues and aid the scheduling of learning events. The number of online courses students has taken along with their technology literacy skill levels can inform the technical support needed, such as contacting technicians directly and accessing training opportunities. The number of years since their last degree can determine the learning supports required, such as developing information literacy and study skills. As well, the amount of online experience students has had could indicate their ability to be a peer leader. For instance, the data showed that new online learners appreciated the support of more experienced online students who could lead posted discussions and group work in virtual



settings. Also, students' employment statuses and life commitments could reveal the workload they can manage and the flexibility they need. Their education goals, fields of employment, and learning styles can help inform the design of instructional activities and course content in order to provide relevant education. As well, the learning needs of online adult students and their motives can inform program development and promotion, faculty development, and future research. Assessing the characteristics and needs of online graduate students prior to, and during, a course and program can provide instructors and instructional designers with information about their diverse needs. This data could be collected through an internally created web-based survey instrument given to online students at any time, such as with Survey Monkey© or QuestionPro™.

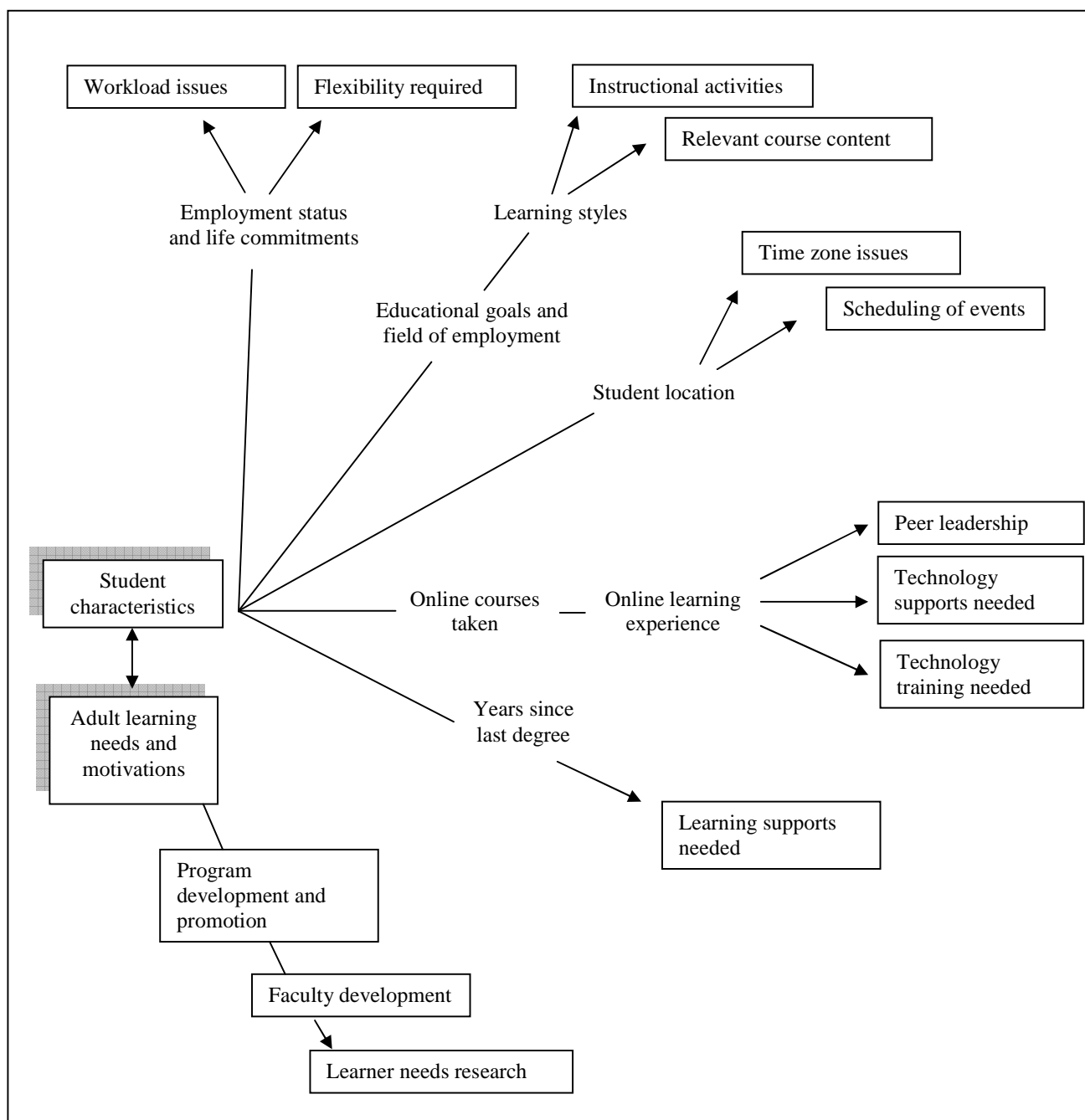


Figure 10. Student needs informing program, course, and instructional design.

### Issues and Challenges with Online Programs

In this study assumptions were made about the unique needs of online learners. It was assumed the types and degrees of communication, interaction, participation, workload, support, and services differed for online learners when compared to campus-based students. The findings revealed some of these differences by drawing on the perspectives of participants about the benefits and challenges of online education, along with their learning needs and motives. Due to the unique needs of learners in online environments some issues arose for leaders who manage these settings in traditional higher education settings. For instance, participants shared issues about the online programs and student services delivered in the graduate division, the faculty of education, and the university. First, to address these issues participants' perspectives about the online programs are compared to the institution's perspective leading to a discussion on leadership implications. Second, the student services provided by the graduate division, the faculty of education, and the university are compared to participants' perceived needs. The gap between available services and participant needs are explored to create a further dialogue about leadership implications. Third, additional questions emerged from the data about the learning needs of online graduate students, creating possible further research for leaders. For instance, the data revealed issues about determining effective online learning activities, using design teams to develop online courses, addressing the notion of online pedagogy, addressing diverse learning styles of students, and considering more blended learning opportunities. Though teaching, learning, and instructional design were not deeply explored in this study, these emerging issues can provide educational leaders with information for future studies.

### *Program Issues*

In this discussion, issues are deemed as areas of contention. In this context, learners' perspectives about program issues are compared to the higher education institution's perspective (Webber, 2008; Webber & Scott, 2008) revealing conflicting views. The difference in views provides educational leaders with an opportunity to reflect and consider solutions. Table 5 outlines the conflicting perspectives and leadership implications for program issues.

Table 5

#### *Program Issues and Leadership Implications*

Areas of Contention	Learner Perspective	Institutional Perspective	Leadership Implications
Faculty participation online	More faculty participation, feedback, contact, and leadership online	Academic freedom Teaching beliefs and strategies	Team support Teaching strategies Student feedback
Faculty development	Lack of faculty online management and technical skills	Academic freedom Technical support and training	Mentoring services Course examples
Program cost	Too high Unequal treatment	Cost recovery program Extended access	Transparency Increased funding Reduced costs Student financial support
Program credibility	Quality of education Perception of others	Quality development and assurance	Quality benchmarks Statement of quality

In Table 5, program issues are presented in order of importance to participants. For instance, many participants commented on the need for instructors to be present online, and be prepared in regards to curriculum development. Also, there were comments from participants that instructors' presence and ability to work with technology were lacking at times. This led to a

discussion about faculty development. Two other contentious issues were the costs and credibility of online programs, which were the two most prevalent reasons participants hesitated to enrol in an online graduate program. Each of these issues is discussed further.

### *Faculty Participation Online*

Approximately 85% of survey respondents along with 75% of focus group participants and 13% of interviewees asked that instructors be present in the online learning environment, participate more, and connect with students frequently. These participants also provided an additional 130 comments about needing support, guidance, and feedback directly from online instructors. Instructor presence was a key teaching strategy desired by adult learners as found by Anderson, Rourke, Garrison, and Archer (2001) and Ramsden (2003). Like the results from many studies, participants expected faculty to participate and communicate with them as well as provide affective support, motivate students, manage group projects, lead discussions, select appropriate technologies, design engaging learning activities, monitor the online course, and be flexible (Conrad, 2002; Eom, Ashill & Wen, 2006; Garcia & Qin, 2007; Gottwald, 2005; Ivankova & Stick, 2007; Kearsley, 2002; Lao, 2002; LaPointe & Reissetter, 2008; Menchaca & Bekele, 2008; Mullen & Tallnet-Runnels, 2006; Powell, 2007; Robertson, Grant, & Jackson, 2005; Stewart, 2006; Wikeley & Muschamp, 2004; Young and Norgard, 2006). They also wanted online instructors to provide educational resources and updated information, which was determined important for adult learners by Brookfield (1986), as well as provide technology support.

Considering the multiple needs of participants, online instructors might be unduly burdened and expected to address responsibilities beyond their capability. As well, it implies faculty members who teach online require significant support, though it may not be given well as

suggested in the literature (de la Harpe & Radloff, 2008; Dixon & Scott, 2008; Georgina & Olson, 2008; Hiltz, Kim, & Shea, 2007; Johnson, Levine, & Smith, 2008; Nkonge, 2004; Romiszowski, 2005; Wolcott & Shattuk, 2007). It also implies delivering learning online might require a team of staff to educate and support an online learner, though some faculty members might resist the involvement of others as suggested by Cameron (1996), Freeman and Thomas (2005) and Scott and Dixon (2008). The potential dilemma of faculty resistance outlined by Parker (2008) would require deliberate leadership strategies to bring together important members, and form a team that included multimedia, graphic, web design, instructional, and content experts. The development and use of such a team is discussed later.

Also important to consider, and given in the literature, are the teaching philosophies and beliefs of instructors, and their preference for applying this online (Ensminger, Surry, & Miller, 2002; Yick, Patrick, & Costin, 2005). As well, by more openly sharing their teaching strategies with online students, instructors can establish a learning environment and teaching direction understood by their class. Ramsden (2003), Chickering and Gamson (1999), Chickering and Ehrmann (1996) and Wlodkowski (2003) also recommended that instructors contact and cooperate with adult students while being honest, open, and sharing. In turn, feedback gathered from online graduate students through course and program evaluations, research projects, and the literature could provide instructors with information about the needs of online learners (Altarc, 2008; Anderson, 2008a; Conceicao, 2007; Moisey & Hughes, 2008). Furthermore, Brookfield (1986) and Cranton (1992) suggested that instructors explore adult learner characteristics and needs, along with how they learn. Thus, creating effective online courses might entail blending teaching philosophies with student needs, instructional design strategies, and the capacity, or affordances, of technology.

*Faculty Development*

Findings showed that perhaps online instructors in higher education settings could use more training and development for engaging online, developing online curriculum, and using technologies. For instance, 19% of survey respondents and 25% of focus group members mentioned it was vital for instructors to be prepared to teach online, which included having online pedagogical knowledge and technology skills. Yang and Cornelius (2005) and McQuiggan (2007) found that faculty struggled with their changing roles when teaching online. These roles could include addressing diverse student needs, interacting differently with learning, facilitating rather than teaching, working with technical experts, and providing students with technical, emotional, and instructional support. Brookfield (1986) and Galbraith (2003) recommended adult educators examine their philosophies and beliefs about teaching and learning, and develop a rationale for instructing in certain ways. This might be transferred to their online teaching role in order to determine their approach to instructional and curriculum design. Along with this, Long (2003) suggested instructors gain a complete view of adult learners in order to be sensitive to their different needs. A complete view would include understanding adult students' physical, cognitive, personality, experiential, and role characteristics. Furthermore, Dunn and Grigg (2000) posited that any adult could learn and that every learner had different strengths. They found by providing a responsive instructional environment that considered learner differences, along with appropriate resources and teaching approaches, students could achieve higher scores. Brookfield (1986), Merriam (2001), Merriam and Caffarella (1999), and Galbraith (2003) added understanding adult development and learning as well as the purpose of adult learning, such as creating autonomous and reflective students, was important to create effective teaching. Moore and Kearsley (1996) offered suggestions for designing effective distance learning environments in higher education. They proposed gaining

an understanding of online students, including their reasons for pursuing education and their educational background, in order to design better instruction. They also suggested planning for the pace of instruction, whether this was determined by students or instructors, and the amount and type of interaction between instructors, learners, and content.

Furthermore, as given in the literature, when teaching and designing online courses in higher education settings it is essential that instructional staff have adequate skills to engage successfully, and provide quality education and student experiences (Levy, 2003); however, educational leaders have the added challenge of faculty members possessing academic freedom rights (Cameron, 1996; Freeman & Thomas, 2005; Scott & Dixon, 2008). With these rights, faculty can unilaterally chose their preferred teaching strategies and design curriculum without direction from the institution. However, while not completely satisfactory for all, faculty members at the university under study were provided some support in the design and delivery of online courses. Their university and graduate division offered professional development opportunities to increase teaching and technology skills. For instance, support through workshops, resources, and development services were offered by the graduate division as well as the institution's Teaching and Learning Centre, Information Technology department, Continuing Education Faculty, and Information Commons in the main library. These services provided curriculum development advice, technology skill upgrading, and introduction to online teaching and learning.

However, despite the availability of faculty development services, participants found some instructors struggled in managing the online environment or technology well. The literature indicated faculty development that is more personal, individualized, delivered in small groups, and decentralized is preferred by faculty members (Georgina & Olson, 2008; Grant, 2004; Otte & Benks, 2006). Therefore, perhaps more personal support could be offered to faculty members



who seek alternative or additional means of development than given, thus encouraging them to engage in upgrading. One example might be to establish a mentoring service for those designing and teaching online courses. Lewis (2007) found having support from colleagues was considered important for faculty members who taught online. Therefore, using colleagues who are experienced teaching online as mentors might provide support that is more personal and continuous. As well, providing examples and templates of effective online higher education courses that adhere to good teaching practices might provide useful models. Faculty could explore the models to understand best practices online, and use the templates to develop their own courses. Providing personal, accessible, and continual support might create more accessible help for faculty who design and teach online courses.

#### *Program Cost*

One of the major concerns for 24% of survey respondents and 25% of focus group participants was the fact that online programs had high tuition fees. This also was discovered by Merriam (2001), Merriam and Caffarella (1999) and Cross (1981) as a main barrier for adults who wished to pursue education. For instance, the course-based Master of Education programs had a total tuition fee nearing \$15,000, and the Doctor of Education program cost students about \$40,000. Those concerned with the high program fees felt they were inequitably treated compared to campus students who paid less in tuition fees for the same courses and programs. However, the online programs in the graduate division were designed for cost recovery as government funding subsidized only a limited number of seats for graduate students (Webber, 2008). By creating the online programs, the graduate division increased student access to their graduate programs. Therefore, the reason for the high tuition fees needs to be made more transparent through the graduate division's websites, program brochures, and student advisors and representatives to help students make informed choices. Merriam (2001), Merriam and

Caffarella (1999) and Cross (1981) also found a main barrier for adults to pursue education was the lack of information to make decisions. Creating more accessible information by a university, especially through institutional web pages, was suggested by Harris and Jones (2007) and Meyer (2008).

Additionally, Netter (2005) found higher education leaders preferred online programs to be part of the institutional system due to the financial support and access to resources they could gain. Therefore, to increase subsidized seats for online students educational leaders should consider furthering their solicitation for more funds from government agencies and their home institution. By promoting their online programs, educational leaders can reveal how flexible distance education is fulfilling a growing need. Through findings derived from internal research projects, student outcomes, and program evaluations leaders can provide top administrators, stakeholders, and government agencies with evidence showing the demand for and effectiveness of online learning. Promotion would be needed as Marcus (2004) found top administrators were less interested in instructional technology concerns. Along with promoting the effectiveness of online learning, educational leaders also might lobby their institution to retain revenue generated by the programs. Reallocating revenue streams to a centralized budget is common in academia; however, as suggested in the literature this might hinder the maintenance and growth of online programs in higher educational settings, such as limiting the acquisition of new hardware, software, support staff, and design teams, along with hindering research initiatives and student enrolment (Bates, 2005; Calhoun, 2006; Goldstein, 2000; Guri-Rosenblit, 2005; Hanna, 2000; Webber, 2008; Winston, 1999).

As well, higher education leaders might consider other means of reducing costs for developing and delivering online programs for graduate students, which in turn could lower tuitions fees. For instance, the current model for delivering online learning with one

postsecondary instructor assigned to approximately 20 students is considered costly and perhaps unsustainable. Increasing the economy of scale by admitting more students into courses might reduce program costs and student fees. For instance, Athabasca University, a virtual institution in Alberta, is considering increasing their economy of scale through increased student enrolment for each course (Anderson, 2009a). However, increasing the number of students in each course creates issues that require further consideration, such as educational quality and student learning experience. For instance, the literature showed that adult online students seemed to enjoy the contact, interaction, and presence of an instructor, and found it an effective teaching and learning strategy (Anderson, Rourke, Garrison, & Archer, 2001; Chickering & Gamson, 1999; Chickering & Ehrmann, 1996; Ramsden, 2003). Increasing the student to teacher ratio might hinder the ability to work closely with an instructor. As well, it might increase faculty and staff workloads as found by Hiltz, Kim, and Shea (2007), McLain (2005), and Reid (2009). Other solutions, as suggested in the literature, might include developing partnerships with, or outsourcing to, external educational agencies that provide content, technology infrastructures, and educational services (Beaudoin, 2007; CANARIE, 2002; Camp & DeBlois, 2007; King, 2008; Lai, Pratt, & Grant, 2003; Levy, 2003; Matthews, Pickar, & Schneid, 2007; OECD, 2008a; Winkler, 2008). For instance, Pearson eCollege (2009), a division of Pearson Education publication, provides support, technology, and content for higher education institutions who deliver learning online. Perhaps drawing on external products and services might be more cost effective than creating internal educational developments on a continuous basis. As well, a trend emerging in the adult distance education field is using open educational resources (OER). For instance, The Open University (2009a) in the United Kingdom offers free course syllabi, curriculum, learning activities, and assessments in various formats, such as print or digital, for the field of education. Rather than redeveloping curriculum and content, institutions could consider using existing

resources while deliberating about their quality, usefulness, and relevance. Using existing resources could alleviate development costs for institutions by providing curriculum, especially for introductory graduate courses; however, as explained in the literature externally developed curriculum could be problematic for faculty members who prefer to design their own courses (Cameron, 1996; Freeman & Thomas, 2005; Scott & Dixon, 2008). As well, concerns about the quality and effective use of OER materials are part of a current debate in higher education (Pitroda, 2009; Vincent, 2009).

Additionally, helping students with financial support may be a way to counter the higher tuition fees at the postsecondary level. Though there are a number of available internal and external awards for graduate students, there seems to be a perception that online students do not qualify. In some cases, students who are not from Alberta would not qualify for provincial awards; however, for the most part, internal awards are open to all university students, especially full-time students, and external awards are opened to students at Canadian institutions. One way to overcome misperceptions might be to offer specific counselling sessions online that demystify the scholarship process, answer online student concerns, address eligibility factors, provide instructions to apply for scholarships, and identify scholarships available to online graduate students. Increasing access to information will help adult students overcome barriers to their learning (Cross, 1981; Merriam, 2001; Merriam & Caffarella, 1999).

### *Program Credibility*

Also found by Johnson, Levine, and Smith (2008), Adams (2008) and Tinnerman (2008a), 16% of survey respondents and 25% of focus group participants questioned the credibility of online programs, and wondered if their education and degree would be acceptable by industry and other educational institutions. As indicated by Wlodkowski (2003), adult learners are motivated if they perceive value in their learning. As well, there is rising scepticism

by the public about online learning with the emergence of virtual higher education programs delivered by numerous types of institutions, including private and corporate organizations (Yick, Patrick, & Costin, 2005). Some of these institutions are criticized for poor educational outcomes, and deemed diploma mills. However, the graduate division has developed their online programs following the same procedures and guidelines as campus-based courses and programs to ensure high quality and to gain institutional and governmental approval. As suggested by Otte and Benke (2006) higher education programs that are delivered online should be of equal quality compared to campus versions, and meet the same goals and satisfy the same requirements. Thus, providing statements to the broader public, student population, stakeholders, and industry about the quality assurance and accreditation procedures used to develop the online programs might reassure uncertainties about credibility.

Furthermore, addressing negative perspectives about online learning is a growing movement in the distance education field. For instance, some higher education institutions and faculty are sceptical still about placing learning online (Delich, Kelly, & McIntosh, 2008). To address this, Lambropoulos (2008) suggested developing new standards about quality which consider the changes technology is bringing to higher education. She commented that, “E-quality derives from interdisciplinary approaches on learner-centred and social frameworks, and depends on organizations’ infrastructure, strategy, and vision” (p. 221). Stakeholders need to be involved in quality development as well. Additionally, some higher education organizations and institutions are developing benchmarks to ensure the quality and success of online learning. De Castro (1999), Kovala (2000) and Simonson (2007) suggested developing institutional policies to address quality issues. One example is the European Association of Distance Teaching Universities [EADTU] (2009), who have developed guidelines and an assessment instrument for producing quality e-learning in higher education. These resources address strategies for quality

online curriculum and course design, course delivery, and student and staff services. They also provide management strategies for the effective administration of online learning, such as considering institutional plans, policies, collaborative ventures, research, innovation, and infrastructures. Institutions can use these guidelines and instruments together with their internally created quality frameworks to enhance the development and delivery of online learning.

### *Student Services Issues*

The data revealed that participants were interested in specific student support and services to aid them in their online programs and courses. Table 6 outlines the particular needs of participants and the possible gaps in student services provided by the graduate division, the faculty of education, and the university at the time of this study. The gaps present an opportunity to discuss leadership implications.

Table 6

#### *Gaps in Student Services*

Participant Needs	University Services	Gaps	Leadership Implications
Online communities	Learning communities	Social and academic communities	Community development Social software
Technology literacy skill development	Tutorials for software applications	Data and information management skills Presentation skills	Continuing education External resources Online repository
Program and course information	Faculty and program websites Program orientations Student advising	More advisory services Early course materials Pre-enrolment information	Student call centres Course design teams Pre-enrolment orientations
Information literacy	Program orientations	Ongoing development	Literacy resources

skill development	Individual librarian support		Curriculum development Library workshops
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Participants offered comments about student services that might require upgrading in the graduate division, faculty of education, and university. In order of importance to participants, these services were online community access, student technology skill development, academic information access, and information literacy skill development. For instance, participants struggled with feelings of isolation from others and alienation from the academic community. Thus, developing online communities was one significant request among participants, who wanted greater access to learning, social, and research groups. As well, participants were particularly concerned with the amount of support they would receive when working with technology from a distance. Participants also spoke about the need for more program advising. As well, they expressed a need to develop information literacy skills in order to efficiently find, retrieve, and store the abundance of information available online.

### *Online Communities*

Eighty-eight percent of survey respondents, 75% of focus group participants, and 13% of interviewees desired online communities that supported learning, increased interaction with peers, and created a connection to the academic community. This was also discovered about online graduate students by Melrose (2005), Payne and Johnson (2005), Menchaca and Bekele (2008), Maxfield (2008), Young and Norgard (2006), Martin and Woods (2008) and Wikeley and Muschamp (2004). As well, Brookfield (1986) and Vanderbilt (2009) found adult learners were interested in engaging with others for the purposes of interacting and discussing ideas. Furthermore, Martin and Woods (2008) and Wikeley and Muschamp (2004) reported that connecting to an online academic community was imperative for doctoral students to overcome feelings of isolation, and to complete programs in a timely manner. However, unlike other

studies (LaPointe & Reisetter, 2008; Stewart, 2006; Wilson, 2007), very few participants found online communities to be superfluous, though 20% of survey respondents and members of all four focus groups found it hard to relate well to others in an online environment. McPherson and Nunes (2004) found this as well. More specifically, members of each focus group spoke about wanting more contact with students within an online course as they were searching for a learning community to feel less isolated, gain support, and share ideas and resources with fellow students. These participants felt building a relationship online with peers would enrich their learning. However, instructors usually create some level of learning communities in online courses; yet, exploring the literature might provide additional ways to create effective communities that address student needs. These findings could be shared with faculty members through faculty development initiatives.

Besides having an online learning community, participants wanted social and academic communities, as well. For instance, a few of the study participants wanted more opportunities to connect with fellow classmates after a course ended as they valued their peers. As well, 54% of all study participants wanted the opportunity to socialize during course time, implying the communication technologies or socializing opportunities were not adequate or present. Creating social communities using social software may be one solution to help online higher education students engage as suggested by Anderson (2008a). There are numerous social software systems available online that are low cost or free, and designed for socializing. Such systems found useful in higher education are Second Life<sup>®</sup> (Cheong, Yun, & Chollins, 2009), elgg<sup>™</sup> (Anderson, 2005), and weblogs or online blogs (Dalsgaard, 2006). As well, there are numerous social network websites already developed online that serve specific or general networking needs, and might be used with adults learners in postsecondary settings, such as Facebook<sup>®</sup> (Downes, 2007), and Friendster<sup>®</sup> and Bebo<sup>®</sup> (McLoughlin & Lee, 2007). Most social software and networks can



be customized for personal use; however, they would need to be scrutinized for their appropriateness and ability to serve the socializing needs of online graduate students. As a result, online communities for socializing could be developed using social software with access, instructions, and encouragement provided by the institution; however, interacting within the communities should be the responsibility of students and staff interested in connecting informally with others online.

Additionally, 13% of interviewees and 25% of focus group members had a desire to be part of a larger academic community and treated as valued university members. Galbraith (2003), Ramsden (2003), and Brookfield (1986) also found that adult learners wanted to be treated respectfully. As online learners, these participants felt excluded from the institution. Coleman (2005), Mansouri (2003), Song, Singleton, Hill, and Koh (2004) also learned that online graduate students were frustrated with feelings of isolation and restricted socializing. Added to this, five survey participants mentioned they were confused about their identity as an online learner compared to their role as a campus student. Bird and Morgan (2003) found that their participants were hesitant to enrol in an online program or course due to perceptions that their identity as a graduate student might change. According to the data, the role of an online graduate learner was perceived as distanced from the university. Thus, including online graduate learners into the academic community is important, and along with the faculty of education and the graduate division, the institution as a whole must consider these needs. For instance, as suggested by a few interviewees, some inclusive activities might be offering institutional orientations online, providing live feeds of on-campus speeches and performances, uploading campus-based workshop resources online, acknowledging online learners in web-based communications, and creating email notification services for institutional events and announcements. Though online students might not be able to attend campus events, receiving

event information with the possibility of engaging online would increase their participation and perception of being an academic member. Another key area mentioned in the literature is engaging online graduate learners in university research communities (Martin & Woods, 2008; Wikeley & Muschamp, 2004). By increasing access to and experience with research projects, distant graduate students could develop essential scholarly skills benefiting their studies, research initiatives, and professional careers.

### *Technology Literacy Skill Development*

While the literature seemed to imply online graduate students had strong technology skills (Bocchi, Eastman, & Swift, 2004; Butler, 2004; Colorado, 2006; Gottwald, 2005; Loeffler, 2005; Stewart, 2006; Tallent-Runnels, Thomas, Lan, & Cooper, 2006), this was not the case for the participants in the present study. Approximately 50% of surveyed and interviewed participants were less skilled in more advanced technology tasks such as manipulating hardware, working with databases and multimedia, and learning new skills. For the most part, the study participants seemed comfortable working with basic applications such as word processors, email applications, and the Internet. This is surprising given 91% of the study participants worked in professional settings that were technology-rich.

Furthermore, though it was noted in the literature low technology skills do not hinder graduate students' decision to enrol in an online course (Rodriguez, Omms, Montanez, & Yan, 2005), some studies found comfort with technology did affect graduate learners' satisfaction with and performance in online learning (Rodriguez, Omms, Montanez, & Yan, 2005; Shinkavera, 2006; Turner, 2006). This finding may be a concern considering the technology skill levels of the study participants ranged from low to high. Thus, it might require more support and training that is tailored to online students to ensure their success. Conceicao (2007), Kearsley (2002), Nkonge (2004), Reid (2009), Turner (2006), and Young and Norgard (2006) also found

that technology orientations, training, and support were considered imperative for online postsecondary students to succeed, especially for new online learners. One type of support might be to create student access to short instructive technology training that is online. This might enable learners to function better with applications and the online environment. Furthermore, an effective teaching practice found by Brookfield (1986) was to help adult learners find resources to successfully complete learning activities. As an example, both Benedictine University (2009) in Illinois and Microsoft (2009) offer animated tutorials online for learners to increase their skills in using presentation and multimedia software. As well, the existing tutorials provided at the university for using the VoIP synchronous classroom program, *Elluminate Live!*<sup>®</sup>, and the learning management system, *Blackboard*<sup>®</sup>, could be supplemented with online tutorials created by the companies themselves. Resources such as these could be accumulated in a repository or website for convenient access by students. As well, the Faculty of Continuing Education at the university offers a number of information technology and computing courses that are delivered online and led by instructors. Perhaps, arrangements could be made with the Faculty of Continuing Education for interested online graduate students to enrol in courses at a fee that is reduced or waived.

Another question to explore is why many of the participants did not engage more often in technology skill upgrading. For instance, 40% of interviewed participants felt they only needed to learn what was required to function online and no more. The reasons to not engage in ongoing upgrading seemed to be a lack of time or interest. As well, those with low technology skills tended to rely on family and technology staff to perform the technical work needed. However, it is not clear that basic technology literacy skills would be sufficient on their own for higher education learners to operate more sophisticated communication technologies. Such advanced communication technologies were requested by 62% of survey participants, 50% of focus group

members, and 13% of interviewees. Would their current skills be adequate to retrieve and manage a variety of digital information? What would motivate and support online learners to increase their skills in order to be more efficient and successful online? Wlodkowski (2003) suggested making learning worthwhile for adult students; therefore, perhaps if short, effective and accessible training resources were offered to online students they might be more motivated to increase their technology skills. Again, this would serve their study, work, and lifelong learning needs.

### *Program and Course Information*

Twenty-five percent of survey participants, 25% of focus group members, and 7% of interviewees requested more information about the online programs and courses as suggested necessary for online higher education students by Levy (2003), Moisey and Hughes (2008), Harris and Jones (2007), and Meyer (2008). Also, Merriam (2001), Merriam and Caffarella (1999) and Cross (1981) found a main barrier for adult learners to pursue education was the lack of information to make educational decisions. In this study, one critique by 10% of survey respondents and 7% of interviewee was gaining access to available student advisors for information about choosing programs and courses best suited for them. The advisory model in the graduate division, at that time, was to have a supervisor assigned to each graduate student, whether enrolled in thesis-based, course-based, online or on-campus programs. One of the roles for supervisors was to provide program advising services to graduate students. Additionally, student advising was offered by administration staff and the Graduate Coordinator in the graduate division. However, participants spoke about their frustration with supervisors who were not able or available to answer their inquiries. One reason may be due to the large number of enrolled online, course-based graduate students. In some cases faculty members could be responsible for supervising over 20 students limiting the amount of time they could communicate

with each learner. Another reason could be faculty members' expectation of supervising students was less as those in a course-based program tended to follow a degree template.

Perhaps, a different model for student advising could be explored. For instance, a call centre in postsecondary institutions could be an effective way to address a variety of student needs. Kondra, Huber, Michalczuk, and Woudstra (2008) suggested developing call centres for online learners in postsecondary settings where highly motivated, trained, and supported staff offer program advice, and provide answers to information and technical questions most hours of each day. In turn, faculty members could be alleviated from tasks such as locating materials, providing technical support, and offering advisory services. As such, faculty members would be more available to engage in other activities that contribute to the faculty of education and/or produce revenue, such as with online curriculum development, faculty mentoring services, and research and innovation. As well, Netter (2005) found relieving faculty members from some of their responsibilities helped elicit their commitment to develop online courses.

Another frequent request from 12% of survey respondents, 25% of focus group participants, and 20% of interviewees was to receive course syllabi and materials well in advance of course commencement dates as recommended by Morrison and Ross (2007). Participants who lived at a distance, such as the Middle East, required more time to order and receive mandatory textbooks. As well, participants wanted to manage their professional and personal time better by planning for future synchronous sessions and assignment deadlines, and by pre-reading course text. However, requesting faculty members to produce and organize curriculum well in advance, especially when newly created, may be problematic for educational leaders. For instance, Young and Norgard (2006) warned that online instructors had the extra burden of preparing online courses well in advance of a course start, and Hogan and McKnight (2007) found that faculty members burned out unless given manageable workloads. One alternative might be to provide

course design teams that include multimedia, graphic, website, and instructional experts. With these teams, faculty members could provide the content expertise, and share the workload to produce curriculum well before a course commenced (Levy, 2003; Netter, 2005; Yang & Cornelius, 2005). With a course design team, a collection of past curriculum and learning materials could produce resources that are reusable. The concept of a course design team is discussed further in the next section.

As well, 20% of the interviewed participants and 23% of survey respondents were hesitant to enrol in an online program due to a lack of confidence in their ability to manage a technical environment as found by Bird and Morgan (2003). Also, Merriam (2001), Merriam and Caffarella (1999) and Cross (1981) found that adult learners may possess internal barriers, such as lack of confidence, that hinder their pursuing education. Twenty-eight percent of participants were new to the online learning environment, and perhaps were uncertain of the structure and requirements. Stodel, Thompson, and MacDonald (2006) also found that higher education students new to online environments did not feel confident with engaging in that setting. In most cases, these participants stated they managed well once having gained the experience of an online course. Furthermore, Moisey and Hughes (2008) advised leaders in higher educational settings that students' readiness for online learning should be assessed. Added to this, one way to alleviate uncertainty and the lack of confidence of potential online students might be delivering pre-enrolment orientations. As an example, the University of Maryland University College [UMUC] (2009) in the United States introduces potential students to the online environment by providing access to a sample course and suggestions to engage successfully online. As a further suggestion, live pre-enrolment sessions for inquiring students could be delivered occasionally online through synchronous software. In these sessions, more specific questions and concerns could be addressed.

*Information Literacy Skill Development*

Eighty percent of the interviewed participants struggled with advanced information literacy skills, such as selecting the most appropriate method for finding, retrieving, and storing information. One reason for their struggle was the technical nature of library databases and online resources creating a barrier for those with low technology skills. Shinkareva (2007), Rodriguez, Omms, Montanez, and Yan (2005), Menchaca and Bekele (2008), Harmon and Jones (2000), Turner (2006), and Garcia and Qin (2007) also found that a higher education student's comfort with technology affected their engagement online. Even those participants in this study who had advanced technical skills, which was approximately 10% of survey respondents, were overwhelmed by the amount of available resources online, and were unsure how to find the information they needed. As well, 31% of survey participants did not have strong skills in critically evaluating, and understanding legal and ethical issues when using digital information. This was more apparent with participants who had not taken formal education for more than ten years. It has been strongly recommended, especially from librarian scholars, that literacy skills need to be taught to university students as information sources expand and become more complex in the digital world (Association of College and Research Libraries, 2000; Ivankova, 2004; Pival, Lock, & Hunter, 2008). In the graduate division, information literacy skill development was addressed through program orientations delivered on campus and online, and through educational librarians available for individual consultation throughout the year. However, considering the complexity of searching a variety of resources online, and critically reading and evaluating print and digital-based information, ongoing literacy development opportunities might benefit graduate students more. Knowles, Holton, and Swanson (2005) and Cranton (1992) stated not all adult learners have the interest, capacity, or desire to engage in self-directed learning implying support from experts is needed. As well, Wlodkowski (2003) found

that adults were motivated if they felt they could successfully master their learning. Therefore, providing the skills and support to succeed is important to adults.

Furthermore, other higher education institutions are considering the need for students to develop complex information literacy skills. For example, on their website the Information Literacy Committee at Dalhousie University (2009) in Halifax, Nova Scotia, has agreed the institution should “focus on the goal of integrating formal information literacy instruction into the curriculum rather than pursue the development of a stand-alone course.” The library department at the University of Kent (2009) in the United Kingdom also promotes information literacy training that focuses on core competencies embedded in the curriculum. They provide online resources to integrate into the curriculum, and also offer online tutorials for all students to access. Educational leaders can collaborate with library departments to offer continuous learning opportunities to improve the information literacy skills of graduate students. Through rich online resources and ongoing training, students can gain valuable skills deemed essential for this century to support their study, professional work, and lifelong learning needs.

### *Learner Needs Research*

Additional questions emerged in the data. Through interviews, focus groups, and open-ended survey responses, participants offered suggestions about their learning needs in online courses. These suggestions can provide questions for future research as student learning preferences, teaching practices, online curriculum development, and instructional design were not explored deeply in this study. These questions are placed in the context of leadership implications and outlined in Table 7 on the next page.



Table 7

*Learner Needs Suggestions and Exploration*

Participant Needs	Leadership Research Focus
Contentious learning activities	Examining overwhelming discussion postings, unfavourable group work, and balanced workloads
Course design teams	Obtaining multimedia, graphic, web, content and instructional design experts Considering faculty resistance
Online pedagogy	Defining institutional specific online pedagogy Determining best practices online
Diverse learning styles	Determining student learning styles Creating and maintaining diverse curriculum
Blended learning	Exploring the feasibility of multiple site visits

Many participants commented on their learning needs when studying online. Foremost, they commented on their enjoyment of dialoguing online, yet they were concerned about the amount of posted comments in the asynchronous venues. They also found group work challenging when conducted online. In turn, participants asked instructors to facilitate and moderate discussions and group work. Participants also were concerned about being given the appropriate workloads, and thought that they were given more work than students in face-to-face classrooms. Participants also asked for well prepared and timely curriculum and learning materials, requesting they be offered earlier in the course schedule. Participants asked for curriculum to be developed with the virtual student and environment in mind. Thus, both instructional design and consideration of online pedagogy were critical areas participants identified for creating successful learning experiences. Next, participants mentioned the need for understanding students' diverse learning styles, and some participants requested that programs be

blended more with occasional campus-based sessions. These issues are possible areas to explore further in order to create effective online learning programs and learning environments.

### *Contentious Learning Activities*

Participants offered many comments about the online learning activities they enjoyed as well as those they found less effective. For instance, 20% of survey participants commented they enjoyed online discussions in *Blackboard*<sup>®</sup>, but 17% found the amount of postings by fellow students overwhelming. They felt managing abundantly posted information hindered their learning. This is contradictory to their statements about wanting rigorous learning programs, as discovered by Young and Norgard (2006) and Ukpokodu (2008). As well, 50% of focus group participants stated they disliked group work similar to what was found by Campbell and Khalideen (2008) and Vonderwell and Zachariah (2005), who examined the perceptions of online graduate students. Focus group participants struggled to work and communicate with diverse group members online to produce work in a timely manner. They complained that some group members seemed to contribute little, were tardy in their communication, or had difficulties managing the technology. At those times, participants preferred to work alone. Vafa (2002) and Garcia and Qin (2007) also found that one of the least favoured learning activities online by graduate students was engaging in group activities. Thus, the learning activities that include online posted discussions and group work might need to be re-examined. Such learning activities might be examined with consideration of the level of self-directed learning desired by adult learners along with their need to interact and collaborate with others (Cranton, 1992; Cross, 1981; Knowles, Holton, & Swanson, 2005; Merriam, 2003). For instance, though numerous studies encourage collaborative activities as well as interaction among online learners, is this necessary for all students in every learning activity and course? The findings from this study

suggest assumptions about learning online for graduate students, and the affordances of technology may need further exploration.

As well, 49% of survey participants, 25% of focus group members, and 27% of interviewees repeatedly requested that instructors and instructional designers consider the busy schedules of online graduate students, and take into account the amount of time required to work in online courses compared to face-to-face classes. To support this, Butler (2004) found that graduate students considered some learning activities demanded too much of their time, and appreciated ones that were sensitive to their demanding schedules. As well, Galbraith (2003), Ramsden (2003), and Brookfield (1986) found adult learners wanted to be respected by instructors, and that barriers to their learning were shortage of time along with family and work responsibilities (Cross, 1981; Merriam, 2001; Merriam & Caffarella, 1999). McPherson and Nunes (2004) also learned that graduate students struggled to interact online due to a lack time.

Like other studies (Bowman, 2006; Campbell & Khalideen, 2008; Dove, 2006; Loeffler, 2005; Klinger, 2003; McPherson & Nunes, 2004), participants thought online graduate students had higher workloads than face-to-face graduate students. Considering these needs, 24% of survey participants, 50% of focus group participants, and 13% of interviewees asked for a balanced workload. To them a balanced workload would allow for flexibility in assignment deadlines, including the due date for posted responses in online discussions in *Blackboard*®. They also felt a balanced workload would allow them more time to reflect and discuss topics by lessening the amount of required postings and group work. As well, it would allow for more socializing online as well as time to read text and compose assignments. The question becomes if online learners have higher workloads than students attending campus courses. Also, can the online environment and curriculum be considered similar to campus-based courses, and what are the perceptions of this by instructors? Again, assumptions about the online learning environment

for graduate students need to be examined in order to understand its nature and best use for learning.

### *Course Design Teams*

One model for designing and delivering online courses is with a specialty team that comprises of multimedia, graphics, web, instruction, and content design experts. As shared in the literature, some higher education institutions find using teams effective for course design in terms of increasing quality, controlling costs, and creating timely products (Ali, Hodson-Carlton, & Ryan, 2004; Knowles & Kalata, 2007; Reid, 2009). For instance, two open universities in the United Kingdom and the Netherlands rely on course design teams to create online and distance courses. At the Open University of the United Kingdom [OUUK] and the Open University of the Netherlands [OUNL], multidisciplinary teams create learning tasks for each distance course, and tutors use this curriculum to teach students at a distance. Web-based and multimedia technologies have been incorporated more recently (Jones, Aoki, Rusman, & Schlusmans, 2009). As an example, at the OUUK (2009b),

a course team has the responsibility for producing and maintaining a particular course. ...

The course team will (most often) be asked to contribute support to one programme committee and sometimes more.

Though the course teams of both open universities mostly produce undergraduate distance courses, such a model could be use to create online graduate courses. Conole (2008), Kearsley (2002), and Webber (in press) advised that developing online learning programs in higher education requires system-wide support from those governing the university, managing faculties, and providing instructional and technical services. At the time of the study, faculty members in the graduate division had support services to help them build online courses. These services included the graduate division's technology staff, and the university's Teaching and Learning

Centre. Though there was support, faculty members were solely responsible for creating their online courses. A course design team that is committed to the development and maintenance of online courses could offer essential expertise and continual support. Working with faculty members along with their content expertise and teaching styles, course teams could share their skills and the workload to create timely courses. As well, this approach would ensure online courses would have a professional appearance, pedagogical sound design, and effective technology use.

However, considering the number of online courses and faculty members in the graduate division this might not be an affordable or sustainable model. Added to this, higher education leaders are concerned with obtaining adequate instructional design and technical experts, and retaining staff of the highest quality, especially considering the prospective bulge of upcoming retirements (CANARIE, 2002; Johnson, Levine, & Smith, 2008; Portugal, 2007; Universities UK, 2008). To counter the ongoing costs and labour of providing course design teams, Park University in Missouri in the United States used instructional design and technical experts to train novice online faculty members to develop curriculum and teach in virtual environments (Knowles & Kalata, 2007). The goal was to prepare faculty member to effectively develop and teach on their own courses after being mentored and supported during one online course.

Additionally, when contemplating a team approach for designing online courses, issues about academic freedom and faculty resistance may need to be considered. The literature suggested faculty members are reluctant to have others involved in the development of their curriculum and prefer to work alone (Levy, 2003; Netter, 2005; Yang & Cornelius, 2005). As well, when university support and resources are used, issues about intellectual property and awareness need to be explored as suggested by Marshall (2008) and Simonson (2007). That is, when institutions supply the support, resources, and digital space for online courses, does this

suggest they have ownership in the development? Educational leaders would have to measure the benefits and challenges of a course team design model to determine if it was an effective service to employ.

### *Institutional Specific Online Pedagogy*

Thirty-three percent of survey participants, 25% of focus group participants, and 27% of interviewees asked for courses to be designed with what they termed 'online pedagogy' strategies. However, it was difficult to determine how they defined this form of teaching and learning. Assumptions could be made from their comments and perspectives about learning online. For instance, participants felt it was critical to design online courses and programs with the virtual environment and distant learner in mind. Harmon and Jones (2000), LaPointe and Reisetter (2008) and Orr and Bantow (2005) also argued that online learning environments were not the same as traditional face-to-face settings in higher education, and needed to be considered in the design of programs and courses. For instance, this study's participants asked online courses not be a digital version of face-to-face classrooms and curriculum, but instead provide engaging and interactive activities that involved discussions and the sharing of ideas with others. However, it could be argued that face-to-face classrooms also provide such interaction such as the collaborative activities desired by adult learners as found by Brookfield (1986), Ramsden (2003), Chickering and Gamson (1999) and Chickering and Ehrmann (1986). As well, 54% of survey respondents, 50% of focus group participants, and 13% of interviewees asked for opportunities for live communication to compensate for the loss of face-to-face dialogue in the classroom setting. This contradicts their request that online pedagogy be different from classroom settings. Furthermore, to succeed online participants felt they needed an organized curriculum that was maintained by the instructor. Following this, a few focus group members and interviewees asked that online courses be well structured in a simple and consistent format,

and 25% of focus group participants, 20% of interviewees, and 9% of survey respondents asked that a clear syllabus be provided that had explicit information about instructors' expectations, course assignments, and scheduled sessions. Knowles, Holton, and Swanson (1998) and Ramsden (2003) also found adult learners needed learning objectives and expectations to be clear. As well, Abdul-Hamid and Lewis (2005), Stewart (2006), Conrad (2002), Garcia and Qin (2007), Ali, Hodson-Carlton, and Ryan (2004), Stodel, Thompson, and MacDonald (2006), and Vafa (2002) also learned their online higher education students wanted a well organized learning environment along with clear learning objectives and instructions. Yet again, these teaching traits and strategies could be expected of a classroom instructor in higher education.

Though the uniqueness of online learning environments has been examined in the literature (Moore & Kearsley, 1996, 2005), this study did not specifically reveal distinct features about online learning except for perhaps one. For instance, the way 20% of survey participants, 50% of focus group members, and 20% of interviewees preferred to actively engage online by communicating and interacting with others could provide insight into their notion of online pedagogy. Additionally, 83% of all participants commented that effective communication for them became more than timely responses to questions and feedback; it became a way to connect, socialize, and build relationships with others. In light of this, participants asked for course time and the communication technology to engage. It implies that the degree to which student could connect online might not be as easily replicated in face-to-face courses. However, the literature on blended learning refutes this notion as classroom-based students in postsecondary settings could continue their connection with peers after class through communication technologies (Garrison & Vaughan, 2007). As well, participants' request for more communication is contradictory. Though they desired more personal communication and timely feedback from peers and instructors as mentioned by Lao (2002), Maxfield (2008), Young and Norgard (2006)

and Menchaca and Bekele (2008), they were restricted in time to engage frequently (Anderson, 2008a). Lack of time also was found by Merriam (2001), Merriam and Caffarella (1999) and Cross (1981) as a learning barrier for adult students. Overall, participants' notion of online pedagogy would need to be explored more in order to determine the distinct qualities of online learning compared to a classroom setting while considering the needs of adult learners. From such an exploration, a better understanding of the unique features of online environments could emerge along with best practices for delivering distance education.

### *Diverse Learning Styles*

Though this study did not specifically examine participants' learning preferences, two learning styles seemed to emerge. For instance, 20% of survey respondents, 25% of focus group participants, and 27% of interviewees commented on the need for self-directed learning, claiming they wanted to learn independently. Yet, approximately 51% of survey participants stated they preferred to learn through social interaction, and asked for ways that replicated face-to-face meetings even if delivered through technologies. The two learning styles for online students in higher education, such as independent and social learners, were also mentioned by Conceicao (2007), Menchaca and Bekele (2008), Nkonge (2004), Ukpokodu (2008), Vanderbilt (2009), LaPointe and Reisetter (2008) and Lewis (2007). However, the results from this study should not be perceived as producing distinct styles among participants. Brookfield (1986), Knowles, Holton, and Swanson (1998), Merriam (2001), Merriam and Caffarella (1999) and Long (2003) also found adults to be complex, and that narrowly characterising them would not provide a complete view of the learner. In this study many participants, whether considered independent or social learners, had difficulties working in groups or learning through online posted discussions. This would be contradictory if they enjoyed learning socially. As well, participants who claimed to be independent learners seemed to enjoy the online posted



discussions suggesting learning styles cannot be narrowly defined. Learning preferences of the participants seemed to vary and overlap with each other.

However, 8% of survey participants were eager to have their learning preferences met as found by Redmer and Rundle (2006) and Conceico (2007). As well, Cranton (1986), Merriam (2001), Merriam and Caffarella (1999) and Galbraith (2003) recommended that instructors explore learner preferences in order to understand and teach them better. The challenge becomes determining the learning styles of adult students and designing flexible and diversified curriculum as discovered by LaPointe and Reisetter (2008) and Orr and Bantow (2005). One solution might be to use one of the many learning style instruments that exist to assess students, thus aiding instructors and course designers in creating curriculum for diverse learning preferences. However, it would be important to examine the objectives, outcomes, quality, and the usefulness of the instruments. Also important to consider is the teaching philosophy of instructors as mentioned previously (Brookfield, 1986; Ensminger, Surry, & Miller, 2002; Galbraith, 2003; Yick, Patrick, & Costin, 2005), and determine if developing curriculum that serves multiple learning styles is supported by teaching staff.

Second, creating and sustaining flexible and diverse curriculum is difficult for instructors as found by McQuiggan (2007), and Yang and Cornelius (2005). To what extent would different versions of the same curriculum or learning activities need to be created? How feasible is this, and can educational leaders enlist faculty members to develop and deliver education in this fashion? Serving diverse learning needs is a long examined topic at every level of education, and transferring this approach to an online environment would need further consideration.

### *Blended Learning*

Unlike the students in studies by Zobdeh-Asadi (2004) and Menchaca and Bekele (2008), this study's participants did not prefer face-to-face courses over online versions, though 20% of

the interviewed participants desired blended learning opportunities. This was found by Harkins (2005), Menchaca and Bekele (2008), Orr and Bantow (2005) and Jakobsdóttir (2008) when examining the needs of online graduate students. Their participants requested having occasional site visits in order to connect and have richer conversations with peers, instructors, and staff. However, the course-based online Master program did not offer site visits within its program or courses, but the Doctor of Education program did have scheduled summer courses that took place on campus. Regardless of the program pursued, the interviewed participants sought to create blended learning opportunities. For instance, the former Community Rehabilitation and Disability Studies program in the graduate division was popular for its blended structure. Students in that program meet with instructors and fellow classmates on campus up to three times during each course. A participant in the study felt this was beneficial to her learning, and pursued a doctorate in the same program in order to have an extended blended learning experience. Two other interviewees, though enrolled in a distance program, tended to enrol in more campus than online courses as they lived near the university. In this way they created a blended program. Along with these three interviewees, a few survey participants who attended summer courses found it highly beneficial in meeting and connecting with fellow students. They felt meeting face-to-face increased the bond between fellow students, and improved their working relationship once rejoined online. This was also found by Kazmer (2007). Perhaps another reason for wanting blended learning, as found in the literature, is the desire for some adult learners to have choice, flexibility, and self-directedness in their learning (Cranton, 1992; Cross, 1981; Knowles, Holton, & Swanson, 2005). Offering courses on campus would add variety and choice to online graduate programs.

Yet, it is questioned if increased site visits for online courses would be feasible for all students. Most participants chose the online program because of its limited site visits as they had

other commitments and responsibilities, such as work and family. Two interviewees and one focus group member needed fewer site visits as they lived abroad. Thus, offering campus-based visits for a select number of participants might not be feasible in terms of faculty and staff time, costs, and scheduling. An alternative solution would be to offer gatherings in simulated and virtual reality environments delivered online in order to emulate face-to-face meetings (Becker & Parker, 2009; Monahan, McArdle, & Berlotta, 2008). The notion of offering more blended learning opportunities would need to be explored further considering the needs of those requesting this kind of gathering.

### Discussion Summary

Findings from this particular case study might reveal important implications for educational leaders who manage online graduate programs in higher educational settings. For instance, the characteristics and needs of online and adult learners can be used to design programs, courses, and instruction. Students geographical location, employment focus, and prior learning experiences can inform needed support and resources, timing of curriculum, and relevant content. Graduate student needs and motivations to learn can inform program development and promotion, faculty development, and further research about learning needs. As well, one issue participants had with the online programs was the participation and readiness of instructors who taught online in higher education. Following this, effective ways to work collaboratively with faculty members to increase their online teaching and technology skills could include embracing teaching preferences, providing team support, mentoring online instructors, modeling online courses, and offering feedback about students' online learning needs. Course design teams were considered an effective ongoing support for faculty members as well as a form of faculty development for designing and teaching online courses. It was

discussed that educational leaders also need to consider the tuition fee for online graduate programs, and perhaps offset this with increased revenues and budgets or decreased instructional and development costs. The credibility of online programs was considered another issue, and could be addressed through quality benchmarks for the design, delivery, support, and management of online learning.

Participants also made remarks about the services they found important for their success online. For instance, creating various online communities such as learning, social, academic, and research groups could be realized through existing platforms and social software. As community members, students would be responsible to engage when given the opportunity. As well, specific training could be provided to continually upgrade graduate learners' technology and information literacy skills through digital resources available online, or workshops delivered virtually. Additionally, a postsecondary call centre that was available during most hours of each day, evening, and weekend could provide student programming advice, and satisfy information and technology questions.

As well, the needs of graduate learners in online environments revealed emerging questions for educational leaders, requiring further investigation. These questions inquired about the best practices for online learning, and its uniqueness compared to face-to-face instruction. For example, assumptions made about learning and the use of technologies became problematic when distinctions about online pedagogy, learning styles, and online learning activities were contested. These assumptions seemed to create questions about how different online learning is when compared to classroom learning in the higher education setting. It also shows a concern whether online learning should be created with higher standards than other modes of educational delivery. As well, it was questioned whether the learning styles of online graduate students could be determined, and if providing diverse curriculum was feasible. Furthermore, is it best to design

online curriculum and learning activities differently than in face-to-face classrooms? Are online learners more burdened with learning tasks than campus students? As well, how reasonable is it to offer blended learning opportunities considering most online graduate students have a number of other life responsibilities, and chose online learning for its convenience? Exploring these questions and the assumptions made about online learning would require more research.

## CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

### Introduction

The data from this case study revealed that there is a demand for graduate education delivered online. This parallels statements in the literature that the online learning market is becoming a significant force in higher education as more institutions use distance education delivered through technologies to reach wider audiences, including those in developing countries (Bates, 2005; Kanwar, 2009). The time has come to consider online learning as more than a secondary service within mainstream universities; yet, a number of institutions and faculty members remain resistant to the online delivery mode (Hanna, 2000; Henshaw, 2008; Ruth, Sammons & Poulin, 2007; Webber, 2008). However, innovative leaders in higher education will realize the demand for and the potential of offering online programs and courses. They will also realize the opportunity to expand educational opportunities for students and increase revenue. Drawing on previous chapters and the study's data, this chapter discusses leadership strategies for delivering successful and quality online programs. As well, this chapter discusses the importance of human relations, such as working effectively with faculty members to develop and teach online courses, and ensuring a quality experience for online students. Again, caution is given to readers that conclusions are drawn from the findings of a particular case at a western Canadian university at a specific point in time.

### *Leadership Strategies*

In this section, strategies are given for educational leaders who develop and manage online learning at higher education institutions. Key strategies to ensure successful and quality

online programs include conducting research, planning for success, implementing online infrastructures and resources, marketing online programs, and ensuring effective delivery.

### *Research Initiatives*

As indicated in the literature, this study has discovered that understanding learner needs is essential for delivering online higher education that is effective and in demand (Altarac, 2008; Anderson, 2008a; Brookfield, 1986; Conceicao, 2007; Galbraith, 2003; Long, 2003; Merriam, 2001; Merriam & Caffarella, 1999; Moisey & Hughes, 2008). Examining online learner needs during planning phases and on a continual basis can provide rich feedback for the improvement of programs, courses, student services, and instruction. Engaging in research projects, exploring current literature, and administering program and course evaluations are examples of methods to gain valuable feedback about online learning and learner needs. As well, the findings from this study revealed that perhaps the assumptions made in the literature about the uniqueness of online teaching strategies, online graduate student learning, and the affordances of technology might merit further research. That is not to suggest other findings are incorrect, but they may be debatable. For instance, this study found contradictory evidence about whether online pedagogy is unique compared to classroom settings in higher education institutions. As well, it was questioned whether graduate students learn differently online. Furthermore, do the availability and various features of learning, information, and communication technologies transform graduate learners and their learning to experience something new or better? These findings were surprising given the number of studies and articles found in the literature that determined online learning in higher education was unique and provided opportunity for new forms of education. However, if educational leaders examined these questions and explored the needs of their online graduate learners they may reveal important findings for program and course development.

*Planning for Success*

By drawing on research, higher education leaders will have the information to plan successful online programs. An important element to consider before implementing online programs and services is the establishment of frameworks for quality development and best practices. Developing such frameworks creates vision, direction, and standards for staff involved in online education. Quality frameworks could guide the development of policies, research, and innovations for online learning. Frameworks could also include guidelines for quality online curriculum and course design, course delivery, infrastructures, and student and staff services in higher education. Such guidance is essential to avoid early mistakes in development work.

Also essential to the planning of online graduate programs is gaining support from the institution as a whole. In the literature, it was strongly recommended implementing innovative programs and policies at an institutional level, which was found to be more effective than incremental and isolated developments (Beaudoin, 2007; Conole, 2008; Lai, Pratt, & Grant, 2003; OECD, 2008; Ramsden, 2008). To enlist institutional support, Beaudoin (2007) suggested leaders of distance education consider changing their role from protectors and advocates of online programs to one that conceptualizes and strategizes with the whole institutional system. However, considering online programs are emerging in mainstream institutions, it is still important for leaders in higher education to promote online programs with researched evidence to strengthen the perceived credibility, and reveal how flexible distance education is fulfilling a growing need. Yet, this would only be important if online learning was an institutional goal. Thus, collaborating with the institution to implement and offer online programs, services, and infrastructures would be economical, and would create more extensive support and services for postsecondary learners, such as with learning materials, online communities, technical support,



and personal digital spaces. Such services could also be offered to campus-based students at a higher education institution, thus extending the benefits to all.

### *Online Implementation*

Developing online graduate learning would include the implementation of infrastructures and resources, such as learning management systems and library databases as seen with the graduate division. Collaboration with other institutional departments would be essential to develop and deliver quality products. As well, online student services are critical such as registration and fee payment. However, the literature states services are typically designed for campus-based students, and need to be accessible off site and after office hours for online learners (Otte and Benke, 2006; Young & Norgard, 2006). As mentioned previously, creating a student call centre on an institutional-wide basis could provide services and support during the daytime, evening time, and weekends (Kondra, Huber, Michalczuk, & Woudstra, 2008). Most important, integrating student services, student information systems, and administrative systems is becoming a challenge, but necessary to create an effective, connected, and seamless online environment (Ruth, Sammons, & Poulin, 2007). Developing effective online infrastructures, resources, student services, call centres, and integrated systems would require institutional support. Additionally, at the faculty and departmental level, faculty members and staff would need support and training to manage online graduate learning. Through faculty development and resources, staff could learn about the elements of online graduate programs, administrative procedures, and resources and services available to support them.

### *Marketing Online Programs*

For online learning initiatives, the Internet becomes a key venue to market programs and provide important information. Considering most of the study's participants did not live near the

university under study, it is assumed they accessed most program information online. Placing online all information about graduate programs and courses, appropriate departments and faculties, and the university alleviates unnecessary telephone calls and helps potential students make informed choices. Potential graduate students can access faculty web-sites and other electronic resources that:

- Promote online programs through text, sound, images, and videos;
- Provide quality statements and accreditation procedures used to develop online graduate programs;
- Display testimonials from previous online learners;
- Offer notification services for graduate program changes and events;
- Allow access to sample online graduate courses;
- Announce upcoming orientations for future graduate students, and
- Provide access to other important information, such as university services, the Faculty of Graduate Studies, library resources and services, and staff contacts.

As well, exploration of the best ways to design web pages, structure digital information, and meet user needs would ensure students gain answers to important questions at any stage of their graduate program, such as during initial inquiry, while registering, at mid program, or near completion. Furthermore, examining the websites of successful online education providers could supply ideas and strategies for creating virtual environments that serve the informational needs of potential and current students. Also, using well designed websites as a promotional tool can reduce costs associated with printed and mailed materials.

### *Effective Delivery*

The effective delivery of online learning should include sound instructional designs that consider the online graduate learner and virtual environment. Through research and evaluations, educational leaders should endeavour to determine graduate student needs, learning preferences, and useful technology before online programs and courses are designed. Informing course developers, such as faculty members and/or course design teams, about research and evaluation outcomes could be offered through documentation and faculty development.

Effective delivery of online graduate programs should also entail good instruction from qualified instructional staff. To be qualified to develop and teach online graduate courses, faculty members would need training in understanding the online environment and instructional design for online courses as well as upgrading their technology literacy skills. Perhaps, training sessions in developing literacy skills for finding information online might be beneficial for faculty members, as well. Also important is to provide faculty with the needs of online graduate students. Along with this, faculty support could entail instructional design consultation, examples of online courses, mentoring services, and technical help. By offering training workshops on how to effectively use technology, along with examples, support, and mentoring, faculty could have access to a variety of ideas and resources to develop and teach online graduate courses. Such supports could be internally developed within a faculty as well as provided by central institutional services.

### *Human Relationships*

With any educational endeavour, interaction with humans is inevitable. In the case of delivering online learning, working with reluctant faculty members and serving distant graduate

students are core responsibilities. Considering the needs of each becomes essential for delivering quality online education.

### *Working with Faculty Members*

As mentioned in the literature, a major hurdle to overcome when implementing online learning in higher education institutions is gaining support from academic staff who control the curriculum and protect their academic freedom (Hanna, 2000; Henshaw, 2008; Ruth, Sammons, & Poulin, 2007). However, faculty members are essential to delivering successful online programs. Recognizing and embracing the uniqueness and strengths of academic staff would be important for higher education leaders. For instance, working with faculty members' pedagogical beliefs might be a solution. Matching the design of online graduate courses with their teaching strategies might be more effective than expecting online instruction to follow an assumed approach such as with constructivist or social learning as argued by Ensminger, Surry, and Miller (2002) and Yick, Patrick, and Costin (2005). Being aware of teaching styles is just as important as being aware of learning styles. Additionally, this study determined that online graduate students expected instructors to serve many needs, implying faculty members need constant support from technicians, resource people, and administration. Alternatively, creating online services that meet the needs of online graduates such as call centres, web-based information, administrative services, and online communities could relieve teaching staff from the many requests for help by students.

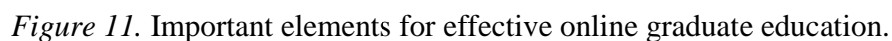
Additionally, a team approach to developing and delivering online graduate courses might be effective. Having design experts in instruction, website, multimedia, and graphic development, who work on online courses along with faculty members, could create more quality products. However, faculty members seem reluctant to share the ownership and creation

of courses (Lewis, 2007). This might require higher education leaders to develop policies that address intellectual property rights and academic freedom concerns. Regardless of the creator, faculty input is essential to produce quality graduate courses. Furthermore, it could be advantageous to provide incentives and acknowledgement for faculty who invest time in developing and teaching online graduate courses. However, this is challenging considering limited budgets and the demands on faculty time. A solution might be finding creative ways to support online instructors such as with team teaching, teaching assistants, and digitizing or outsourcing parts of the curriculum. Including faculty in such decisions would be beneficial along with gaining institutional support.

#### *Ensuring Quality Student Experience*

Last but not least, the successful experiences of online graduate students should be the main goal for educational leaders when developing and delivering online programs and courses. High-quality graduate student experience in the online environment would include having access to courses, information, resources, support, and services when needed. As well, good student experience would include interacting in online communities, and feeling included as an academic member. Most important, a good online experience for graduate students would include having flexibility in their courses, such as with assignment deadlines, learning outcomes, and work presentation styles. It would also include having a choice of technology tools to use as with communication, multimedia, and social software.

However, creating interactive, informative, accessible, and flexible online environments is challenging for educational leaders and higher education institutions. It requires planning, funding, resources, support, and collaboration. Nowhere in the literature does it state that delivering higher education online is a simple endeavour, or a mere replication of campus



From this study, themes emerged that revealed effective delivery of online learning at a graduate level will require the consideration of certain elements. First, the needs of graduate students and faculty are critical to delivering online learning. Not only are students central to learning, but faculty needs and participation are essential for delivering quality education. Second, aligning with institutional visions as well as gaining their support is one of the major feats for new graduate programs. Supporting each other in terms of goals and support will aid both departments and institutions to create innovative programs. Third, the use of sound instructional designs is important. While there are a variety of principles and approaches for

designing instruction and curriculum, the choice will depend on institutional visions, instructor preferences, learning outcomes, and graduate student needs. Fourth, exploring the affordances, or possibilities, of learning, communication, and informational technologies to enhance learning will require diligence and research. Not all new technologies are appropriate for graduate education, and in turn, should serve the needs of students and faculty, learning outcomes, and academic goals. Overall, by addressing faculty and graduate students needs along with institutional visions, sound instructional designs, and the affordances of technology, important elements can be considered that allow for the effective delivery of teaching and learning in a virtual setting.

#### Educational Leadership Recommendations

Drawing on the study data, literature, findings, and previous discussion, four key recommendations emerged for educational leaders who manage online graduate programs.

1. **Pursue Online Learning Initiatives:** There is plenty of evidence, in the literature and through studies such as the present one, that online learning is emerging as a favoured venue for students to gain the education they need and want, whether a graduate degree, professional upgrading, or lifelong learning. Online learning is a growing global trend. By viewing it as a viable alternative mode of delivery, educational leaders can establish its importance within the thinking and dialogue of administrative and academic cultures. Perhaps, hosting an international or national conference on campus about online learning, and inviting staff and top administrators, would expand awareness of the growing importance and developments in this field.
2. **Gain Institutional Support:** Gaining the support and cooperation from the whole institution would be a priority for leaders to deliver online graduate programs and

- student services at a quality level. Serving the needs of online graduate students, faculty, and staff requires significant investments, infrastructures, services, and operating costs. As well, by sharing how other institutions, whether public or private, are successfully delivering online learning, decision makers can be made aware of the competition and the potential of online learning. They also can draw on the strategies and practices of competitors who effectively deliver online graduate education.
3. Use the Power and Support of Faculty: The academic culture is a powerful community in higher education institutions, and gaining their commitment and involvement through collaborative methods would aid the development and delivery of online learning. Merging the needs of instructors with those of graduate students, along with acknowledging the visions of the institution and the affordances of technology, educational leaders could develop programs that satisfy many key players.
  4. Ensure Student Experience is a Key Goal: A key component to the success of online programs is the experience of graduate students. Their responses and reaction to online programs, whether positive or negative, can be widely communicated affecting the reputation of a program. It is best educational leaders listen to, learn about, and investigate how graduate students are experiencing learning online. By examining and deliberating about student experiences and feedback, educational leaders can determine strategies and resources needed to sustain and improve online education.



### Future Research Questions

As leaders in higher education continue to oversee the design, deliver, and management of online graduate programs, there will be a need to explore the effectiveness of this mode of delivery. Drawing on the results from this study, the following questions might serve future research initiatives to examine how learning and support can best be delivered online from the perspective of educational leaders.

1. Theories about distance education leadership are limited. To extend this, perhaps the investigation of existing literature and research on how best to lead online learning in higher education, while addressing the many leadership challenges as presented in this study, might inform the development of distance education leadership theory. As well, investigating the practices of current distance education leaders in higher education settings would provide some insight. This also could include examining leaders in for-profit institutions.
2. Leaders in higher education seem to be faced with resistance from many sides when implementing online learning. For instance, why are mainstream higher education institutions resistant or slow to react to innovations, as with online programs? Is there good advice in these warnings? How can academic organizations change to accommodate innovation more readily? What are others learning about this issue? Perhaps using different theoretical lenses about organizational change to investigate these issues would reveal possible reasons and solutions.
3. Finding a way to work in partnership with faculty to deliver graduate learning online seems to be an important strategy. Perhaps, an investigation of the effects of designing online graduate courses to match faculty members' teaching philosophies, beliefs, and

strategies would provide insight. What would such an online course look like? Would it be effective for both instructors and graduate students? This could be studied through a design research method by building a uniquely tailored online course and testing the outcomes.

4. Online adult learners are asking for choice and control in their learning. How can online learning be more flexible, and give online graduate students added choice in their learning? Would this be a matter of creating less rigid structures and schedules as well as providing access to various online communities? Would it require increased access to essential student services and resources, some of which could be outsourced? What emerging technologies could be used to enhance this environment? What emerging concepts about knowledge, such as with Web2.0 notions, could be implemented? Perhaps building and studying a more innovative online graduate course could reveal answers to these questions.
5. As well, the assumptions about how graduate students learn online should be examined. Are online learning environments unique when compared with face-to-face classroom environments? Do graduate students learn differently in them, and is their learning transformed to something better or different? Is there potential for improved graduate education delivered through online modes? A systematic review of the literature and other studies might reveal answers to these questions. Also, conducting internal studies on current online graduate learners would reveal important findings.

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## APPENDICES

## Appendix A: Ethics Approval



## CERTIFICATION OF INSTITUTIONAL ETHICS REVIEW

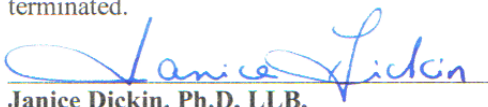
This is to certify that the Conjoint Faculties Research Ethics Board at the University of Calgary has examined the following research proposal and found the proposed research involving human subjects to be in accordance with University of Calgary Guidelines and the Tri-Council Policy Statement on *"Ethical Conduct in Research Using Human Subjects"*. This form and accompanying letter constitute the Certification of Institutional Ethics Review.


File no: **5367**  
 Applicant(s): **Kelly A. Edmonds**  
 Department: **Graduate Division of Educational Research**  
 Project Title: **Exploring the Characteristics, Attitudes, and Perceptions of Online Graduate Students in Canadian Higher Education, and the Leadership Implications**  
 Sponsor (if applicable):

### Restrictions:

**This Certification is subject to the following conditions:**

1. Approval is granted only for the project and purposes described in the application.
2. Any modifications to the authorized protocol must be submitted to the Chair, Conjoint Faculties Research Ethics Board for approval.
3. A progress report must be submitted 12 months from the date of this Certification, and should provide the expected completion date for the project.
4. Written notification must be sent to the Board when the project is complete or terminated.

  
**Janice Dickin, Ph.D, LLB,**  
**Chair**  
**Conjoint Faculties Research Ethics Board**

  
**Date:**

**Distribution:** (1) Applicant, (2) Supervisor (if applicable), (3) Chair, Department/Faculty Research Ethics Committee, (4) Sponsor, (5) Conjoint Faculties Research Ethics Board (6) Research Services.

## Appendix B: Recruitment Letter



Dear Graduate Student,

I am a doctoral student in the higher education leadership specialization in [a graduate division at a Western Canadian university]. I am **looking for participants who are graduate students currently enrolled part-time or full-time in an online program in [the graduate division], whether taking a course this term or not.** A brief description of the research study is given below. This study is part of my dissertation work.

The purpose of my study is to analyze **the impact of online learning on graduate students.** The study looks at the characteristics and attributes of online learners, at graduate students' perceptions of online learning, and the implications of online learning for leaders in higher education. I will use mixed methods to analyze the information participants provide from surveys and interviews.

Participants have the opportunity to partake in **three phases of the study**, or any phase they choose. There is an initial online survey that requests demographic and characteristic information about graduate students as well as their perceptions of online learning and leadership implications. The **online survey** will require approximately 15 minutes to enter responses. Next, **focus group interviews** will focus in more detail upon survey responses about student perceptions of online learning. This will be followed by **individual interviews** to examine more deeply the characteristics, motivations, and goals of online learners. The focus group and individual interview will be approximately one-to-two hours each, either conducted face-to-face at the [university] or online using the software program called Elluminate, depending upon participants' availability. Audio recordings will be made of all interviews, which will be completed by June 2008.

Your participation is completely **voluntary**. You can withdraw at any time without penalty. All information and data will be collected in a format that maintains confidentiality and anonymity. Participants in focus groups and interviews will be asked to complete a research ethics consent form that has been approved by the [university's] Conjoint Faculties Research Ethics Board. Completing the online survey is indication of your consent to participate in the study.

**You may access and complete the online survey by clicking on the following link. Within the survey, you can indicate if you are interested in participating in focus groups and/or interviews.**

**<http://www.questionpro.com/akira/TakeSurvey?id=830481>**

If you have any questions, please do not hesitate to email me at [kaedmond@ucalgary.ca](mailto:kaedmond@ucalgary.ca) . Thank you for your time!

**Kelly Edmonds**

## Appendix C: Web-Based Survey

## Survey for Online Graduate Students

Researcher: Kelly Edmonds, University of Calgary

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### Consent for Online Survey Participation

You have been asked to participate in an online survey for the research study, "Exploring the Characteristics, Attributes, and Perceptions of Online Graduate Students in Canadian Higher Education, and the Leadership Implications". Students' input into this study will help improve online teaching and learning, and inform leaders in higher education.

The researcher for this study is a doctoral candidate, Kelly Edmonds, who is supervised by Dr. Charles Webber of the Graduate Division of Educational Research at the University of Calgary. Their contact information is provided below. You may wish to print this information for future reference (right click to access the print menu). The completion of the online survey indicates your consent to participate in this study.

#### Information Collected:

No information will be reported in this study that identifies individuals, and all participants shall remain anonymous. However, should you agree to participate you may be asked to provide certain personal information, such as your gender, student status, academic major, occupation, and general location (ie. female, 2nd year graduate student, pursuing a Master of Education degree in the educational leadership specialization, working as an elementary school principal, and living in Vancouver, British Columbia). These data will be used to describe the learning characteristics of online graduate students. However, data will be aggregated into group information and pseudonyms will be used for presentation and publication of results, thus protecting the identity of individuals.

#### Data Storage:

Data and digital files derived from online surveys will be secured and password protected. All survey responses will be stored securely and indefinitely on paper and computer disks for further analysis. These data will be stored in a locked cabinet only accessible by the researcher and her supervisor. The location of all secured files will be at the researcher's home in Calgary, Alberta. No one except the researcher and her supervisor will be allowed to see any of the responses from the online survey, or use the data for further analysis. If any participants choose to withdraw, the data provided to the point of withdrawal will be retained and used for analysis.

#### Contact Information:

If you have any further questions or need further clarification about this research study and/or your participation, please contact:

Researcher: Kelly Edmonds, Faculty of Education, Higher Education Leadership, (403) 205-4671, [kaedmond@ucalgary.ca](mailto:kaedmond@ucalgary.ca)

Supervisor: Dr. Charles Webber, Faculty of Education, Educational Leadership, (403) 220-5649, [cwebber@calgary.ca](mailto:cwebber@calgary.ca)

If you have any concerns about the way you have been treated as a participant, please contact

Bonnie Scherrer, Ethics Resource Officer, Research Services Office, University of Calgary at (403) 220-3782, email [bonnie.scherrer@ucalgary.ca](mailto:bonnie.scherrer@ucalgary.ca)



All participants will remain anonymous through the use of pseudonyms and aggregated data. You may want to choose your own fictitious name. If so, please provide your choice of pseudonym here.

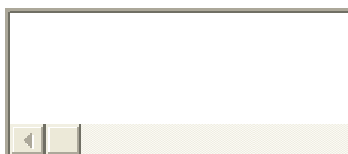


### Perception Questions

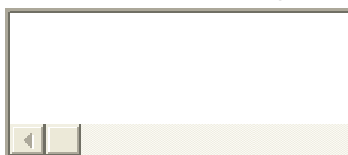
#### Motivation:

The next questions ask you about your motivation to engage in online learning, such as joy of learning, career advancement, etc.

1) What was your motivation to take on further learning, or the current course or program, through an online environment?



2) What were some aspects that might have made you hesitate to engage in online learning?



#### Teaching and Learning:

The next questions ask you about your perceptions of teaching and learning online such as teaching strategies, support, clarity of instruction, interaction, isolation, etc.

3) What online teaching strategies assisted you with your online learning?

4) What teaching strategies, or lack of, had a negative impact on your online learning?

### Functionality:

The next questions ask you about the functionality of online learning environments, such as access, connection time, enrolment and fee payment, program advice, technical support, resources, etc.

5) What worked well for you within the online learning environment?

6) What were some disadvantages you experienced within the online learning environment?



### Leadership Questions

7) Were you ever in a leadership position with the responsibility to lead online learning in some capacity?

☐

Yes

☐

No

8) If you were in such a leadership position, what was it?

9) If you were in such a position, please describe your experiences managing online learning.

10) What advice would you give to other educational leaders managing online learning?

11) From the perspective of an online learner, what do you think educational leaders should consider when managing online learning?

Demographic Questions

12) Please indicate your age range.

- ☐ 18-26
- ☐ 24-47

☐ 48-65

☐ 66-83

13) What is your gender?

☐ Male

☐ Female

14) What is your marital status?

☐ Married

☐ Living common-law

☐ Widowed

☐ Separated

☐ Divorced

☐ Single, never married

15) What is your ethnic origin?

☐ British Isle

☐ Aboriginal

☐ North American

☐ Caribbean

☐ Latin, Central and South American

☐ European

☐ African

☐ Arab

☐ West Asian

☐ South Asian

☐ East and Southeast Asian

☐ Oceania (Australia, New Zealand and the Pacific Islands)

☐ Other

16) In what setting do you currently live?

- ☐ Rural
- ☐ Small town
- ☐ Urban

17) In what region do you live?

- ☐ North America
- ☐ Central/South America
- ☐ Europe
- ☐ Africa
- ☐ Asia
- ☐ Oceania (Australia, New Zealand and the Pacific Islands)

### Educational Status Questions

18) What is your current student status?

- ☐ Part-time
- ☐ Full-time
- ☐ Other

19) What program are you currently pursuing?

- ☐ Graduate Certificate
- ☐ Graduate Diploma
- ☐ MEd
- ☐ MA
- ☐ MSc
- ☐ PhD
- ☐ EdD



☐ Other

20) What is your program specialization?

- ☐ Community Rehabilitation and Disability Studies
- ☐ Curriculum, Teaching and Learning
- ☐ Gifted Education
- ☐ Educational Contexts
- ☐ Educational Leadership
- ☐ Educational Technology
- ☐ Higher Education Leadership/Administration
- ☐ Interpretive Studies in Education
- ☐ Second Language Teaching
- ☐ Teaching English as a Second Language
- ☐ Workplace and Adult Learning

21) How many years have you been pursuing your current degree, whether full-time or part-time?

- ☐ Less than one year
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7+

22) What is the highest level of education you plan to pursue at any university?

- ☐ Graduate Certificate
- ☐ Graduate Diploma
- ☐ Master's Degree

- ☐ Doctoral Degree
- ☐ Post-Doctoral Fellowship
- ☐ Not sure
- ☐ Other

23) What is your current GPA?

- ☐ 2.0 to 2.5
- ☐ 2.6 to 3.0
- ☐ 3.1 to 3.5
- ☐ 3.6 to 4.0

24) How long ago did you finish your last degree?

- ☐ Within the last 2 years
- ☐ Within the last 5 years
- ☐ Within the last 7 years
- ☐ Within the last 10 years
- ☐ More than 10 years ago

### Employment Information Questions

25) What is your current work status?

- ☐ Part-time
- ☐ Full-time
- ☐ Not employed

26) If you work at paid employment, what is the average amount of hours that you work each week?

☐ 1 to 10

☐ 11 to 20

☐ 21 to 30

☐ 31 to 40

☐ 40+

27) If you work at paid employment, please choose a field that best represents your line of work. There is a comment box to add further explanation, if you need.

☐ Manufacturing

☐ Wholesale/Retail

☐ Communications

☐ Banking/Finance

☐ Insurance/Real Estate/Legal

☐ Federal Government (including military)

☐ Provincial/State/Local Government

☐ Medical/Dental/Healthcare

☐ Transportation/Utilities

☐ Construction/Architecture/Engineering

☐ K-12 Education

☐ Postsecondary Education

☐ Business Services/Consultant

☐ Technologies

☐ Other

Information and Technology Literacy Questions

28) Please rate your skill level in each of the **information literacy skills** listed below, where 1 represents “No Skills”, and 5 represents “Expert Level Skills”.

No Skills

Expert Level Skills

Determine and articulate the need for information (i.e. identify problem and develop questions)

Identify, comprehend, and navigate various formats of sources (i.e. text and multimedia)

Select the most appropriate investigative methods for retrieving information (i.e. search engines, directories and databases, controlled subject searching, Boolean operators)

Critically evaluate information and its sources (i.e. credibility, validity, reliability, authenticity, relevancy, and currency)

Extract, record and manage information and sources (i.e. to permit analysis, evaluation, synthesis and understanding)

Synthesize main ideas and integrate with prior knowledge

Apply new knowledge to present in a created product or performance using various media (i.e. essay, slides, visuals)

Understand the legal, ethical and sociopolitical issues of using information (i.e. understand privacy, security and access issues, understand freedom of speech, and identify copyrights, intellectual property and proper citation)



29) Please rate your skill level in each of the **technology literacy skills** listed below, where 1 represents “No Skills”, and 5 represents “Expert Level Skills”.

	No Skills	Expert Level Skills
Understand, use, and maintain computer hardware and networks	<input type="radio"/>	<input type="radio"/>
Understand, use, and maintain various software applications	<input type="radio"/>	<input type="radio"/>
Identify health and security issues with using technology	<input type="radio"/>	<input type="radio"/>
Operate and manage a computer and its desktop, file, disk storage, and printing operations	<input type="radio"/>	<input type="radio"/>
Work with word processing applications including formatting, designing layouts, inserting objects, and preparing final copies	<input type="radio"/>	<input type="radio"/>
Work with database applications including manipulating fields,	<input type="radio"/>	<input type="radio"/>

tables and forms, retrieving data through queries, and preparing reports

Work with database applications including manipulating fields, tables, and forms; retrieving data through queries, and preparing reports

Use multimedia applications to create products such as videos, audio files, and graphic designs

Use existing multimedia objects, such as videos and audio files, to insert into other applications

Present your work in various forms by designing presentations, inserting text, images and objects, creating animations, and preparing final copies

Understand the elements of an internet browser, including web addresses, navigation, bookmarking, and searching

Use the internet safely and legally

Use and manage various communication tools such as email, chat, listserves, discussion boards, and text messaging

Transfer current knowledge to learn new technologies



### Online Experience Questions

30) Where do you mostly access online courses? Choose as many as required.

☐ Home

☐ Work

☐ School

☐ While travelling

☐ Other



Daily

Several  
Times  
a Week

Weekly

Monthly

31) How often do you use the web for personal purposes?



32)

	Under 5 hours	6- 10	11- 15	16- 20	20- 25	25+
How many hours a week are you logged into online courses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many hours a week do you work offline on course work?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33) When do you usually log on to your course for longer periods of work (for instance, for more than 30 minutes at one time)? Choose as many as required.

- ☐ early mornings
- ☐ late mornings
- ☐ early afternoons
- ☐ late afternoons
- ☐ early evenings
- ☐ late evenings
- ☐ weekends

34) How many fully online courses have you taken?

- ☒ 1-3
- ☐ 4-6
- ☐ 7-9
- ☐ 10-12
- ☐ 13-15
- ☐ 15+

**Thank you for your time and information!**

**We have one more important question.**

If you wish to participate in other stages of this research, such as a focus group interview and/or an individual interview, please provide the information below. These interviews will be approximately one-to-two hours in length, and will be conducted either face-to-face at the [university] or online using the synchronous communication platform, *Elluminate*. This will depend on your availability and location.

Would you like to participate in a **focus group interview** conducted before April 2008? Please indicate yes or no.

☐

Yes

☐

No

Would you like to participate in an **individual interview** before June 2008? Please indicate yes or no.

☐

Yes

☐

No

If you wish to participate further in a focus group or individual interview, please enter your **name and email address**.

## Appendix D: Transcription Service Agreement





## WORK FOR HIRE AGREEMENT

This Work for Hire Agreement ("Agreement") is made this 21st day of June, 2008, between **Dependable Office Solutions**, and **Kelly Edmonds** having its principal place of business at 8035 Laguna Way NE, Calgary, Alberta.

In this Agreement, the party who is contracting to receive the services shall be referred to as "the Client" and the party who will be providing the services shall be referred to as "the Contractor".

### 1. DESCRIPTION OF SERVICES

Beginning on June 21, 2008, **Dependable Office Solutions** will provide the following services (collectively, the "Services"): transcribing of dictation provided by client into single lined pages.

### 2. PAYMENT FOR SERVICES

Kelly Edmonds will pay compensation to **Dependable Office Solutions** for the Services based on \$1.25 per single spaced page. This compensation shall be payable upon receipt of the invoice and completed services.

### 3. TERM/TERMINATION

This Agreement may be terminated by either party upon 5 days written notice of the other party.

### 4. RELATIONSHIP OF PARTIES

It is understood by the parties that **Dependable Office Solutions** is an independent contractor with respect to Kelly Edmonds and not an employee of Kelly Edmonds and will not provide fringe benefits, including health insurance benefits, paid vacation, or any other employee benefits, for the benefit of **Dependable Office Solutions**.

### 5. WORK PRODUCT OWNERSHIP

Any works copyrighted, ideas, discoveries, inventions, products, or other information (collectively, the "Work Product") developed in whole or in part by **Dependable Office Solutions** in connection with the Services shall be the exclusive property of Kelly Edmonds. Upon request, **Dependable Office Solutions** shall sign all documents necessary to confirm or perfect exclusive ownership of Kelly Edmonds to the Work Product.

### 6. CONFIDENTIALITY

**Dependable Office Solutions** will not at any time or in any manner, either directly or indirectly, use for the personal benefit of **Dependable Office Solutions**, or divulge, disclose, or comment on, in any manner any information that is proprietary to Kelly Edmonds. **Dependable Office Solutions** protects such information and treats it as strictly confidential. This provision shall continue to be effective upon the termination of this Agreement. Upon termination of this Agreement, **Dependable Office Solutions** will return to Kelly Edmonds all records, notes, documentation and other items that were used, created or controlled by **Dependable Office Solutions**. **Dependable Office Solutions** and Kelly Edmonds will further sign a Non-Disclosure Agreement.

### 7. ENTIRE AGREEMENT

This Agreement contains the entire agreement of the parties, and there are no other promises or conditions in any other agreement whether oral or written.

### 8. SEVERABILITY

If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this Agreement is invalid or unenforceable, but that by limiting such provision it would be valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

---

Gina Mayert President/CEO  
8035 Laguna Way NE, Calgary, AB T1Y 7A3  
Phone 403-999-3587 Fax 403-455-8160  
g.mayert@dependableos.com

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**WORK FOR HIRE AGREEMENT****9. GOVERNING LAW**

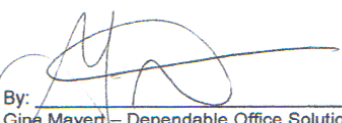
This Agreement shall be governed by and construed in accordance with the laws of the Province of Alberta without regard to conflict of law principles.

This Agreement is effective as of the above specified date.

**Party Contracting Services**

By:   
Kelly Edmonds

**Service Provider**

By:   
Gina Mayert – Dependable Office Solutions

---

Gina Mayert President/CEO  
8035 Laguna Way NE, Calgary, AB T1Y 7A3  
Phone 403-999-3587 Fax 403-455-8160  
g.mayert@dependableos.com

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## Appendix E: Focus Group Questions and Preliminary Results

## Research Study by Kelly Edmonds

### *Exploring the Characteristics, Attributes, and Perceptions of Online Graduate Students in Canadian Higher Education, and the Leadership Implications*

#### Focus Group Interview Questions

1. What online **teaching strategies** assisted you with your online learning?
  - Communication
  - Community
  - Learning activities
  - Support and resources
  - Environment
  - Instructor
2. What teaching strategies, or lack of, had a negative impact on your online learning?
  - Feedback
  - Group work
  - Clarity
  - Instructor
  - Course structure
  - Discussions
3. What **worked** well for you within the online learning environment?
  - a. What were some disadvantages you experienced?
    - Course work
    - Support and resources
    - Community
    - Text and materials
    - Identity and Learning styles
    - Instructor
    - Time
    - Fees
4. If you were in such a **leadership** position that managed online learning, what was it?
  - Student lead sessions
  - Design and develop
  - Instruction
  - Program planning
  - Administrator

- a. Please describe your experiences managing online learning.
    - Tasks and duties
    - Important tips
    - Good experiences
    - Poor experiences
  - b. What advice would you give to other educational leaders managing online learning?
    - Preparation
    - Course design
    - Time considerations
    - Network and community
5. From the perspective of an online learner, what do you think **educational leaders should consider** when managing online learning?
- Student needs
  - Technology
  - Support
  - Learning
  - Instruction
  - Design

## Appendix F: Interview Questions and Preliminary Results

## Individual Interview Questions

### Question 1:

**What was your motivation to take on further learning, or the current course or program, through an online environment?**

#### **Themes from the online survey**

- Pursue educational goal
  - Program fit, available and choice
- Skills and knowledge development
  - Career advancement
- Convenience
  - Personal time constraints
  - Family responsibility
  - Work responsibilities
  - Live at a distance
- Flexible study time/pace
  - Challenging
  - Enjoy learning

### Question 2:

**What were some aspects that might have made you hesitate to engage in online learning?**

#### **Themes from the online survey**

- Number of technical tools
  - Intimidating
  - New to the online
- Amount of support given (course, IT, questions)
- Lack of face-to-face (f2f) interactions
  - Lack of communication
  - Isolated and alienated
  - Need f2f to learn
- Cost of program
- Validity of degree

### Question 3:

**Demographics: Who are you? Describe yourself.**

Some characteristics you can use, or not, to describe yourself:

- Age/generation
- Gender
- Marital status
- Ethnic origin
- Setting (rural, urban, small town)
- Region

## Question 4:

Per your description of yourself, what does someone like you need in online learning?

## Question 5:

Who are you as a student?

- Full/part time
- Program and specialization
- Years in current degree
- Years since previous degree

## Question 6:

Plans.....

- What are your plans for your current education?
- Are you planning to take more education?

## Question 7:

Employment details:

- Full/part time
- Hours of paid work a week
- Unpaid hours?
- Industry of work
- Type of work

## Question 8:

What are your information literacy skills in these areas?

- Identify, comprehend, and navigate various formats of sources
- Select the most appropriate investigative methods for retrieving information
- Critically evaluate information and its sources
- Extract, record and manage information and sources
- Synthesize main ideas and integrate with prior knowledge
- Apply new knowledge to present in a created product or performance using various media
- Understand the legal, ethical and sociopolitical issues of using information



## Question 9:

What are your technology literacy skills in these areas:

- Understand, use, and maintain computer hardware and networks
- Understand, use, and maintain various software applications
- Identify health and security issues with using technology
- Operate and manage a computer and its desktop, file, disk storage, and printing operations
- Work with word processing applications including formatting, designing layouts, inserting objects, and preparing final copies
- Work with database applications including manipulating fields, tables and forms, retrieving data through queries, and preparing reports
- Use multimedia applications to create products such as videos, audio files, and graphic designs
- Use existing multimedia objects, such as videos and audio files, to insert into other applications
- Present your work in various forms by designing presentations, inserting text, images and objects, creating animations, and preparing final copies
- Understand the elements of an internet browser, including web addresses, navigation, bookmarking, and searching
- Use the internet safely and legally
- Use and manage various communication tools such as email, chat, listserves, discussion boards, and text messaging
- Transfer current knowledge to learn new technologies

## Question 10:

Can you explain your online activity when learning?

- Where do you mostly access online courses?
- How often do you use the web for personal purposes?
- How many hours a week are you logged into online courses?
- How many hours a week do you work offline on course work?
- When do you usually log on to your course for longer periods of work (for instance, for more than 30 minutes at one time)?
- How many fully online courses have you taken?

## Appendix G: Key Themes and Prevalent Subthemes

## Key Themes and Prevalent Subthemes from Final Analysis (v8)

[Note: **bolded** themes are the most prevalent themes and subthemes emerging from the data]

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### Student Characteristics

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#### 1. Demographics and Statuses

- **Demographics**
  - Age
  - Gender
  - Marital status
  - Children
  - Ethnic origin
- **Location**
  - Geographical setting
  - Home region
  - Travel locations
- **Student Status**
  - Status
  - Program
  - Program specialization
  - Years pursuing degree
  - Previous education
  - Time since last degree
  - Highest level to pursue
  - GPA
  - Online courses completed
- **Employment Status**
  - Employment field
  - Position
  - Hours of paid work
  - Unpaid work
  - Travel requirements

#### 2. Background: Online Work Experiences

- Online Learning Leadership Positions
  - **Instructor**
  - **Instructional developer**
  - **Moderator**
  - Manager

- Presenter
- Online Learning Leadership Tasks
  - **Instructional development**
  - **Instruction**
  - **Technical problems**
  - Policy development
  - Program management
  - Online services
  - Professional development
  - Staff management

### 3. Education Goals

- Learning
  - **Increase knowledge**
  - Enjoy learning
  - Mental stimulation
  - Self development
- Further education
  - Doctorate
  - Second masters
- Work Upgrade
  - **Career advancement**
  - Job security
  - Increased work skills
- Personal
  - **Personal goal**
  - Doctoral degree

### 4. Online Enrolment

#### a. Motivation

- Learning format
  - **Flexible**
  - Self-directed
  - Blended
  - Increase technical skills
  - New experience
  - Minimum residency requirement
- Program
  - **Area of interest**
  - Credible
  - Recommended
  - Reputable university

- Canadian
- Funded
  - Employer support
  - Scholarship

#### **b. Hesitation**

- **High program cost**
- Quality
  - **Credible program**
  - Questionable learning environment
- Technology
  - **Technology intimidation**
- Interaction
  - Lack of face-to-face interaction
  - Lack of community
  - Isolation
  - Available support
- Management
  - Time commitment
  - Self management
- Time zone issue

### **5. Commitments**

- Responsibilities
  - **Work**
  - **Family**
  - Travel
- Barriers
  - **Distance**
  - **Time constraints**
  - Program restrictions

### **6. Skill Levels**

- Technology Literacy Skills
  - Applications
    - **Software**
    - **Communication**
    - **Internet**
    - Systems
    - Hardware
    - Multimedia

- Uses
  - **Presentation**
  - Design
  - Organize
  - Store data
  - Integrate
  - Troubleshoot
- Issues
  - Health
  - Security
- Knowledge Transferability
- Information Literacy Skills
  - Management
    - **Information needs**
    - **Information sources**
    - **Legal and ethical issues**
    - **Present ideas**
    - Search and retrieval
    - Organize information
    - Update skills
  - Analysis
    - **Critical evaluation**
    - **Synthesize information**
    - Read and decipher information
  - Multiple Languages

## 7. Learning Styles

- **Social constructivism**
- **Self-directed learning**
- Adult learners
- Active learning
- Reflective practice

## 8. Online Learning Challenges

- **Self-discipline**
- Motivation
- Adapting
- Physical pain

## 9. Study Patterns

- **Weeknight worker**
- Weekend worker
- Online work
- Offline work
- Access location
- Eastern students
- Summer courses

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## Online Learning Themes

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### Support

## 10. Instructor

- Leadership
  - **Support**
  - **Student guidance**
  - **Flexibility**
  - **Community building**
  - **Online management**
  - **Shared resources**
  - Instruction

## 11. Staff

- **Information Technology (IT)**
- **Librarians**
- **Administration**
- **Student Advisor**

### Learn

## 12. Learning Environment

- **Flexible**
- **Self-directed**
- **Student-centred**
- **Positive climate**
  - **Engaging**
  - **Reflective**
  - Interactive
  - Supportive

- Collaborative

### 13. Learning Needs

- **Group work support**
- Online learning strategies
- Search skills

### 14. Instructor Presence

- **Participation**
- **Facilitation**
- **Contact**
- **Feedback**
- **Encouragement**

### Engage

### 15. Community

- Membership
  - Instructors, students, other classes, on-campus students, peers, cohort, online student representative, advisors, administration, university, support staff
- Socialize
  - **Relationship building**
  - **Continued connection**
  - Friendships
  - Professional camaraderie
- Support
  - **Peer support**
  - **New online learners**
  - Learning
  - Research
- Student Identity
  - **Isolated**
  - **Imposter**
  - **University member**
  - Anonymous

### 16. Communication

- **Manageable**
- **Timely**
- **Frequent**
- **Live communication**
  - **Verbal**
  - **Visual**



- Interaction
  - Engaging
  - Social
  - Connection
  - Less lectures
  - Level playing field
- Communication elements
  - Clarity
  - Respectful
  - Feedback
  - Transparent
- Tool variety
  - Social software

## 17. Dialogue

- **Rich discussions**
- **Multiperspectives**
- Collaboration

## Design

## 18. Instructional Design

- Development
  - Assess student:
    - **Needs**
    - **Learning style**
    - Skill levels
    - Generation
  - Design
    - Design principles
      - **Online pedagogy**
      - Adult learning theory
    - Construction
      - **Consistency**
      - **Organized**
      - **Technology use**
      - Integrated technology
    - Design tools
  - Pilot test
    - **Student feedback**
    - Technology selection

- Instructor selection
  - **Skilled**
    - **Technology**
    - **Online pedagogy**
    - Instructional design
    - Teaching
    - Subject expert
  - Tenured
- Design Team
  - Members
    - Instructor, students, instructional designers, technologists, administration
  - Institutional support

## 19. Structure

### a. Course Structure

- Organization
  - **Well prepared**
  - **Timely materials**
  - **Time considerations**
  - Current information
- Curricula
  - **Balanced workload**
  - Various activities
    - **Asynchronous discussions**
    - **Synchronous sessions**
    - Partner/group work
  - **Syllabus**
    - **Clarity**
    - **Available early**
    - **Expectations**
      - Course objectives
      - Assessment
      - Deadlines
      - Assignments
      - Teaching strategies
      - Examples
      - Work schedule
      - Technology needs
  - Fair assessment
  - Format variety

- Pace
- Quality and rigor
- Course evaluation

#### **b. Program Structure**

- **Blended**
  - **Residency requirement**
- Credible
- Course choice
- Continuous schedule
- Cohort style
- Supervision
- Program evaluation

### **20. Tools and Resources**

- Access
  - **Web-based access**
  - **Availability**
- Technology
  - **Internet connection**
  - **Functional technology**
  - **Training**
  - User friendly
- Resources
  - **Software platforms**
  - **Library resources**
  - **Registration and payment**
  - **Electronic sources**
  - Textbooks
  - Format variety
  - Copyright issues
- Information
  - **Tutorials and orientations**
  - **Recorded presentations**
  - Program information
- Financial
  - **Financial support**
  - **Equitable fees**
  - Cost benefits
  - Online payment