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THE EFFECT OF TEACHING, SOCIAL, AND COGNITIVE PRESENCE ON THE PERCEPTIONS OF STUDENTS AND INSTRUCTORS IN ONLINE COURSES

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THE EFFECT OF TEACHING, SOCIAL, AND COGNITIVE PRESENCE ON THE
PERCEPTIONS OF STUDENTS AND INSTRUCTORS IN ONLINE COURSES

(Spine title: Teaching, social, and cognitive presence in online teaching)
(Thesis format: Monograph)

by
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Graduate Program in Education

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Education

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Abstract

This thesis is based on results from online surveys that were designed to better understand instructor and student perceptions of teaching, social, and cognitive presences within online courses. The research was prompted by my undergraduate and graduate online course experiences. The theoretical model developed by Garrison & Anderson (2003) was used to frame the research. Participant responses identified many issues of importance, including a description of the many roles of the social presence and the necessity to clearly establish a teaching presence as a course facilitator. Respondents further perceived that firmly establishing teaching, social, and cognitive presences resulted in much more enjoyable courses. In addition, the majority of respondents noted that while each presence was necessary, it was not essential for each presence to be equally represented; instead, respondents indicated that it was the actual interaction among the three presences that led to their perceptions of successful courses.

Keywords: online learning, online teaching, teaching presence, social presence, cognitive presence, online communication

Dedication

To my parents...

You instilled a love for learning and provided encouragement through every step of this journey.

Without you, I would never have had the strength to carry on.

Dad, this one's for you...

To my family...

Your love and support have helped me to achieve a lifelong goal – I love you more than words can express.

Acknowledgements

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Preface

Beginning my undergraduate university career in 1992, I watched the Internet develop from simple chat rooms, websites, and newsgroups, to the creation of opportunities to explore and further education around the globe. Completing my Bachelor of Education degree in May 2001, I opted for the online Summer Additional Qualifications (AQ) course in Special Education Part 1. Newly married, my husband and I had just purchased our first home, and as he would be travelling for work that summer, I felt online learning would be the best option for me. However, I was slightly intimidated by this new learning atmosphere, as it meant that I would have to rely on myself, not only for learning, but for fixing any computer problems that may arise. Yet I was also excited by this new possibility; it would reduce a 3-hour commute for classes to a 3 minute boot-up of the computer. Convenience and learning, what else could I ask for? And so, in the summer of 2001, my new career as an online student began. Over the course of the next four years, I would achieve an important personal goal, completing my Special Education Specialist certificate from Queen's University in Kingston, Ontario. Access to these online courses provided not only the freedom to study at times and places that were convenient to me, they offered me the one thing I saw as critical in completing any type of education; certification from an accredited and reputable university, known for its standards of academic excellence. More than that, online courses offered me the opportunity to travel with my husband as he worked around the world, completing my studies from hotel rooms and Internet cafés around Canada, North Carolina, and the Bahamas. They also allowed me the opportunity to study from home when expecting our

first child, as travel during the last trimester became more difficult due to potential problems with the pregnancy.

In early 2004, I spoke with a colleague who had mentioned a pilot program being initiated by the University of Western Ontario (UWO) in September. This program would offer students the opportunity to complete their Master's of Education in a completely online environment. Since I would be completing my Special Education Specialist Certification that summer, it seemed a natural fit that my studies could continue in September. Besides, I'd be home with a baby, so I thought study time would come as easy as nap time. Having no friends with young children, I failed to see how overwhelming these two life changes, combined, would be.

Nevertheless, two weeks after the birth of our healthy baby boy, I started out with lots of energy that quickly dissipated as the intense course progressed. With a paper due every week, and a newborn at my side, this proved to be the biggest challenge I had ever faced. I was completely exhausted. I was scared. And I was so overcome with love for a new little one whom I'd known for only a few days, that it was difficult to concentrate on anything else. Through the first weeks, I had to learn the skills of a new mother and adjust to new routines with doctor and nurse appointments. My sleeping schedule also had to be readjusted, as the little one was eating every two hours, leaving precious little time for sleeping, let alone time for reading. Academics on a sleep-reduced diet had a learning curve as well, as I began to understand that trying to formulate complete sentences, much less complete paragraphs that offered some glimmer of critical thinking, became a whole new skill in itself.

However, I experienced an incredible sense of accomplishment once I had

completed the first course, and when moving on to term two and each term thereafter, I continued to enroll in two courses, the maximum allowed for a part-time student. On average, courses from UWO and Queen's averaged anywhere from 800-1200 messages per course, along with the course readings and assignments. This was just what I had been looking for, authentic learning with the same high expectations normally found in the onsite classrooms of these universities. I didn't want a diploma that could (more or less) be 'bought'; I wanted something I had proudly earned. And so began my next five years.

Early in the program, a professor had mentioned that when a student decides on a thesis, it must be something that incites an inner passion. It was through conversations with this same professor, my supervisor, that a suggestion was made that sparked my desire to study this topic. When developing the literature review, I related to the personal stories on an intimate level and felt compelled to further understand the needs of the online learner. Although a grueling task, this topic became my passion, as I was living the experience that I was reading and researching. I wanted to know how teaching, social, and cognitive presences rely on each other for a 'true' educational experience, and through the semesters, this spark of an idea has evolved from simple telephone calls and emails, to the thesis that it is today – one that I feel adequately sums the online learning experience. It has also opened doors to future areas of study that more directly pertain to the learning experiences of the average online learner.

Finally, the flexibility of online learning has provided the opportunity to meet the needs of my family, and has afforded the opportunity to address life's inevitable ups and downs. For example, our second child, a baby girl, was born two years into the program.

I opted for a year of maternity leave from the program, putting my studies on hold until May 2007. We then sold our house in Southern Ontario and moved 12 hours north, to Sault Ste. Marie, Ontario, to be closer to family, a move that would not have been possible had I been enrolled in a traditional Master's onsite program. A few months later, my husband's father suddenly passed away; in the span of 5 short months, our little family had suddenly experienced almost every major life event. But families are the ties that bind, and we survived, a bit broken and battered, but with a greater understanding and appreciation for all we hold dear.

As time progressed, the circle of life continued. Within the next few months, my beloved dog, my best friend for 12 years, passed away. I have included this, because, if you are a 'dog person' you will truly understand the heartache of this terrible moment in time, and it was one more challenge that had to be personally overcome.

And the challenges didn't stop there. Young children in full time day-care were now more prone to colds, flus, and viruses, and this meant the added stress of trying to complete my schoolwork when there was simply no time. When reading Zembylas' (2008) article, I couldn't help but compare myself to his study participants. He mentioned the struggle that online female learners experience; trying to balance public and private life, and simply dealing with the guilt of not being able to successfully manage all jobs all the time. This is a huge part of my struggle as an online learner. Besides working full time, with approximately 11-hour days commuting included, cooking dinner, doing laundry, cleaning the house, and all of the various and sundry activities that are needed to keep a household running, I often felt that completing this degree was a near impossible task. When the children are sick, it means less sleep, time

off work, extra doctor's appointments, extra laundry...and I am exhausted beyond measure. Although I have the drive, there are times that I simply lack the stamina to type one more sentence or read one more article. And then I experience the guilt for not making the time to type that sentence, or read one more page, but I just can't understand how it is possible to find more time, in a day that only has 24 hours!

Based on my experiences as an online student, I feel there is a need for universities to better understand online learners. Although the flexibility of online learning has helped me to achieve my goal, it is quite isolating, both physically and socially. Living in northern Ontario does not allow connections to be easily made; there is no peer or instructor support readily available. However, due to the early social connections created with my online cohort, a virtual friendship has developed, and although we have never physically met, we continue to exchange emails on an occasional basis.

Through this connection, we have shared the ups and downs of family life; 'virtually' talking of my children's first steps and her children's sporting successes. Even more importantly, we have shared transformational events. This distance of a computer has not infringed upon the development of a true, supportive relationship. Instead, bearing witness to births and deaths within our families, this medium has allowed us to communicate heart-felt expressions resulting in an even deeper connection. Through this, I have had the unique opportunity to 'watch' her graduate (through emailed photos), and I am awaiting the moment in the near future in which I can share my experiences with her.

Although this has been a long time coming to fruition, the achievement of this

goal is no small task. While it may be that other learners have the 'freedom' in which to complete their studies in a more timely manner, it must be equally acknowledged that there are other learners who face tremendous personal challenges. My story lies somewhere in the middle of the two, and inevitably changes with life's circumstances. Fully supported by my family (they have encouraged every step) I have had the courage to continue this journey. They have helped me to achieve my dreams, and for that I am forever grateful. I am also thankful for the technology that has facilitated the achievement of this dream and I believe the possibilities for the future are vast. A fundamental change is occurring in the way that education is delivered, and in today's ever-changing technological world, our dreams may only be limited by our imagination.

Chapter 1

Introduction

This thesis is about the perceptions of online instructors and students and the effect of social, cognitive, and teaching presence within the online learning environment. Specifically, I wanted to understand the similarities and differences in the ways that online instructors and students view the roles of social, cognitive, and teaching presence. Using qualitative analysis I studied the perceptions of students and teachers of an advanced qualifications course (i.e., upgrading course for practicing teachers) within a Faculty of Education at a southern Ontario university. I distributed two anonymous online surveys; one for students and one for instructors. Using Glaser's (1965) constant comparative method, I utilized the Community of Inquiry framework provided by Garrison & Anderson (2003) to analyze the data. My goal was to develop a greater understanding of instructor and student perceptions of online learning, as they relate to the teaching, social, and cognitive presence.

In an effort to set the context for this study, this chapter will provide information regarding the growing trend of online education while explaining the need for universities to gain a share of this growing market. I will also outline the framework used to examine the survey results, and provide a brief explanation of the three online presences suggested by Garrison & Anderson (2003).

The Growth of Online Education

Online education, a more recent product of distance education, has been growing

exponentially as a result of increasing access to the World-Wide Web (WWW), even though the best methods to deploy it are still in their infancy. Allen & Seaman's (2007) report revealed that almost 3.5 million students were enrolled in at least one online course in the fall of 2006. When compared to their 2005 report that stated some 2.35 million American people were enrolled in online education in 2004, a sharp enrollment increase of over 1.1 million students had been documented. Outside the United States, over 1.6 million Canadians logged on for distance learning (McKeown & Underhill, 2007). With this change in venue, learners, instructors, and educational institutions are coming to realize that the atmospheres of online and traditional learning are significantly different. Hence, educational institutions are starting to take note and as a result, are adapting their programming considerably (McKeown & Underhill).

It is important to note that educational institutions are not only adapting their programming and physical spaces; they are also altering the entire educational process (Reisetter, LaPointe, & Korcuska, 2007). As a result, students must learn new ways to interact within this new space, not only socially, but also cognitively, as they learn to define and explain ideas concisely in written form. Instructors, fostering the development of critical thinking skills, are experiencing mixed student success within e-learning environments, as statistics reveal that 20 to 50% of American students fail to complete online courses (Reisetter et al.; Ludwig-Hardman & Dunlap, 2003).

Many researchers (see for example, Reisetter et al., 2007; Lobry de Bruyn, 2004; Maor & Volet, 2007; Hughes, Ventura, & Dando, 2007, and others) have indicated that the barriers to learning in an online environment are quite often related to the lack of a tangible social presence. Therefore, it is crucial that we better understand the effects of

teaching, social, and cognitive presence on the perceptions of students and instructors in online courses.

Community of Inquiry Model

Garrison & Anderson's (2003) Community of Inquiry model addresses these statistics by suggesting the need to incorporate three basic presences in online courses. These are: cognitive presence, teaching presence, and social presence. Cognitive presence, derived from Dewey's (1913) work on reflective thinking, provides a general model of critical thinking. It includes the construction of meaning and confirmation of understanding. Teaching presence is based upon "... 'the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes' " (as cited in Garrison & Anderson, p. 29). Finally social presence is the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people. To understand the experiences of students and instructors, we need to firmly establish how past experiences can be related to this framework, as past e-learning situations can provide direction for future e-learning opportunities.

Presence is the subjective experience of being in a place (Witmer & Singer, 1998). However, Sheridan (1992) noted that presence is not easily measured. In the online world, this provides the perception of being in a real place. It requires attention to the environment, focus on a particular activity, mindfulness about one's actions and one's interactions with others, a sense of personal involvement in the environment, and finally, a sense of immersion in this environment.

This sense of being in a place, an immersion in the environment, is a critical component of online learning. When students and instructors undertake learning online, they must be prepared to focus on the activity and be aware of the environment that surrounds them. This means that they must consciously examine their actions, most notably text-based interactions, becoming aware of how their actions affect or inadvertently affect others. In addition, participants must be willing to personally involve themselves in the learning activities.

Methods

In order to more thoroughly understand e-learning environments, I examined literature that addresses e-learning through the establishment of teaching, social, and cognitive presences. This assisted me in developing a deeper understanding of the complexities surrounding learning in an online environment.

Online education, as a relatively new phenomenon, is experiencing tremendous growth as it is meeting the needs of an increasingly diverse range of students. However, the problems inherent in online communication continue to exist in online learning communities, and the framework provided by Garrison & Anderson (2003) provide a method for examining instructor and student perceptions within these educational realms.

My research questions are centered on four main categories. My research question is what are the similarities and differences between instructor and student perceptions of online learning? In order to answer this, I asked the following subquestions:

1. What is the perceived importance of each presence?

2. How and/or why does each presence affect the online learning experience?
3. Is it necessary for all three presences to be fully established and must each presence have equal representation in order for it to be perceived as a successful course?

I intended to describe instructor and student perceptions, and to do this, I used an online qualitative survey to gain a better understanding within this framework, designing open-ended questions that would encourage participants to critically reflect on their online educational experiences.

I used the qualitative survey because I wanted to receive a broad range of responses and contact students and instructors who had participated in online courses.

Within the results of my research, I analyzed student and instructor responses in order to gain an understanding of the ways a strong teaching presence helps students to feel connected to their course instructors, and if teaching and social presences affect students' and instructors' perceptions of the cognitive presence. Other questions examined how the provision of an online area devoted to chat/socializing may help students to feel connected with one another and further initiate discussion. Finally, my analysis of the responses provided evidence as to how the positive establishment of these three presences affects the level of student engagement with the instructor, and what impact this had on the development of their online relationship.

I also explored the perceptions of online teachers and students regarding communication in their courses in the hopes of understanding how instructors establish teaching, social, and cognitive presences (Garrison & Anderson, 2003) and how their

students perceive these efforts. The primary intended audience for this research is researchers and instructors interested in online education and/or instructor-student communication.

Thus, the increase in online learning is shaping current educational trends, and universities must act quickly in order to ensure that they are adequately prepared to continue to provide services within the educational market. Garrison & Anderson (2003) provided the framework upon which to compare the survey results that assisted me in the examining the perceptions of online students and instructors.

Chapter 2

Conceptual Framework

Introduction

In this chapter, I will explain my rationale for choosing this area of study and describe the conceptual framework that I used to examine student and instructor responses.

This study served to examine the instructor and student perceptions of online learning, specifically addressing the areas of social, teaching, and cognitive presence. Through questions framed within the context of these three presences, I asked instructors and students to reveal their perceptions of these presences, and specifically explain how and/or why the establishment of each presence affected their online teaching or learning experience. Additionally, I asked instructors and students to explain if they perceived it necessary for all three presences to exist in order to feel the course was successful. Furthermore, I asked respondents to clarify if they perceived it necessary for each presence to be equally represented.

I will now describe Garrison & Anderson's (2003) framework and explain why it is best suited for this research. I will also compare it to another conceptual framework, that of Technological Pedagogical Content Knowledge (TPCK) (Koehler & Mishra, 2005b), which will further support the use of Garrison & Anderson's model.

Basis of Study

This is a descriptive study of online participants' (both instructors and students)

perceptions of online courses at a southern Ontario University using a qualitative method of data collection and analysis based on Garrison & Anderson's (2003) framework. My informal online classroom observations provided the original starting point for this study, as some of my online instructors accepted and others rejected the notion of a teaching and/or social presence in the courses they taught online. Within such courses, Garrison & Anderson theorized that failure to accept and embrace these presences may lead to decreased cognitive presence amongst students.

Within the online courses that I have taken, students have often attempted to introduce a social tone to the class discussions. In some cases instructors quickly rejected those ideas, instead 'encouraging' their students to focus strictly on developing their cognitive thoughts. Other instructors allowed and even encouraged the development of a more social atmosphere. Based on these informal observations, it is my view that those instructors who eliminated this opportunity for social interaction suppressed a natural human need. I further posit that this negatively impacted not only the frequency of my participation and the overall quality of my responses, but also similarly affected the responses of my classmates. I base this perception on informal observations of classmates' responses, including the quality and quantity of postings. For example, the courses in which the instructor refused to allow a more 'social' tone, course postings dropped from the traditional 1200-1500 postings to 500-800 postings, and focused strictly on course content as prescribed. Through informal communication, such as private email, course participants, including myself, commented to one another about the value, or lack of, this space. Most common within these courses was the comment that social chat led to the connecting of content and professional knowledge through the

examination of real-life examples. However, it appeared that a social connection was needed in order to establish this relationship. The framework of Garrison & Anderson (2003) was used to examine the purpose(s) of this space and helped to determine if my initial perceptions that led me to this course of study may be accurate.

Community of Inquiry Model

Garrison & Anderson's (2003) work is critical to this study as it explains the theoretical framework around which an online course should be planned. I feel it is most similar to the typical communities of learning found within face-to-face classrooms which address the learner in his/her entirety. Necessary to the establishment of a reflective learning environment, this framework encourages the development of a social learning community that is comfortable sharing diverse opinions. "Individual knowledge construction is very much shaped by the social environment. That is, an environment with choice and a diversity of perspectives will encourage critical and creative inquiry. Such a community of inquiry is a requisite for higher-order learning and the core element in the e-learning conceptual framework..." (p. 27). Therefore, in addressing the social implications of learning, this encourages the creation of a solid social foundation that provides the learner with means to develop social relationships. Once these relationships are established, learners are then more likely to share personal responses which then expand to include the construction of new knowledge.

Garrison & Anderson (2003) proposed three presences; the cognitive presence, the social presence, and the teaching presence. The, "...cognitive presence speaks to the intent and actual learning outcomes" (p. 28) as learners construct and confirm their

knowledge through active dialogue and reflection within the learning community. They acknowledged that this presence is largely based on Dewey's work on reflective thinking, and is part of the general model of critical thinking.

The social presence is, "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality), through the medium of communication being used" (Garrison, Anderson, & Archer, 2000, p. 94). Since communication of this sort is problematic when the medium is strictly the written word, Garrison & Anderson proposed that this lack of immediacy can be compensated through the use, "...of textual behaviours..." (p. 29). This could include, for example, the use of emoticons, and Garrison & Anderson asserted that this connection can be successfully established and sustained through the creation of an appropriate online social space.

The third presence, the teaching presence, involves course design and facilitation, and direction of course discussions. In this manner, due to the primarily asynchronous structure found in many online learning courses, the instructor acts as course facilitator. While other frameworks such as Koehler & Mishra's (2005b) Technological Pedagogical Content Knowledge (TPCK) provide valuable insight into online education, I feel that Garrison & Anderson's model most accurately resembles the goals of traditional education, while allowing for the needs of the new online learner to be addressed. For example, when their Community of Inquiry model was used to examine articles such as Home (1998), Zembylas (2008), and Castles (2004), it became apparent that there are many factors affecting the availability of opportunities for online students to learn as the composition of today's online learners is much more diverse than that of traditional

students. As a result, this framework is best suited to developing an understanding of the context through which these students learn.

The table below is Garrison & Anderson's "Community of Inquiry" and represents the interconnected relationship of these elements.

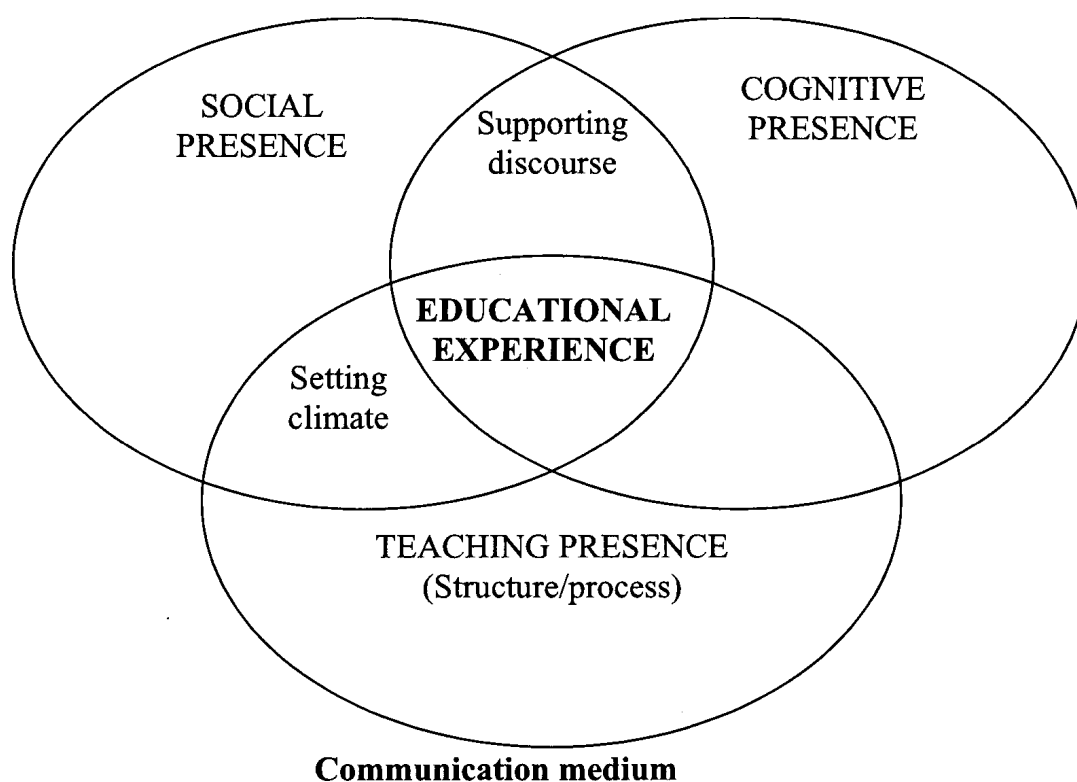


Figure 1. Community of inquiry. (Garrison & Anderson, 2003, p. 28)

TPCK Model

Technological Pedagogical Content Knowledge, (TPCK), as explained by Koehler & Mishra (2005b), is based on technology, pedagogy, and content. Within technology, Koehler & Mishra include items such as, "...computers, the Internet, digital video, and more commonplace technologies including overhead projectors, blackboards,

and books” (p. 133). Pedagogy is described as the methods and knowledge related to teaching and learning, including assessment and student learning, while content is defined as, “...the subject matter that is to be learned/taught” (p. 133).

Koehler & Mishra’s (2005b) framework is important and actually further enhances the opinion of Garrison & Anderson (2003), who feel, “It is imperative that those involved in higher education come to grips with the reality that technology is an increasingly important element of the educational environment and represents opportunities and constraints for interaction that can significantly influence students’ perceptions” (p. 18). However, while the TPACK framework supports some of Garrison & Anderson’s framework, I did not feel that it could provide an adequate understanding of the learner within the context of online education.

While Koehler & Mishra’s (2005b) TPACK framework may be useful for understanding the perceptions of online learners, it fails to address the needs of the online learner as a whole. Most of the technological items are already commonplace accessories in online learning, the foundation upon which Garrison & Anderson’s framework, and therefore my research, was established. As online learning necessitates the use of technology, strong instructor knowledge in this area is essential. While Koehler & Mishra’s framework addresses teacher knowledge in its entirety, to be used onsite or online, Garrison & Anderson’s framework is specific to online learning, and therefore provides a much more applicable framework against which I could compare the results of my online surveys. However, Koehler & Mishra’s TPACK framework was examined within Garrison & Anderson’s framework as it is important to thoroughly understand TPACK. This is essential, especially due to the unique circumstances surrounding online

learning, such as the need for a ready familiarity with the technology which will be used, as well as the programs and software that will be accessed (Koehler & Mishra, 2005a). This should also include sound instructor knowledge of the various elements of online learning, such as off-campus library access.

Further, Garrison & Anderson's (2003) framework addresses both pedagogy and content under the broad element of teaching presence. Pedagogy and content are also further expanded upon in Garrison & Anderson's element of cognitive presence.

Finally, while Koehler & Mishra (2005b) address TPCK through individual-environment interactions, they do not specifically address the social interactions that would be necessary to create perceptions of a successful online learning environment. Although they state, as a result of their experiences, that the way, "...a group forms, develops, and learns to work together is very important in not only developing a final design, but also in the learning that results from the process" (p. 140), this observation was not specifically organized around the concepts of online learning, nor was it based on developing an understanding of social relationships in the online forum. While it was not integral to Koehler & Mishra's research, this was a fundamental component of Garrison & Anderson's study, an element they identified as the social presence.

Koehler & Mishra's framework offers a concrete opportunity to more deeply understand the need for technological pedagogical content knowledge. While it is useful to examine the manner through which instructors may become better informed, Garrison & Anderson's framework provided a more comprehensive understanding of the elements that definitively impact the learning process for the online students. For this reason, Garrison & Anderson provided a more efficient framework through which I could

analyze the data.

Therefore, while TPCK provides a strong framework upon which to base data analysis, I did not feel that it addressed the learner in his/her entirety. For this reason, I felt Garrison & Anderson's (2003) Community of Inquiry framework provided the most appropriate framework for data analysis.

Chapter 3

Literature Review

Introduction

According to Dewey, an educational interaction, "...is the defining component of the educational process and occurs when students transform the inert information passed to them from another and construct it into knowledge with personal application and value" (1916 as cited in Garrison & Anderson, 2003). Education, whether completed onsite or online has helped many students achieve their goals. For example, early distance education afforded students the convenience of studying from home, utilizing pencil and paper tasks that were submitted through regular mail upon completion. As distance learning advanced alongside technology, various media were incorporated, including television and/or radio broadcasting, audiotapes, compact discs, and computer disks and programs (Kerka, 1996; Galusha, 1997). However, Galusha also says that distance learning is now facing a new societal trend of lifelong learning, and with this shift in philosophy, educational institutions are implementing alternative, non-traditional access to education, oftentimes to students outside of traditional geographic areas.

As educational atmospheres change, the challenges that face students and institutions are equally impacted. For example, Daniel (1997) suggests that the trend toward lifelong learning has resulted in increased financial burdens for some students, and these continuously increasing costs have led to inequitable access. Daniel also posits that access to education through the online medium may help to address the economic burden of higher education. Other authors, such as Mills, Fisher, & Stair (2001) and

Osman (2005) agree that access to online education is helping to reduce the financial barriers that have prevented access to high quality education. They note that this forum can provide quality education to many more people around the world.

Educational institutions are also realizing that the World Wide Web can provide a very real and authentic educational experience to students from geographically diverse regions, and as a result, they are now competing to gain a share of this potentially lucrative market (Osman, 2005). Not only are universities fearful of missing out on this market, they are afraid that if they don't embrace online learning fast enough, that, "...their university will left behind – their students and their resources snapped up by corporate or academic competitors, and their star performers cherry-picked" (Werry, 2002, p. 136). In order to address this changing educational economy, Harasim (2000) calls attention to the fact that universities must offer first class academic programs, based on a solid course curriculum that leads to the attainment of degrees and/or diplomas. In addition, Harasim also recommends that academic content be delivered by reputable faculty and staff. If universities fail to address these needs in a timely fashion, they may experience dramatic economic fallout; that being a decrease in profit (Werry).

Indeed, the benefits of this new learning medium are not only fiscal. Since this new method of learning, known as online learning or e-learning, means that people from around the world have the opportunity to access education at a time that is convenient for them, time and geography are no longer traditional barriers (Daniel, 1997; Kerka, 1996; Galusha, 1997; Chang & Smith, 2008; Harasim, 2000). Instead, "...time has become instantaneous and space has shrunk to the size of a 17-inch screen" (Joris, van den Berg, & van Ryssen, 2003, p. 95). In addition, this ability to communicate free from time and

space constrictions can lead to increased learner participation. Whereas face-to-face learning may entail one or two people in control of the conversations, the asynchronous nature of online education encourages participation as students can respond and reflect at times of personal convenience (Harasim, 2000). This is one of the most positive attributes of online education; the ability to create a dynamic classroom amongst geographically diverse learners. Through asynchronous posts, students can generate, refer to, and organize course content according to their own schedules (Harasim, 1999). Student knowledge, enhanced through the development of postings and the reading and writing of responses is further increased when instructors monitor and respond to student postings, commenting on student work (Harasim).

Attributes of Online Education

Harasim (2000) identifies five key attributes of online education. The first attribute acknowledges that many-to-many (group communication) allows for the benefits of working with peers within an active exchange environment. These opportunities provide the opportunity to cognitively discuss differing opinions. The second attribute, time independence, enables learners to participate at all hours, with unlimited access, which also provides the opportunity to reflect on the knowledge and post at a later time (Harasim). The third attribute identifies place independence which allows the user access to Web resources (including peers and experts), based on, “Shared interests not just shared locations among participants” (p. 50). The fourth attribute, text-based/media-enriched messaging, was acknowledged as encouraging and contributing to the clear verbalization and expression of ideas, and a focus on the text rather than the

author, therefore leading to reduced socio-physical discrimination, and a rich database of ideas.

However, Anderson (2006) offers evidence that socio-physical discrimination may not be decreased, but is instead unobserved. Although not physically visible in the online atmosphere, discrimination can continue if participants refuse to acknowledge that it exists within this medium. Anderson goes on to reveal that through his research, students indicated they choose to read or not read particular postings, and this was done simply by reading the respondent's name. For example, one student responded that she would read the postings of, "a couple of people whose work is always surprisingly insightful and I quite like their view on the world and so I generally read their work if I can" (as cited in Anderson, 2006, p. 115). Other students reported ignoring the postings of others messages, reporting, "... 'I'm sick of reading what she's got to say,' " (as cited in Anderson, 2006, p. 115). While discrimination may not be blatant, and may encompass many forms, it becomes apparent that while asynchronous communication may provide everyone a chance to share their ideas, participation and inclusion will not necessarily be equal (Anderson, 2006). It then becomes the responsibility of the course instructor to address such issues.

Harasim's (2000) final attribute, computer-mediated environments, includes, for example, the search, transmission, and modifications to the database, building of templates, scaffolding, and educational supports for pedagogy, and customized learning environments. Within this final attribute of computer-mediated environments, there are correlations to Garrison & Vaughn's (2008) "Private Inquiry Model" (p. 22) of the cognitive presence, a necessity in online education. Garrison and Vaughn first identify a

“...deliberation-action dimension” (p. 21) that includes constructive and collaborative activities, ones which can be correlated to Harasim’s “Multiple passes through conference (discourse) transcript” and “Building tools to exchange and organize ideas and support collaborative learning” (p. 50). Garrison & Vaughn further distinguish a, “...perception-conception dimension” (p. 21), through which meaning is constructed from experience. This again corresponds to Harasim’s attributes, as this environment encourages, “Building templates, scaffolds, and educational supports for advanced pedagogy” (p. 50) which is further supported by the creation of customized learning environments. While these attributes as defined by Harasim offer possibilities for online learning, it is equally important to relate items which can reduce the effectiveness of this medium.

Obstacles to Online Learning

The very flexibility that entices online learners is also that which creates difficulty when trying to organize online group work. Due to the very nature of online learning, which includes asynchronous communication and place independence, not all learners may be able to access the course simultaneously, especially when this is compounded by differences in students’ personal lives, such as varying work schedules and location in various time-zones (Harasim, 2000). This can potentially create obstacles if group work is a component of the course. In addition, the possibilities of online learning may also be negatively impacted if students fall behind on readings or reduce their presence in the online class. For example, the sheer volume of text that accompanies online courses may overwhelm course participants (Harasim, 2000). The difficulties that students face may

be alleviated if there is a strong teacher presence that can help to address the personal difficulties that may impede online learners' success, especially for those new to online education, and those who are balancing multiple roles.

Demographics of the Online Learner

Equally important to understanding the possibilities that online education has to offer this new generation of students, educators must understand the changing demographics of these online learners. Daniel (1997) noted the need for educators to familiarize themselves with this new population of students. Several researchers (see for example, Castles, 2004; Galusha 1997; Home, 1998; Kember, Lai, Murphy, Siaw, & Yuen, 1994, and others), have supported this claim as online education has continued to develop, as they have identified that the average learner is an adult with various personal commitments, who is also a full time employee. No longer are students the typical 18-22 year olds whose primary commitment is school (Blair & Hoy, 2006; Galusha). While many of these learners have enrolled for convenience due to work and/or travel obligations, others enroll due to geographic limitations and/or family responsibilities (Galusha; Harasim, 2000; Kember et al.; Mills et al., 2001). It is precisely the flexible learning schedule offered by online courses that makes it possible for these learners to begin or continue their studies (Home), but it is necessary that educators understand the complex issues that surround the modern online learner (Blair & Hoy, 2006; Zembylas, 2008). In understanding the multiple roles that online learners face, and in preparing to meet these often changing schedules, instructors and students can be better prepared for success, even if not obtained within the timelines of traditional courses.

Gender (In)Equality in Online Learning

In addition, educators must also become aware of issues encountered due to (still existing) gender-specific roles. Many online students are women who provide either the family's sole income or the secondary income (Home, 1998). Embedded within these multiple roles, many online female learners, especially adult women, face an internal struggle as their attempts to balance their multiple roles intensifies, resulting in increased tension and anxiety (Zembylas, 2008). Anderson's (2006) study obtained similar results, as respondents provided insight into the inner conflicts they face. For example, one female student commented on family pressures, wondering how to compare the value of completing her studies to the value of spending time with her children. In knowing the online learner, educators can be much better prepared to address students' potential difficulties and provide essential support when personal crises occur.

Zembylas, in his 2008 study, recounted how almost all of the women in the program felt stress and guilt for their inability to balance their multiple roles and responsibilities. One female participant noted that she:

...cannot study until late at night, that is, until after the kids sleep, and I clean the house, cook for the following day and take care [of] all of my other responsibilities. For these reasons, studying is always the last thing to do. So I wonder with what frame of mind one can concentrate to study at ten o'clock at night, being exhausted after a very long day? (p. 81)

How effective can this study time be, especially as the feelings of pushing family away and feelings of guilt are the predominant emotions? Interestingly, Zembylas also revealed that all five men in his study stated they had the support of their wives, but only

4 out of 17 women similarly stated that their husband supported their academic pursuits. As a result of this study, Zembylas further suggests that not only do social and gender responsibilities play an important role in determining the time available for study, but questions how this can be addressed in order to ensure that women have access to the same learning opportunities as men.

Understanding the various roles that learners must accommodate, and therefore gaining a deeper appreciation for learner emotions, can also help instructors to create a supportive educational atmosphere (Zembylas, 2008). Other researchers such as McCombs & Vakili (2005) and Kember et al. (1994) support this claim, identifying that when educators and educational institutions take into account the physical, intellectual, emotional, and social realms of their online students, they can more effectively understand the external influences that may affect persistence and/or student motivation.

Means to Support Students

Castles (2004) offers recommendations that may assist educators in providing student support within distance learning programs. For example, she suggests that instructors identify student support structures and/or maturity through student-completed questionnaires. In addition, she offers that instructors and/or tutors may potentially offer online or telephone support. Home (1998) agrees, acknowledging that instructors must be familiar with individual student situations in order to be able to provide the services necessary to ensure student success. Grodzinsky & Griffin (2002) supplement these suggestions, recognizing the need for instructors to identify weak students early on in the course in order to allow and enable the appropriate interventions to be initiated.

Knowledgeable online educators can also offer other supports, such as ensuring that their students master 'cyberspeak' – the jargon of the online world - and 'netiquette' – or online manners (Joris et al., 2003). Given the very nature of online learning, and its global realm, educators may also provide information about multicultural differences, especially if the course is attended by people from around the world, in order to encourage understanding of cultural diversity (Volet & Wosnitza, 2004).

Ensuring Student Success

Providing support to online students is critical to ensuring student success. Many authors, including Boggs, Shore & Shore (2004), Reissetter et al. (2007), Ludwig-Hardman & Dunlap (2003), and Galusha (1997) have identified that 20% to 50% of all online students fail to complete their courses. Although the reasons for dropping out are varied, it is important for administrators and online educators to acknowledge the difficulties faced by many of their virtual students who may never physically attend school on-campus (Galusha). In realizing the unique challenges faced by these students, educational institutions that offer online learning may be best advised to address a variety of social aspects of their students, and this can be begin with the establishment of an instructor/student relationship. Activities such as email, telephone communication, and/or computer conferencing, can address the sense of isolation because it can provide a direct connection to the instructor and the school at times that are convenient for the learner. In addition, educational institutions should strive to provide other opportunities for contact, and this can include the opportunity to contact academic/administrative staff, access to study materials, and reasonable access to library books and services (Galusha).

Establishing this vital connection is critical for student success, especially for students who are geographically distant from the educational institution (Galusha, 1997). Zembylas' (2008) study supports Galusha's thoughts, revealing that one student, in the final interview regarding emotions and online learning, stated that:

Online communication may not be so bad after all, especially, when you receive ongoing encouragement – via emails, phone calls, f2f meetings. I believe all of these together, including the formation of our study groups, create a feeling of not being alone in this journey. This feeling of 'being with others' is very important to me. (p. 78)

Another student commented on the frequent emotional support available online, noting that a simple email message from the instructor and/or peer helped to alleviate his/her sense of isolation (Zembylas, 2008). This comment is further supported by Blair & Hoy's (2008) research that suggested the importance of establishing peer-to-peer and student-to-instructor support early in the course.

Kehrwald's (2008) study found similar results, as it further revealed the key to establishing a successful social presence begins with an instructor who develops and maintains a social presence while creating meaningful opportunities for relevant interaction. Developing online relationships helped learners to establish a virtual sense of trust and respect, allowing students to feel empathy for their fellow classmates. This assisted students in overcoming feelings of loneliness and/or isolation, and, as this interpersonal communication increased, participants became more willing to share. Kehrwald further acknowledged the human nature of the social presence, as it is not simple technological interaction that leads to the ultimate success of these spaces.

Instead, success of this space is dependent upon the conscious choice of participants to engage in meaningful interactions. Further complementing Kehrwald's findings, Grodzinsky & Griffin's (2002) research identified that when course participation was assessed, regular student interaction was documented. Their study found that as the course progressed, student postings across topics increased, even when the allotted amount of time had passed. They went on to reveal that students posted personal dilemmas that were an extension of class discussions. While they do not specifically state that this increased participation was due to a social presence, the fact that communication was a requirement of the course may have contributed to the development of this sense, therefore positively impacting student learning.

Providing a positive atmosphere in which to introduce this social infrastructure is a key component in e-learning environments. There are numerous opportunities that exist for human-human interaction within this environment, and it may begin through personal introductions and be continued when participants are visibly present in the online classroom through participation in online conversations (Kehrwald, 2008). One respondent in Kehrwald's study added to this by noting the importance of the instructor presence as it blends into the social presence; not only did the instructor portray a presence by posting responses, but the instructor posted these responses through threaded messages, indicating that she was following along with her students along their educational course journey.

Chang & Smith (2008) also agree that online education offers diverse opportunities for interaction. They suggest instructors provide opportunities for student interaction as, "...personal interaction between teachers and students, students and

students, and students and course content directly relates to student course satisfaction” (p. 411). Harasim (2000), recognizing the possibilities for interaction within online education, takes this one step further, addressing the effects of technology within this new educational realm. Since technology has directly provided the opportunity to create these educational spaces, it is dramatically affecting our lives. She encourages reflection of how this space may be used, simply stating “Virtual space is profoundly social space” (p. 52). Technology has shaped our world and the way we interact within it (Harasim). If we are to embrace online education, we must equally shape the way through which we interact with the technology.

LaPointe & Reisetter’s (2008) study revealed opposing perceptions on the relevance of social presence. Students in their study placed little value on peer-to-peer interactions. Other authors (see for example Harasim, 2000; Kehrwald, 2008; Grodzinsky & Griffin, 2002) contend that the design of social spaces is important. LaPointe & Reisetter (2008) acknowledge the need for social spaces, stating, “If this need for belonging is not adequately addressed – if students do not feel part of a learning community – it is unlikely that they will commit the necessary resources to experience an optimal learning opportunity” (p. 652). Equally important, LaPointe & Reisetter’s results indicated some students reported disliking online learning and stated they would not pursue it in the future. Among those students who enjoyed online learning, two groups emerged; one sought out opportunities to be a part of a virtual group, and the other, valuing independence and flexibility, relied instead on the instructor for direction.

For some students, social spaces may assist the achievement of academic success, while others may rely on the instructor for direction, and complete their online course

much as they would a traditional face-to-face course. These varied results clearly indicate that while online learning may not be an appropriate method for all learners, it is important the instructors become familiar with the needs of each student in order to help them attain their personal academic goals.

Social Interaction

Harasim (2000) further recognizes the need to understand online learners, observing that students enroll in online courses as they desire the, "...improved opportunities for peer interaction and the increased control over their time" (p. 58). In understanding the online learner and their desire for social interaction, instructors can gain a better knowledge of their students and therefore the supports that will be needed to help them excel in the online learning atmosphere. And, while it is important that support for online learners originate from the academic sphere as instructors and tutors can provide academic support, it is equally important that they do not overlook the development of adequate online social spaces. Since online learning and courses have been designed and developed by people based on existing social systems, educators should also understand that the processes, approaches, rules, and ways of organizing online education are equally important as the hardware that is used to implement such learning (Daniel, 1997). Educators who understand this important fact often create online social spaces such as electronic yearbooks or coffeehouses that are designed to create a sense of community through active participation within these spaces (McCombs & Vakili, 2005)

Volet & Wosnitza (2004) substantiate this observation, stating that beneath truly

productive and meaningful online learning experiences “...are high levels of social interaction taking place in a social space that is explicitly designed to foster deep level learning”. In addition, the very nature of online learning makes it difficult for students to develop a sense of each other as physical and non-verbal cues are obviously lacking (Berge, 1998; Kerka, 1996). Therefore, the possibility of developing a social space and creating interaction must be initiated by the teacher. This opportunity will likely lead to students developing a positive sense of social inclusion as social interactions create opportunities for co-learners to become ‘real’, providing the opportunity to deepen personal relationships (Volet & Wosnitza).

The creation of these relationships is especially important in online learning as it has the potential to be rather impersonal in nature (Zembylas, 2008). Levy (2003) remarks that these feelings of social isolation can adversely affect students, and other researchers, including Zembylas, describe an overwhelming sense of isolation experienced by some online learners. Many students, whether onsite or online, long to feel a part of a larger school community, as this human connection is an essential aspect of traditional education (Galusha, 1997).

Peer Support

Blair & Hoy (2006) assert that when educators create opportunities to develop this human connection, they are providing a means to recognize and support some of the significant obstacles that must be overcome in order to create successful learning communities in the online environment. They feel that establishing a sense of community within online learning groups, specifically encouraging student-to-student

relationships, can help to overcome some feelings of isolation when these relationships are initiated at the beginning of online courses. In their study, students were paired at the beginning of the course in order to assist each other until course completion, and they provided an example that reflected how two students were able to connect with one another and provide support during times of personal crisis. As in face-to-face classes, personal issues encountered by the online learner have the potential to negatively impact motivation, but when support is encouraged within the online forum, students have more resources upon which to draw for personal strength. For this reason, it is important to understand the various factors that may affect learner participation and perceptions.

Administration

While instructors are expected to become familiar with the needs of their online students, it is also important for school administration to develop a greater understanding of this new generation of learners. The World Wide Web has had a dramatic effect on education, considering access to online education has been available for less than 20 years (Harasim, 2000; Levy, 2003). As a result, Levy posits that post-secondary school administrators must begin to understand today's online learners, and in an effort to maintain student support and sustain learner interest, a strong administrative role is imperative. Administrators must also be aware that some online students may be unfamiliar with the design of online courses and the methods of communication; for this reason it is important to ensure that all students are able to successfully navigate the Internet. This may necessitate online student training (Levy).

In addition, aside from ensuring the development of sound instructor-based

practices, administrative departments should continuously provide and maintain easily navigable access to the necessary administrative information and administrative contacts (Levy, 2003). Addressing questions from both instructors and students throughout the course, administration should also create and implement policies that directly affect online education. Gellman-Danley & Fetzner (1998) published a policy framework to assist institutions in the development of online learning programs. This provided a framework that clarifies roles and responsibilities of all participants, including relatively straightforward tasks such as emailing a monthly calendar to all individuals involved in the online program. In addition, Gellman-Danley & Fetzner recommend that students and instructors have uncomplicated access to transcripts, admission standards, and the curriculum approval process. Galusha (1997) supports Gellman-Danley & Fetzner's focus on addressing academic policy, stating that institutions must monitor online course standards and content, as well as curriculum development and support, in order to ensure equality between onsite and online tasks.

Mills et al. (2001), reviewing the results of online learning recommended that, "All online courses must allow students to evaluate content, quality of instruction, and learning outcomes, as well as the technical aspects of their online experience" (p. 238). This feedback can then provide valuable information that may help to revise courses (i.e. course content) and/or operating procedures. In addition, in order to further understand the online experience, students could provide first-hand responses to issues pertaining to accessibility of online courses, and offer information about the identification of hardware and/or software upgrades that may have been necessary for course participation. Students can also provide opinions about the usefulness of online informational materials,

and instructor and web course administrator support.

Equal Opportunities for Online Learners

Aside from ensuring access to quality instruction and providing opportunities for students to communicate their opinions about their online learning experiences, other areas continue to require attention. For example, Osman (2005) identifies the importance of maintaining current digital libraries, and Mills et al. (2001) add the recommendation that schools provide a digital reference librarian to supplement library services including reference services, library instruction and/or online tutorials. These examples once again help to ensure equality between services offered onsite and online.

Administrators must also consider the equality of access to online education as it pertains to the distance online learner. Understanding the demographics of these students, especially those new to online education, administrators should also take into account the increased workload of online courses, as conversations must be typed and then read and responded to, along with reflections on course readings. This in turn necessitates greater instructor involvement and response, which should lead to a smaller class size (Blair & Hoy, 2006).

Aside from the curricular and administrative details, educational institutions must also ensure that the same services are available for both onsite and online learners. Levy (2003) suggests that this could include scheduling and access to student clubs and library resources. Authors such as Havice & Chang (2002) and Mills et al. (2001) also underline the need for instructors to follow the example provided through onsite education, in that they clearly outline class structure, provide and use their email address, and develop and

discuss course expectations, and technology. Havice & Chang, Mills et al., and Levy also recognize the importance of creating regular online office hours, especially important should online students need to contact him/her directly.

Finally, policies dealing with online education should include the presence of online student advisors. These individuals must understand that the needs of these students and his/her circumstances may be quite different than those of the traditional learner who can be fully devoted to their studies (Kember et al., 1994). Understanding these students, such advisors can be available to counsel students on a personal level, monitoring individual progress, and contacting students should they fail to meet the identified deadlines (Castles, 2004). The Kember et al. study also indicated that if student support services intervene before final deadlines are passed, part-time distance education students would be less likely to fail. Students also reported that the academic accommodation of the telephone counseling service had been useful.

With these suggestions in mind, online educators can make the transition from more to less structured class supports as online learners gain experience and develop a greater comfort level with distance learning expectations (McCombs & Vakili, 2005). When goals, expected outcomes, and deadlines are clearly defined, students will realize the importance of deadlines (Joris et al., 2003; Galusha, 1997). When this is combined with instructor flexibility regarding such items as the renegotiation of assignment dates in family crisis situations, these changes in home/school life can be eased through virtual counseling that has been administratively established to help students address these difficulties (Home, 1998; Mills et al., 2001). It is precisely these factors that can have a dramatic positive impact addressing the sense of isolation, thereby greatly alleviating

student stress and increasing the chances for student success.

Online Learning Platforms

In efforts to further create successful online learning experiences, it is important that universities examine the effectiveness of course design. For example, Simon Fraser University in British Columbia, developed Virtual-U, one of the initial Web-based learning environments (Harasim, 2000). “An online environment tailored for a course-oriented approach, it provided an integrated set of instructor and learner tools to support educational delivery based upon principles designed to support group learning and teamwork in constructing knowledge innovation, and solving problems” (p. 51). This online environment incorporated “...spatial metaphors...” (Harasim, 1999, p. 47), which included a visual display for participants in Virtual-U. For example, an image of a bookshelf provided point and click access to virtual books on topics such as ‘syllabus’ or ‘assignments’. In addition, a click on the image of a coffee cup provided access to a virtual ‘café’. Harasim discussed the relevance of providing spatial metaphors as reference points for online interaction, revealing that early field studies in online learning had indicated that providing access to such spaces, while clearly delineating their purpose, would encourage appropriate social interactions within these spaces. In essence, clicking on a coffee cup would encourage a more social tone, while clicking messages in the discussion forum would likely lead to a more formal method of writing. However, Harasim referred to the need to understand the online learners, revealing that new learners found the visual graphics to be helpful, while experienced learners preferred access to the course through more traditional means, such as ‘buttons’.

More recently, in efforts to further improve online learning experiences, many colleges and universities are incorporating a variety of e-learning platforms. These platforms, also known as virtual learning environments (VLE), have been designed to support teaching and learning, and allow teachers to provide access to a variety of media (Martín-Blas & Serrano-Fernández, 2009). This can include incorporating a variety of objects for student use, including videos, text documents, MPEG-1 Audio Layer 3 (mp3s), and/or animations. These programs also provide educators with access to many support resources, such as assessment tools, chats, and course content (Martín-Blas & Serrano-Fernández). In fact, they have been designed to improve online course instruction. Some commercial programs include Web-CT© and Blackboard© (Boggs et al., 2004; Martín-Blas & Serrano-Fernández). While Blackboard and Web-CT merged in 2005 (Martín-Blas & Serrano-Fernández), other platforms, such as AngleSoft©, are also available (Boggs et al., 2004). Open-source software provides other platforms such as Moodle©, Ilias©, Atutor©, and Claroline© (Martín-Blas & Serrano-Fernández).

These platforms provide access to a variety of resources. For example, some authors, including Boggs et al. (2004) and Mills et al. (2001), reference Blackboard©, a VLE that can assist instructors by providing access to either professor-created or randomly generated tests, and provide automatic grading and recording of test results. Students can then be provided with immediate feedback on their results, receiving the correct response to erroneous questions, which therefore provides another learning opportunity (Boggs et al., 2004). Some open-source software programs provide similar features, and Martín-Blas & Serrano-Fernández (2009) report that Moodle© provides real-time scores, allowing students immediate feedback. Such platforms can also be used

to assist navigation through course content, accessing threaded discussions and real-time chats, viewing online presentations, and communicating through email (Boggs et al., 2004; Grodzinsky & Griffin (2002).

Other authors, including Havice & Chang (2002), Redmon & Burger (2004), and Osman (2005), reference Web-CT© as it provides instructors with the tools necessary to construct an online course. This includes, but is not limited to, the creation of chat rooms and thematic discussion topics, bulletin boards, class calendars, and space for student presentations. Other functions can address administrative needs and may incorporate the addition of online quizzes and grade storage, allowing for the monitoring of student progress.

Again, commenting on the use of open-source software, Martín-Blas & Serrano-Fernández (2009) report using Moodle© to supplement face-to-face instruction in a physics class. This platform allowed students to discuss the course online, and have real-time access to information and news. Schedules for lab sessions and support lessons were posted online, and this forum provided students a space to ask questions. Other content is also posted such as quizzes, lecture notes, and information on upcoming topics. Results indicated that lecture notes were the most frequently visited resource of this course (Martín-Blas & Serrano-Fernández).

Osman (2005) examined student opinions of Web-CT© and revealed that almost 96% of students felt they had developed a strong feeling for learning within their community as a result of the available communication tools. The chat room, discussion area, and email were found to be useful by 92% of students, and 72% of students identified themselves as feeling more comfortable participating in online discussions

compared to in-class discussions. Osman's study also indicated that Web-CT© could be used to incorporate multi-modal literacy into online studies as it offers students access to materials in a variety of formats such as Power Point©, Word© documents and digitized video materials.

Multimodal Literacies

By adopting such platforms and providing links to a variety of sources, instructors can help to ensure that students use alternative methods of learning other than those that are simply print-based. This concept has been identified as multi-modal literacies and encompasses non-traditional, or more specifically, non-print based, learning activities in which students become engaged. This can include media such as television, videos, music, and the Internet (Powers, 2006). Fernandez, Simo, & Sallan, (2009), indicate that this could also include podcasting and although they did not specifically link podcasting to multimodal literacies, it is a non-print based activity that may reach a wider audience of students, especially auditory learners, and this is important in today's digital age. As multimodal literacy is rooted in the premise that there are multiple ways of knowing and learning, acknowledging that today's students are decoding information in ways other than primarily text-based, educators must begin to use alternative forms of literacy to present the information (Powers). Educators must decide upon the curriculum, and then find the tools that will best help those students learn, and find the media through which it will be best presented. Therefore, in order to choose the most relevant media, it is important for instructors to know their online students, as different mediums may be the preferred method of application for different students.

With these changes in education should educators expect to find significant differences between online and onsite learning? Garrison & Anderson (2003) wrote that although teaching and learning activities are essentially the same in both atmospheres, the medium of communication has changed, and this results in significant differences in communication, and therefore education, between the virtual and traditional classrooms. Osman (2005) notes that some instructors fail to realize that the online learning environment is inherently different from the onsite classroom and simply transfer course content, including the syllabus, lecture notes, and tests to the educational platform. Instead, the effective design of an online course will include synchronous and asynchronous methods of communication, including such media as videos and Power Point© presentations, in order to ensure a successful learning environment.

Enhancing Online Education through Technology

Understanding the online learner, and providing access to education and educational materials through various technology, Fernandez et al. (2009) suggest that podcasting may help to alleviate some of the issues facing online learners. Meng (2005) defines podcasting as, "...the process of capturing an audio event, song, speech, or mix of sounds and then posting that digital sound object to a Web site or 'blog' [weblog] in a data structure called an RSS [Really Simple Syndication] 2.0 envelope (or 'feed')" (p.1). This information can then be downloaded onto mp3 players, providing more opportunities for accessing information. Due to the increase in portable mp3 and small video players, podcasting can potentially further connect students as this portability means that users can listen to information while completing other tasks, such as walking

or driving, even during the commute to and from work and/or school (Fernandez et al., 2009).

However, with the advent of such technology, schools must ensure that clear instructions are provided for online learners and instructors, making technical support, such as 1-800 numbers, online tutorials, and technical support personnel readily available (McCombs & Vakili, 2005; Mills et al. (2001); Osman, 2005). Harasim's (1999) research identified technical difficulties and slow access to networks as primary concerns among online students, while Mills et al. revealed that their participants reported frustration due to unreliable Internet access. The need for technological instruction and support is real, and failure to provide such support may lead to students and/or instructors becoming anxious and frustrated when trying to use technology with which they are not comfortable (Havice & Chang, 2002).

Technological Pedagogical Content Knowledge

Central to this concept of providing adequate technological support, Ellis & Phelps (2000) feel that establishing opportunities for student-teacher contact should be a primary consideration. Noting that students may achieve higher success when technical concerns are clearly identified and addressed, Ellis & Phelps have indicated that there must now be a shift from the instructor's traditional role; educators must now have knowledge regarding online pedagogy as well as a ready familiarity with a range of technical issues.

Opportunities to increase the technical knowledge of instructors can occur while learning to navigate through applicable software and/or hardware, and this may include

learning about topics such as synchronous chat and/or video conferencing, *et cetera* (Ellis & Phelps, 2000). Equally important, instructors must remain current with new technologies by attending training as it pertains to the development and implementation of online classes as well as computer related technical issues (Ellis & Phelps, 2000; Galusha, 1997; Levy, 2003; Joris et al., 2003; Chang & Smith, 2008). When instructors are familiar with the technology being used, they can better assist students by providing knowledgeable answers to their questions. As a result, students will be better able to manage their time, allotting it for the learning of course material instead of trying to find answers for technological questions (Chang & Smith).

Koehler & Mishra (2005b) discuss this need for technological knowledge as Technological Pedagogical Content Knowledge (TPCK). Stating that the simple introduction of technology within the educational realm fails to ensure adequate integration of technology into learning, they instead contend that what has the potential to achieve the greatest impact is the manner in which technology is incorporated into the course. Koehler & Mishra further suggest that it is the interaction among technology, content, and pedagogy that is of importance, as this creates opportunities to introduce new concepts and further understand how these components work together within the TPCK framework, a necessity in online education.

Initial participant response through Koehler & Mishra's (2005b) study revealed that participants considered technology, pedagogy, & content to be independent entities. However, by the end of the course, participants had been provided with opportunities to develop an understanding of how these concepts can function together, and participants therefore became more aware of the possibilities of integrating technology in education

(Koehler & Mishra, 2005b). As teachers and/or learners developed their TPCK through dialogue, interaction, and activities, Koehler & Mishra identified that it is not fixed knowledge, but rather evolves and changes alongside technology and education. Koehler & Mishra (2005a) further argue that TPCK is developed through a 'Learning by Design' approach in which teachers are trained as students in using appropriate technology and then learn and decide how to apply the most appropriate technological tools in order to achieve their own teaching goals. In essence, they learn how to apply their knowledge, "...learning about design by *doing* design..." (p.96), instead of merely learning about practice. Therefore, they learned about TPCK as the course unfolded, and became actively engaged with the technology developing an understanding as to how it could be applied to education. This was also helpful in that it became necessary for the teachers to think critically about their intended audience, their students, which therefore necessitated learning about the technology that would most appropriately meet the needs of their students, and ultimately lead to a much more successful online learning experience (Koehler & Mishra, 2005a).

Teaching Online

It is important to understand, that regardless of media used and/or curriculum expectations to be addressed, authentic online learning can only occur when students take ownership and responsibility for their education. However, within this same mandate, it is essential that instructors provide relevant material while guiding student reflections that link personal experience with learning (Jonassen, Davidson, Collins, Campbell & Haag, 1995). Galusha (1997) and Jonassen et al., indicate that this can best be

accomplished when learning is a collaborative effort between and amongst students and the course teacher.

LaPointe & Reisetter's (2008) study further supported the importance of a teaching presence, identifying that online learners want an instructor who has expert knowledge in their field. This instructor should be accessible and offer prompt replies for students, as well provide a clearly outlined course structure. Respondents also indicated the need for feeling a sense of connection with the instructor in order to better understand and interpret postings and not misinterpret their intent.

In addition, Harasim (1999) stated that online instructors are different from their onsite colleagues as they facilitate the learning experience rather than provide information in lecture form. Examining evidence from Virtual U's field trials that began in 1996, researchers analyzed evidence from data gathered from over 8,000 students who participated in courses that were delivered either entirely online or in mixed mode (face-to-face and online) (Harasim). These data indicated that in face-to-face classes, instructors speak approximately 80% of the time. Within online courses, this statistic is reversed, with students sending approximately 85% of messages. A second study reported data on over 15,000 students (Harasim, 2000). Researchers again reported that over 80% of the messages were sent by students and typically over 30% of these messages were sent as replies rather than new messages. This reveals a high level of engagement within the courses, providing further evidence that students are being provided access to multiple interpretations and viewpoints, rather than one correct answer (Harasim).

Further analysis also revealed that these statistics vary across disciplines. Within

the humanities and health sciences, 90% or more of messages were sent by 50% of the students, compared to 65-70% of the messages being sent by 50% of students within business statistics (Harasim, 1999). These statistics reinforce the need for the instructor to act as course facilitator and ensure more equal student participation. Blair & Hoy (2006) further substantiated the need for instructors to monitor online conversations. In doing so, they could identify areas that required further discussion, therefore encouraging continued dialogue amongst course participants.

Interestingly, Harasim's (2000) study reported that instructors referred to an unexpected benefit of online learning; a renewed interest in teaching. "Virtual professors report that teaching online reinvigorated their enthusiasm for teaching. Instructors said they felt more intellectually stimulated and motivated because their online students were more engaged with learning and developed a sense of group" (p. 57). As a result, because instructors felt more involved in the learning process, traditional lecture style discussions were discarded in order to participate in the more favourable role of facilitating discussions. Instructors also opined that work submitted by students was of better quality and more reflective; a result, they perceived, of being exposed to a variety of perspectives within the online learning atmosphere.

Grodzinsky & Griffin (2002) also stated that online instructors should effectively monitor threaded course discussions to ensure students reply to the correct response under the appropriate heading. In order to achieve this goal, Grodzinsky & Griffin's results indicated that formal teaching of these skills may be necessary as some students may not be familiar with the correct usage of asynchronous tools. In essence, while the online instructor primarily serves a role as course facilitator, some direct instruction may

be required in order to provide students with the skill set necessary for success in online learning.

Online learning and teaching necessitates that instructors accept their many roles, understanding that many of these may in fact be new and unfamiliar. Berge's (1998) study reports that some instructors identified feelings of apprehension in switching from the traditional role of the instructor to that of a facilitator. As online students and teachers begin to understand and accept this non-traditional means of teaching and learning, it will necessitate a shift in commonly held perceptions of education. In order to achieve the goals of online education, it will be necessary for all educational team members, including administration and instructors, to address and implement the changes necessary in order to achieve success (Berge, 1998).

Critical Thinking

One successful outcome of online learning stems from the opportunity to more critically analyze and reflect upon presented information. Within this central component, classroom discussion provides students with the opportunity to post their thoughts and/or responses to class content while developing these skills. Many authors such as Grodzinsky & Griffin (2002) and Greenlaw & DeLoach (2003) found that online learning, specifically asynchronous communication, can provide student groups with the opportunity to think and reflect on information, providing the opportunity to further develop critical thinking skills. Students may then feel encouraged to take a more active interest in their education (Grodzinsky & Griffin, 2002). This, in turn, fosters the development of deeper critical thinking skills, as viewpoints from both students and

instructor alike can then be discussed (Greenlaw & DeLoach). In addition, asynchronous communication provides a natural opportunity for each student to voice his/her opinion and further support his/her statements with facts, providing a reasoned argument.

Greenlaw & DeLoach also believe that once some students begin supporting their comments with research and/or evidence, others will strive to reach the same academic level by posting similar, well-supported responses.

There are other benefits to this type of communication. One notable advantage is based on the very nature of asynchronous discussion; the ability for all to read and reflect upon class postings. The opportunity for all participants to read public class postings allows the instructor the opportunity to respond to questions in a whole group setting; when one student posts a comment or question, the instructor can provide deeper analysis and/or information, and students as whole can absorb and reflect upon the instructor response (Greenlaw & DeLoach, 2003). Also, as responses continue to be posted, students can continue to respond to one another asynchronously, further developing their understanding of ideas and/or events (Jonassen et al., 1995; Galusha, 1997). This allows students to develop responses that demonstrate self-awareness, self-critique, and/or self-inquiry (Redmon & Burger, 2004). Anderson (2006) further indicated that asynchronous communication also provided students the opportunity to review their own postings for grammar, re-wording as necessary, to prevent possible misinterpretation of their thoughts before publicly posting their responses online.

However, online writing offers an additional benefit in that it is typically less formal and does not adhere to the traditional conventions of writing. Redmon & Burger (2004) argue that it may be these very qualities that encourage authentic reflection.

When writers record thoughts as they occur, it allows for an openly reflective writing process that retains the true meaning of their thoughts. McCombs & Vakili (2005) also feel that this less formal writing can encourage students to identify items which require further clarification or feedback from the instructor. In this manner, instructors can develop curriculum as the course progresses that is based on student needs, as this type of communication can help to identify areas which require more instructor support and/or information.

The Digital Divide and Lack of Equitable Access

However, regardless of instructor or student motivation that aims to create a well-rounded playing field, there are serious issues that continue to beleaguer online educators. Berge (1998) and Grodzinsky & Griffin (2002) agree that one of the main issues facing online education is unreliable Internet access. Berge identifies further areas of concern, such as technical problems and connectivity, including the lack of online student presence. In order for access to be considered equitable, both students and schools must have access to current online technologies. Although Havice & Chang (2002) correctly state that videoconferencing provides access to more people around the globe, participation is not always feasible due to inconsistent Internet access on not only a global, but a local scale. For example, rural Ontario is faced with two options; dial-up access, or, the much more economically prohibitive, satellite Internet. This is in sharp contrast to urban Ontario in which a variety of high-speed, relatively low cost Internet connections are available.

Selwyn, Gorard, & Williams (2001) also described the realities of a digital divide,

as new technologies further intensify the inequalities between the haves and have-nots, noting that there is now a "...stark delineation between those who currently have access to IT and those who do not, in terms of age, socioeconomic status, race, and gender..." (p.260). Ching, Basham, & Jang, (2005) have noted that many young adults are in the midst of this digital divide. Between 1984 and 1997, the gap between the information "haves" and "have-nots" (i.e. low income and unskilled workers) in the United States rose steadily. During this period, the average low-income American family was unable to afford a home computer, and many of the schools within these low income areas were not equipped with current technology. Exacerbating problems of past and current inequalities, access to the Internet is largely determined by income, resulting in fewer low income families being able to afford the service, resulting in an ever-widening digital divide (Ching et al., 2005; Selwyn et al., 2001). This divide is even greater when one compares the technology available in both the developed and developing world. Galusha (1997) acknowledges the expense and/or inefficiency of these systems for use on a global scale. This single aspect of the digital divide, lack of equitable access to technology, directly impacts the ability of global learners to attend school. Baggaley (2008) feels the developing world will likely never have access to fast Internet connections.

Pandey (2006) addresses this concern through a personal perspective as a graduate student studying in the United States, about his home country, Nepal. Referring to the changing political climate in the 1990's, he discusses the political atmosphere which changed from domination by nobility to a, "...more middle-class friendly..." (p. 250) regime, a change which resulted in the increased use of computers and telephone lines. However, in the 1990's, a single desktop computer would have cost him more than

an entire year's salary. By 1997, the university where he worked acquired some computers, but he was one of only a handful of staff who knew word processing. However, he notes the disparities between social classes, as those who were wealthy and enrolled in private school during this time had access to computers, attended computer classes, and in addition, many of these students had computers at home. In 2000, due to the reduction in prices, Pandey was able to purchase a locally assembled computer, and became one of 50,000 computer owners, and one of 100,000 Internet users in a country of approximately 24 million. As of 2005, his home village still had no electricity, so access to technology is limited to areas which are served with power, and censoring of independent media is occurring alongside a reoccurring "...nationalistic" educational policy" (p. 256). Although gains have been made, technology and Internet access within developing countries is in no way comparable to that of the developed nations. Understanding the many roles that affect equitable access around the globe, Pandey states, "In short, like traditional literacy or its technology, digital literacy is deeply tied to economic forces and multiple contexts of culture, politics, and location" (p. 256).

Yet there are exceptions to this seemingly unchangeable situation. When one looks for solutions to these circumstances, it appears that some people, and some companies around the world, have been taking note of this ethical dilemma. Amongst the debate surrounding the digital divide are programs aimed at providing laptops to children in emerging/developing countries, and this offers a sense of hope that the digital divide can be lessened (One Laptop per Child Foundation, 12 May 2008).

Can We Bridge the Digital Divide?

Other companies are also addressing these inequalities. For example, Freeload Press, an online company, offers textbooks that can be accessed in a variety of formats (Freeload Press, 28 June 2009). Students and instructors are provided with options ranging from free sponsored e-textbooks, to paperback versions ranging from \$10 to \$40 that also include access to the e-textbook. Another company, Flat World Knowledge, began offering free digital textbooks in early 2009, with more texts slated for release in upcoming months (Rampell, 2008; Flatworld Knowledge, 31 March 2009). Initially offering business and economics textbooks, this site is planning to offer access to peer-reviewed, interactive and user-editable texts that include images, audio, and video, while providing students with access to chat rooms and the ability to share notes while reading (Rampell). Perhaps this will begin to ease the financial burden for average students. Rampell also adds that instructors will receive free teaching supplements and will be able to edit textbooks in accordance with their needs. The site offers users the ability to purchase print, audio, and PDF versions, but all can be accessed online for free (Flatworld Knowledge). Users will also be encouraged to post study tools, notes, and any other created materials, and, dependent upon the author's wishes, users will be able to download the information for free, or pay a fee for the materials. In order to ensure quality, users will be encouraged to rate the material so it can be evaluated for applicability before download. Information will also be accessible through the Facebook© application, or even downloaded to the user's IPOD© (FlatWorld Knowledge). While this will not address inequitable access on a global scale, this may help to lessen the digital divide within developed countries as it has the potential to

provide more equitable access to information.

However, this may indeed have a negative effect, as Rampell (2008) reports that a New York think tank, the Institute for the Future of the Book, feels these websites will adversely affect marginalized users. Bob Stein, the director of the institute, stated, "...they're not spending much money to produce these books, so they're not of value and they're giving poor kids the short end of the stick once again...", (as cited in Rampell, p. A14). In addition, although supplementary material will be made available to users, Stein suggests that the company may overcharge for these additional resources. As is commonplace in onsite classrooms, it will be necessary for online information to be thoroughly evaluated before use.

Recognizing the Potential for Equitable Online Education

One of the most persuasive arguments for distance education is that collaboration can occur amongst students and teachers on a global scale. Experts from around the world can participate actively in the online classroom as time and distance are no longer barriers to participation (Ellis & Phelps, 2000). In this regard, technology has deeply impacted education. Intense classroom discussions can now occur without participants ever meeting face to face, since phone calls and electronic mail can be used in place of personal office visits. In addition, both online and onsite students are provided with access to similar levels of instructional and administrative contact (Galusha, 1997). This primary goal of ensuring equitable access to education, regardless of the distance that separates students from educational institutions is a serious challenge that must be addressed with a grave understanding of its importance.

Summary

Online education is complex and multifaceted, and in order for it to be a successful experience, it is imperative that each of its elements be addressed equally. Educators must be aware of the many issues surrounding not only online learning, but also those that impact online students. In developing a greater understanding of the online learner, university administration and educators may be able to design online programs that better meet the needs of their diverse clientele. When educators design and implement online courses based on these needs, while integrating Garrison & Anderson's framework, they can successfully address each of the cognitive, social, and teaching presences, therefore creating an online learning experience that can prove to be as stimulating and successful an experience as one found in traditional education. In this manner, methods of online teaching and learning can be dramatically improved, leading to more positive instructor and student perceptions of the online learning environment, therefore ensuring that the technological advances of today will keep pace with the social demands of our ever-changing educational environment.

Chapter 4

Methodology

In this chapter I will provide an overview of the research process. I will also describe my rationale for the methodology of choice, and will explain the manner through which the data was coded according to the theoretical framework.

One of the central analytical tools around which this study was framed was Garrison and Anderson's (2003) notion of 'presence' in online courses. They postulated three such presences: social, cognitive, and teaching. Within this framework, I developed research questions to better understand instructor and student perceptions of online learning. Specifically, I wanted to know, "What are the similarities and differences in the ways that online instructors and students view the roles of social, cognitive, and teaching presence?" Further, I wanted to understand, "What is the perceived importance of the social, cognitive, and teaching presence?" More specifically I questioned, "How and/or why did the establishment of each presence affect students' and instructors' online teaching or learning experience?" Finally, I asked instructors and students to explain their perceptions, questioning, "Is it necessary for all three presences to be fully established and must each presence have equal representation in order for it to be perceived as a successful course?"

In the fall of 2008, I sent an invitation to 44 instructors and 940 students who were registered in online courses within a Faculty of Education at a university in southern Ontario, requesting their participation in an anonymous online survey, designed to better understand instructor and student perceptions of online learning. Of these potential

participants, 6 instructors and 82 students responded to the invitation to complete the survey, a response rate of 8.9%. The appropriate link, directed toward either an instructor or student survey, was provided through the invitation.

The surveys were administered during the school term so students and instructors would be able to draw on current, as well as past, experiences. As this study dealt with online education, it was important to ensure that data was collected within the natural realm of the online learning experience. The students and instructors were asked to respond to all questions, also providing the option to submit the survey, containing incomplete answers. Interview questions focused on course structure as it applies to the following model of online presences. These survey questions can be found in Appendix B and C.

Table 1
Online Presence

Elements	Categories	Indicators
Social presence	Open communication	Enabling risk-free expression
	Group cohesion	Encouraging collaboration
	Affective/personal	Expressing emotions
Cognitive presence	Triggering event	Having sense of puzzlement
	Exploration	Exchanging information
	Integration	Connecting ideas
	Resolution	Applying new ideas
Teaching presence	Design and organization	Setting Curriculum and methods
	Facilitation of discourse	Sharing personal meaning
	Direct instruction	Focusing discussion

(from Garrison & Vaughn, 2008, p.19)

I analyzed the data qualitatively and utilized the theoretical framework of

Garrison & Anderson (2003) and coded it using the constant comparative method (Glaser, 1965), though I did not use grounded theory. Hence, I coded the information manually, using pre-determined categories. I coded the responses first, prior to analyzing them. Upon review of the material, I re-coded the data as new codes and themes emerged from responses. This constant comparative analysis allowed for the generation of possible new topics within the data gathered (Glaser, 1965). Following Glaser's model, I began analysis with the coding of data in as many categories as possible, comparing each statement to the previously coded statement within each category. This initially helped ensure that each statement or fragment was coded by analyzing it against other data. When information could not be compared to coded data, I created new codes, and analyzed the data against the new codes. Again, I coded the data by comparing statements to the categories that had emerged. Once this was completed, I examined the data as overall themes became apparent, Glaser's step three, "Delimiting the theory" (p. 441). This allowed me to code the information against the overall emerging themes, allowing for a more selective analysis of responses. I concluded my data analysis with the written analysis of coded information, identifying themes that emerged from the data that I collected (Glaser). I achieved methodological triangulation through a comparison of commonalities and differences between the answers provided by instructors and students.

Glaser's constant comparative analysis method allowed me to gather a general overview of the topics that were important to participants. This was an integral component that allowed me to develop an understanding of the role that each presence played in the instructors' or students' learning experience. This research was not meant

to be a detailed study that examined every facet of online education; instead it was meant to provide an overview, identifying participant perceptions as they related to their online learning experience. I wanted to see which important themes emerged when comparing instructor and student perceptions. Quantitative data analysis would not have created the opportunity for new themes to emerge, and this qualitative data analysis was able to work within and against my own preconceptions as to what respondents would consider important.

I didn't interview people for a number of reasons, although initially this was my first choice for data collection. After much personal reflection, it became apparent that a larger base sample might be obtained from a short survey. My goal was to obtain as many responses as possible from which to obtain general perceptions of online learning. Whereas interviews would provide this information, they would also provide information on a much more detailed level, and perhaps not offer the same broad scope of responses. Instead, I hoped that a short survey would allow for a greater variety of responses.

Summary

These methods allowed me to analyze instructor and student perceptions as they related to Garrison & Anderson's framework. Through Glaser's (1965) constant comparative method, I was able to examine student and instructor perceptions as they related to the social, cognitive, and teaching presence.

Chapter 5

Data Analysis

Introduction

In this chapter I will provide an analysis of the data as it pertains to Garrison & Anderson's (2003) theoretical framework. I will also identify the various categories that emerged, providing examples of respondent commentary that substantiate and explain the reasons for the creation of such categories.

Survey results revealed that more than 50% of students indicated this was their first online course. Combined with the slightly more than 40% of other learners who replied that they had taken 2-3 online courses, these numbers indicate that the majority of survey respondents were relatively new learners within online education. In contrast, more than 65% of instructors reported teaching more than 5 courses, while one instructor indicated teaching 4-5 courses and another reported teaching one online course. Therefore, within this survey, instructors' online experience was apparently higher than the online experience of their students.

Overall, respondents reported that the social presence attends to many different needs within the online learning experience, for example, the use of introductions and creating a sense of online community. Within the teaching presence, many respondents acknowledged additional roles including the importance of successful course design and organization, and the reasons they felt it important to establish a strong teaching presence. Most respondents also indicated the need for a strong cognitive presence, and the overwhelming majority of respondents acknowledged the benefits of enrolling in

online courses when all three presences are established and supported.

Social Presence

Social Spaces

Participants responded to questions about their perceptions of social presence by revealing that social spaces fulfilled many roles for them. A firmly established social presence provided opportunities for participants' introductions, the development of a supportive community, the creation of a classroom atmosphere, and the opportunity to establish professional connections. One student offered an interpretation of the social space and its possible use, stating:

It allows us space to post without feeling like we are being evaluated. Without the classroom, it is hard to get to know who is in your class and what their special interest are. These area [sic] allows us a chance to become human, and not just a name attached to a discussion topic. (Participant 47)

Some participants also commented that when a social space was strongly rooted in the online learning community, it imparted a sense of safety and therefore increased their willingness to take risks when sharing thoughts and/or ideas. However, a very small number of participants revealed that if the social presence discouraged communication and felt that the community was lacking privacy as "...everyone can see your conversation" (Participant 116). Some participants felt that misunderstood responses occur in online communication, which therefore leads to an increased risk of misunderstanding. Other participants felt that social areas simply led to the creation of artificial relationships; relationships in which participants had no desire to continue once

the course had been completed. Finally, participant responses discussed motivators that influence student learning. Extrinsic motivators included the desire to achieve a certain grade, while intrinsic motivators were based on a personal desire to learn more about the topic.

Need for an Organized Social Presence

Typically taking shape through asynchronous communication, students reported that instructors designed spaces such as bistros and/or staffrooms. However, participant response indicated the main factor impeding participant response within these spaces was a lack of instructor direction:

I think some people responded really well - other [*sic*] not so much, so overall it was neutral. More could be done to promote the learning community and bring people together. Again [*sic*] it depended on the instructor - one was really great at it and the other did not engage us as students at all. (Participant 80)

Although some instructors created the social space, others failed to provide students with the knowledge necessary for learning how to interact within it. For example, one participant responded that, “After the initial introduction [*sic*], no one in the class went into the space - so it was ineffective, in my opinion, of creating a social space” (Participant 101). Another participant stated:

I felt that it was simply a space to introduce ourselves so that we had a general idea of the background of our fellow classmates. This was done at the beginning of the course. After that, this section was not used. (Participant 82)

This comment was again echoed as another student responded, “The [Course] teacher set

up the community but failed to interact within in it” (Participant 47).

Most students commented that instructor design of the space played a key role in its access. For example, Participant 49 stated, “It is the first on the list of links”, while Participant 50 reported, “It was at the top of the list of links. IT [*sic*] became a habit for me to go in first thing and check on any new postings.” These comments reveal that clear and easy access to these social spaces is crucial. Students also acknowledged that it is the instructor’s modelling that determines how these spaces can be used:

I feel that it is the tone the instructor sets that decides how will [*sic*] the Bistro will go. Our instructor used it as a place to discuss what we had done for

Thanksgiving and how our Halloween went and thus we were all inclined to write back and discuss these events with each other. (Participant 107)

This is important feedback, as it offers details as to how instructors may incorporate a social presence, providing suggestions for its design and organization.

Other survey participants agreed that while the simple creation of the social space may not hold power in the online community, “The aspect that may impact that is how the instructor uses it” (Participant 95). Furthermore, one student compared his/her experiences, noting, “In online courses I have done through other universities, it has been used more, but only because there was a teacher interested in using it. I personally don't use it” (Participant 66). Another student shared his/her experience, stating, “Everyone seemed to make the best of it. We were given some guidelines of what we should do in the space i.e. introduce self, tell a teaching story etc.” (Participant 124). Student responses indicate that the way in which instructors organize and use these social spaces may define how this space will be interpreted and used by course participants.

Introductions

Almost one-quarter of respondents further felt that social spaces provide important opportunities for initial interaction. Indicating that social spaces within online communities serve as a means of introduction, they are directly influenced by instructors. One student noted, “The professors both used the bistro to post ‘getting to know you’ type questions” (Participant 78). Another added, “...the instructor asked us all to introduce ourselves at the beginning of the course so we feel that we connect” (Participant 49). Other students also revealed the instructor’s role in encouraging communication, and by posting and modelling ways in which the social space could be used, students were provided with something tangible to which they could refer when devising their own initial postings in the social space. For example, a student provided evidence of instructor interaction within the social space, and stated that, “The instructors gave brief bios [*sic*] about themselves as soon as the course was set up” (Participant 37). Instructors tended to agree with student observations, stating that they had organized these spaces “...to introduce one another” (Participant 11). Another instructor provided more details by comparing it to a traditional classroom experience, stating:

Oh yes. Its [*sic*] not much different than a classroom really. The way we develop relationships online is not a lot different than in a classroom. I try to get to know something about the course participants, and I share some things about myself.

(Participant 10)

In modelling how this social space could be used, the instructor clearly defined his/her expectations and the need to develop a strong social presence.

Further substantiating the need for a social space, one instructor wrote that “The

bistro/cafe, with an 'introduce yourself' posting requirement is a good way to get people started" (Participant 15). One student brought this point forward, referring to the importance of first impressions, and stated, "It's the first thing your instructor is going to see about you. Every student wants to do well" (Participant 112).

While difficult to develop personal connections due to the inherent lack of face-to-face (F2F) communication, students indicated that this obstacle could be overcome. "We can't meet face-to-face, so this provides an alternative to that connection" (Participant 70). Other students noted, "without faces to put names to, it helps develop a sense of who you are chatting with, background of experience" (Participant 88) and "It allows students to get to know personal details about each other" (Participant 124). One instructor also reported the use of these social spaces as a place to post "...friendly messages, photos of my family..." (Participant 10). Some students also referred to this, responding, "We also shared photos..." (Participant 80). Overall, students and instructors indicated that a main purpose of the bistro was to create a place for introductions.

Sense of Supportive Community

Through these introductions, more than one-third of respondents noted that a sense of a supportive community could begin to be established. One student offered his/her perceptions regarding how to achieve this atmosphere, commenting that:

Support among colleagues is modelled first and foremost by the instructor and sets the tone. Overall, these courses are probably more supportive and the educational relationships stronger than in on-site courses because when you are on-line, you aren't in a rush or trying to get somewhere. (Participant 44)

This student also provided further details in another response and noted, “The bistro provides a forum for you to get to ‘know’ more about your instructor and colleagues. I believe that this in turn guides you in what you are willing to share in other sections of the course” (Participant 44). Other respondents acknowledged that social spaces help to encourage an important sense of community, noting that, “Without it, it would be impossible to know about a student or teacher and his or her background. The very human interaction that one misses in an online course” (Participant 72). Another student replied that the social space was used, “...to share personal successes or failures that we have encountered in our teaching careers. All responses were positive and comforting” (Participant 121). Adding to this feeling one student explained that, “people feel more connected, therefore they share more” (Participant 125). These are key elements that identify the existence of a supportive online community.

Other students also expressed that they perceived a supportive community within their online class. For example, one student responded:

It is, of course, a different supportive relationship than F2F but one can foster a supportive online relationship nonetheless. Opportunities to reflect and grow from each other provide an opportunity for support. For example, our instructor had us in several groups throughout the course, however, for one specific assignment we stayed within the same group to provide ongoing and continuous feedback on the development of the assignment. We could pose questions, respond, analyze, provide helpful sources or references, etc.. (Participant 45)

Another student provided further detail identifying how this supportive community can

develop:

Regardless of face to face, [*sic*] I think meaningful relationships can be established. The written word carries tone and opinion, much like the spoken word. It does not matter whether I can see them, in much the same way that a blind person can establish a supportive environment regardless of lack of visual input, an online community can support, criticize, confer, and kibbitz with each other (Participant 73).

Participants also recounted other methods of encouraging a more supportive community atmosphere. One student responded:

I think that it can be done, with the effort of making more personal connections and getting to know each other more on a personal basis - the live chat process worked well in one of my courses to do this. We also shared photos and provided personal information about ourselves to expand on our presentation of only the course information. (Participant 80)

These statements reveal that it is possible to establish an interactive and supportive sense of community which begins to more closely resemble a traditional classroom.

Instructors also commented that a supportive online community could be established. A place where, “Students share experiences, and commonalities help build rapport”, (Participant 14) bistro offer opportunity to connect. Another instructor further supported the significance of these spaces when combined with a strong teaching presence. Stating, “An overall supportive atmosphere helps in many ways ... better discussions, more interest in assignments”, this instructor further identified the potential impact of social

spaces within learning communities (Participant 14).

However, it is important to note that a very small number of students felt the online atmosphere discouraged the development of a supportive community. One expressed the feeling that, "...being online in the social section interrupts a busy day instead of just being a part of class" (Participant 63), while another felt that social spaces discourage the discussion of course content, "...because you can't see what people really think (no body language; no tone; no facial expression)" (Participant 91). Another student responded, "...it's you sitting on one end of the computer by yourself typing to someone else sitting on the other end" (Participant 92). However, this student also noted that, "They do encourage a different type of social atmosphere though - a virtual one; that allows for whoever to jump into a conversation without having to worry about interrupting someone. It gives everyone a chance to share their opinions" (Participant 92). While social spaces can offer support, understanding the online learner and the personal barriers they may face assist the instructor when developing online social spaces. This understanding of learner needs may help to identify areas within the social presence that may be better utilized by some participants (i.e. video, live chat).

Classroom Atmosphere

More than one-quarter of respondents acknowledged that a properly designed social space could help to create a sense of classroom atmosphere. Within this group of respondents, the students perceived that one of the most critical aspects of online education, was the need to establish a sense of classroom atmosphere within the online medium in order to "...create a sense of collegiality among students and our instructor"

(Participant 70). Realizing that the bistro/chat can provide "... them an opportunity to talk about things other than just the course" (Participant 54), it can also "...welcome people and make them feel more comfortable asking questions. It feels more like a real class then, not so anonymous as some online courses can feel" (Participant 37). Students revealed then, that the bistro addresses this basic need for interaction, similar to the interaction found within traditional classrooms.

Instructors supported this feeling, as four out of six reported that the bistro created a positive influence in the development of a community atmosphere. One instructor acknowledged the need for social spaces as they fulfill a need for a community-building exercise:

They encourage a more social atmosphere in the course module discussions because people will have had time to get to know one another. Just like the cafeteria or hallway is used in on-site courses before and after the class period starts. (Participant 15)

This is important as it reveals a perceived need for a sense of classroom community within online learning spaces. Another instructor commented, "An overall supportive atmosphere helps in many ways ... better discussions, more interest in assignments" (Participant 14).

Respondents noted that social spaces can incorporate more than simple means of communication; they incorporate a necessary human element. "When used properly, they take the place of the face-to-face conversations you would have before and after on-site classes or during study groups. You know you aren't corresponding with a bunch of robots" (Participant 44). Most instructors corroborated this point, stating that, "...the

social presence can aid in the critical thinking -- knowing students and having a rapport can help when choosing the words and wording to make a point students can understand and engage with” (Participant 15).

Social communication can be achieved through simple asynchronous text, but it can also be supplemented with punctuation and/or emoticons. One instructor stated, “A student or instructor's personality is more in evidence with emoticons, chats, informal questions or answers” (Participant 16). Although one instructor noted that “I rarely see internet slang” (Participant 10), throughout both the instructor and student surveys, use of punctuation and emoticons was documented. For example, many respondents, such as Participant 15, Participant 10, Participant 125, and Participant 39, used “...” to indicate a long pause, either to identify a pause in their thoughts, or to stress the importance of a preceding or following statement within their text. Other punctuation was used, including “???” to indicate uncertainty (Participant 127). Individual participants were also observed using expressive punctuation in many responses, with one instructor using, “...soooooo [*sic*] much!” to express a sense of instructor exasperation when discussing the sheer quantity of student postings (Participant 15). Aside from stressing the text itself, when participants repeatedly used the same punctuation and/or emoticons, it helped the readers develop a sense of the participants’ online personality and sense of comfort communicating in the online forum.

Participant Schedules

Almost 20% of respondents reported time constraints as one of the primary reasons for lack of participant interaction within online social spaces. While some

students felt that a primary advantage to online courses was the flexible schedule, and that "...you participate at a time that is best for you and are not rushing to get off to some other place" (Participant 44), one instructor noted time management as an obstacle. "Some people take on a course when they either have too much else to do in their life, or are not good at managing their time" (Participant 11). These are important factors to take into consideration when examining the usefulness of a social presence within online learning communities. One student noted, "I think they [bistros] encourage students to connect with each other, but with busy schedules, I think many students don't use the course in this more social way" (Participant 78). Another commented, "I think that is it a nice idea, however mandatory discussion surrounding class topics is already burdensome enough. It is difficult to find the time to further discuss with classmates for social/community building reasons" (Participant 113). Instructors again agreed, stating:

People like to chat informally in that area but avoid it if they have time restrictions. They are concerned with the requirements of the course, and using their time wisely. In addition, my course is a survey course which is heavy. (Participant 10)

One instructor summarized these feelings, and stated, "There are so many required discussions that it is hard to participate in optional ones" (Participant 14).

Sense of Safety/Trust

A small number of students indicated another important aspect of social presence was that it helped to create a sense of safety within online learning communities. This perception then impacted their willingness to share with peers. One student noted that

online classes can offer a supportive relationship which then makes the student feel that, “You can ‘linger’ as long as you want and even the shy can ‘talk’ freely” (Participant 44).

Again, another participant noted the increased sense of trust, stating:

I can't imagine feeling comfortable with the usual degree of sharing that occurs in the formal sections of the course without having had the opportunity to share and exchange personal info [*sic*] or ideas outside of the course proper - i.e., in the Bistro. When you don't see one another face-to-face you need some other way to build the level of trust needed to open yourself up and be honest and reflective about your own practices and situation which is a major goal of AQs at least.

(Participant 44)

Two students reported negative perceptions of safety within the online environment. One respondent observed that some students have the potential to create a sense of mistrust, and stated, “I think that people are encouraged to participate because they can ‘hide’ behind their computer. I found some people were inappropriately critical at times, but at least it stimulated conversation” (Participant 80). Another student, revealing a lack of trust among peers, stated, “I feel that it discourages honest discussion of the course content and feelings towards the course...especially if your views are negative” (Participant 123).

Privacy

Alongside issues of safety and trust, a very few number of respondents stated concern about levels of privacy within the online domain. Three respondents, including

two students and one instructor revealed that they were reluctant to share too much personal information with participants. For example, one student replied, “It's hard to become socially connected with people that you have never and will never see. I am always leary [*sic*] of revealing too much information in these situations” (Participant 66).

Another respondent stated a similar concern:

I think the biggest obstacle is reluctance to provide personal information over the internet. We are working with teachers that we have never physically met and never will physically meet. There is a certain level of reluctance with regards to developing meaningful educational relationships without really knowing the people. (Participant 66)

One instructor indicated his/her desire to maintain privacy, stating, “I do not share personal information with them” (Participant 16).

Risk Taking Due to Perceived Anonymity

While some students and instructors failed to reveal information due to privacy concerns, some students identified the possibility of increased communication due to perceived anonymity within online courses:

I was hesitant, when my course started, to believe that I would be able to connect with my classmates without interacting with them face to face. Although I have never been one to participate a lot in classroom discussions, I have always enjoyed seeing and getting to know my peers in person. Surprisingly, I feel quite liberated in taking this online course. It has given me the opportunity to admit when I don't know things without feeling a sense of embarrassment. The anonymity of the online

space has allowed me to become more honest in my discussions and interactions.

(Participant 122)

Another student agreed, but offered two opinions; “Some people are more open in sharing their thoughts in this environment because they don't see the other person. Some people are more withdrawn in sharing because of the environment” (Participant 126).

While some students and instructors indicated greater concerns with privacy, others used the environment to more freely communicate.

Misunderstood Responses

Regardless of concerns for privacy or anonymity, a little more than 10% of respondents commented that misunderstood responses were critical factors impeding online learning. For example, “...your meaning can be misinterrupted, [*sic*] impersonal” (Participant 86) and, “You have to be very careful what you say because others may perceive your comments in a different way than intended” (Participant 126). In addition, another student stated that, “Overall students and profs [*sic*] tend to be positive, however there is that odd time when this is not the case and the topic of choice lingers into something that was not intended or into something that was misconstrued [*sic*]” (Participant 103). Participant 119 reported a similar concern, as, “...extra time needs to be dedicated to ensuring that meanings and words do not get misconstrued as can happen in a non-F2F setting”.

One instructor also addressed the possibility of misunderstood responses and noted, “...that the teaching philosophy/perspective/paradigm that is latent (or not) in the

course content and assignments, may not be mine... therefore anything I say may be misinterpreted” (Participant 15).

Artificial Relationships

More than 15% of respondents said that due to the nature of online learning, a true sense of community failed to emerge. Several comments among students indicated these thoughts, such as, “it's pseudo [*sic*] communication - What are the chances you will seriously dialogue on an ongoing basis with people you meet on an on-line course? For me – 0” (Participant 79). Another student, further supporting this feeling, stated, “The information was too trivial and I am not looking at wanting to establish such an unreal connection through such meaningless chatter” (Participant 109). Yet another student compared the online social experience to a short-term relationship; one, in fact, that is, “Similar to calling a tech support person!” (Participant 72). Another student, referring to the geography involved in distance learning, acknowledged:

I don't see this from [*sic*] happening as the computer is just a thing and without a personal connection to the person I don't see myself establishing any kind of relationship through a computer. It creates too much distance and it is impersonal.
(Participant 109)

Professional Connections

While some students felt that personal relationships could not be developed, some participants revealed the possibility of establishing professional connections. Slightly more than 10% of respondents indicated the social spaces could encourage the creation of

such connections, and acknowledged that the bistro:

...helps 'network'. This is where you find who may be able to help you in some way, has suggestions for handling situations you're encountering, or could use the benefit of your experience in some way that may not fit within the parameters of the course content. (Participant 44)

One instructor agreed, and noted "Teh [*sic*] social area does support 'networking'...."

(Participant 10). In addition, these social spaces can provide access to professionals across geographically diverse areas. "Chats encourage students to be more social and to hear what other teachers from the province have to say...This is a good thing in order to collaborate with other professionals within the field and who face the same challenges..." (Participant 103). These spaces also provide "...a great place to get to know what everyone does for a living and what teaching experience they have had" (Participant 107), again, broadening the scope of professional connections.

Information Communication

Almost 20% of respondents indicated that social spaces were assigned the role of information communication. In this regard, it became, "...a place to ask 'dumb' questions and not worry about it. For example someone in my online course just asked, using the bistro, how to access the library. 3 people helped her" (Participant 108). This space also provided the opportunity where, "...everyone can read questions posted to the instructor. This helped better clarify any questions that you may have that others already asked" (Participant 43). Within this space, the instructor also, "...made commnets [*sic*] and let us know if we seemed confused and where to post info" (Participant 50).

Instructors supported student responses, and acknowledged that that this area was used “...for some announcements” (Participant 11), and as a space to “...share common concerns space to ask informal questions” (Participant 14).

Distance Learning

A small number of respondents had an underlying theme in their responses, in which they identified their reasons for taking online courses. Some learners referred to the inability to attend on-site classes and one student responded, “...due to geographical reasons I am unable to participate in a regular classroom, as my city does not provide the courses I seek” (Participant 96). Another echoed this sentiment, and noted:

It's harder and I don't think the experience will ever be as rich as a face to face experience but online courses suit a lifestyle in which I want to learn but cannot attend a class due to family obligations and distance from universities.

(Participant 63)

Finally, another student revealed the isolation experienced when involved in distance learning, and commented, “It is very easy to feel isolated in an online course and [it] can be a very stressssful [*sic*] experience” (Participant 50).

One instructor supported student perceptions regarding the feelings of isolation and the difficulties faced by both students and instructors engaged in online learning and stated:

I believe the support is there in the virtual setting but to a point. If a student has trouble with something and we offer suggestions, it is appreciated and noted.If [*sic*] someone is struggling with the workoad [*sic*] of the course as well as

teaching first year, it [*sic*] is harder to help them as they tend to stay away from the course. In a face to face setting you could find them and talk directly to them to advise. (Participant 16)

Intrinsic Motivation

In addition to the expected isolation of distance learning, a very small number of students and instructors reported a need for sincere intrinsic motivation on behalf of the learner. For example, one respondent noted that, “In an online course you're learning because you want to” (Participant 63), while another noted, “I don't think the online spaces themselves have anything to do with encouraging or discouraging anything but it has everything to do with wanting to learn from each other” (Participant 42). An instructor supported student comments regarding the intrinsic motivation of some students, indicating that certain learners choose this method of learning simply because they “...are motivated to learn more about the field” (Participant 10).

Extrinsic Motivation

Within the responses, a small number of students and instructors noted that distance learning has extrinsic motivators. One instructor stated, “Some course participants think that the convenience of an online course means that it will be easy” (Participant 11) while another replied, “Some are looking for the ‘certificate’” (Participant 10). Some students substantiated instructor perceptions and acknowledged, “Its [*sic*] school, you only do as much as you're required” (Participant 63). One student

referred to participation in the social spaces, noting that, “We were graded on our participation” (Participant 48). Another student replied, the:

Instructor opened up a location for students to communicate. Some of our conversations got into the course material and the instructor let us know that assessing does not occur in that room. It appeared that after that moment not too many people used it. (Participant 98)

Participant responses revealed that some students did not use the social spaces unless they were being graded on participation.

Technical Concerns

Within the realm of social and educational communication in online courses, a very small number of students reported frustration with technology. Referring to the student experience, one respondent clearly related initial feelings, stating, “...the technical componet [*sic*] can be a little overwhelming especially if the course is a first time taking such a course” (Participant 50). Another student stated, in reference to receiving support within the bistro, “This is my first online course and it helped me to become more comfortable with learning online. Others offered their support and encouragement when I was uncertain of protocols or the process” (Participant 121). In this instance, the bistro became a place where peers could assist one another. An instructor also reiterated the need for student support, and stated, “There are some course participants who are intimidated by the format. I try to coach them through it” (Participant 10).

However, one respondent also revealed how the social presence coupled with

technology can act as a deterrent for new online learners. “I was still learning to navigate the website so it [the bistro] just seemed like one more thing to do” (Participant 127).

Respondents also acknowledged one area within online courses that results in some difficulties and loss of conversation; the lack of threading within those particular online courses.

One student commented:

The nature of the online course definitely encourages a certain social atmosphere. I think the problem I find, however, is that the set up of the online spaces - the big forums where you have to scroll down through responses, some entirely unrelated - makes it somewhat difficult. I wish there was a way to respond directly to someone else's comment; to be able to click on their comment and append my thoughts directly to that. (Participant 122)

Another student also acknowledged conversational difficulties, as, “Sometimes the “conversation” drifts away from the topic I am interested in so when I come back to it what I have thought about seems irrelevant” (Participant 127). One instructor also supported student thoughts regarding this difficulty in online communication, responding:

I have to be very careful about my 'teaching presence' because the linear threads of the discussion rooms...It takes too much time and effort to explain when I am responding to a student's point that appeared eight or more postings above... continuity is broken, and my points are often taken out of context (usually because another context has taken the foreground in the recent postings).
(Participant 15)

Cognitive Presence

Within online courses, many students and instructors felt that a strong cognitive presence needed to exist in order for true learning to occur. One instructor stated the need for cognitive presence, as, “It makes the subject matter interesting and applicable. Its [*sic*] very important” (Participant 11). Students agreed, and one noted:

Having a strong cognitive presence, demonstrated by modelling critical thinking skills and analysis positively impacted my perception of having taken a successful course. It makes me feel as though the course was worth my time because the instructor was intelligent and did their job well. (Participant 82)

Another student replied, “The more critical thinking skills remained the focus, the more likely members of the class didn't get off topic or ramble in their postings, make [*sic*] the reading of them tedious and time consuming” (Participant 58). Instructors also agree that cognitive presence is crucial to the success of online courses. While one instructor noted that, “Most course participants want to be positively challenged” (Participant 10), another noted that, “The students who develop higher order thinking, do much better in the course. They are there to learn and accept the requirements” (Participant 16).

However, some students offered contrasting opinions. For example, one student responded, “I'm not feeling this from a learning point of view. online [*sic*] courses seem to be all about justifying your time and doing assignments for marks” (Participant 127). Another student actually replied, “My instructors have rarely modelled critical thinking skills. This is an area for improvement” (Participant 74). Another student reiterated the need for a strong cognitive presence and offered, “If my teacher had no critical thinking or relevant thoughts, I would not get anything out of the course beyond a qualification”

(Participant 123).

Garrison & Anderson (2003) identified four stages within the cognitive presence. Within this study, some instructor and student responses revealed these stages. Initially, a “triggering event” (p. 30) occurs, one in which issues and/or problems are identified. One student noted this occurred as, “Our instructor composed excellent questions for guiding the weekly talk” (Participant 73). Another student acknowledged, “When instructors implement guided critical thinking questions the discussions then include varying perspectives thus giving us an opportunity to see different angles to the same topic” (Participant 96). One instructor supported student responses, and reported, “I encourage higher order thinking skills through my comments and questioning. The course participants will often supply answers to guiding questions that report basic information and research regarding the topic or issue” (Participant 10). Questioning from the instructor is central to this category; he/she identifies issues that need to be further explored, and without this involvement, “The material could become rote or mundane without some interaction to spark questions and help course participants make connections between concepts. Otherwise, [*sic*] the course would become a format where some research is posted and it ends there” (Participant 10).

This leads into Garrison & Anderson’s (2003) second phase within the cognitive presence, that of “exploration” (p. 30). It is within this phase that students and instructors can work together to gather and refine information that is relevant to the chosen topic. The communication within this phase may also be affected by knowledge that was acquired early on through bistro introductions, as it is through these introductions that participants learn about one another’s areas of expertise. This can then lead to further

collaboration amongst students to develop a better understanding of the issues being discussed. For example, in reference to the bistro and the introductions, one student noted that, “Based on this I know who to direct certain questions at when it comes to course content” (Participant 107). Participant expertise and experience therefore can be used in gathering information. Another student’s response revealed that this category was addressed as, “Everyone was required to answer everything, so an open question made for many opinions” (Participant 73). Thus, the students could work collaboratively and exchange information, and when the instructor provided a sound cognitive presence, it could assist students in developing higher order thinking skills. One student clearly explained how instructors can achieve this goal:

The professor never jumped into a discussion to tell a student that they were wrong, or to confirm they were right about an idea (unless it was an issue related to course expectations, such as providing clarification on an assignment). She allowed us to debate, question, and come to our own conclusions collectively. (Participant 78)

This assists students in exploring the issues at hand, while they learn to support their argument with the information gathered.

However, teacher guidance is also required during this “exploration” phase. One instructor noted that it may be necessary to provide prompts and guidance as not all students:

...use higher order thinking skills without some prompts from myself. They then delve more deeply into topics through this guidance. The topic then becomes more indepth. [*sic*] I have often had reports from the course participants that their

greatest learning came from the discussions that delved [*sic*] more deeply into the issues and topics. (Participant 10)

Another instructor further substantiated the need for teacher guidance, commenting:

The instructor must recognize and acknowledge and 'boost' with related commentary, students' learning as they indicate it in their postings. The nudge and guiding and redirecting is an important action on the part of the instructor to help students build, construct, and increase their intellectual engagement in the course material. (Participant 15)

Once instructors have guided students and helped them to explore the various facets of the issue, instructors can then assist students in moving on to Garrison & Anderson's third category, "integration" (p. 30). In this, students are to begin making sense of the information and discuss hypotheses. One student's response acknowledged this category within the online class:

Given that most instructors have been in the teaching field for many years they should also be sharing their expertise and knowledge, not just having us as students contribute our new knowledge to the discussion. Theoretical knowledge is one thing, understanding how it is applied in practice and what the results are is [*sic*]quite another. (Participant 80)

This reinforces the need for a strong cognitive presence. Without it, students may not realize the full potential of new information; a central concept within this category.

Again, instructors play a crucial role in helping students to navigate through these new ideas, as, "They challenge you to think about what others are writing about" (Participant 126). They achieve this when they "...question certain responses and provide another

version to discuss” (Participant 53). Instructors also provided further evidence to support this category within the cognitive presence. One instructor stated, “No connections to real situation[s] or issues are made without guidance...that's what teaching is all about whether it be online or in a classroom” (Participant 10). Another states, “Course participants are quite active, and the discussions go beyond the basic guiding questions. The depth and breadth of issues are explored” (Participant 11). Hypothesizing and debating information is a key component within this third phase.

Finally, the fourth phase that Garrison & Anderson (2003) introduced is “resolution” (p.30) in which learners begin to apply and direct their new knowledge. This is a critical phase in the development of a strong cognitive presence, for it is in this sphere that learners understand how to apply their newfound knowledge to their professional world. Many respondents acknowledged this as a critical component of the cognitive presence. For example, one student commented that the instructor, “...challenges me to think and apply what I am learning to my classroom environment(even [*sic*] though she has never seen it)” (Participant 126), while another student reported:

I have learned so much from my course that I use and apply to my teaching. I have gained new skills that I can use in my classroom. The best part of the course is that I feel more up to date on the new trends in teaching that are happening in Ontario. (Participant 126)

This need for “resolution”, the application of new ideas and knowledge, was also echoed by some instructors. In reference to student needs, one instructor replied, “They want interesting and relevant discussions that relate to their professional growth” (Participant

10), indicating the desire for new knowledge as it applies to their professional lives. Another instructor responded that they measured the success of students' higher order thinking skills, "...as a leap in understanding, rather than by letter grade" (Participant 10). Another instructor further supported this feeling, as, "Evidence of higher-order thinking skills tends to result in higher marks for the discussion portion of the course" (Participant 14). If students are able to apply and direct their new knowledge, thereby providing evidence of higher cognitive skills, they will have reached Garrison & Anderson's fourth category.

Need for Expert Knowledge

Through their responses, respondents also indicated the necessity for 'expert knowledge'. Almost 20% of respondents indicated their desire to be instructed by a professional who could enhance the discussions and class learning as a result of their own experiences. For example, one respondent succinctly responded that it is, "nice to feel your instructor is competent" (Participant 88). Another, referring to the instructor, noted, "...she is so qualified that what she adds to the course is extremely important" (Participant 119). This was also expanded to compare peer-to-peer and instructor-to-student learning, when one student reflected, "There are times when your classmates don't have the experience from which to speak and its nice to know that your concerns can be answered" (Participant 122). Another student also indicated the desire for instructor knowledge, stating, "...showed me that they had the background knowledge needed to be an instructor for this course" (Participant 37). One instructor supported these feelings, remarking, "I talk about real situations in real classes and from my

experience” (Participant 10). This again supports the belief that instructors should have expert knowledge in their field that can be directly shared with students.

Unfortunately, a lack of instructor knowledge is apparent in some online courses, as one student commented:

This jumped to the forefront after a course where the instructor was so disorganized and so seldom took a hand in anything that I felt I was not using my time in a profitable manner. There is always going to be a huge pool of knowledge when the students are teachers, but the professor has to have something more. Specifically, a ready familiarity with the research and analytical skills that at least match the students'. How can we build our own knowledge and frameworks if the professor's is weak or scattered? They have to be able to go beyond practice. (Participant 44)

Another example of an ineffective cognitive presence was reported by a student who stated, “I would have liked my teacher to be an expert in the specific subject of my course (Music)” (Participant 123). Both instructors and students acknowledged the need for instructors to have a strong cognitive presence, combined with expert knowledge in the subject area.

Teaching Presence

Almost one-quarter of respondents identified the need for a strong teaching presence in online courses. These responses indicated that instructor involvement affected perceptions regarding the success of the online course. Some students and one instructor indicated that instructor involvement impacted course participation. Participant 41 commented, “They are the "leader" in the course. If their teaching presence is strong

the students usually respond more positively [*sic*]. If your instructor is not present regularly you don't feel as involved". Another student offered that the teaching presence is, "highly important, it makes us want to succeed and impress our instructor, thus improving our learning and thus students" (Participant 125). Yet another student revealed similar feelings regarding the need for a strong teaching presence, and related, "It is there [*sic*] way of building a rapport with their students which helps everyone feel more comfortable and willing to share and participate in the discussion. This is very key for the success of an online course" (Participant 126). One instructor agreed with student observations and noted, "If the instructor shows a strong presence it reinforces the need for the student to be actively involved too" (Participant 16). This same instructor later reflected, "I feel that because I encourage them a lot, they too start to do the same thing with their classmates".

However, amidst these positive observations, one student referred to a rather disturbing online experience where the instructor failed to properly assert his/her presence:

I dropped a course when an instructor failed abysmally at this. They were not contributing and with the group enrolled, the instructor's input was desperately needed. The course dialogue became, excuse the expression, 'bitchy' with comments being thinly disguised insults and one group dominating the boards, ignoring specific requests for feedback from others and answering and responding only to one another. (Participant 44)

Within this group of respondents, three students disagreed with course participants regarding the importance of establishing a teaching presence. Feeling that

the instructor's role is negligible, these students suggested online courses should primarily be self-directed, stating, for example, "I don't think it is that important, because students are already stating their preference for NOT having [*sic*] a present teacher. They have already opted OUT of teacher presence, so why belabour it?" (Participant 73).

Design and Organization

More than one-quarter of respondents acknowledged the importance of design and organization within the teaching presence. For example, students wrote that design and organization in online courses is, "very important so that all students know clearly what to do" (Participant 61). Organization was also accomplished when instructors, "...would post reminders and post deadlines as well as a guide for discussing topics using dates" (Participant 63). Other respondents also indicated course organization as a key responsibility for online instructors, and Participant 61 commented that the instructor provided, "great explanations, constant updates and [was] very organized in presentation of material and expectations".

The expectation of a clearly organized course became even more apparent when one student indicated, "I think that the instructor should have a strong teaching presence so that students know what is expected of them [*sic*], know if they are on the right track and so on" (Participant 43). Another student also referred to the impact of a strong teaching presence and course design and recounted that, "...our instructor made us refer to the rubric for course participation early in the course to ensure that each student knew what was expected of her or him" (Participant 45). One instructor supported these student observations, stating the need for an instructor:

...to plan and orchestrate how the first module rooms open , i.e., one at a time, so students are not overwhelmed right off the start. Plan the process for integrating into the online learning environment [*sic*] and getting course work prioritized and hence completed. (Participant 15)

This same instructor further addressed the importance of course design, and noted that he/she posts, "...a discussion rubric. It states the timing of student postings and the quality/content".

Timely Responses

Almost one-third of respondents identified timely instructor responses as an issue of significant importance, in part due to the geography separating course participants. One student added extra punctuated emphasis to clearly explain his/her feelings regarding the need for a strong teacher presence; "It is SO important. Online courses are tough because you have a question you want answered NOW but there is no one to ask it to. However, my instruct [*sic*] is great at getting back to me" (Participant 107). Identifying the needs of the new teacher, another student replied, "I am a new teacher with a lot of questions pertaining to our online course and she is always there- daily to answer my qusetions [*sic*]" (Participant 107). Another student responded, "The higher the presence of the instructor, the better the experience. It's very frustrating when you're online more often than the instructor" (Participant 74). Yet another student supplemented this thought:

I would have liked more presence by my instructor. While the student is epected [*sic*] to be "online" once per 2-3 days, the instructor doesn't seem to have a guideline. It could be 4-5 days before there is a presence and it takes a week for

assignments to be returned. (Participant 101)

Due to the lack of direct interaction, many students appeared to place even more emphasis on frequent communication with the course instructor. Again, Participant 101 provided a reflection and stated:

I think this is important because we aren't meeting face to face - students need to have a direct link on a regular basis in lieu. Also, as there isn't as much direct instruction, it is good to have direction from the instructor on a regular basis.

Almost all of the instructors agreed, and revealed the need to, “Be in often” (Participant 10) and “...connect regularly to the class...” (Participant 16). Another instructor emphatically revealed the importance of keeping up with course dialogue, as “An instructor has to be online all the time -- just to keep up with student questions, student comments, and students write soooooooo [*sic*] much!” (Participant 15). However, this same instructor noted a primary difficulty with online communication and its failure to immediately address student concerns. Commenting, “I would have to be online 24/7 to repsond [*sic*] appropriately and have a genuine and authentic teaching presence”, this instructor reflected on the difficulty of maintaining timely communication with course participants (Participant 15).

Instructor Response

Some participants also indicated that a strong teaching presence could be established through the development of a personal connection. Comments such as “...students always like to know their teacher...” (Participant 47) and “You want to be able to connect to your instructor...” (Participant 54) indicate that the development of a strong

teaching presence may help to create this connection. One student commented that:

The feedback from the different modules has been amazing. It was personal and reflected an understanding of my personal philosophy. (It also offered guidance and positive encouragement. I was amazed at the detailed response and the time it would have took [*sic*] for an instructor to write. (Participant 121)

An instructor supplemented this need for connection, and revealed, “I often include student names [*sic*] in my summary posts so they see themselves acknowledged as contributing” (Participant 16).

In addition, students reported that positive instructor response further encouraged dynamic discussion and questioning of course material. While one student referred to the professor as “...very positive, encouraging...” (Participant 126), another student stated that it was due to a positive teaching presence that, “...I am not afraid to ask more questions which furthers my learning” (Participant 107). Some instructors agreed with student commentary, and one instructor wrote, “I ask questions, and am interested in their work. If they run into problems, I listen and help them where I can” (Participant 10). Another instructor stated, “I encourage them to contact me if they have an [*sic*] difficulties, and they usually do” (Participant 11). However, one student conveyed the impact of a non-supportive instructor, and responded, “My other instructor was not as supportive and often made very short, snappy responses that shut down the discussion process” (Participant 80).

Instructor Communication

Approximately one-quarter of respondents stated that learning opportunities can be

increased through specific instructor feedback. When instructors gave responsive feedback in the early stages of the course, it provided students with an opportunity to re-examine their understanding of course materials. One student noted, “If they give you feedback in constructive ways, you know how to improve for the next module or you know that you are on the right track” (Participant 126). Another student echoed this feeling and stated, “Monitoring course dialogue, especially early in the course, allows for immediate feedback for the student to improve or change their progression” (Participant 45). This was reaffirmed when another student commented that the instructor, “...responded to our post with what we can do better next time in the form of critical feedback” (Participant 47).

Instructors also referenced the need for communication. For example, one instructor responded, “...to specific postings” (Participant 11) while another chose, “...certain comments/responses from the students to build my posts around” (Participant 16). In this manner, instructors addressed student questions, redirected their learning, and/or provided further topics for discussion.

Directing Discussion

Approximately half of all participants indicated the need for instructors to direct discussion. For instance, one student noted, “Some of the dialogue [*sic*] can keep going on and on and becomes pointless to answer too, it is here the instructor must know when to refocus the dialogue” (Participant 92). Another student repeated this opinion with emphasis, stating, “I am finding a lot of repetition in my online class and it is simply time-consuming and NOT helpful or informative” (Participant 95).

Respondents felt this need for direction was necessary in order to ensure that learning and interpretation of the information was correct. For example, one student stated that an instructor, “guides discussion in the right direction...asks questions to stimulate discussion [and] sometimes provides a different perspective that has not yet been given in the discussion” (Participant 75). Another student agreed that a strong teaching presence, “...leads the group and provides directions when necessary” (Participant 53). One instructor also agreed with the necessity for simple guidance of the discussion, writing, “I guide the dialogue along a path it should go rather than allow certain students to occupy too much of the discussion with their opinions” (Participant 16).

Other students responded with similar understandings, recognizing, “A strong teaching presence holds students accountable for discussion participation, and can help guide discussion” (Participant 39). A very few number of students described the need to establish instructor direction of discussions in order to feelings of safety and equality within course dialogue. One student noted that instructors, “...need to facilitate [*sic*] discussion so students are not attacking or judging the other's program, thoughts or feelings” (Participant 59). Another student responded this is necessary, “...to ensure postings remain focused and submitted with due care and without a bias or prejudice” (Participant 72). One instructor agreed, “If a discussion is taking a negative turn, inappropriate or inaccurate, address it immediately” (Participant 10), confirming that course dialogue must be monitored and, if necessary, quickly corrected.

Peer Discussion

Some respondents added further insight into the need for the instructor to direct discussions. These participants felt that discussion should not only be directed, but that the direction of discussion should allow for students to first develop their own understanding within peer communication. Respondents stated that this important part of online learning allows peers to learn from one another. For example, one student noted that, "I didn't like it when the instructor was the first one to provide feedback to case studies or questions that were posed to fellow students. This did not allow the students to bring forth their ideas first" (Participant 109). This emphasized the students' need to learn from one another, and was further supported when another student stated, "...sitting back and allowing the discussion to progress in [*sic*] also important" (Participant 80). Further supplementing these reflections, one student observed, "The students need to have the opportunity to explore their own thoughts and beliefs and to learn from each other" (Participant 42). One instructor agreed, and stated, "I don't want to take over the discussion, as I want the course participants to have an opportunity to develop and demonstrate their own understanding of the concepts being discussed" (Participant 10).

Clarifying Information

However, more than 15% of participants agreed that instructors should intervene in online discussions to answer direct questions and/or correct information. One student stated that, "A strong teaching presence...can correct erroneous information" (Participant 39) and another noted that monitoring course dialogue was important as instructors, "...need to correct any errors, confusions, etc..." (Participant 51). Most instructors

agreed with students, and related that part of their responsibility within the established teaching presence is to clarify information. For example, one instructor replied that, “I post clarifying instructions about expectations and assignments” (Participant 10).

Another recounted, “I read through all posts, I [*sic*] reword to clarify some students posts, I correct incorrect information by adding what is correct usually with proof of reference without naming anyone so that the class is not misinformed...” (Participant 16).

Classroom Management

Aside from clarifying information and guiding discussions, some students and most instructors felt it necessary to establish classroom management in the online community. Some students reflected that instructors should be aware of who is posting and how often, ensuring equal student participation, because, “...if others are posting hogs then some can get the learning benefits without the work” (Participant 80). The instructor must also monitor, “Espeak ethics, people who don't monitor their tone or use the space inappropriately, people who write way too much or stray off topic - just like in the classroom” (Participant 58), and they must also gauge:

...the maturity of the student. If it is a professional course, I would expect the persons taking the course to already conduct themselves professionally. However, if it is an undergraduate course, the young student may still conduct themselves online as they do socially on MSN and thus requires 'guidance' to monitor their dialogue to a respectable level. (Participant 76)

Respondents indicated that classroom management also entailed monitoring students to ensure that the assigned work has been completed. One student responded that, “Some

student[s] are confused because [sic] they have not read through all the materials before asking questions” (Participant 50). Another noted:

The teacher presence [sic] has to be 24/7 or the class gets out of control. There really is very little difference in the real classroom. If the teacher leaves the room or sits at the front of the classroom and marks, the class is unfocused and unmotivated.

(Participant 58)

One instructor agreed and reported, “I note the responses on a tracking sheet as I read each day. In this way I have a visual reminder of those who are active or those who may be off track, in terms of participation” (Participant 10). Similar to a traditional classroom, instructors indicated that they must be aware of those who participate regularly, while encouraging those who participate on a less frequent basis. One instructor responded:

If I see someone has not been online for a while, I contact them and ask them if they are experiencing any difficulties. Sometimes they are having some personal issues, and we talk about it together and work out a solution. (Participant 11)

Email

A few students and instructors also related that a supportive teacher presence can be established through the use of email. One student responded, “The world revolves around email. Why would it be different for anyone else, especially if you are an educator” (Participant 51). Another student, referred to contact with the instructor, stating, “She is always happy to hear from you on e-mail and answers your questions punctually” (Participant 126). Instructors also supported this method of communication,

responding, “The mailbox is the tool that seems to help students feel connected. They can ask personal questions of the instructor and receive personal responses and feedback”

(Participant 15). Another instructor stated:

Often I send a personal email. ... If I see a course participant is not "present", I make an enquiry to see if they are lost, off track or have a problem, to support them and help them back on track. (Participant 10)

Interactions among the Presences

Central to this study was the examination of instructor and student perceptions in regards to the social, teaching, and cognitive presences. When students and instructors were asked to respond and identify their perceptions surrounding the necessity of these three presences, almost all students agreed that the teaching, social, and cognitive presence must be incorporated into the course for it to be perceived as successful. All instructors identified that a successful course would incorporate all three presences, but almost all instructors indicated that each presence, while necessary, may not hold equal status in online courses. For example, one instructor stated, “Less social is okay, it is required less often than teaching and cognitive, but no social would be a cold instructor, hard to relate to” (Participant 16). Another instructor added, “Clearly all three are significant here, and in F2F teaching as well. Also, the three interact, but under different circumstances different elements will be more significant” (Participant 14). The response of another instructor added further support to these perceptions. “The teaching presence and the cognitive presence in my opinion [sic] are the two most important components. The social presence does support developing a working relationship and opens the door

to openness [*sic*] for the teaching/cognitive aspects” (Participant 11). This was further substantiated when another instructor responded, “When I do participate, then the social can sometimes detract from critical thinking skills because [*sic*] 'we are all friends' and they don't take my suggestions as something to seriously consider” (Participant 15).

Some students expressed similar thoughts, and replied:

I don't think it is necessary for each component to have an equal presence. I think that if there is too much of a social presence, it can take away from a cognitive presence by creating an atmosphere that is too informal. (Participant 82)

Another student offered a different perspective regarding the importance of each presence, stating:

I don't think they need to be equal. I think that a social and cognitive presence should be more prominent. That is where the learning community is established and maintained. Its [*sic*] also where you will learn and grow as a teacher. The teaching presence [*sic*] should definitely [*sic*] be there, but in the background. It should offer support and guidance when needed. (Participant 121)

However, within these sentiments, many participants reported that when the three presences were incorporated and addressed in online courses, it made the online learning experience much more enjoyable. For example, one instructor offered this reflection:

You need a balance. Teaching presence is important because an instructor needs to know their student's learning needs, their prerequisite knowledge and managing the course overall. Social presence [*sic*] is important because my students need to know that I see them as people, not screen names. They are more engaged when I show an interest in them and their learning. The social interaction does not just occur in Bistro.

It is weaved throughout the course. However, the most important part of the social presence in my opinion is when we ask questions, publicly respond to specific postings. ... Cognitive presence is critical but interest in it can only be supported, by teaching presence and social presence. (Participant 10)

Another instructor provided further information about each presence, and explained: Social--they want to know you a bit and see your personality, see you are human, that you like them and that you [*sic*] enjoy teaching the course. Teaching--they do like an organized instructor with clear instructions, quick marking, lots of reminders, lot of examples of work provided. Cognitive--they like to be told others are learning from their posts, the instructor learns too, they are encouraged to look at all perspectives and not be afraid to add one to the discussion, they like an animated discussion with more than one point of view. (Participant 16)

Many students also felt that incorporating the three presences led to a much more enjoyable course. For example, one student revealed, "I think that all of these elements are necessary - and perhaps more necessary than they are in a F2F setting" (Participant 78). Another student added, "It is very important to the success of the course - without all of the elements in place the full development of discussion is not possible" (Participant 80). Providing a more detailed response, one student reflected:

A teaching presence is important in establishing and maintaining a sense of organization. A social presence is important in making the instructor approachable and giving a face to the person doing the posting. A cognitive presence is important in ensuring that the discussion that occurs is intellectual and meaningful. (Participant

82)

Another student offered, “I think an online course can still be successful without all those three presences. I too believe that the potential will be higher if those three presences are present” (Participant 98). This was further reiterated when another student emphasized, “I don't think everyone NEEDS these things for a course to be successful. It is possible to learn successfully without these elements, however I think that they just make the online course more enjoyable” (Participant 107). This helps to understand the perceived role of each presence in student learning, providing insight as to how these three presences become interconnected.

However, a very few students felt that not all presences may be necessary for course success. One student responded, “Social- can do without, not necessary and not a complement to my learning” (Participant 74), while another related, “Teaching and cognitive [are] most important, I'm not really interested in the social presence” (Participant 86).

Overall, while some participants related that not all presences are necessary for course success, the majority of students and instructors revealed that each presence should be established within online learning communities. In addition, while each presence may not be equally addressed, it is precisely how these presences are incorporated that affects student and instructor perceptions of course success.

Within these surveys, it is important to reflect on the fact that the majority of the student participants were fairly new to online learning. While those instructors that responded were more experienced, with the majority teaching four or more online courses, it is important to understand that they perceived many common elements in

online education. Realizing that the social presence fulfills many roles, participants also acknowledged the need for a strong teaching presence, identifying that the teaching presence is actually responsible for creating social spaces. In addition, the majority of respondents also commented on the need for a strong cognitive presence, and further reflected that it is the interconnectedness of these three presences that most leads to the perceptions of a successful online learning experience.

Chapter 6

Discussion

Introduction

In this chapter I will discuss the results of this study in light of the research questions. I will describe the ways that instructors and students perceived the courses, and examine the usefulness of theoretical framework that I used.

Exploring central themes that evolved when examining instructor and student perceptions of teaching, social, and cognitive presence within online courses, the majority of respondents acknowledged that each presence has merit within the online learning community. Participants also revealed issues of importance pertaining to each presence.

Respondents offered their thoughts regarding the necessity for an organized social presence, and suggested the purposes that social spaces may serve within online learning communities. For example, respondents reported that social spaces could be used for introductions or the development of professional connections, but they also revealed some of the difficulties faced when undertaking learning in the online medium.

Some instructors and students also commented on the importance of technical issues within the online learning community. While some respondents identified the needs of the new online learner, others suggested the need for ‘threading’; the linking of related messages, in order to develop clearer communication between and amongst course participants.

Respondents also offered their opinions regarding the necessity for a strong cognitive presence. Through their comments, some participants revealed that Garrison &

Anderson's (2003) four phases, including triggering event, exploration, integration, and resolution, existed within online learning communities, describing how these phases applied to their personal and professional growth. In addition, a large number of course participants indicated the need for expert knowledge within the cognitive presence, commenting that a crucial component to the online learning community should be an instructor who is knowledgeable in their field.

Instructors and students also provided their perceptions regarding the need for a teaching presence. Overall, respondents indicated that a strong teaching presence was necessary, but it did not resemble typical face-to-face learning. Instead, respondents revealed that the instructor was there to guide learning, and assist students in learning from one another, providing clarification or information when required.

When reviewing the perceptions of both students and instructors, it became clear that both groups preferred all three presences to co-exist within online learning communities. However, most important to this study, was the perception that all presences should exist, but not necessarily equally proportionate to one another. It is precisely within the interrelationship of the social, cognitive, and teaching presences that an enriching online learning experience can be achieved.

Table 2
Key Findings of the Social, Cognitive, and Teaching Presence

	<u>Social Presence</u>	<u>Cognitive Presence</u>	<u>Teaching Presence</u>	<u>Interactions Among the Presences</u>
Overall Perceptions	<ul style="list-style-type: none"> • Introductory space • Information communication • Sense of supportive community • Use of space was instructor lead 	<ul style="list-style-type: none"> • Need for cognitive presence to be well- established by instructor • Need for expert knowledge 	<ul style="list-style-type: none"> • Need for strong teaching presence • Role of instructor is that of a guide or course facilitator • Directing discussions • Design and organization • Classroom management • Timely responses • Instructor communication 	<ul style="list-style-type: none"> • Instructor initiates and models use of these spaces • Not necessary for each presence to be equally represented; it is the interaction between the presence that leads to perceptions of a successful course

Social, Cognitive, and Teaching Presence

The social presence encompasses social interaction within the e-learning community, and can, for example, take the form of informal communication or Internet slang (e.g. lol) or emoticons (e.g. ;)). The teaching presence involves course design and organization, the establishment of course expectations, and managing and monitoring student learning. The cognitive presence includes the development of higher order thinking skills, and addresses intellectual analysis, construction, and application of knowledge within the learning community (Garrison & Anderson, 2003).

Both groups of respondents overwhelmingly agreed that all three presences should exist in order to ensure a successful experience within online courses. However, many students and instructors indicated they did not feel that their success is hinged on

equal proportionality of the presences. Instead, each presence interacts in various ways with the other presences and it is precisely the interrelationships among these presences that form the key to success in online learning.

Need for an Organized Social Presence

The data collected revealed that the social presence was primarily used to complete specific tasks such as online introductions and information communication. However, the continued use of the social presence was dependent upon the instructor's use of these social spaces. When instructors took an active role in both the development and use, modelling how to use this social space, students said that they were more likely to participate and further increase their social presence.

In contrast, one instructor's interaction within the social space was perceived by students as negatively impacted teaching presence, because students began to relate to the instructor as simply a peer. There were also other exceptions, as one instructor permitted only course-related chat, which then altogether eliminated the possible development of a social presence. As these students took the direction offered by their instructor, it can be argued that the ways that instructors organize and use these social spaces can clearly define how this space will be interpreted and used by course participants.

Introductions

One of the primary uses of social space, that several instructors and students identified, was that these spaces were used as points of introduction. This suggests that participants may feel it is important for the instructor be familiar with their online

students, and in developing a protocol for these social spaces, instructors may be able to evaluate students' tentative expectations for use of this space. Many of today's younger students are comfortable using a variety of networking technologies such as MSN®, Facebook®, MySpace®, and Twitter®, and freely share photos and personal information through these social mediums.

It is important to note that there are differences between these technologically savvy students, the typical 18-22 year old students entering university for the first time, and today's typical online student. Several researchers have stated the typical mature online student works full time while raising a family and fulfilling other obligations (see for example; Castles, 2004; Galusha, 1997; Home, 1998; Kember et al., 1994, and others). While this does not exclude these mature students from interacting within these social media, environmental and/or personal factors affect their ability to participate within these social spaces. Many students responded that time constraints were a primary issue impeding their ability to participate within social spaces. Other student respondents indicated their unease sharing personal information online. The reluctance of these learners to exchange photos and other personal information online may result in a decreased desire to use these social spaces. Further study is required to identify if indeed, there is hesitation amongst the different age groups to share personal information online. In addition, further study is also required to understand the possible link between social media and students' expectations for a social presence within their online classroom.

Sense of Supportive Community

Aside from introductions, over one-third of participants stated that the social

spaces helped them to feel a sense of a supportive community. In sharing information and interacting with peers, a human element could emerge within this online forum; but this was once again largely dependent upon instructor modelling and use of the space. The instructors who described a sense of community revealed that they deemed it necessary to support students' learning, and in so doing, often displayed understanding of their online students' needs. In comparison, the students largely agreed that their base of support was established with other students and their respective instructor(s). When examining this data against the perceptions of cognitive presence, the data demonstrated some remarkable connections.

Some participants said that although social presence does not actually enhance the cognitive domain of the course, it can in fact influence their sense of community. This sense of belonging in turn positively influences their desire to interact and take risks within online 'conversations'. These results support the need for establishing a strong social presence online. Although it takes place in a more relaxed way, it creates an atmosphere similar to that of a traditional classroom where learning occurs face-to-face. This can then lead to a greater sense of comfort.

However, there were some students who perceived supportive community as either discouraging or non-productive due to the lack of visual or aural cues. Further study would be required to identify if these perceptions were due to lack of instructor direction, or if they were due to personal choice.

Classroom Atmosphere

Social spaces also appeared to take the place of a 'classroom atmosphere'.

Participants felt that social spaces encouraged opportunities for ‘chats’ similar to before and after class conversations. In addition to providing a classroom-type atmosphere, students recognized that these spaces were necessary because most responses are not immediate in online education, but rather develop over a number of postings.

Participant Schedules

Participants also acknowledged that time constraints have an impact on social spaces. Of those who commented on participant schedules, all agreed that the ability and/or opportunity to participate in social spaces depended upon their available time. While some of these same participants reiterated the importance of social spaces within their answer to this question, each one acknowledged the need to complete course requirements was more important than socializing. This appears to indicate that some of the instructors may not have been placing equal value on the development of an online social presence, but were instead presenting them as an optional component. Thus, the underlying and connecting thread is that participating in the social space is optional; when not graded, instructors and students appeared to assign it little value.

Sense of Safety/Trust and Privacy

Within this sense of community, a small number of respondents raised the issue of safety and privacy. While many respondents felt that social spaces did help participants to become more comfortable expressing their thoughts and feelings, some respondents related a common concern in regards to online privacy. The primary concern was that all public text was viewable by all participants. Through these comments, these participants

failed to acknowledge the availability of private email when discussing private matters. It is unclear whether these students were new learners unfamiliar with email, or if they were unclear about course expectations about public posting of all communication.

Some participants related that they experienced a lack of trust in exchanging personal information over the Internet. Participants indicated that due to the lack of physical presence, they were reluctant to divulge too much of themselves or their private life online; it seemed insignificant to share this information with people they would never meet. This topic requires further investigation, as it relates to participants' willingness to share personal information in an online forum, however secure.

Risk Taking Due to Perceived Anonymity

Contrary to many participants' perceptions of safety within the online classroom, a very small number of students reported that they feel more secure online, giving them more freedom of expression, and the ability to become more honest and open within their online conversations.

Misunderstood Responses

Participants also referred to difficulties with communication in online courses. Some students and one instructor indicated that responses can be misinterpreted and instructions can be misunderstood. In all cases, the respondents mentioned that it was due to misinterpretation of the text. For this reason alone, it becomes even more important to develop a relationship amongst online learners. For example, should a discussion post appear to contain a negative message or an unclear tone, participants will

feel comfortable addressing one another and working out the miscommunication themselves; much the same as they would in an on-site classroom.

Artificial Relationships

Some students wrote that these online social spaces simply created artificial relationships. Indicating that they had no desire to pursue social interactions at the completion of the course, they reported that to initiate these interactions at the beginning of the course seemed pointless and trivial to them.

In total, however, only a few students felt the social spaces were ineffective. This means that social spaces do fulfill a purpose in the online learning community, and should be effectively established by the instructor. The instructor should also model use of the social space throughout the duration of the course.

Professional Connections

A very few participants also revealed that social spaces provided them a unique opportunity to network and create professional connections. In this manner, they could, as colleagues, examine issues of professional relevance, share professional expertise, and discuss the experience of others who reside in various geographic regions. Since only a very small number recognized this opportunity for professional growth, it further substantiates the need for instructor modelling of good online practice in these spaces.

Information Communication

Social spaces also provided opportunities for information communication. Both instructors and students stated that these areas were used to post messages, ask questions about course content and/or request general information. It also provided the opportunity to share items and articles of general interest.

Distance Learning

In their responses, participant responses also indicated numerous other social factors that affected their learning. First, while online learning provides access to education that may not otherwise be possible due to geographic and/or personal reasons, some participants perceived that it was not as enriching when compared to the traditional classroom experience. However, a small number of respondents noted that online learning offers more opportunities as it is less exclusive.

One instructor also commented on the challenge of distance learning, specifically the lack of physical presence. Not only are the visual and aural cues non-existent, but when a student is 'physically' absent from the online sphere, it is much more difficult to 'find' them.

Intrinsic and Extrinsic Motivation

Motivation was also connected to the use of these social spaces. This effect could be related to a small number of students' reasons for enrolling in online courses. For some, it was due to intrinsic motivation; the simple desire to learn and connect with others in the field. For others, extrinsic rewards were more powerful, with a very small

number of students simply wanting the credit or certificate. A small number of student respondents (likely extrinsically motivated) and some instructors felt that participation within social spaces occurred only if it was a course requirement, and earned a mark at the end of the course. This raises an interesting question. Should instructors more clearly model how these spaces can be used, participating in them intermittently throughout the course, therefore providing tangible results to which students could refer, or should participation be a factor in evaluation?

Technical Concerns

A very small number of respondents indicated frustration with the design of online courses, especially with regards to maintaining continuity between postings, commonly known as 'threading'. Although a small number of respondents, the significance of these comments should be recognized; when students or instructors begin to feel frustrated with learning and the learning atmosphere, it may lead to a decreased rate of participation.

A small number of respondents also discussed the technical component of online learning, as it pertains to new online learners, stating they experienced feelings of intimidation within the online learning format. Some students also indicated that the bistro was a place in which students could ask for and receive support, either technical or emotional. These responses indicate that a combination of both teaching and social presence assists most learners in navigating through these new experiences. For those that find the social presence detracts from time that could be better allocated to course work, it raises the need to incorporate meaningful activities within this presence. This

could include performing online searches for articles and discussing best search methods as well as learning to navigate around the course website.

Cognitive Presence

Some respondents revealed that a strong cognitive presence resulted in a positive perception of online learning due to instructor modelling and input, leading to greater success within the course.

A very small number of participants expressed not only the need for a strong cognitive presence, but the expectation that it be there, especially within the instructor's presence. In addition, a few participants explained that instructor modelling of critical thinking skills is an integral part of the online teaching and learning experience, because without the face-to-face interaction that occurs within a traditional classroom, students may not be presented with opportunities to experience this type of communication. This identifies two possible areas for future research: is cognitive presence directly related to an increase or decrease in class participation? Do extrinsic or intrinsic motivators directly impact cognitive presence, and if so, what are the effects on the development of higher order thinking skills?

In addition, while Garrison & Anderson's (2003) four phases of cognitive presence were not specifically addressed within the questions, participants' responses indicate that these phases were present within some online courses. Further research could be pursued to better understand perceptions of these phases within the cognitive presence and how this is incorporated alongside the teaching and social presence within the learning community.

Need for Expert Knowledge

A large number of respondents indicated a need for the instructor to have expert knowledge in his/her field. Many students and instructors commented that instructor knowledge and experience provided valuable insights which affected student learning. In addition, some students reported that an understanding of the instructor's background knowledge made them feel more positive about the online learning experience. Some students also felt that expert knowledge was not only important for imparting information, it was also crucial to guiding discussions along appropriate paths through comments and questions that were based on professional experience. Instructors supported these comments, reporting that expert knowledge was communicated through sharing of resources and research, various teaching strategies, and practical examples.

A very small number of students had a negative experience as it pertains to the expert knowledge of the instructor. In one experience, the instructor was so disorganized that learning stagnated. As well, the instructor's knowledge base did not match the students, and the instructor appeared to be unfamiliar with the research and analysis skills necessary for the course being taught. If online learning is to gain acceptance and become recognized as a provider of quality education, due diligence must ensure that instructors are not only well-qualified, but well-qualified in the subject area.

Overall, respondents indicated that the cognitive presence should be firmly established by the course instructor in order to ensure course success.

Teaching Presence

Many respondents indicated the need for a strong teaching presence within the

online classroom. Participants responded that a well-established teaching presence helped to guide learning, and compared the role of the online teacher to that of a moderator or leader. An instructor models proper 'presence' within the online learning community through the guiding of discussions and providing of comments to student postings. This in turn creates examples to which students can refer when developing their own responses to peers or instructors.

Within participant responses, a very small number of students related that they felt no need for a teacher presence. These comments raise many possible issues for future research. Initially, one could study individual motivation for choosing further education. Further research could also examine student and instructor perceptions regarding the relationship between teacher and cognitive presence. However, given that almost one-quarter of other respondents noted that expert knowledge on the part of the instructor is a critical component of higher learning, and an almost equal amount of respondents commented on the need for a strong teaching presence, it appears that the two are closely interrelated.

Design and Organization

Within the teaching presence, many respondents related the importance of design & organization. Respondents indicated that within this presence, it was important that instructors provide direction, clearly stating expectations for the course. Respondents also mentioned the importance of posting reminders regarding due dates, establishing the 'pace' of the course, and ensuring that each student participates in course discussions. Instructors also supported these comments and offered that these objectives are achieved

as course content and rubrics are posted, which provides guidance for student conversations. In addition, one instructor indicated the need to smoothly integrate each module, planning how each one will be opened. In this manner, the course will not appear overwhelming, but will rather unfold in a manner similar to that of a traditional classroom.

Timely Responses

Many respondents also supported the need for timely responses within the teaching presence. Due to the lack of face-to-face interaction within online courses, it is often difficult to receive feedback when it is needed. A strong teaching presence combined with timely responses improved perceptions of communication as one student and one instructor felt that it demonstrated the instructor was monitoring course dialogue, further strengthening the teaching presence.

Contrasting comments were found between student and instructor responses within the theme of timely response. Each of the four instructors who responded stated they were frequently online, with three of the four online every day, and one of the four online every day except Saturday. However, two students replied that their instructors were online every three to five days. Each of those students found this discouraging, referring to the failure to respond to all questions, the lateness in returning assignments, or the simple lack of leadership within the course.

Examining these perceptions, it appears that a strong teaching presence is necessary, one which addresses and responds to students in a timely manner. When this presence is regular, some students expressed that this led to a more positive online

learning experience.

Instructor Response

A small number of respondents expressed a desire for a personal connection within instructor responses. One instructor felt that the creation of a personal connection could be established through the use of student names within responses. A small number of students also described a sense of support that stemmed from developing a communication-based relationship with their instructor, and felt that this connection helped to establish an understanding of their expectations for the course. A very small number of students further responded that establishing a personal connection with the instructor can be achieved not only when instructors demonstrate an understanding of student beliefs and opinions, but also when student grades are reflective of student learning.

Instructor Communication

In relation to instructor response, many respondents related the importance of instructor feedback. A few students specifically noted that instructor feedback increased their motivation to participate, as it helped to confirm their understanding, therefore allowing for redirection, if necessary, early in the course. In addition, the majority of those students and instructors who referred to the need for instructor feedback commented that instructors responded to direct questions and specific student postings, thus strengthening the appearance of the teaching presence. When comparing participants' comments within "timely response", "instructor response", and "instructor

communication”, a significant number of survey respondents referred to instructor communication, providing evidence that supports the establishment of a strong teaching presence within online courses.

Directing Discussion

A large number of all student respondents, and all of the instructors indicated that the online instructor is necessary for directing and focusing discussion. Students responded that instructors responded to postings when required, but most frequently asked questions and introduced new perspectives for students to consider. Some students also perceived the need for instructors to simply ‘guide’ rather than ‘teach’.

Other students agreed, referring to their responsibilities as adult learners. In this capacity, students observed that a more collegial relationship develops, where the instructor guides student learning and redirects conversations when they become inaccurate or lose focus. Most instructors reiterated these feelings, commenting that student learning best occurs when instructors guide discussion, adding commentary when appropriate. In this manner, the instructors also acknowledge that they were providing a model to which students could refer when developing their own responses.

This is a crucial finding within the teaching presence, as almost half of the students agreed with all instructor perceptions regarding the need of the instructor to guide discussions and direct student learning without the implications of direct teaching.

Peer Discussion

Further to the instructor’s role of directing discussion, a small number of

respondents revealed another role of the instructor is to guide peer-to-peer discussions. Encouraging the natural progression of conversations, instructors created an atmosphere where students could develop their thoughts and share ideas with their classmates, sharing with each other and extending their own learning. One student also referred to the expertise of fellow students, and this also speaks to the necessity for the creation of a social presence. When this information is provided within social spaces such as the bistro, students can exchange information regarding personal expertise, therefore developing a familiarity with other's knowledge and experience.

An instructor also agreed with the importance of guiding peer-to-peer discussions, and preferred to allow the ideas and discussion to first develop rather than simply provide the correct answer after the first few student responses.

One student also noted the importance of correcting information in a private matter. While guiding peer-to-peer discussions, it is likely that some responses will be incorrect, and require teacher re-direction. However, this student suggested a private email could be sent in order to allow the student to correct the mistake themselves, rather than a public correction viewed by all classmates.

Clarifying Information

Some respondents also recognized the need for instructors to clarify information. Most notably, the instructor's role was to clarify information due to the difficulties experienced in online courses. A small number of respondents replied that instructors also answer direct questions, which further assists the online learner in understanding course information and expectations.

Classroom Management

Within the online learning community, several respondents acknowledged the necessity for a strong teaching presence as it addresses the issue of classroom management. Within the comments of these respondents, many issues emerged. Among these replies, some respondents indicated the need to monitor course dialogue as it pertains to conversations (i.e. too 'social' or informal) and use of the spaces, social or other. Comparable to a traditional face-to-face classroom, instructors must still monitor group interaction, ensuring that students communicate in an acceptable tone, and are respectful of one another.

Many instructors reported the need to provide students with support, reiterating the concept of a supportive community, but within the context of a student/instructor classroom relationship. Similar to classroom management techniques of their face-to-face colleagues, online instructors will encounter students with varying personal issues that may evolve throughout the course. In this manner, in order to successfully manage classroom behaviour, instructors must develop their understanding of each particular online learner, realizing the multiple roles that they fulfill.

Email

Within classroom management, instructors may choose to use email for private conversations with students. Some instructors also felt that personal email helps the student to feel connected, as it also allows students to ask questions of the instructor.

The teaching presence therefore fulfilled many roles. In assisting students through information clarification, a strong teaching presence also necessitated clear classroom

management strategies and the ability to guide classroom discussions. It was also necessary for instructors to respond to student inquiries in a timely manner, while ensuring a personal connection during student feedback through email and/or class postings.

Interactions among the Presences

Examining these statements, it becomes obvious that a strong social presence, clearly modelled by the instructor, can help to establish a sense of community in which participants can better understand one another. In addition, if an instructor were to organize a specific online presence with the use of email and/or scheduled online office hours perhaps in the form of a chat, it may help to alleviate some stress while addressing the need for immediate feedback.

Instructor organization of these online spaces is a crucial component of effective learning communities, and this can be achieved when instructors clearly model a cognitive presence through the use of critical thinking skills within the appropriate discussion spaces. This presence becomes apparent when instructors are well-versed in their specific subject area, and can provide students with expert knowledge to whom they can refer for further clarification.

However, the role of the online instructor, the teaching presence, is quite different from that of an onsite instructor. As an expert professional, instructors should guide discussion and act as a course facilitator. Within this role, online instructors can facilitate learning by guiding emerging discussions and correcting erroneous information. A strong teaching presence can also be achieved if the instructor effectively communicates

with students, and this can be managed through timely response to student inquiries, and strong class management skills that ensure all students are provided with equal opportunities to participate in class discussions.

While Garrison & Anderson (2003) provided a highly useful framework for understanding the role of the presences, it appears that the social presence may be the primary presence that affects all interaction within the online learning experience. However, the cognitive and teaching presences are also imperative. Without these, the opportunities for learning would not exist. When the social presence is actively promoted, an authentic sense of community can emerge, one which replicates interactions in our daily world. It is not the quantity of postings or number of communicative messages that occurs within these spaces that effects class participation, it is the manner in which these social spaces are used. If we strive to create an atmosphere in which participants feel comfortable expressing themselves, we must first create opportunities for participants to develop a sense of trust and understanding amongst one another. Providing a social outlet in which participants can 'reveal' more about themselves is an important component in recognizing the unique strengths and attributes that learners and educators bring to the online domain. Once this has been successfully established, a more effective teaching and cognitive presence can emerge where participants can confidently express themselves.

Overall, instructor and student responses confirmed that using the framework, in its entirety, is essential for the creation of a successful online learning atmosphere. In essence, my research indicated that these presences cannot exist alone. They exist in connection with each other and it is precisely the interconnectedness between the

presences that created the perceptions of a successful online course. However, my research also revealed that direct instruction is likely necessary in order to assist instructors and students in becoming aware of the potential functions of these presences, as well as providing an explanation as to why these presences are necessary. When instructors and students have a thorough understanding of the roles for each of these presences, it can lead to a better understanding of the way in which we learn in an online environment, therefore increasing opportunities for personal success.

Summary

My research question was to understand the similarities and differences between instructor and student perceptions of online learning. My subquestions were:

1. What is the perceived importance of each presence?
2. How and/or why does each presence affect the online learning experience?
3. Is it necessary for all three presences to be fully established and must each presence have equal representation in order for it to be perceived as a successful course?

Online instructors and students reported that social spaces fulfill many roles, most notably for the use of introductions and developing a sense of classroom community. Many instructors and students also indicated their desire for a strong cognitive presence, as they felt it was a necessary component for learning. However, some students felt that the cognitive presence was simply addressed through monitoring of the hours spent in the

online class and completing assignments. Furthermore, some students felt that instructors did not model critical thinking skills, and as a result, expressed dissatisfaction with the course. Overall, most respondents agreed on the need for a firmly established cognitive presence. Many instructors and students also indicated that the teaching presence had many roles, but felt that the primary focus should be on the roles of course facilitator, classroom manager, and design and organization.

While many instructors and students acknowledged the importance of each presence, the area of largest discussion was in relation to the social presence. While many respondents felt it was an integral component of online learning, some felt that the use of social spaces sometimes led to an informal atmosphere. However, instructors and students indicated the importance of cognitive presence, and through the responses, it appeared to be an expectation that this exist within the online classroom. The teaching presence was also acknowledged as an important presence.

Both instructors and students reported that the primary benefit of enrolling in an online course was achieved when all three presences were established, although they did not require equal representation in order for the course to be perceived as successful. Instructors and students agreed that establishing the cognitive and teaching presence had a positive impact on the learning experience. However, while most respondents indicated that it fulfilled many roles, the relative value of the social presence appeared to be dependent upon instructor use and modelling of the space. Through instructor and student responses, it became apparent that while it is not necessary for each presence to be equally represented, the courses perceived as most successful encouraged the use of the three presences. While a few students responded that the social space was not

entirely necessary for a successful course, they did acknowledge that it made it more enjoyable.

This research provided a brief overview of instructor and student perceptions about online learning. In light of this research, it appears that there are many different avenues that may be further explored. Specifically, it would be interesting to follow a cohort of students through a program, in order to gain a better understanding of the role of social, cognitive, and teaching presences and their development as the program progresses.

By no means conclusive, this research offers a glimpse into instructor and student perceptions and calls attention to the many issues that should be further explored. It would be interesting to understand if there is a link between the use of social spaces and gender, or if there is a link between the use of social spaces and age. It would also be important to research how socio-economic status potentially impacts online students, investigating whether it hinders participation in such online learning activities.

Online education is a relatively new phenomenon, and the rapidly changing technology, combined with the increasing number of diverse learners necessitates dramatic changes within education. As most online learners are balancing multiple roles, educational institutions must adapt their programming to meet the needs of this new clientele. This will ensure that educational institutions remain not only viable, but progressive, and in embracing new technology as it emerges, students will be better prepared to meet the educational and technological challenges of the future.

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Appendix A

Ethical Approval Notice



**THE UNIVERSITY OF WESTERN ONTARIO
FACULTY OF EDUCATION**

USE OF HUMAN SUBJECTS - ETHICS APPROVAL NOTICE

Review Number: 0806-4

Applicant: Kathleen Sutherland

Supervisor: John Barnett

Title: *The effects of teaching, social and cognitive presence on the perceptions of students and instructors in online courses.*

Expiry Date: April 30, 2009

Type: M.Ed. Thesis

Ethics Approval Date: October 22, 2008

Revision #: 1

Documents Reviewed &

Approved: Revised Subject Eligibility and Recruitment

This is to notify you that the Faculty of Education Sub-Research Ethics Board (REB), which operates under the authority of The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects, according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario has granted approval to the above named research study on the date noted above. The approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the REB's periodic requests for surveillance and monitoring information.

No deviations from, or changes to, the research project as described in this protocol may be initiated without prior written approval, except for minor administrative aspects. Investigators must promptly report to the Chair of the Faculty Sub-REB any adverse or unexpected experiences or events that are both serious and unexpected, and any new information which may adversely affect the safety of the subjects or the conduct of the study. In the event that any changes require a change in the information and consent documentation, newly revised documents must be submitted to the Sub-REB for approval.

Dr. Jason Brown (Chair)

2008-2009 Faculty of Education Sub-Research Ethics Board

Dr. Jason Brown	Faculty (Chair)
Dr. Elizabeth Nowicki	Faculty
Dr. Jacqueline Specht	Faculty
Dr. John Barnett	Faculty
Dr. J. Marshall Mangan	Faculty
Dr. Immaculate Namukasa	Faculty
Dr. Robert Macmillan	Assoc Dean, Graduate Programs & Research (ex officio)
Dr. Jerry Paquette	UWO Non-Medical Research Ethics Board (ex officio)

The Faculty of Education 1137 Western Rd. London, ON N6G 1G7	Karen Kuennen, Research Officer Faculty of Education Building
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Appendix B

Instructor's Survey Questions

Teaching Presence: involves managing and monitoring learning and achievement, course design and organization, establishing clear expectations, involving students in critical discourse

Social Presence: the social interaction that occurs within the e-learning community in the form of chat, informal communication, asking questions, publicly responding to a colleague's specific posting, internet slang (i.e. lol, and/or emoticons such as ;))

Cognitive Presence: the online environment that supports intellectual analysis, construction, and confirmation of knowledge within a community of learners
Garrison and Anderson, 2003

If you are, or have ever been, an instructor in one or more of Western's Additional Qualifications (AQ) courses please answer the following questions.

1. How many online courses have you taught?
 - a.) one course
 - b.) 2 or three courses
 - c.) four or five courses
 - d.) more than five courses
2. As an instructor, did you use the online space for students to socialize and develop a sense of learning community (i.e. staffroom/recess/bistro/chat area)?
Yes/No
3. How positively did the students respond to this space from 1, meaning very poorly, to 5 meaning very well? 1 – very poor response, 2 – poor response, 3 – neutral, 4 – responded well, 5 – responded very well
4. If you answered with a 4 or 5, please explain why you feel that students

- responded so positively to this space?
5. If you answered with a 1 or 2, please explain why you feel that students responded so negatively to this space?
 6. If you answered with a 3, please explain why you feel that students did not respond either positively or negatively to this space?
 7. In your opinion, in what ways do online spaces such as chats/bistros either encourage or discourage students and their instructors from connecting with one another? Short Answer Box
 8. In your opinion, in what ways do online spaces such as chats/bistros either encourage or discourage the creation of a more social atmosphere within the course to discuss course content? Short Answer box
 9. How do you, as an AQ instructor, attempt to establish your teaching presence in the online classroom (i.e. establishing course content, guiding discussions). Short Answer box
 10. To what extent do you think that it is necessary to develop a strong teaching presence in order to positively affect student learning? Why? Short Answer box
 11. How and in what ways is it important to actively monitor course dialogue? Short Answer box
 12. To what extent, as an AQ instructor, do you actively participate in class discussions?
 - a.) I rarely enter class discussions and only when I have to (less than once per week)
 - b.) I enter class discussions occasionally (once or twice a week)

- c.) I enter class discussions frequently (more than twice a week)
 - d.) I participate fully in class discussions (more than three times a week)
13. To what extent do you guide the discussion (i.e., by asking questions or making statements to which students are asked to respond)?
- a.) I rarely ever guide the discussions
 - b.) I guide the discussion occasionally when it is getting off track
 - c.) I guide the discussions frequently to enhance their potential for student learning
 - d.) I guide the discussions a great deal to maximize their potential for student learning
14. What effect does this appear to have on students' participation in the discussions?
Short Answer box
15. As an AQ instructor, how does establishing both a teaching presence and a social presence together appear to affect students' discussions, particularly their critical thinking skills? Short Answer box
16. As an AQ instructor, how and to what extent do your students' use of higher order thinking skills impact their success within online learning? Short Answer box
17. Without being introduced in a face-to-face (F2F) setting, is it possible to establish supportive educational relationships within the virtual classroom? If so, please describe how students and/or instructors can provide meaningful support within this forum. If not, what are the obstacles that prevent the development of these relationships? Short Answer box
18. To what extent is it necessary to firmly establish social, teaching, and cognitive

presences in an online course, in order for it to be successful? Short Answer box

19. Would you consider it necessary for each to have an equal presence? Why or why not? Short Answer box

Appendix CStudent's Survey Questions

Teaching Presence: involves managing and monitoring learning and achievement, course design and organization, establishing clear expectations, involving students in critical discourse

Social Presence: the social interaction that occurs within the e-learning community in the form of chat, informal communication, asking questions, publicly responding to a colleague's specific posting, internet slang (i.e. lol, and/or emoticons such as ;))

Cognitive Presence: the online environment that supports intellectual analysis, construction, and confirmation of knowledge within a community of learners
Garrison and Anderson, 2003

If you are, or have ever been, a student in one or more of Western's Additional Qualifications (AQ) courses, please answer the following questions based on the courses you have taken at Western only.

1. How many online AQ courses have you taken at Western?
 - a.) one course
 - b.) two or three courses
 - c.) four or five course
 - d.) more than five course
2. As a student, did all of your instructors use the online space (e.g., staffroom/ recess/ bistro/chat area) for you and your classmates to socialize and develop a sense of learning community? Yes/No
3. If you answered no above, how many of your instructors did not use the social space?
 - a.) one instructor

- b.) two or three instructors
 - c.) four or five instructors
 - d.) more than five instructors
4. In those courses in which instructors used the social space, how positively did you and your classmates respond to it from 1, meaning very poorly, to 5, meaning very well? 1 – very poor response, 2 – poor response, 3 – neutral, 4 – responded well, 5 – responded very well
 5. If you answered with a 4 or 5, please explain why you feel that you and your classmates responded so positively to this space?
 6. If you answered with a 1 or 2, please explain why you feel that you and your classmates responded so negatively to this space?
 7. If you answered with a 3, please explain why you feel that you and your classmates did not respond either positively or negatively to this space?
 8. In your opinion, in what ways do online spaces such as chats/bistros either encourage or discourage students and their instructors from connecting with one another? Short Answer Box
 9. In your opinion, in what ways do online spaces such as chats/bistros either encourage or discourage the creation of a more social atmosphere in which to discuss course content? Short Answer box
 10. How many of your instructors attempted to establish their teaching presence (i.e. establishing course content, due dates, actively monitoring discussions etc.) within your courses?
 - a.) one instructor

- b.) two or three instructors
 - c.) four or five instructors
 - d.) more than five instructors
11. In what ways has the level of your instructors' teaching presence impacted your online learning in a positive or negative way? Short Answer box
12. To what extent do you think that it is necessary for an online instructor to develop a strong teaching presence in order to positively affect student learning? Why? Short Answer box
13. How and in what ways is it important for instructors to actively monitor course dialogue? Short Answer box
14. To what extent on average, did your AQ instructors actively participate in class discussions?
- a.) They rarely entered class discussions and only when they had to (less than once per week)
 - b.) They entered class discussions occasionally (once or twice a week)
 - c.) They entered class discussions frequently (more than twice a week)
 - d.) They participated fully in class discussions (more than three times a week)
15. To what extent did your instructors, on average, guide the discussions (i.e., by asking questions or making statements to which you and your classmates were asked to respond)?
- a.) They rarely ever guided the discussions
 - b.) They guided the discussions occasionally when they were getting off track
 - c.) The instructor guided the discussions frequently to enhance their potential for

student learning

d.) The instructor guided the discussions a great deal to maximize their potential for student learning

16. What effect did this appear to have on you and your classmates' participation in the discussions? Short Answer box
17. How and in what ways have your course discussions and your personal critical thinking been impacted when instructors created both a social presence and a teaching presence (such as actively moderating class discussions)? Short Answer box
18. How and in what ways did the instructors' cognitive presence, particularly critical thinking skills, impact your perceptions of having taken a successful course? Short Answer box
19. Without being introduced in a face-to-face (F2F) setting, is it possible for supportive educational relationships to be established within the virtual classroom? If so, please describe how students and/or instructors can provide meaningful support within this forum. If not, what are the obstacles that prevent the development of these relationships? Short Answer box
20. To what extent is it necessary for social, teaching, and cognitive presences to be established within an online course, in order for the course to be successful? Short Answer box
21. Would you consider it necessary for each component above to have an equal presence? Why or why not? Short Answer box

Appendix D

Final Coding Categories

1.0 Social Presence

- Need for an organized social presence
- Introductions
- Sense of supportive community
- Classroom atmosphere
- Participant schedules
- Sense of safety/trust
- Privacy
- Misunderstood responses
- Artificial relationships
- Professional connections
- Information communication
- Distance learning
- Intrinsic motivation
- Extrinsic motivation
- Technical concerns

2.0 Cognitive Presence

- Need for a strong cognitive presence
- Garrison & Anderson's four stages of cognitive presence
 - triggering event
 - exploration
 - integration
 - resolution
- Need for expert knowledge

3.0 Teaching Presence

- Need for strong teaching presence
- Design and organization
- Timely responses
- Instructor response
- Instructor communication
- Directing discussion
- Peer discussion
- Clarifying information
- Classroom management
- Email

4.0 Interaction among the Presences

5.0 Response did not apply to question

- Responses such as “x”, “n/a”, “as before”, or “somewhat” indicated