ATHABASCA UNIVERSITY

AN EXPLORATORY STUDY OF CROSS-CULTURAL

ENGAGEMENT IN THE COMMUNITY OF INQUIRY: INSTRUCTOR

PERSPECTIVES AND CHALLENGES

BY

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DEDICATION

This thesis is dedicated to all the international, foreign, and cross-cultural online learners and teachers of this globalized planet. To be successful in their endeavors, they have all had to face hardships and challenges throughout their online teaching and learning journeys. It is important for them to know that they are not alone out there, and that there are many others experiencing similar situations. I hope this work not only conveys my profound respect and admiration for all of them but also provides them with the necessary support to succeed in crossing online cultural and international boundaries.

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ABSTRACT

The purpose of this study was to explore how instructors of online courses accommodate and make provisions for culturally diverse learners in an online community of inquiry. Ten instructors from two Alberta higher education institutions participated in two phases of research. To explore this phenomenon in the CoI model, intercultural competency indicators were created to test how they could develop and expand teaching and social presence in a cross-cultural environment. In the first phase, analysis of the open-ended survey questionnaire (AMEQ) revealed that in the absence of any cross-cultural design, instructors use facilitation and open communication strategies to foster learning and prevent conflict. The second phase, informed by the first phase, involved augmenting the original 34-item CoI survey instrument. Additional roles that relate to instructor cross-cultural efficacy were incorporated into both teaching presence and social presence elements in the CoI survey instrument. The revised 37-item CoI survey instrument was then administered to the same respondents for face validity. Findings revealed that the incorporated cultural indicators correlated highly with the teaching and social indicators, indicating their usefulness to measure multicultural efficacy in the CoI model.

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GLOSSARY OF TERMS USED IN THIS WORK

The terms contained in this section will be used interchangeably throughout this study. To provide the reader with a better understanding of how these terms have been applied and construed in the context of cross-cultural online learning and teaching, some definitions are in order.

Asynchronous. Asynchronous online learning, the opposite of synchronous, means that communication occurs at different times. Time delay allows participants to respond at a different time from when the message is sent. Interactions in this mode of delivery are primarily text-based (Moore & Kearsley, 2005).

CMC. Computer Mediated Communication (CMC) is defined as threaded forum group discussions that address specific questions, tasks, problems, or other mediating artifacts posed by the instructor or other students which require reflection. CMC in this context has the ability to support a truly collaborative learning experience at a distance, independent of time or space.

Cognitive presence. The extent to which learners are able to construct and confirm meaning through course activities, sustained reflection, and discourse (Garrison, Anderson, & Archer, 2000).

Community of Inquiry framework. A theoretical distance education model that consists of three overlapping presences (social, cognitive, teaching). The model "is grounded in a collaborative constructivist view of higher education and assumes that effective online learning requires the development of a community" (Rovai, 2002; Shea, 2006 as cited in Swan, 2010, p. 122). The primary objective of the model is to foster deeply meaningful learning in an online community of learners.

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Constructivism. A philosophy of teaching and learning based on the principle that individuals construct meaning and understanding as they experience and engage the world. "Learning is viewed as a process of creating and adjusting mental models to accommodate new experiences" (Swan, 2010, p. 127).

Cross Cultural. Interaction between individuals from different cultures. The term cross-cultural is generally used to describe comparative studies of cultures. Intercultural has the same meaning and is used interchangeably. (http://www.dot-connect.com/Dictionary_of_Cross-Cultural_terminology_Inter_cultural_terminology.html).

Culture. For the purpose of this study culture will be defined as "the set of attitudes, values, beliefs, and behaviors shared by a group of people, but different for each individual, communicated from one generation to the next" (Matsumoto, 1996, p. 16).

E-learning. E-learning is broadly defined as the use of computer technology, primarily over an intranet or through the Internet, to deliver information and instruction to individuals. (Welsh, Wanberg, Brown, & Simmering, 2003).

MES Framework. A tool developed to measure teacher multicultural efficacy in multicultural environments "along with the multicultural teacher education dimensions of intercultural experiences, minority group knowledge, attitudes about diversity, and knowledge of teaching skills in multicultural settings" (Guyton & Wesche, 2005, p. 23).

Multiculturalism. A belief or policy that endorses the principle of cultural diversity of different cultural and ethnic groups so that they retain distinctive cultural identities. The term multiculturalism is also used to refer to strategies and measures

intended to promote diversity (http://www.dot-connect.com/Dictionary_of_Cross-Cultural_terminology_Inter_cultural_terminology.html).

Social presence. The ability of participants in a community of inquiry "to identify with a group, communicate purposefully in a trusting environment, and develop personal and affective relationships progressively by way of projecting their individual personalities" (Garrison, 2009b as cited in Garrison, 2011, p.23).

Teaching presence. "The design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson, Rourke, Garrison, & Archer, 2001 as cited in Garrison, 2011, p. 24).

Text-based communication. The use of written communication for teaching and learning purposes in e-learning. Text-based is the primary mode of communication in asynchronous computer-mediated conferencing. Text-based communication facilitates critical discourse and reflection and supports collaborative, constructivist approaches to learning (Garrison & Anderson, 2003).

"The range of what we think and do is limited by what we fail to notice. And because we fail to notice that we fail to notice there is little we can do to change until we notice how failing to notice shapes our thoughts and deeds" (R.D. Laing, 1972 as cited in Harrington & Hathaway, 1994, p. 1).

CHAPTER I

Introduction

R.D. Laing (1927-1989) was a Scottish psychiatrist who devoted his career to treating and writing about patients with schizophrenia. Laing was greatly influenced by existential philosophy and would take the expressed feelings of the individual patient as valid descriptions of lived experience rather than simply as symptoms of some separate or underlying disorder (http://laingsociety.org/biograph.htm). While it is highly improbable that Laing in his day envisioned a globalized world connected by the Internet with higher education online institutions offering and providing education to learners from multiple and diverse cultural backgrounds, his statement helps us reveal and assess the underlying ways in which we perceive the world. These ways encompass our assumptions, values and beliefs, which in essence constitute our culture. Culture exerts a strong influence on how we direct our actions (Trompenaars & Hampden-Turner, 1998) in addition to playing a key role in instructional values, learning styles, and cognitive processing (Smith & Ayers, 2006). In the context of global online learning environments, instructors may "fail to notice" culturally diverse learners thereby affecting their deeds and actions towards these learners. Considering the complexity and challenges inherent in the teaching-learning of a global population, it is vital that instructors become aware of and understand the challenges of providing intercultural online education if the goal

is to offer high quality and equitable education to all learners. However, far too little attention has been paid to cross-culture issues as they relate to online teaching and learning. In addition, no previous study has investigated how instructors accommodate and make provisions for culturally diverse learners in an online community of practical inquiry. The goal of this study is to shed new light on these issues. Ultimately, if we notice that we have failed to notice then perhaps we can endeavor to find new ways of doing things.

Lev Vygotsky, in turn, had already recognized that there was a need to provide education across different cultures long before the emergence of fourth generation e-learning. Fourth generation e-learning combines the major attributes afforded by the Internet. These attributes include information retrieval of vast amounts of content, the interactive capacity of computer mediated communications (CMC), and the processing power of locally distributed processing via computer-assisted programming, such as Java (Garrison & Anderson, 2003). As Kozulin (2003) holds:

> One may say that Vygotsky had a certain advantage in this respect because he worked in a period of great social upheaval that put different social and ethnic groups into the same educational focus. The issues of literacy, as well as ethnic and cultural diversity, were much more obvious for Vygotsky and his colleagues than for their Western contemporaries. Half a century later the same issues became a focal point in many Western classrooms. (p.15)

Thus, for Vygotsky, one of the key concepts of his sociocultural learning theory is grounded in the belief that each culture has its own set of psychological tools (signs, symbols, texts, formulae, graphic organizers) that when internalized help individuals master their own natural psychological functions of perception, memory, and attention.

The intercultural classroom, then, can be operationalized as a copresence of different systems of psychological tools, and educational outcomes as a problem of acquisition not only by students but also by teachers using new systems of psychological tools (Kozulin, 2003).

While it is almost impossible to separate culture and learning for the simple reason that one of the primary goals of informal social learning is the transmission of culture from generation to generation, the majority of educators remain oblivious to this fact today when confronted with it in the reality of the global intercultural online classroom (Kozulin, 2003). Vygotsky, born in 1896, grew up during the Russian Revolution. An avid supporter of the Russian revolution, he firmly believed that socialism could help many of the people. Thus, he sought to develop Marxist psychology to apply its tenets to discover the nature of human psychology (http://www.robertexto.com/archivo13/historical_and_vigot.htm). Drawing an analogy between the Russian revolution's social upheaval and the ubiquitous technological and information revolution in our 21st century society enables us to imagine the potential gaps that permeate current global online teaching and learning practices. Among these, factors such as language limitations and technological limitations barely scratch the surface of this complex subject. There are indeed other major cultural issues that may negatively affect global online learners.

Collis (1999) calls our attention to the fact that it is important to consider the cultural backgrounds of learners when designing and administering online learning because culture shapes learners' values, perceptions, and goals, and determines how they respond to the online learning environment. This sentiment is echoed by McLoughlin and Oliver (2000) who state that "culture pervades learning" (p. 58). Further, in order to meet the needs and expectations of culturally diverse learners,

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effective online learning environments ought to consider the social and cultural dimensions of task design, communication channels, and the structuring of information (McLoughlin & Oliver, 2000). It is also believed that the influence of culture and language on basic structures of thought and personality divides a group. That is, the linguistic distinctiveness of a particular ethnic group is the basic component of its members' personal identity. Thus, ethnicity and language are closely associated (Lambert, 1973). In sum, individuals whose first language is not English will most likely have a different set of values and thoughts from those of native English speakers. Therefore, the difficulties non-native English learners face in Web based instruction become evident. There is great consensus among scholars that culture plays a major role in online learning (Bates & Gpe, 1997; Morse, 2003; Hewling, 2005; Moore, Shattuck, & Al-Harthi, 2005; Moore, 2006; Edmundson, 2007, 2009), yet literature on this topic is still in its infancy and research-based studies exhibit deficiencies (Gunawardena, Wilson, & Nolla, 2003; Edmundson, 2007; Wang & Reeves, 2007). Further, Faiola and Matei (2005) assert that a wide variety of studies in the areas of cross-cultural behavioral and cognitive psychology have been conducted to understand the significant differences in the way people behave, think, assign value, and engage others, but researchers have performed limited investigation into how cultural differences affect information processing and interaction using online communication technologies

The findings of a recent study conducted by Zawacki-Richter, Bäcker, and Vogt (2009) that reviewed the current status of distance education research underscore research deficiencies in globalization of education and cross-cultural issues. According to Zawacki-Richter et al. (2009), over fifty percent of the papers published in the distance learning domain address issues such as interaction and communication in

learning communities, instructional design, and learner characteristics. In conclusion, as Zawacki-Richter (2009) contends "many institutions are moving into the global education market to reach new target groups using online learning to 'export' their knowledge. Therefore, globalization of education, cross-cultural aspects, and access, equity, and ethics are research areas that should receive more attention" (p.14).

Advanced and more affordable information communication technologies (ICTs) have made online learning a growing practice in today's educational systems (Blanchard., Ryad, & Frasson, 2005). Further, the concept of wealth has shifted with the times. During the agricultural age, land ownership was the predominant form of wealth. In the industrial age, financial capital was the dominant form of wealth. The new millennium has introduced the *knowledge age*. According to Patton (2001), "in this age of global capitalist ascendancy, knowledge has become "intellectual capital (p. 329)." Therefore, the knowledge age demands quick and easy access to proper educational approaches for those professionals or learners who wish to stay current or want to develop specialized skills (Berge, 2007). Further, rapid evolution and growth in computer networks, multimedia technologies, and the World Wide Web have opened entirely new doors to teaching and learning in a globalized world. This globalized world is now so tightly and irreversibly connected that developments thousands of miles away become everyone's concerns. We live in the global village. Distance education, through its unique asynchronous and synchronous communication tools using audio, video, and CMC, provides an ideal setting for collaborative interaction and constructivist-based knowledge creation and exchange. For example, enhanced connectivity afforded by virtual online environments and academic communities promotes the sharing of knowledge and ideas in real time (McIssac, 2002). Consequently, the ability to study in an internationally-renowned university or

institution without being bound by geographical or temporal constraints becomes an invaluable opportunity for international learners. As McIssac (2002) posits, "recent computer and networked technologies have opened the way for educators to reach beyond brick and mortar to wider audiences of lifelong learners from every country and every walk of life through networked information technologies"(p. 18). Finally, learners are provided with constructivist educational experiences that fostering skills such as knowing how to learn, being creative, having a high degree of self-efficacy; being able to apply competencies in novel as well as familiar situations; and learning how to work well with others (Hase & Kenyon, 2000).

As learners cross educational borders they face myriad issues and challenges. Studies have revealed that the inability to understand specific cultural references, the presence of language barriers, the inability to question authority (instructors or peers), differing emotional needs, time zone limitations, and technological limitations are just some of the factors that hinder successful online learning (Zhao & McDougall, 2008; Uzner, 2009; Zhang & Kenny, 2010). As long as educators in more technologically developed countries fail to understand the differing needs and worldviews of the vast potential populations of students in other countries, the potential of e-learning to become a global phenomenon will be frustrated (Moore, Shattuck, & Al-Harthi, 2005).

More importantly, the limited theoretical underpinnings applied in online education largely ignore culture as a significant factor (Wang & Reeves, 2007). Therefore, this study addresses this gap by exploring whether and how instructors of asynchronous, constructivist-based online courses accommodate and make provisions for culturally diverse learners in an online community of inquiry at an online higher education university. In order to achieve that goal, this study uses a sequential exploratory design so as to build on a much validated distance education (DE)

framework: the Community of Inquiry model (CoI). The CoI model is deemed appropriate for this study because its framework is becoming increasingly influential for explaining and prescribing the effective conduct of collaborative, constructivist online learning and teaching (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, Shea, & Swan, 2008).

Statement of the Problem

Asynchronous text-based computer-mediated communication classrooms (CMC) have become a major education and training delivery medium because these environments can overcome the geographic and temporal limitations for global students. Methodological approaches used to teach and learn in these environments apply constructivist principles that emphasize text-based communication as opposed to oral communication (Garrison, Anderson, & Archer, 2000; Swan, 2010). The methodological approaches used in these online environments and the lack of oral communication may, however, pose various challenges to cross-cultural learners. The CoI framework is becoming increasingly influential for explaining and prescribing effective conduct of collaborative, constructivist online learning and teaching (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, Shea, & Swan, 2008; Garrison, 2011). However, the CoI model fails in that it does not take into consideration cultural issues and multicultural online engagement (Morgan, 2011). Therefore, it is timely to investigate how instructors are dealing with cross-cultural learners in the context of the CoI framework. The intent of this investigation is to enhance and build upon the CoI model so as to provide instructors better practices when dealing with an intercultural context in an online community of practical inquiry.

To date the majority of Internet sites remain intended for one context and culture even though they are visited by those from other contexts and cultures (Collis & Remmers, 1997; McLoughlin & Oliver, 2000). This fact is not difficult to understand if one considers that "harnessing technology to build a learning community across boundaries of geographical space, as well as boundaries of culture and personality, can be intimidating" (Hearne & Nielsen, 2004, p. 59). Whether students in cyberspace will form the kind of communities that they do in the physical proximity of a traditional face-to-face classroom is a persistent concern for all those involved in DE (Hearne & Nielsen, 2004). Consequently, these factors indicate the need to raise instructors' cultural awareness, sensitivity, and efficacy in asynchronous, constructivist-based, online communities of learning. The complexity and challenges inherent in teaching and learning across national borders cannot be taken lightly or carelessly. Despite the advances in Internet technologies, teaching and learning across cultures present not only challenges but also concerns. Justifications for these cultural concerns and challenges are four-fold. First, although cultural differences are not unique to online courses, they are much more difficult to address in this context (Mason, 2007). Second, cultural differences influence the learning process in many different ways (Gunawardena & Lapointe, 2007). Third, there is a need to provide culturally-sensitive learning environments (McLoughlin & Oliver, 2000). Finally, instructors and instructional designers need to reflect on their own higher-education-based assumptions and understandings of knowledge and assessment, which may conflict with those held by international students (Goodfellow, Lea, Gonzalez, & Mason, 2001).

In a globalized, cross-cultural, online learning environment, teaching should not be based on one dominant set of values or instructional assumptions. This phenomenon results in what Gramsci (1971) termed *cultural hegemony*: "the ways in which

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assumptions of a group/person achieve dominance and are viewed as common sense understandings or interests that serve for all" (Uzner, 2009, p. 2). As Field (2009) admonishes, "learning needs to account for the local, national, regional, and global contexts: each adds an important and necessary component to the development of citizens in the knowledge-based society. Uncritical acceptance – the 'West is best' – is at best ludicrous, and at worst, irresponsible" (p.11). Still, instructors often bring their own beliefs, stereotypes and cultural models into the teaching environment (Dantas, 2007). Not keeping an open mind for potentially unexpected responses and failure to embrace the culture in which the student is embedded are just two of many factors that may adversely affect learning success (Parrish & Linder-VanBerschot, 2010). Unless instructors adjust their approach to the context (changing student population, changing educational tools, changing methodologies, etc.), the opportunities supposedly afforded the students will be lost (Field, 2009). Therefore, it is essential that instructors develop knowledge and skills to succeed in teaching culturally diverse learners (Dantas, 2007).

Similarly, learners must also make quite a few accommodations in order to successfully succeed in a "foreign" online environment and graduate with a foreign credential. Learners' accommodations may involve various factors such as: a) learning in environments that perform active learning, reflective practice, and collaborative learning, all of which may be unfamiliar to the student (Catterick, 2007); b) communicating in a foreign language effectively (Palaiologou, 2007); c) struggling with technology due to lack of technological competence (Zheng, 2005); and d) overcoming the practice of cultural hegemony, to name a few.

To better serve culturally diverse online learners, several scholars have proposed models of cultural competence to address these learners' needs (Multiple Cultures Model - Henderson, 2007; Cultural Adaptation Process Model – Edmundson, 2007;

Multiple Intelligences Model - Tracey & Richey, 2007; Universal Design for Culturally Diverse Online Learning - Eberie & Childress, 2007 as cited in Saxena, 2010, pp. 48-51). However, several of these models are based on "essentialist" (nation-based) frameworks for analyzing cross-cultural online engagement (Ess & Sudweeks, 2005; Hewling, 2005). Although nation-based models may be useful when talking about large groups of people, there are also drawbacks to their use for analyzing cross-cultural collaboration in online learning between members of different national groups. Such limitations to this essentialist approach include the underlying assumptions that "the behavior observed in one national can be utilized to predict the behavior of another" and "that individuals identify themselves primarily in terms of their membership in a cultural grouping labeled externally as a particular nation state" (Hewling, 2005, p. 2). Thus, this "essentialist" approach may also fail to take into account the complexities of intercultural exchange in text-based asynchronous learning environments that foster higher-order learning.

Asynchronous learning environments found in CMC (computer-mediated communication) classrooms have become a major education and training delivery medium due to the fact that these environments are able to overcome the geographic and temporal limitations for global students. Further, asynchronous CMC in the form of email lists and discussion forums is an effective medium for exchanges between distant groups of students in collaborative learning projects and for tutoring and support in online learning courses (Simpson, 2002). Methodological approaches used to teach and learn in these environments are usually grounded on constructivist principles that emphasize text-based communication as opposed to oral communication (Garrison, Anderson, & Archer, 2000; Swan, 2010). Still, "a constructivist-based instruction couched in the highly interactive communication world can be a lonely place for an

international learner whose cultural experiences are different than the dominant educational cultures" (Shattuck, 2005, p.186).   Nevertheless, constructivist and collaborative approaches are advocated as the most appropriate modes for handling online discussion groups (Oren, Mioduser, & Nachmias, 2002). Conversely, studies have also shown that key cultural factors that affect international students studying online are the same as those that affect their studies in the face-to-face environment in foreign universities (Zhao & McDougall, 2008). However, online environments may be even more susceptible to cultural conflicts than are traditional classrooms as instructors in these settings have to interact with learners who remain physically and socially within their native culture, a culture that is largely foreign to the instructor (Moore, 2006).

According to Garrison, Anderson, and Archer (2004), "a community of inquiry is an extremely valuable, if not essential, context for higher-order learning" (p. 1). The dynamic Community of Inquiry (CoI) framework makes use of collaborative constructivist learning and teaching principles that promote at the same time cognitive independence (individuals as independent thinkers) and social interdependence (interdependent collaborative learners). It is this seemingly contradictory relationship that has the ability to trigger a true educational experience with personal value and socially redeeming outcomes (Garrison, Anderson, & Archer, 2000, 2004). Thus, learning occurs through the interaction of three essential elements: teaching presence, social presence, and cognitive presence. Within these interdependent elements lies the central concept that a well-designed, supportive instructional experience will foster learners' construction of higher-order meaning. Some of this occurs through social presence, the ability of participants to identify with the group or course of study by projecting their individual personalities in a given medium (Garrison, 2009b; Garrison,

2011). However, individual personalities come from distinctive cultural backgrounds and may or may not identify with the predominant cultural group. Culturally diverse learners often bring their distinct cultural traits into the online learning environment via their social and teaching presence. Thus, it may be feasible to assume that cross-cultural students may find it more difficult to project themselves socially in asynchronous online learning environments due to inherent cultural differences and backgrounds. Further, instructors that disregard learners' cultural differences and transfer their own cultural bias into the teaching environment may impede successful educational outcomes. Given the substantial influence instructors have on learners, prioritizing culture in education goes beyond the sole objective of promoting effective knowledge acquisition. Culture is thus ultimately an ethical concern that all distance education conceptual frameworks should contemplate (Parrish & Linder-VanBerschot, 2010).

Purpose

The purpose of this study is to explore how instructors of online courses accommodate and make provisions for culturally diverse learners in an online community of inquiry. The initial hypothesis was that instructors were not cognizant enough of cultural diversity and had poor multicultural efficacy in an online community of inquiry. The findings of this study refuted the hypothesis as data revealed that instructors appear to be quite cognizant of cultural diversity and have strong multicultural efficacy in terms of their knowledge of diversity and the strategies that they use to promote learning and prevent conflict. Teddlie and Tashakkori (2009) have developed a typology comprising the following three general categories for identifying various reasons for conducting mixed methods research: (a) personal reasons for

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conducting the study, (b) reasons associated with advancing knowledge, and (c) societal reasons associated with improving or empowering society, institutions, and oppressed groups. This study focuses on the first two reasons to justify the research methodology employed. First, globalization of education and issues of cross-cultural teaching and learning online are research areas that have been understudied and that should receive more attention (Zawacki-Richter et al., 2009). In addition, no study has to date addressed multicultural engagement in an online community of inquiry. Therefore, instructors' perspectives and challenges as they relate to multicultural engagement in an online community of practical inquiry would be highly valuable to inform this body of knowledge. Finally, the research methodology used in this research enabled this study to add on cultural indicators to the existing CoI survey instrument thereby advancing knowledge on multicultural engagement in an online community of practical inquiry.

Guiding Research Questions

The following is the central question that guides this study: How do instructors accommodate and make provisions for cross-cultural learners in an online community of learning?

The central research questions are as follows:

1. To what extent are instructors cognizant of cultural diversity in an online community of inquiry?

2. What is the multicultural efficacy level of instructors (as perceived in their knowledge, understanding, attitudes, and skills) in an online community of inquiry?

3. Does the multicultural efficacy of the instructors affect the emergence of an online community of inquiry?

4. If so, how does the multicultural efficacy of the instructor affect the emergence of an online community of inquiry?

Conceptual Frameworks Used in the Study

This study is guided by two conceptual frameworks: the CoI framework and the Multicultural Efficacy Scale (MES) framework. This section presents an overview of the two frameworks and provides a rationale for their utilization.

CoI framework

Garrison et al. (2000) maintain that "The CoI was first proposed to guide research into online learning" (p. 133). The CoI framework provides a collaborative-constructivist perspective for understanding how discourse and reflection are carried out in a dynamic online learning environment. The three overlapping presences in the CoI model are teaching, social, and cognitive. More in-depth information is provided about the CoI framework and its core elements in Chapter II: Review of Related Literature.

In a study conducted by Arbaugh et al. (2008) with four institutions during the summer of 2007, the authors concluded that the CoI instrument is a valid, reliable, and efficient measure of the dimensions of social presence and cognitive presence, thus providing additional support for the validity of the framework's ability to construct effective online learning environments (Arbaugh et al., 2008). The CoI survey instrument contains 34 items with ordinal responses being scored using a modified Likert scale, (0 = Strongly Disagree) to (4 = Strongly Agree) (See Appendix A - Community of Inquiry Survey Instrument). Despite the model's usefulness, the authors have noted that the items used to measure the teaching presence construct may need further refinement (Arbaugh et al., 2008; Garrison, 2011).

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Therefore, in this study, the initial assumption made was that additional roles could be added to the teaching and social presence elements of the model to provide instructors better practices for dealing with an intercultural context in a CoI. This observation would be timely because, as noted by Arbaugh et. al., 2009, "findings suggest that instructors play significant roles both in helping students understand and apply appropriate conduct within the course before it begins and in guiding course activities once the course is underway" (p. 136).

MES (Multicultural Efficacy Scale) framework

Bennett, Niggle, and Stage, (1990) outlined four dimensions of a conceptual model for assessing multicultural teacher effectiveness. These are knowledge, understanding, attitude, and skill. Based on these four dimensions, Guyton and Wesche (2005) developed a scale, the Multicultural Efficacy Scale, to measure instructors' multicultural or intercultural efficacy. Guyton and Wesche (2005) conducted a pilot study with a total of 665 undergraduate and graduate teacher education students from several geographic regions across the United States. The MES was finalized as a 35-item instrument, with subscales for experience, attitude, efficacy, and instructors' views on multicultural teaching (Guyton & Wesche, 2005).

Guyton and Wesche (2005) posited that the strength of the scale is that it goes beyond measuring multicultural attitude by focusing on multicultural efficacy. According to Guyton and Wesche (2005), "efficacy has been shown to be a powerful factor in teaching" (p. 25). Therefore, a teacher may have a particular attitude or belief, but that does not mean he or she can effectively incorporate this attitude into the learning environment. Thus, efficacy is imperative if the goal is to promote

constructive, positive personal interaction and communication between instructors and cross-cultural learners in an online community of inquiry.

Both the confirmatory factor analysis and reliability analysis have attested to the usefulness of the MES as an instrument to research multicultural teacher education. Nevertheless, findings have indicated that such a scale should not be used as a single measure of multicultural efficacy. Consequently, the researchers recommended that other qualitative measures such as interviews and observations be added to the MES to provide greater insight into multicultural matters and issues (Guyton & Wesche, 2005).

It is also important to note that the MES was developed for the traditional face-to-face classroom. In addition, the scale was developed in the United States and was applied to a total of 665 undergraduate and graduate teacher education students from several geographic regions across the United States (Guyton & Wesche, 2005). To date the MES has been applied only American teacher education students in the face-to-face classroom context. Therefore, little is known about how and whether this particular scale could be used appropriately in an online setting with instructors from other nationalities. Thus, this study contributes to the existing scale by verifying its applicability in other contexts.

In light of these facts, the MES underwent adaptations and was transformed into an open-ended survey questionnaire (the Adapted Multicultural Efficacy Scale – AMEQ) consisting of fifteen questions devised to measure instructor perceived multicultural efficacy in teaching cross-cultural students in an online community of learning setting. The AMEQ also afforded this research study an opportunity to verify the scale's reliability through its application in a different context.

Rationale for utilizing the CoI and MES frameworks

Justifications for using the CoI and the MES instruments to measure and document the central question of this study are three-fold. First, existing models of cultural competence appear to be largely based on nationality-driven constructs, thereby not offering an effective means to understand how collaboration occurs between members of culturally diverse groups (Hewling, 2005; Saxena, 2010). Consequently, the dynamic interchange, interactivity and collaboration features afforded by asynchronous online learning environments call for a community of practical inquiry between culturally diverse learners to achieve deep and meaningful learning.

Further, the CoI framework appears to be an invaluable instrument for establishing and facilitating dialogue in asynchronous communication, yet the model fails in that it does not consider cultural issues as a factor in the development of a community of inquiry (Cleveland-Innes, 2010). Failure to acknowledge the impact of cultural diversity in a community of inquiry may result in an ethnocentric-based model. In light of this criticism it would be timely to investigate how instructors accommodate and make provisions for culturally diverse learners in such a framework.

In addition, the Multicultural Efficacy Scale (MES) holds the potential for being a useful instrument in research about cross-cultural education as it focuses on measuring multicultural efficacy. Finally, as previously discussed, further validation of the scale is necessary (Guyton & Wesche, 2005). In sum, its use in conjunction with the CoI indicators holds the potential to yield rich data for describing the instructors' experiences and challenges when undertaking online cross-cultural teaching.

Limitations of the Study

This study has several limitations. First, all participants were volunteers; therefore, the number of participants was limited by their availability and willingness to participate. Further, depending on the number of participants obtained through the use of purposeful sampling, the scope and durability of this study may be limited due to the dynamic, evolving nature of culture and its many variables (Saxena, 2010). Thus, a small participant pool makes it unlikely that all potential views of instructors have been captured. Indeed, data derived from this small participant pool may differ greatly from data derived from a larger participant pool.

The depth of open-ended survey responses from participants was limited by the amount of time they wished to invest in the study and their level of commitment to the research questions. Further, only nine of the 10 participants responded to the second online survey. This may have adversely affected quantitative data analysis and results.

Lastly, the small non-random sample size fails to generate a statistical representation of the phenomenon. Therefore, the results of this study cannot be generalized to other populations (distance education instructors/learners or not).

Delimitations of the Study

Caution should be exercised in generalizing the results of this study across all higher education institutions that promote themselves as distance education providers. For example, other distance education institutions may have varying student entrance requirements, may employ varying instructional teaching and learning methodologies, may have varying political and management constraints in addition to varying instructor pre-service and in-service training policies, and may have different accreditation methods. However, this thesis may be of interest to all higher education online facilities

that offer full online undergraduate and graduate accreditation programs to international, culturally diverse, and non-native English speaking learners. Additionally, this study may be of particular interest to those higher education online facilities that use the CoI framework because it is geared toward informing faculty about the importance of online intercultural engagement in a learning community of practical inquiry.

This study was instructor-focused as opposed to being student-focused. Within that focus, the decision to source participants from only two Alberta higher education institutions may enhance the interpretation of data but may also limit the study's applicability to other environments, programs, and institutions. Accordingly, criteria for excluding certain issues have been grounded on an issue being too problematic to address, not being relevant or sufficiently important for the present study, and/or the lack of feasibility to investigate a certain topic at the present time. This last point applies especially to items (f) and (g) addressed below.

All things considered, this study does not intend to address or analyze the following issues: (a) existing cross-cultural management and administration policies, (b) models of instructional design, (c) previous cross-cultural learner experience and/or engagement with online learning, (d) cross-cultural learner motivation for online learning, (e) learners' cross-cultural experiences in the online learning environment *per se*, (f) learners' views on culture or its direct affect their learning process, and (g) whether international, foreign or culturally distinct students take on a third culture when studying online. In summary, it is important to bear in mind that this study was based on a small sample of instructors, and a full discussion of how varying cross-cultural issues may affect asynchronous text-based computer mediated communication (CMC) lies beyond the scope of this study.

Significance of the Study

To quote Fay and Hill (2003), "for it to be effective, distance learning (DL) methodology must be sensitive to the cultural complexities of the provision involved" [Abstract]. This study intends to raise some questions about the complex relationship of e-teaching, culture, and its instructional implications in a globalized learning environment community, and to call attention to an opportunity, if not an obligation, for distance education frameworks, such as the CoI model, to incorporate provisions for international and cross-cultural learners.

In conclusion, this study contributes to the DE field by (a) adding knowledge to the extant literature on online cross-cultural engagement issues; (b) identifying evidence of instructors' perspectives on cross-cultural engagement in online learning as it relates to communities of inquiry; and (c) enhancing and building on the CoI framework for dealing with intercultural and international learners.

Summary

All studies presented here agree on the following points: culture is not independent of learning; good practices that address cultural diversity need to be developed; online instructors need to be more cognizant and efficacious in regard to cultural issues; and overall this topic has been understudied (Uzner, 2009; Zawacki-Richter et al., 2009). Consequently, considering the exponential growth and needs of online learning programs and degree programs offered internationally, increasing teacher intercultural awareness and efficacy in addressing the needs of a global population is indispensable to achieving successful educational outcomes (Lim, 2004).

In a globalized online environment teaching should not be based on one dominant set of values or instructional assumptions, yet instructors quite often bring their own beliefs and stereotypes into the learning environment (Banks, Cookson, Gay, Hawley, Irvine, Nieto, Schofield, & Stephan, 2001). Existing "essentialist" or nation-based models of cultural competence may fail to take into account the complexities of intercultural exchange in text-based, asynchronous learning environments that foster critical reflection and higher-order learning (Hewling, 2005). Asynchronous text-based CMC grounded on constructivist teaching and learning principles have become a major education delivery medium in that these environments can overcome geographic and temporal limitations for global learners. Further, such environments promote collaborative teaching and learning in addition to fostering high levels of interaction.

Communities of practice (Lave & Wenger, 1991) consist of groups of people who share a common concern or passion for doing something and learn to do it better as they interact regularly. "These (communities of practice) are important in education, since globally mixed groups of students will have expectations arising from their own local communities of educational practice which are often at variance with the accepted norms of provider institutions from other countries" (Pincas, 2001, p. 30).

The conceptual framework of the CoI is geared toward promoting deep and meaningful learning through group collaboration and individual sense-making of the educational experience (Garrison & Anderson, 2003; Garrison, 2011). As Garrison and Anderson (2003) argue, the reflective and explicit nature of communication in the context of the e-learning environment and the opportunity to access unlimited data sources provide distinct advantages for the formation of a community of inquiry in an online environment. The core elements that make up the CoI framework are teaching presence, social presence, and cognitive presence. The function of teaching presence is

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to design, facilitate, and direct the cognitive and social processes of learners for the purpose of achieving educational goals (Garrison, Anderson, & Archer, 2000). The primary challenge of teaching presence is to bring all the elements of a community of inquiry together in a balanced and functional relationship congruent with the learners' intended outcomes, needs, and capabilities (Garrison, 2011). Social presence is the degree to which a person is able to identify with the group or course of study, communicate effectively in a trusting environment, and develop personal and affective relationships by projecting his/her individual personality in CMC (Garrison, 2009b as cited in Garrison, 2011). Learning is a social process (Tu, 2000) and discourse plays a fundamental role in the social process of learning (Harasim, 2002). Cognitive presence "means the extent to which the participants in any particular configuration of a community of inquiry are able to construct and confirm meaning through course activities, sustained reflection, and discourse" (Garrison, Anderson, & Archer, 2000, p. 89). Cognitive presence is perceived as vital to achieving effective educational outcomes.

The underlying assumption of this study is that, as instructors project their personalities in the online environment via their teaching and social presence, both of which are largely rooted in their dominant culture, their values, beliefs, and attitudes will significantly affect learners' social and cognitive presence. Therefore, it is extremely important that we understand how instructors in such a learning context accommodate and make provisions for culturally diverse learners.

In sum, the issue of cross-cultural engagement in a CoI is complex and requires further exploration. In addition, the CoI model ignores cultural issues. Therefore, to address this gap, a sequential exploratory research approach combining the collection and analysis of qualitative data through an adapted and modified version of the MES

instrument into open-ended survey questions was employed. As a result, additional roles to the teaching and social presence elements of the model were created in order to provide instructors with better practices when dealing with an intercultural context in a CoI learning environment.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

A substantial body of literature links the role and importance of culture to learning in the traditional face-to-face environment, including research and the development of specific models of cultural competence to address the needs of culturally diverse learners in this context. What is lacking at this time is research that explicitly explores cross-cultural instructor efficacy in globalized online learning communities. More specifically, little or no cross-cultural research has been undertaken utilizing such frameworks devised exclusively for distance education. The literature review will corroborate the aforementioned gap in research. In addition, the review is geared toward exploring how culture affects cognition, taking into consideration the features afforded by asynchronous, text-based computer mediated communication (CMC).

This chapter begins with a general discussion on the many meanings of culture to provide the reader the specific definition of culture that this particular study adopted. Then follows a discussion on the different levels on which culture can present itself (e.g., as a nationality, ethnicity, or a third culture), trends in e-globalization and culture, cultural imperialism and its impact on culturally distinct learners, culture and cognition, and a brief overview of seminal cultural dimension frameworks. Next, CMC and its instructional-cultural implications are explored, focusing on the predominant constructivist, text-based communication, and asynchronous nature of most online programs and courses. A final discussion concentrates on two existing frameworks, the Community of Inquiry (CoI) and Multicultural Teacher Education, to provide the reader a rationale for utilizing these frameworks to fill the existing research gap.

The Many Meanings of Culture

Several definitions

Culture, one of the most used but misunderstood concepts to date, is indeed extremely complex to define.   Trompenaars and Hampden-Turner (1998) emphasize the complexity of this concept when they state that "culture is beneath awareness in the sense that no one bothers to verbalize it, yet it forms the roots of action" (p. 24). An interesting analogy on the definition of culture is provided by Trompenaars and Hampden-Turner (1998):

> A fish discovers its need for water only when it is no longer in it. Our own culture is like water to fish. It sustains us. We live and breathe through it. What one culture may regard as essential, a certain level of material wealth for example, may not be so vital to other cultures. (p. 20)

Other definitions of culture range from the sum total of all learned behavior (Smith & Ayers, 2006), a way of life based on some system of shared meanings that is transmitted from generation to generation (Kroeber & Kluckhohn, 1963, Wang & Reeves, 2007), "the collective programming of the mind which distinguishes the members of one group or category of people from another" (Hofstede, 1991, p. 8), "the set of attitudes, values, beliefs, and behaviors shared by a group of people, but different for each individual, communicated from one generation to the next" (Matsumoto, 1996, p. 16), to culture being divided into two distinct categories: high- and low- context cultures, referring to the different demands for contextual information among cultures (Hall, 1976, 1981).

Gunawardena, Wilson, and Nolla (2003) have also espoused that "culture is always constantly changing and that individuals belong to more than one culture, some

voluntarily and some involuntarily" (p. 753). Finally, culture is a concept that can be interpreted according to how each individual understands or perceives it (Hewling, 2005).

This study adopts the meaning of culture as put forward by Matsumoto (1996). Matsumoto (1996) perceives culture as "the set of attitudes, values, beliefs, and behaviors shared by a group of people, but different for each individual, communicated from one generation to the next" (Matsumoto, 1996, p. 16). This definition implies that culture is as much an individual, psychological construct as it is a social construct. As Matsumoto (1996) further notes, "individual differences in culture can be observed among people in the degree to which they adopt and engage in attitudes, values, beliefs, and behaviors that, by consensus, constitute their culture" (p. 18). This definition appears to fit in well with the parameters of this study because the criteria by which instructors establish whether students could be considered from different cultures fell into two categories: (a) individuals who may or may not be currently living in Canada but were born in another country and whose native language is notably not English, or (b) individuals who identify with a culturally distinct group (e.g., Aboriginals, French Canadians, or a new immigrant group now residing in Canada. These criteria enabled instructors to develop a sense of how different individuals defined themselves as a group in addition to how they communicated and interacted in the online environment, thereby constituting their psychological and sociological makeup. Consequently, the above mentioned criteria assisted instructors in singling out those individuals perceived as having a social or cultural identity distinct from the dominant or mainstream society.

Not only do nationalities and ethnic groups have cultures, but so do communities, organizations, and other systems (Rogers & Steinfatt, 1999). Thus, in the online environment, the increasing emergence of networked virtual learning

communities has enabled individuals to interact with each other across time and space, thereby fostering collaboration and knowledge and information acquisition (Igbaria et al., 1998). This too could be considered a form of culture, a "third culture," which will be addressed in the next section.

Nationalities, ethnicities, or a third culture?

Controversy is ongoing about whether it is a nation that defines certain cultural characteristics or whether it is ethnicity that defines the cultural traits of a people (Morse, 2003). The Internet and CMC, with their open environments, have given rise to what Raybourn, Kings, and Davies, (2003) have termed a "third culture." Raybourn et al. (2003) note, "A 'third culture' is what is created from an intercultural interaction when persons from different cultures communicate equitably and with respect for the other such that the emergent culture reflects appropriate input from each interlocutor" (Raybourn et al., 2003, p. 106). Lo Bianco, Liddicoat, and Crozet (1999) have also advanced the notion of the "the third place" as being the unbounded point of intersection where members from different cultural and linguistic backgrounds are capable of meeting and communicating successfully. In their own words, "cross-cultural encounters are in this sense dynamic processes whereby human beings succeed (or fail) at creating 'third places' enabling successful relationships to unfold both with or beyond cultural differences" (Lo Bianco et al., 1999, p. 15). Therefore, in this co-creation of meaning, all interlocutors are active participants as well as co-owners.

Such a debate indicates that culture can also present itself on different levels (Trompenaars & Hampden-Turner, 1998). The culture of a national society is at the highest level, such as the German or west European versus the Asian or African. This study focuses on that first level, the differences in culture at a national level. This focus

is justified by the fact that, absent verbal cues, an essential component of the face-to-face contact, instructors in an asynchronous online learning environment cannot detect a foreign accent, which may help identify individuals from different cultural backgrounds. Therefore, in this educational context, instructors often rely solely on the biography that the learner is requested to fill out or post on discussion forums. These short biographies usually state students' place of birth, nationality, and/or surname. That is, the information provided here is primarily the learner's cultural background at the national level. Thus, it is easier for instructors in asynchronous text-based computer mediated communication (CMC) environments to identify culturally distinct learners at the national level.

E-Globalization and Culture

Global trends in e-learning

Increased global connectivity and the digital shift to web-based instruction have resulted in the rise of globalized e-learning programs and courses (Saxena, 2010). For developed countries, internationalization, also known as cross-border activity or borderless education, as applied to higher education gives universities the ability to tap into new markets and provide educational opportunities for vast numbers of people who either have no other access or seek specialization programs (Mason, 2007). For higher education learners, internationalization enables them to keep up to date with new ideas and reference materials, and to gain exposure to international standards for academic study (McIssac, 2002). For higher education instructors and learners alike, it presents the opportunity to develop a greater understanding of others by sharing personal values, beliefs, and past experiences. Therefore, multicultural teaching and learning in an

intercultural online community of inquiry undoubtedly offers many advantages. As Bennett et al. (1990) posit

Multicultural education is a democratic approach to teaching and learning that seeks to foster cultural pluralism within culturally diverse societies and an interdependent world. (p. 243)

However, despite all the advantages of the internationalization of education, culture clashes can arise from language barriers, educational practices that do not speak to the learner, and different and conflicting worldviews.

An increasingly diverse learner population poses great challenges for educational institutions as they seek to design effective, engaging instructional material that address the cultural needs of this population (Wang & Reeves, 2007). Growing competition in the globalized workplace, the need for lifelong learning (Howell, Williams & Lindsay, 2003), the geographical and temporal flexibility afforded by distance education, and advanced and cheaper Internet technologies coupled with a wide range of high quality programs and courses available online, are but some of the factors that have driven international students to pursue their studies in foreign countries. Bates and Gpe (1997) argue that information-technology geared toward delivering distance education to international learners depends on developing curricula that transcend local cultural and language barriers. Edmundson (2009) admonishes that not taking into account cultural differences and the significance of cultural analysis for global workforce can substantially put at risk the success of globalization initiatives. In sum, the increasing globalization of education requires educators to be aware of the factors beyond their institutions that constrain, steer, or facilitate their practice (Bottery,

2006) and to avoid ethnocentric instructional designs (Gayeski, Sanchirico, & Anderson, 2002).

Moore (2006) also addressed the special challenges faced by distance educators when teaching international learners that remain physically and socially within their cultural milieu, a culture that is foreign, and largely unknown, to the teacher. The educational culture transmitted quite often becomes the dominant force and can be very different from the learner's culture. Further, Moore (2006) emphasizes that instructors need to acquire skills in empathizing with learners from different cultural backgrounds in addition to knowing how and when to design and choose content that is culturally inclusive for these learners. Moore (2006) concludes that even under ideal circumstances it takes time and openness on the part of the teacher to develop such skills, rather like "being there." As Moore (2006) notes

> How much greater the challenge when it is impossible for the teacher to physically enter into the foreign culture but who must, nevertheless, draw on the knowledge in that culture and try to interpret knowledge across the two cultures, for the benefit of the students on both sides. (p. 1)

In conclusion, it is undisputed that cultural differences are a fact in increasingly global learning environments (Van den Braden & Lambert, 1999). Therefore, it is imperative that we delve more deeply into the experiences of both instructors and learners to observe what is happening when they are teaching and learning online. As Lauzon (1999) argues, "one of the main challenges as we enter the new millennium will be 'learning to live with difference'" (p. 274). Education must take the lead in accomplishing this goal. Within the broader field of education, online education holds the greatest potential for enabling people to develop tolerance and learn to live with

difference (Wang & Reeves, 2007). However, this potential will be achieved only if some of the already-identified cultural dimensions are integrated into a sound conceptual framework for distance education.

Cultural imperialism

Cultural imperialism may be defined very generally term "the practice of promoting the culture or language of one nation in another" (http://www.fact-archive.com/encyclopedia/Cultural_imperialism). Evans and Nation (2007) claim that

> Many would argue that the human experience is altering fundamentally
> within a globalizing world – that is, a world where social, economic, cultural,
> and political activity is becoming more integrated and less demarcated by
> distances, national borders, and cultures. It is doing so not just because of the
> speed and interactivity of new communications media, but also because of the
> fusion of cultural conditions. (p. 649)

However, Evans and Nation (2007) go on to note that globalization is substantially Americanization, due to the United States' dominant influence on the Internet in addition to more traditional media such as films, popular music, television, and newspapers. Additionally, the dominant medium of global instruction is English (Pincas, 2001). Phillipson (2005) also argues that "the British and US governments have been open about their aims for global English and adopted policies to promote it" (p. 378). As Phillipson (2005) further adds

> The reluctance to countenance the interlocking of the multiple agendas of
> applied linguistics and the English teaching business (buttressed by the myth of
> these activities being apolitical) with geopolitical goals is symptomatic of a
> positivistic disconnection between identifiable activities and the wider picture of

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strategic political and economic interests. This paradigm is well entrenched in the academic world, not least in Britain, which has been heavily influenced by US scholarship at least since the 1920s (p. 380).

Further, widespread use of the Internet for communication and educational purposes has facilitated cultural imperialism in that the most attractive educational materials generally come from the more developed nations (Weckert & Adney, 1997). Further, technology could not, in fact, solve the problems of equity and inclusion. It may be even exacerbating such problems (Smith & Ayers, 2006). For example, not every cross-cultural learner will be able to access complex simulations and streaming video as quickly as many Canadians can (Wang & Reeves, 2007). In fact, statistics for 2011 show that some countries (Asia, Europe and North America) have a higher population of Internet users than others (Latin America/Caribbean, Africa, Middle East, Oceania/Australia) (http://www.internetworldstats.com/stats.htm). In general, most instructional design practices reflect the cultural values and bias of the Western cultural hegemony, more specifically, of the dominance of the United States on the World Wide Web (Blanchette, 1997; Moore, Shattuck, & Al-Harthi, 2005).

The implications of this situation are that more often than not, non-Western or differing cultural learners are not taken into consideration in instructional design practices (Henderson, 1996). Many issues arise out of the interaction among people from different backgrounds who have learned English as a second language or as a foreign language. A person's mental life is the reflection of the cultural reality he or she knows. The Vygotskian school of socio-historical psychology espouses the principle that "the existence of mental life and mental activity depends crucially on the individual participating in certain forms of social activity" (Pincas, 2001, p. 31). Thus, differences

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in contextual expectations (translation problems and instructional assumptions) must be handled appropriately to ensure learner success in the online environment.

However, one of the purposes of culturally-sensitive instruction is not to duplicate the learning environment from the learners' home culture. Instead, the aim is to build mutual accommodation and respect for the cultures of others in order to reach successful academic outcomes (Protheroe & Turner, 2003).

Culture and Cognition

Members of culturally-defined groups tend to share common learning styles and cognitive processes. That is, culture fundamentally shapes the way we make meanings of our experiences in the world (Smith & Ayers, 2006). The school of behaviorism viewed cognition as essentially the same across cultures, despite diverse cultural norms and beliefs (Saxena, 2010). Conversely, social cognitive theory, based on theories such as Bandura's (1986) social learning theory; situated cognition (Brown, Collins, & Diguid, 1989), and interactional theories of learning (Bruner, 1997; Vygotsky, 1978) argued for the interdependence and interconnectedness of cognitive and sociocultural actions (Driscoll, 2005). Social cognitive theory emerged as a reaction to the behaviorist and cognitivist schools of thought and drew from the constructivist concept of how people learn (Saxena, 2010).

According to Vygotsky, all fundamental cognitive activities occur as a result of the individual's social matrix and form the products of the socio-historical development of his community (Luria, 1976). That is, cognitive skills and patterns of thinking are not primarily innate factors but the products of activities practiced in the social institutions of the culture in which the individual is raised. Consequently, "individual development cannot be understood without reference to the social milieu…in which the

child is embedded" (Tudge & Rogoff, 1989 as cited in Driscoll, 2005, p. 250). In this process of cognitive development, language is an essential tool in determining how the individual learns how to think because advanced modes of thought are transmitted to the individual by means of words (Murray, 1993).

Similarly, Nisbett and Norenzayan (2002), through a review of a series of studies in linguistics and mathematics, detected the variable differences in knowledge domains, analytical process, and learning skills in diverse cultures, demonstrating how these processes operate on different inputs, for different people, and in different situations and cultures. Accordingly, Nisbett and Norenzayan (2002) have noted that "cultures differ markedly in the sort of inferential procedures they typically use for a given problem" (p. 2).

More recently, Bentley, Tinney, and Chia (2005), on the basis of a review of the literature and their extensive cross-cultural experience, have identified eight educational value differentials for understanding cultural issues in Internet-based learning (Bentley et al., 2005). These educational value differentials are as follows:

- Language differential – language and culture are intertwined. For learners of different cultural backgrounds, simple sentences should be used and slang, colloquialisms, local humor, and local insider examples should be avoided.

- Cultural differential – specifically in regard to its impact on education. Varying cultures place different values on education. This increases the need for instructors to be aware of these differences when teaching culturally diverse learners.

- Technical infrastructure differential – instructors and instructional designers need to be aware that global learners' access to broadband may be more limited or slower than their own.

- Local versus global differential – some cultures may place emphasis on the local context whereas others foster a global perspective. It is important for instructors to understand their learners' perspective.

- Learning style differentials – education is value laden and how learners perceive "good" instruction stems from their own cultural and educational perspectives.

- Reasoning pattern differential – problem-solving skills and views on objectivity vary across different cultures.

- High-and low-context differential – high-and low-context cultures have different needs for concrete versus abstract information.

- Social context differential – high context learners require more social context so as to understand the meaning of the communication and respond appropriately.

Seminal Frameworks of Cultural Dimensions

Some of the most well known models for studying the cultural issues in interface design are Hofstede's (1984, 1991), Hall's (1976, 1981), and Trompenaars and Hampden-Turner's (1998) cultural dimensions models (Paliologou, 2007). Hofstede's (1984, 1991) model presents five easily recognizable and distinguishable categories. Hall's (1976, 1981) model accounts accurately for the underlying differences between high context and low context cultures. Sanchez and Gunawardena's (1998) model

provides us meaningful insight on how different cultures approach education. Finally, Trompenaars and Hampden-Turner's (1998) model builds insight into how different cultures choose specific solutions.   Although the models addressed in this section are of great value and reliably predict and describe the cultural dimensions of a certain national group, recent research indicates a need for alternative frameworks, considering that the cultural construct of an individual consists of multiple cultural frames or references, especially in the globalized e-learning environment (Saxena, 2010).

Hofstede's cultural dimensions

Hofstede's (1991) seminal work on culture and its dimensions provides a sound nation-based framework used in current cross-cultural analysis (Saxena, 2010). Hofstede proposed five natural cultural dimensions: power distance, uncertainty avoidance, individualism vs. collectivism, masculinity vs. femininity, and long-term vs. short-term orientation (Hofstede, 1991).   The five cultural dimensions and their definitions are described below:

- Power Distance (PDI): to what extent less powerful members of institutions or organizations accept that power that is distributed unequally.

- Uncertainty avoidance (UAI): to what extent people feel threatened by ambiguous situations and their created mechanisms for dealing with them.

- Individualism vs. Collectivism (IDV): In individualistic cultures people are supposed to look after themselves and their immediate family only. In collectivistic cultures people belong to "in-groups or collectivities," and these groups look after each other in exchange for loyalty.

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- Masculinity vs. Femininity (MAS): In a masculine society the predominant values in society are success, money, and things. In a feminine society, the predominant values are caring for others and the quality of life.

- Long-term vs. short-term orientation (LTO): In long-term orientation cultures, the predominant values are persistence and thrift. In short-term orientation cultures, the predominant values are protection of one's reputation and respect of traditions.

Hall's cultural dimensions

In contrast, Hall (1976, 1981) distinguished cultures as being high context/low content (HC) and low context/high content (LC). Low context cultures (including North America and much of Western Europe) are characterized as being logical, linear, individualistic, and action-oriented. Conversely, high context cultures (including much of the Middle East, Asia, Africa, and South America) are characterized as being relational, collectivist, intuitive, and contemplative (Hall, 1976, 1981).

Sanchez and Gunawardena's cultural dimensions

Another way of looking at how different cultures approach education, emphasizing certain discontinuities of "non-western vs. western worldviews," was presented in a study that addressed the learning styles of Mexican and Spanish-speaking distance learners conducted by Sanchez and Gunawardena (1998). Table 1 illustrates Sanchez and Gunawardena's (1998) fundamental dimensions of nonwestern versus western world views. It is interesting to note that, though learners were all geographically located within the Western hemisphere, their cultural perspectives were very different than that of the U.S. culture.

Table 1. Sanchez and Gunawardena's (1998) Fundamental Dimensions of Nonwestern versus Western World Views

Nonwestern	Western
Emphasize group cooperation	Emphasize individual cooperation
Achievement as it reflects group	Achievement for the individual
Value harmony with nature	Must master and control nature
Time is relative	Adhere to rigid time schedule
Accept affective expression	Limit affective expression
Extended family	Nuclear family
Holistic thinking	Dualistic thinking
Religion permeates culture	Religion is distinct from other parts of culture
Socially oriented	Task-oriented

Note: From Moore, Shattuck, and Al-Harthi, 2005, p. 196.

Trompenaars and Hampden-Turner's cultural dimensions

Trompenaars and Hampden-Turner (1998) posited that "every culture distinguishes itself from others by the specific solutions it chooses to certain problems which reveal themselves as dilemmas" (p. 8). These problems were divided into three categories: those resulting from our relationships with other people, those resulting from the passage of time, and those related to the environment. From the solutions that different cultures chose to address these problems, seven fundamental dimensions of culture were identified: universalism versus particularism, individualism versus communitarianism, neutral versus emotional, specific versus diffuse, achievement

versus ascription, attitudes toward time, and attitudes toward the environment (Trompenaars & Hampden-Turner, 1998).

CMC and its Instructional-Cultural Implications

Computer-mediated communication (CMC) has been widely adopted by most higher education institutions due its versatility as a medium for delivering educational programs "anytime, anywhere" (Garrison, Anderson, & Archer, 2000). CMC in the higher education context is predominantly characterized by constructivist learning and teaching principles, asynchronous text-based communication, and communication via email. CMC enriches the distance education experience because it has the potential to promote collaborative and active learning, reflective learning, and student-centered learning (Graham & Scarborough, 1999). Further, the literature has endorsed this medium's democratic and equalizing tendency.

Conversely, CMC also holds disadvantages for higher education learning, especially for cross-cultural learners. One of the most significant, yet complex, factors in distance education is social presence. For example, learners are regarded as present online only when they make a comment, actively participate, or are "socially present" (Graham & Scarborough, 1999; Tu, 2002; Lowenthal, in press). As Lowenthal (in press) notes, "it is extremely important that we understand how teachers and students interact in online courses where asynchronous CMC is the major form of discourse" (p. 1). Therefore, the section that follows addresses the basic characteristics of the constructivist teaching and learning philosophy, text-based communication, asynchronous online learning, and its instructional-cultural implications for cross-cultural learners.

Constructivism

Emerging technologies have not only provided support for online learning but also radically changed teaching and learning processes in the post-industrial, distance education era. Because online learning evolved from early experiments with computer-mediated discussion and these early discussions deeply resonated with the traditional notions of the importance of interaction, inquiry, and critical thinking in higher education, online learning has taken on a distinctly social constructivist character (Swan, 2010).

The constructivist theory and von Glaserfeld's more radical version advocates that human beings generate knowledge and meaning from their experiences. Within this constructivist perspective, the activity that generates knowledge is called "operating," and it is the operating of that cognitive entity that organizes its experiential world by organizing itself (von Glasersfeld, 1984). The constructivist theory asserts that we have no access to an objective truth and that all knowledge is subjective and learner-dependent. Thus, personal knowledge is described in terms of fitting to and compatibility with the experiential world (Proulx, 2006). Therefore, one of the core concepts of constructivism is that "understanding is in our interactions with the environment" (Savery & Duffy, 2001, p. 1). Constructivists believe that knowledge is constructed socially using language (Vygotsky, 1962; Kanuka & Anderson, 1999). Another core concept of constructivism, grounded in the seminal works of Piaget (1977), Dewey (1938), and von Glaserfeld (1989) is that the stimulus for learning originates from cognitive conflict or puzzlement (Savery & Duffy, 2001; Kanuka & Anderson, 1999). Other instructional principles that drive the constructivist theory as applied to online learning include: (a) interactive learning (Huang, 2002), (b) learning as a social, collaborative activity (Panitz, 1996), (c) the role of the instructor as that of a

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facilitator of the learning process (Huang, 2002), (d) authentic learning (Mayer, 1999), (e) learner-centered learning and ownership in learning (Perkins 1991b), and (f) high quality learning that fosters higher-order thinking skills (Huang, 2002). Bransford, Brown, and Cocking (2000) contend that constructivist learning environments are learner-centered, knowledge-centered, assessment-centered, and community-centered.

Proulx (2006) also argues that constructivism is not a theory of teaching *per se*, but rather a theory of learning. That is, "constructivism brings a proscriptive discourse on teaching, one that sets boundaries in which to work, but does not prescribe teaching actions" (Abstract). Along similar lines, Davis and Sumara (2003) assert that

As a theory, constructivism is intended to offer insight into human learning, and it presents learning as a complex phenomenon that is subject to an array of subtle and imposing, explicit and tacit, deliberate and accidental, social and biological influences. Such an account says little about what a teacher *must* do, although it does have something to say about what a teacher *cannot* do. In particular, a teacher cannot control learning. The reasoning is quite straightforward: learning is a complex event through which one's past experience, current activity, and imagined future are stitched together into, hopefully, an interpretation that is adequate for the moment. To draw an analogy, an awareness of this dynamic is not of much help to the teacher in very much the same way that a knowledge of the volatility of atmospheric conditions does not enable a meteorologist to control the weather (p. 130).

However, this assertion does not mean that the numerous approaches to teaching (problem-solving, discovery learning, project driven, lecturing, etc.) cannot not be called "constructivist" or that utilizing constructivist teaching and learning principles in

the online environment is in any way negative. As Proulx (2006) adds, "Constructivism sets the ground for an enriched understanding of the learners with whom we interact as teachers, a space of interaction and of teaching in which the learner is considered a 'subject of production' and not an 'object of reproduction'" (p. 14).

International learners coming primarily from teacher-centered and behaviorist-oriented learning environments may have difficulties adapting to online constructivist-based instruction. Thus, the shift from the knowledge transmission model, or rote learning, to the model of knowledge construction in a constructivist instructionally-oriented online environment has not only obvious instructional implications but cultural implications as well. As espoused by Holmes, Tangney, FitzGibbon, Savage, and Mehan, (2001), the majority of learners still come from traditional face-to-face classroom models that are largely a product of the industrial revolution (same age groups coming to a single institution to be instructed in the same subject matter at the same pace). Therefore, these learners may need extra orientation to accommodate to more flexible, learner-centered online environments. In addition, many of these learners have been conditioned to learn only what is of direct relevance to examinations (Holmes, Tangney, FitzGibbon, Savage, & Mehan, 2001). Assessment in these environments is primarily exam-oriented. Thus, learners will need to be encouraged to be more autonomous and self-directed in their studies in order to construct knowledge in the online environment. This also implies providing learners with skills that effectively foster problem-solving and discovery learning, as opposed to rote learning. Further, the industrial educational model emphasizes an individual learning by oneself and for oneself (Holmes, Tangney, FitzGibbon, Savage, & Mehan, 2001). In contrast, the constructivist online environment calls for meaningful interaction between learners to promote collaborative learning. In sum, underlying principles of the constructivist

learning theory may not be totally consistent with international learners' knowledge, assumptions, or core educational and cultural values. Therefore, instructor guidance and orientation is paramount to achieve a successful educational experience in this context and entails careful thought and accommodation.

Text-based communication

Traditional face-to-face education has been largely based upon oral communication for educational interaction between teachers and students. Conversely, distance education through CMC has, to a great extent, employed highly interactive asynchronous text-based communications to deliver higher education programs and courses. Although oral critical discourse can facilitate critical thinking in addition to providing non-verbal or paralinguistic cues such as facial expression and tone of voice, text-based communication provides time for reflection, which is preferable for higher-order learning (Garrison, Anderson, & Archer, 1999). In fact, as Garrison, Anderson, and Archer (1999) argue, "the use of writing may be crucial when the objective is to facilitate thinking about complex issues and deep, meaningful learning" (p. 6). Nevertheless, there is limited empirical evidence to suggest that text-based communication used in asynchronous online learning effectively supports and encourages deep learning (Garrison, Anderson, & Archer, 1999).

Online interaction differs in important ways from face-to-face discussion because it lacks the non-verbal cues that are a component of face-to-face contact. Hoven (2006) argues that with a major shift to the Internet as the site for learning, instructors and designers alike need to re-evaluate what constitutes communication and interactivity in this new context, particularly with the introduction of newer technologies such as webcams in addition to more traditional media such as video,

audio, and still images.   As Hoven (2006) further notes on teachers using CMC for learning, "finding the appropriate path is often a balancing act between discovering and allowing for different personalities, learning styles and preferences, and accommodating strategies for interacting and dealing with negative encounters that inevitably occur. And all of this must occur through the medium of technology which will often be unfamiliar to many learners" (p. 247). Indeed, the literature suggests that the medium does influence to what extent and how students interact in the online learning environment. In an exploratory study conducted by Curtis and Lawson (2001) with 24 South Australian students enrolled in an online bachelor's degree program, findings revealed that students appreciated the advantages of being able to go back and reflect on their discussion board postings, but needed greater encouragement to make more use of it.   In addition, learners had doubts as to whether and when it was appropriate to begin a new thread using the discussion board (Curtis & Lawson, 2001). Johnson (2001) claims that although most collaboration in CMC is text-based, norms are reduced, enabling introverted participants to share ideas on an equal footing with extroverts. Other advantages to text-based communication may also, in fact, favor non-native English speakers and international learners. For example, text-based CMC enables all learners to be not only equally heard but also fairly judged. Certain individuals may find it easier to talk to people one doesn't know through text. Further, people's ideas become more precise and clearer via text, and text-based communication may be preferred by non-native English speakers (Bdra, 2009). Finally, it has been shown that students can and do overcome the lack of non-verbal communication by establishing familiarity through use of greetings, encouragement, paralinguistic emphasis (e.g., capitals, punctuation, emoticons), and personal vignettes (i.e., self-disclosure) (Garrison & Arbaugh, 2007; Rourke & Anderson, 2002 as cited in Garrison, 2011).

In contrast, because the dominant medium of global instruction is English, several issues arise out of the interaction between people from different language backgrounds to whom English may be a second language or possibly a foreign language (Pincas, 2001). In a study conducted by Kim and Bonk (2002) on online collaboration across cultures, findings revealed that although Korean students showed a higher level of social interaction behavior than their Finnish or American counterparts, the Koreans felt shy and anxious about contributing to online discussions due to their perceived lower language proficiency (Kim & Bonk, 2002). These issues go beyond being able to communicate effectively in writing because, ultimately, written communication is as culturally-laden as oral communication. "Conversational exchange in a second language requires interlocutors to perform a complex set of cognitive tasks as they attempt to comprehend language input, relate it to what they know about the target language and the world, and then make decisions about whether the new information should be incorporated into their existing knowledge base in some manner" (Paine & Whitney, 2002, p. 9). Thus, embedded assumptions about cognition have consequences for approaches to other cultures, and directly affect whether and how communication among learners becomes part of the pedagogic or learning process (Pincas, 2001). To alleviate this problem, Ku and Lohr (2003) recommend that the course designer and/or instructor provide many reading and writing opportunities for international students, foster a variety of interaction between students to make up for possible feelings of isolation, and to promote richer cultural exchanges.

Asynchronous online learning: benefits and drawbacks

The benefits to asynchronous online learning include (a) temporal and geographic flexibility for learners, (b) enhanced participation quantity/quality (self-

paced nature of the environment), (c) use of the written language promotes greater detail and richer discussions, (d) higher order learning, (e) improved communication openness/access (collaborative learning, greater information flow), and (f) post-participation review/access for reference purposes (transcripts of discussion sessions can be easily accessed and individualized instantaneous feedback can be provided at any moment during instruction (Morse, 2003).

Conversely, this mode of instruction also has its drawbacks such as (a) problems with technology causing students to feel frustrated and disillusioned with this learning environment, (b) learners tend to select "their coordination strategy in an *ad hoc* manner, based on the constraints of the communication medium relative to the demands of the task, rather than the expected outcome or the objective to be achieved" (Morse, 2003, p. 39), (c) students may feel frustrated with timing/delay issues, and (d) learners need strong writing, interpretation, language proficiency, and typing skills to be successful in this environment (Morse, 2003; Zhang & Kenny, 2010).

Learners from different cultures tend to exhibit not only different patterns in their online interactions with their instructors or peers but also appear to have different learning processes (Kim & Bonk, 2002; Ku & Lohr, 2003). Additionally, international students face greater challenges in this environment due to cross-cultural differences in values, language limitations, and learning format preferences (Ku & Lohr, 2003). Ku and Lohr (2003) verify several methods by which instructors or course designers can better deal with the challenges of asynchronous online learning, most notably: (a) increasing the self-confidence and motivation of learners through progressive development of required skills, (b) providing learners the opportunity to work in small groups for the experience of giving and receiving feedback, and (c) maintaining a self-paced, self-directed design of the online learning environment. Other factors, such as

poor instructional guidance and limited instructional feedback, can, however, negatively affect cross-cultural collaboration and interaction in the asynchronous online learning environment.

All things considered, the potential of e-learning to foster asynchronous collaborative communication in a dynamic and adaptable educational context is unquestionable and has been much documented in the literature. Garrison (2003) argues that "asynchronous online learning has the potential to support higher-order learning in an effective and unprecedented manner" (p.10). Wu and Hiltz (2004) agree with this opinion based on findings of a study that indicated that asynchronous online discussions improved students' learning skills overall learning quality. The creation of knowledge in this context is a personally reflective and collaborative process facilitated through the teaching and learning transaction that co-exists within an open and critical community of inquiry (Garrison, 2003).

Communities of practical inquiry consist of several core components that distinguish them from traditional organizations and learning situations. These components include (a) different levels of expertise simultaneously present within a given community, (b) the progression from being a novice to an expert, and (c) authentic tasks and communication (Johnson, 2001). In addition, learning is a social process in which discourse plays a vital role (Harasim, 2002). Research on social presence and CMC has indicated that the personal perceptions of social presence and adaptations people in how they communicate are more important than the objective qualities of a communication medium (Lowenthal, in press). The CoI framework values social presence, a fundamental element for describing cross-cultural learners' perceptions and experiences in the online environment. In addition, the model promotes higher-order learning based on reflective and collaborative discourse. These facts justify

investigating the framework further in order to uncover how it could best serve cross-cultural learners.

The Community of Inquiry (CoI) Model

Rationale for the model

In general, human beings yearn for a sense of belonging and connection to a greater purpose (Shaffer & Anundsen, 1993 as cited in Pallof & Pratt, 2007). Therefore, with the advent of the Internet all kinds of communities can be formed by people who share the same issues, concerns, and values but are not necessarily in the same geographical place. The concept of community as applied to education implies that who we are as social beings drives learning, and that the social aspects of learning are the most important factors in establishing a sense of belonging (Pallof & Pratt, 2007). Consequently, communities of practice sustain the ability of participants to undertake an educational or work journey together collaboratively, yet without compromising an individual's privacy or freedom. As Garrison and Anderson (2003) assert, "a critical, collaborative learning community has been the *sine qua non* of higher education" (p. 22). A community of learning is thus essential when the desired learning outcome is to achieve higher-order learning. According to Lipman (1991), the primary characteristics of a community of inquiry that fosters higher-order thinking are questioning, reasoning, connecting, deliberating, challenging, and developing problem-solving techniques.

The transactional and interactive educational nature of online learning can best be understood by further elaboration of the concept "critical community of learners." Garrison and Anderson (2003) argue that

A critical community of learners, from an educational perspective, is composed of teachers and students transacting with the specific purposes of facilitating, constructing, and validating understanding, and of developing capabilities that will lead to further learning. Such a community encourages cognitive independence and social interdependence simultaneously. It is the juxtaposition of both aspects of this seemingly contradictory relationship that creates the spark that ignites a true educational experience that has personal value and socially redeeming outcomes. (p. 23)

The conceptual framework

The CoI model provides a conceptual framework that addresses how learning and teaching can be achieved in dynamic yet intricate online learning environments through the use of effective communities of practical inquiry. Inquiry in this educational context implies that there is an active search for meaning by students to achieve good learning outcomes. "A community of inquiry provides the environment in which students can take responsibility and control of their learning through negotiated meaning, diagnosing misconceptions, and challenging accepted beliefs – essential ingredients for deep and meaningful learning outcomes" (Garrison, 2011, p. 22). The model contemplates the complexities of written communication in achieving and fostering higher order thinking skills in online and blended higher education. The underlying assumption of the CoI framework, illustrated in Figure 1, is that learning occurs within the community through the interaction of three central elements: teaching presence, social presence, and cognitive presence. The CoI framework has enabled distance education researchers to investigate more closely computer mediated communication (CMC) in educational contexts (Garrison, Anderson, Archer, 2000).

Further, a decade of research has provided empirical findings that corroborate the assertion that the CoI framework accounts for much of the complexity of the teaching and learning transaction in computer mediated communication (CMC) educational environments (Garrison, 2011). Finally, the CoI Framework has undoubtedly made an important contribution to the online distance education field and has proven useful in providing researchers helpful elements or constructs for explaining the dynamic interchange present in an online learning community.

Figure 1. Community of Inquiry Model
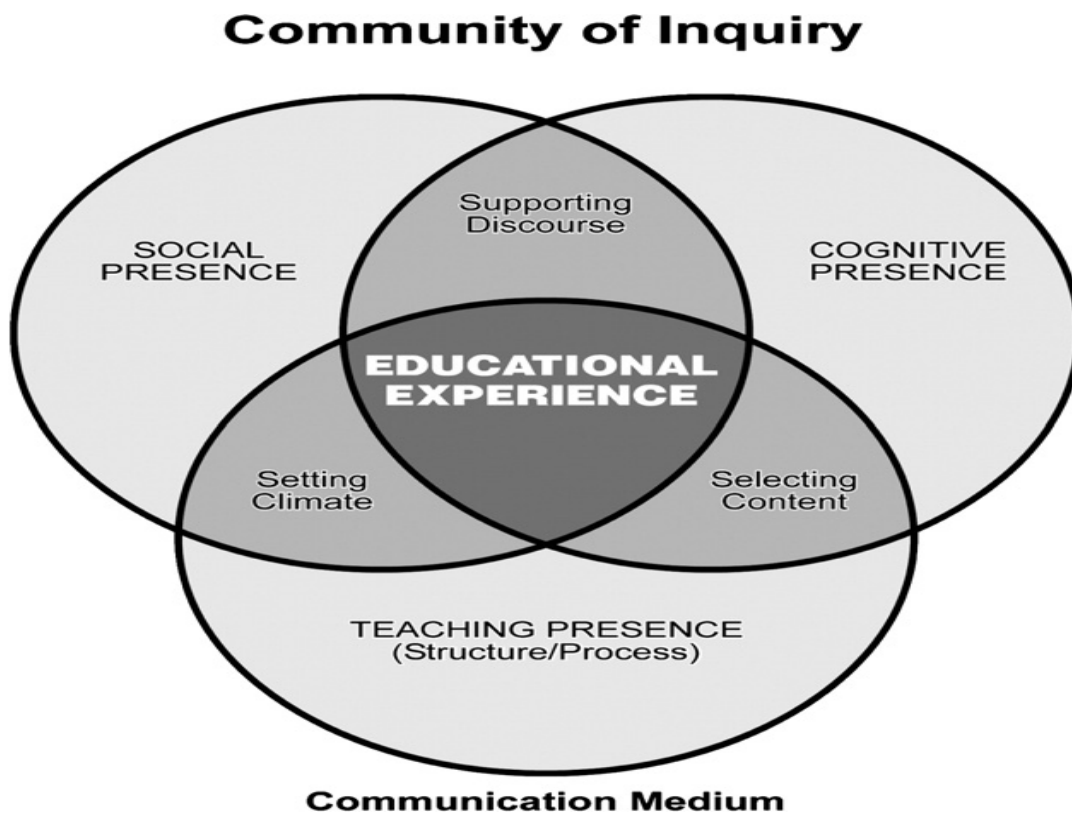
Note. From *Researching the community of inquiry framework: Review, issues, and future directions (p.158),* by D.R. Garrison and J.B. Arbaugh, 2007, Internet and Higher education, 10 (2007) 157-172, Elsevier Inc. Copyright Elsevier Inc. Adapted with permission.

However, as noted by Morgan (2011)

> it is somewhat surprising that although the community of inquiry
> framework has been developed based on distance education contexts, it currently
> does not consider the complexities of the community's global and local contexts,
> the potential multi-linguistic demands of the teaching and learning contexts, and
> how power, agency, and identities are negotiated in these multicultural contexts
> (p. 2).

As Garrison (2011) argues "A community of inquiry must be both inclusive and critical" (p. 32). That is, its members must feel they belong to the community in order to sustain critical thinking and discourse. This poses a great challenge to cross-cultural learners because they might not share this same sense of belonging because of differing values, beliefs, and language limitations. Setting climate, the overlap between teaching presence and social presence, speaks not only to instructor actions in drawing students into the learning experience but also in helping learners feel they belong to the group. It is precisely within this overlap that the role of the instructor is defined and needs to adapt accordingly in order to accommodate a culturally diverse learner population. In sum, Morgan's (2011) statement resonates with the argument put forward by this study that in order to better understand the complexity of online cross-cultural interactions in a community of practical inquiry, its elements or presences must be further revised and expanded.

Elements of the CoI

Categories and indicators

Garrison and Anderson (2003) developed a template consisting of categories of indicators, as illustrated in Table 2, which define and explain the three

core elements of the CoI framework. These indicators comprise key words and phrases that suggest the overlapping presence of the three elements in achieving a high quality educational e-learning experience. According to Garrison and Anderson (2003), "the template will form an analytical tool for educators to assess written transcripts and thereby gauge specifically what is occurring within an e-learning community of inquiry" (p. 30). Categories for cognitive, social, and teaching presence were derived from extant literature and based on exploratory study of computer conferencing transcripts.

Table 2. Community of Inquiry Categories and Indicators

Elements	Categories	Indicators (examples only)
Social presence	Open communication	Learning climate/risk-free expression
	Group cohesion	Encourage collaboration
	Affective expression	Emoticons
Cognitive presence	Triggering event	Sense of puzzlement
	Exploration	Information exchange
	Integration	Connecting ideas
	Resolution	Apply new ideas
Teaching presence	Design & Organization	Setting curriculum & Methods
	Facilitating discourse	Sharing personal meaning
	Direct instruction	Focusing discussion

Teaching presence

Teaching presence has been a critical element in the success and satisfaction of an educational community of inquiry (Garrison & Arbaugh, 2007). Teaching presence consists of three areas of responsibility: design, facilitation, and direct instruction. "The first of the primary teaching presence responsibilities is establishing curriculum content, learning activities, and timelines. The second responsibility is monitoring and managing purposeful collaboration and reflection. The third is ensuring that the community reaches the intended learning outcomes by diagnosing needs and providing timely information and direction" (Garrison, Cleveland-Innes & Fung, 2010, p. 32). Therefore, the goal of teaching presence is to bring all the elements of a community of inquiry together in a balanced and functional relationship congruent with the intended learning outcomes and the needs of the learners (Garrison & Anderson, 2003; Garrison, 2011). Table 3 illustrates the teaching presences indicators and provides examples for each indicator.

Table 3. Teaching Presence Indicators and Examples

Instructional design and organization indicators

Indicators	Examples
Setting curriculum	"This week we will be discussing. . ."
Designing methods	"I am going to divide you into groups, and you will debate. . ."
Establishing time parameters	"Please post a message by Friday. . ."
Utilizing medium effectively	"Try to address issues that others have raised when you post."
Establishing netiquette	"Keep your messages short."
Making macro-level comments about	"This discussion is intended to give you a

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course content	broad set of tools/skills which you will be able to use in deciding when and how to use different research techniques."

Facilitating discourse indicators

Indicators	Examples
Identifying areas of agreement/disagreement	"Joe, Mary has provided a compelling counter-example to your hypothesis. Would you care to respond?"
Seeking to reach consensus/understanding	"I think Joe and Mary are saying essentially the same thing."
Encouraging, acknowledging, or reinforcing student contributions	"Thank you for your insightful comments."
Setting climate for learning	"Don't feel self-conscious about 'thinking out loud' on the forum. This is a place to try out ideas, after all."
Drawing in participants, prompting discussion	"Any thoughts on this issue?" "Anyone care to comment?"
Assessing the efficacy of the process	"I think we're getting a little off track here."

Direct instruction indicators

Indicators	Examples
Present content/questions	"Bates says…what do you think?"
Focus the discussion on specific issues	"I think that's a dead end. I would ask you to consider…"
Summarize the discussion	"The original question was …. Joe said…. Mary said…. We concluded that…. We still haven't addressed…."
Confirm understanding through assessment and explanatory feedback.	"You're close, but you didn't account for…. This is important because…."
Diagnose misconceptions	"Remember, Bates is speaking from an administrative perspective, so be careful when you say…."
Inject knowledge from diverse sources, e.g., textbook, articles, internet, personal	"I was at a conference with Bates once, and he said…. You can find the

| experiences (includes pointers to resources) | proceedings from the conference at http://www…." |
| Responding to technical concerns | "If you want to include a hyperlink in your message, you have to…. " |

Teaching presence is useful for identifying what instructors (and students) do in a community of inquiry, but it falls somewhat short of diagnosing problems because it does not get at the "whys" related to what Tsang (2004) has called instructors' "interactive decisions" (Morgan, 2011). To better understand the *whys* of teaching presence, Morgan (2011) recently concluded a case study that adopted activity theory as a theoretical framework. One interesting finding was evidence across all cases that the way instructors perceived the online interaction space directly influenced how they negotiated their teaching presence (Morgan, 2011). For example, instructors have differing views on what a constructivist course should look like. In addition, instructors have different teaching styles and may attempt to simulate face-to-face dialogues in the online context. As Morgan (2011) asserts, "describing teaching presence as a negotiation within a mediated context requires a broader view of what instructors bring to the online context, how they position themselves and are positioned by others within it, and the components of the activity system that shape this negotiation" (p. 13).

Finally, absent or inappropriate teaching presence may negatively affect not only student discourse (Finegold & Cooke, 2006) but also learners' ability to project themselves socially in the online environment (Shea, Li, & Picket, 2006; Gilbert & Dabbagh, 2005). Thus, instructors play a key role in not only establishing an effective online community of practical inquiry but also helping learners project their genuine identities in this environment to achieve deep and meaningful learning. To undertake

this endeavor in a community of learning in which there are learners from different and distinct cultural backgrounds may prove to be an even greater challenge. For example, students from varying cultural backgrounds may hold the belief that the professor is the all-wise transmitter of knowledge. This opposes the idea of the instructor as a facilitator in a learning environment that is co-constructed with students. Learners who are used to rote memorization may feel uncomfortable with inquiry-based learning (Farmer, 2010). Therefore, it would be advisable for instructors, through their teaching presence, "to contextualize content in terms of students' local reality or at least build on those realities as students need to assimilate new cultural understandings" (Farmer, 2010, p. 205).

Social presence

Social presence, as defined by the CoI framework, is "the ability of participants to identify with a group, communicate purposefully in a trusting environment, and develop personal and affective relationships progressively by projecting their individual personalities" (Garrison, 2009b as cited in Garrison, 2011). Two concepts closely linked to social presence are immediacy (Wiener & Mehrabian, 1968) and intimacy (Argyle & Dean, 1965). Garrison (2007) postulates that, "the purpose of social presence in an educational context is to create the conditions for inquiry and quality interaction (reflective and threaded discussions) in order to collaboratively achieve worthwhile educational goals "(p. 64). In practical terms, this means that effective communication resides not only in how learners forge relationships and interact socially online but rather on the purposeful nature of educational communication, which can be also measured via learners' teaching and cognitive presences (Garrison, 2007). Social presence in an academic environment means creating a climate that supports and encourages probing questions, skepticism, and the

contribution of ideas (Garrison, 2011). To further corroborate this concept, Stodel, Thompson, and MacDonald (2006) observe that "fostering social presence might be a necessary precursor to meaningful discourse, but if the 'conversation' comprises only social dialogue and low level information exchange then perhaps learners will disengage as they perceive they are 'wasting time' getting to know each other and are not learning" (p. 14). In the CoI model, social presence comprises three categories: interpersonal (affective) communication, open communication, and cohesion. Table 4 provides an overview of the indicators of each category and its corresponding definition.

Table 4. Social Presence Classification and Indicators

Category	Indicators	Definition
Interpersonal communication	Affective expression	Conventional or unconventional expressions of emotions, repetitious punctuation, conspicuous capitalizations, use of emoticons
	Use of humor	Teasing, cajoling, irony, sarcasm, understatements
	Self-disclosure	Presents detail of life outside of class, expresses vulnerability
Open communication	Continuing a thread	Using reply feature of software, rather than starting a new thread
	Quoting from others' messages	Using software features to quote others' entire messages or cutting and pasting selections of others' messages
	Referring explicitly to others' messages	Direct references to contents of others' posts
	Asking questions	Students ask questions of other students or the moderator
	Complimenting, expressing appreciation	Complimenting others or others' messages
	Expressing agreement	Expressing agreement with others or content of others' messages

Cohesion	Vocatives	Addressing or referring to participant by name
	Addresses or refers to the group using inclusive pronouns	Addresses the group as we, us, our group
	Phatics, salutations	Communication that serves a purely social function; greetings, closures

Note. From *E-Learning in the 21st century, 2nd ed.* (p.38-39), by D. Garrison, 2011, New York: RoutledgeFalmer. Copyright D. R. Garrison. Adapted with permission.

Research has indicated that social presence correlates positively with learners' satisfaction with online learning (Arbaugh & Benbunan-Fich, 2006; Lowenthal, n.d.; Akyol & Garrison, 2008). "Learners' perceptions of social presence are related to their satisfaction with the course, the instructor, and at times their learning" (Lowenthal, n.d., p. 6). Collaborative learning supports the development of social presence (Richardson & Swan, 2003), and students attend to different aspects of social presence as an online discussion evolves and matures (Richardson & Swan, 2003; Akyol & Garrison, 2008). Social presence also strongly predicts success within an online environment (Tu, 2002). In conclusion, the level and quality of learners' social presence in the online environment are two elemental factors in determining whether the educational outcome and experience in this context will be successful.

All things considered, the needs and expectations of culturally diverse learners as expressed via their projected social presence are even harder to address in the online educational context. The demand for academic discourse in contrast with the desire to express and connect oneself on a personal level may be an added strain to the cross-cultural learner (Stodel et al., 2006). Learner success and achievement in this context depends greatly on the instructor, who has the power to either thwart or advance an individual's social presence in an online community of inquiry. "Modeling of

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appropriate messages and responses can be crucial in making students feel welcome and in giving them a sense of belonging" (Garrison, 2011, p. 41). Thus, it is imperative that educators learn about the backgrounds, interests, needs, and resources of the population they serve in addition to being open to different cultural mindsets (Farmer, 2010).

Cognitive presence

Another core element of the community of inquiry is cognitive presence. "Cognitive presence reflects the inquiry and learning process" (Garrison, Cleveland-Innes, & Fung, 2009, p. 33). Cognitive presence "means the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning" (Garrison, Anderson, & Archer, 2000, p. 89). Rooted in Dewey's (1933) practical inquiry model, cognitive presence is perceived as vital to critical thinking, processes, and outcome purposes because it is a condition of higher-order thinking and learning (Garrison & Arbaugh, 2007). Cognitive presence comprises four distinct phases that occur in an environment of reflection and discourse, and analysis and synthesis (Garrison, Cleveland-Innes, & Fung, 2009). The four phases of cognitive presence are: (a) a triggering event, where the identification of some issue or problems arise leading to further inquiry, (b) exploration, where students explore an issue, individually and/or collaboratively through critical reflection and discourse, (c) integration, where students assimilate or make sense of an issue, integrating and further developing the ideas, and (d) resolution, where students apply newly acquired knowledge to educational contexts or workplace settings (Garrison & Arbaugh, 2007). Figure 2, the Practical Inquiry Model, describes practical inquiry as a continuing transition between private and shared worlds as the learner moves through the four phases described above.

Figure 2. Practical Inquiry Model

Private World   **Deliberation** (Applicability)   Reflection

Exploration   Integration

Perception (Awareness)   **EXPERIENCE**   **Conception** (Ideas)

Triggering Event   Resolution

Shared World   **Action** (Practice)   Discourse
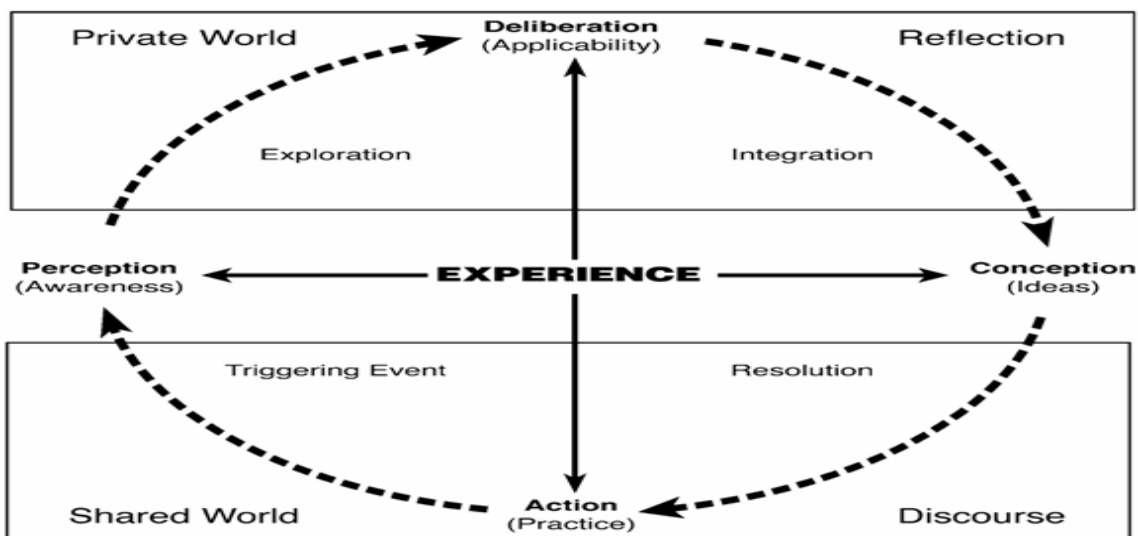
Note. From *E-Learning in the 21st century* (p.59), by D. Garrison and Terry Anderson, 2003, New York: RoutledgeFalmer. Copyright D. R. Garrison and Terry Anderson. Adapted with permission.

Within the CoI framework, cognitive presence is by far the most challenging presence to study and develop in online courses (Garrison & Cleveland-Innes, 2005). Studies have revealed that learners have difficulty moving beyond the information exchange and exploration phase (Celetin, 2007; Vaughan & Garrison, 2005). In a study on measuring changes in how graduate students choose to strategize their learning (deep, surface, or achievement approaches) in a particular setting, Garrison and Cleveland-Innes (2005) concluded that design and teaching factors strongly influence how students approach their studies. That is, simple instructor interaction or leadership may be insufficient to promote deep and meaningful learning. In light of this finding, Garrison and Arbaugh (2007) have concluded "teaching presence must consider the dual role of both moderating and shaping the direction of discourse" (p. 168). Further, the academic objectives, the phases of inquiry, and the levels of discourse must be made explicit to learners in order to sustain a successful community of inquiry (Garrison & Arbaugh, 2007).

Multicultural Teacher Education Frameworks and Strategies

Intercultural competence

A globalized world and economy is making it imperative that learners and instructors acquire the necessary skills and strategies to deal with cultural heterogeneity. Intercultural competence is a person's ability to understand more than what words record in spoken or written language. In this sense it is related to the human communication process beyond linguistic competence (Bélisle, 2007). Therefore, intercultural competence can be defined as "the ability to ensure a shared understanding by people of different social identities, and their ability to interact with people as complex human beings with multiple identities and their own individuality" (Byram, Gribkova, & Starkey, 2002, p. 10). The core components of intercultural competence are knowledge, skills, and attitudes, complemented by the values one holds because of one's belonging to a number of social groups. These values are an intrinsic part of one's social identities (Byram, Gribkova, & Starkey, 2002). To provide effective and meaningful online teaching and learning, both instructors and students need to acquire intercultural competence, which requires the following characteristics: openness to learning about other cultures and sharing one's own culture, ability to change personal points of view and biases, ability to communicate effectively across cultures, and ability to acknowledge that such interaction is an enriching experience (Liaw, 2006).

Rationale for multicultural teacher education

Gunawardena and Lapointe (2007) posit that "what counts as sound educational practice for online environments in all likelihood presents a form of cultural bias on the part of the person promoting the educational practice" (p. 604). Multicultural teacher

education focuses on producing professional educators committed to the ideals of multicultural education in addition to being competent in their practice (Guyton & Wesche, 2005). Although learners are not exclusively products of their culture and vary in the degree to which they identify with them, there are distinctive cultural behaviors that are associated with different nationalities (Banks et al., 2001). Further, culturally-relevant and culturally-competent teachers utilize learners' cultures as a vehicle for learning to maintain cultural integrity as well as academic excellence (Ladson-Billings, 1995). In the view of certain scholars, it is impossible to create a model of the good teacher without taking issues of culture and context into account (Cole & Griffith, 1987; Delpit, 1988). "We need to understand the value differences regarding educational systems to create a learning environment in which all students feel valued and capable of academic success" (Cummins, 1986; Olsen & Mullen, 1990 as cited in Liu, 2007, p. 36). Thus, online instructors should become knowledgeable about the cultural backgrounds of their learners in addition to acquiring the skills necessary for translating that knowledge into effective instruction.

Approaches and dimensions of multicultural teacher education

Pre-service teacher education and training on multicultural issues is one way to raise teachers' cultural competency and eradicate racism, prejudice, and discrimination (Bennett et al., 1990). According to Banks et al. (2001), effective professional development programs should be geared toward assisting educators in (a) identifying their personal attitudes toward racial, ethnic, language and cultural groups. (b) acquiring knowledge about the histories and cultural backgrounds of diverse national and ethnic groups. (c) becoming acquainted with the diverse perspectives of different ethnic and cultural communities. (d) understanding the ways in which institutionalized knowledge within universities can perpetuate stereotypes about racial and national groups. and (e)

developing skills to implement an equity instruction. In sum, creating a cadre of professionals who have the potential to make an impact in any arena where multicultural sensitivity and competence are required may help to resolve historical, contemporary, or potential problems (Wallace, 2000).

The four dimensions of the multicultural framework outlined by Bennett et al. (1990) are knowledge, understanding, attitude, and skill. These dimensions are roughly similar to Banks et al.'s (2001) framework for effective teaching in multicultural settings. Knowledge is being aware of the history, culture, and values of major national groups, as well as acquiring and articulating a theory of cultural pluralism. Understanding includes having cross-cultural immersion interactions and experiences in order to apply cultural theory. Attitude involves being aware of cultural differences in order to minimize one's own prejudices and misconceptions. Attitude in the context of the CoI involves instructor ability to raise learners' awareness of cultural differences effectively to promote a cooperative and collaborative learning environment. Bearing in mind that learner-learner interaction is an essential component of a community of practice, raising awareness of others' cultural values, beliefs, and expectations among learners within a CoI is vital to achieving successful educational outcomes (D. Hoven, personal communication, February 23, 2012). Skill includes the ability to plan and provide for effective multicultural practices (Bennett et al., 1990). These frameworks suggest that multicultural teacher education will be successful only as long as it develops courses and field experiences to address these dimensions on an ongoing basis (Guyton & Wesche, 2005).

Multicultural Dispositions Index (MDI)

Dispositions can be generally defined as "values, commitments, and professional ethics that influence teaching and interactions with students, families, colleagues, and communities" (Gollnick & Chinn, 2009, p. 379 as cited in Thompson, 2009, p. 95). In a five-year study with 1,092 teacher and counselor candidates at an American Midwestern metropolitan university, Thompson (2009) developed a 22-item, four-subscale assessment tool for measuring faculty members' multicultural disposition index. The study's findings revealed several potential uses for the tool, such as the following: providing candidates with a better grasp of the personal and professional tools needed to work with a diverse group of learners, offering an opportunity for the candidate to determine whether teaching is a good professional match, and giving instructors a reliable and valid instrument that provides a common language for developing, refining, and assessing multicultural educator dispositions (Thompson, 2009). Nonetheless, definitions of dispositions are imprecise and non-scientific, too subjective for interpretation, and subject to a controversy about whether they should be assessed at all (Thompson, 2009). Thus, taking these factors into consideration, the MDI was not used for this study.

General strategies for designing culturally sensitive e-learning

Farmer (2010) provides comprehensive strategies for teacher educators to follow in designing culturally-sensitive e-learning. Key requirements are

- Provide clear information and expectation about the teacher training program (content, technical aspects and procedures, participation, assessment, support).

- Obtain and share demographic information; foster participant sharing of perspectives and personal experiences.

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- Promote a positive class climate where everyone can equally voice their opinions.

- Bring in cultural differences so that students are provided an opportunity to connect training content to their own realities and environments.

- Provide access and support to resources, and give students the option of using alternate material or resources.

- Provide the necessary support and structure for students (local expertise, peer assistance, translation tools, etc.).

- Promote critical thinking by simulating analytical information processing.

- Encourage pair or group studying to help students refine their knowledge.

- Provide timely and specific feedback during the training program.

- Provide opportunities for students to demonstrate competencies in different ways: written, visual, and orally.

Summary

This review sought to deepen understanding and advance knowledge about the inherent complexities of cross-cultural engagement in asynchronous, text-based, constructivist–oriented, online educational environments. Despite all the advantages of the internationalization of education, culture clashes can arise due to educational practices that fail to meet the needs and demands of culturally distinct learners in addition to different and conflicting worldviews. Thus, distance educators must acquire knowledge and skills to become interculturally competent (Moore, 2006; Wang & Reeves, 2007). In addition, existing frameworks for analyzing cultural issues in interface design ignore the fact that an individual's cultural construct consists of multiple cultural frames or references, especially in the globalized e-learning

environment (Saxena, 2010). Further, at this time, one of the most prominent distant education frameworks, the CoI model, designed to foster higher order thinking skills in online and blended higher education, does not suggest how instructors, via their teaching and social presences, should accommodate cross-cultural learners. Therefore, the CoI model was explored, including a discussion of the value and limitations of its elements, categories, and indicators, and how these could better reflect the needs of culturally diverse learners. Multicultural teacher education frameworks are also discussed, including discussion of rationales, approaches, and dimensions of multicultural teacher education to provide instructors specific strategies consider cultural factors for enhancing cross-cultural learners' cognitive abilities.

The review reveals that although asynchronous, text-based, constructivist-oriented, online learning offers several benefits, it also presents disadvantages. In addition, learners from different cultures tend to exhibit not only different patterns in their online interactions with their instructors or peers but also appear to have different learning processes (Kim & Bonk, 2002; Ku & Lohr, 2003). Therefore, cross-cultural learners from different cultures encounter even greater challenges in the online environment because of differing values, language limitations, learning style preferences, and technology limitations. However, studies have found that asynchronous online learning has the potential to improve student's overall learning quality. Further, instructors play a key role in establishing and facilitating online communities of learning. Although social presence correlates positively with learners' satisfaction with online learning, the demand for academic discourse, in contrast with the need and desire of some cross-cultural learners to connect with others on a personal level, presents a challenge that both instructor and student must overcome. An even greater challenge is getting students to share their social identities with the group to

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form and establish group cohesion (Garrison, 2011). Thus, it is pertinent to investigate how instructors in this context are providing for and accommodating culturally diverse students. The purpose is to determine whether instructor practices are aligned with the existing cross-cultural theories, principles, and strategies. This review provides the foundation for the current research methodology described in Chapter III.

CHAPTER III

METHODOLOGY

Introduction

This chapter presents the research method utilized for this study, beginning with an overview of mixed methods research and the rationale for the selection of a sequential exploratory design to explore how instructors accommodate cross-cultural learners in an online community of inquiry. Next, this chapter describes the research design, including sample population and inclusion criteria, and procedures for data collection, data analysis, and validation. Finally, trustworthiness and limitations of the qualitative and quantitative data collection and analysis methods are discussed.

Mixed methods research overview and paradigm

The origin of mixed methods research can be traced back to the field of psychology, Campbell and Fisk's (1959) multitrait–multimethod matrix, to interest in triangulating different quantitative and qualitative data sources (Jick, 1979), and to the development of a distinct methodology of inquiry (Creswell, 2009; Johnson & Onwuegbuzie, 2004). Before the paradigm wars between the post-positivists (e.g., Ayer, Maxwell & Delaney, Popper, Shrag) and the constructivists (e.g., Eisner, Geertz, Lincoln & Guba, Stake, Wolcott) during the 1950-1970 period and the incompatibility thesis (i.e., stating that it was inappropriate to mix quantitative and qualitative methods), researchers who employed mixed methods in their research studies were largely unaware they were doing anything out of the ordinary (Tashakkori & Teddlie, 2003). Historically, mixed methodologists have been neither traditionalists (quantitatively-

oriented researchers) nor revolutionaries (qualitatively-oriented researchers). Thus, much of their methodology has been questioned as to its reliability and validity by self-proclaimed "purist" research scholars. Therefore, mixed methods research remains in its infancy with unresolved and controversial issues about its use (Leech & Onwuegbuzie, 2007). Nevertheless, there seem to be more advantages than limitations to employing this methodological approach as put forward in this study.

Mixed methods research is defined as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (Johnson & Onwuegbuzie, 2004, p. 17). Mixed research applies pragmatism as its philosophy. Pragmatism lends itself well to the purpose of this study by recognizing the cultural implications and subjective thoughts embedded in the emergent social and psychological world. Its investigative logic includes induction (discovery of patterns), deduction (testing of theories and hypothesis), and abduction (uncovering and relying on the best set of explanations for understanding one's results) (Johnson & Onwuegbuzie, 2004). However, this study endorses the constructivist worldview in research in which participants provide their understandings of a specific phenomenon. Research, in this form of inquiry, is shaped from individual perspectives to broad patterns and, finally, to theory (Creswell & Plano Clark, 2007).

In the social and behavioral sciences, the development and perceived legitimacy of both quantitative and qualitative research have resulted in the increasing popularity of mixed methods research (Creswell, 2009). In addition, the field of education, as opposed to the fields of sociology and psychology, has always been more open to experimenting with different research methodologies and ways of thinking about research (Creswell & Garrett, 2008). Major strengths of mixed methods encompass

generating and testing a grounded theory, answering a broader and more complete range of research questions, providing stronger evidence for a conclusion through convergence and corroboration of findings, adding insights and understandings that might be missed when only a single method is used, increasing the generalizability of the results, and informing theory and practice more effectively through use of two research methodologies (Johnson & Onwuegbuzie, 2004). Conversely, this research methodology also has several weaknesses. First, data collection is more time consuming. Second, this methodology requires that the researcher understand multiple methods and approaches in addition to knowing how to blend these approaches appropriately. Thus, it can be challenging for a single researcher to carry out both quantitative and qualitative research effectively (Johnson & Onwuegbuzie, 2004).

Lastly, a fundamental principle of mixed methods is that researchers should collect multiple data through different strategies, approaches, and methods so that the resulting combination is likely to result in complementary strengths and nonoverlapping-weaknesses (Johnson & Turner, 2003). Through effective use of this principle, one can expect to obtain a product that will be superior to mono-method studies (Johnson & Onwuegbuzie, 2004).

Sequential exploratory design approach

Obtaining the ideal research design in a mixed methods study is undoubtedly a difficult art to master. To this end, Leech and Onwuegbuzie (2007) have provided us a useful explanation for better understanding how different types of quantitative and qualitative data can be mixed:

> When undertaking a mixed methods study, the researcher uses qualitative
> research methods for one phase or stage of a research study and quantitative

research methods for the other phase or stage of the research study. Thus, a qualitative and a quantitative research study are conducted either concurrently or sequentially. The major difference between partially mixed methods and fully mixed methods is that whereas fully mixed methods involve the mixing of quantitative and qualitative techniques within one or more stages of the research process or across these stages, with partially mixed methods, the quantitative and qualitative phases are not mixed within or across stages. Instead, with partially mixed methods, both the quantitative and qualitative elements are conducted either concurrently or sequentially in their entirety before being mixed at the data interpretation stage. (p.267)

Leech and Onwuegbuzie (2007) also note that a typology of mixed methods research designs is necessary when utilizing quantitative and qualitative approaches within the same research framework. Design typologies can be distinguished by criteria such as (a) level of mixing, (b) time orientation, and (c) emphasis of approaches to differentiate the research design they subsume (Leech & Onwuegbuzie, 2007).

This study used two existing conceptual frameworks to explore cross-cultural issues as they relate to instructor and learner online engagement. Although both frameworks contained useful instruments for measuring several distinct variables, no single method was sufficient; therefore, a design evolved for utilizing a combination of methods (Jick, 1979). Justifications for this were twofold: (a) the CoI survey instrument utilized in this particular study measures teaching presence, social presence, and cognitive presence in an online community of practical inquiry but does not take into account instructor intercultural efficacy; and (b) in contrast, the MES measures instructor multicultural efficacy but was developed for traditional face-to-face environments, and so it needed to be adapted and modified for online teaching settings.

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Therefore, in order to better understand this phenomenon and to build upon the existing CoI framework this study used a sequential exploratory strategy with a partial level of mixing, sequential time orientation, and greater emphasis on the qualitative phase of the study than on the quantitative phase due to this researcher's limited resources (Creswell & Plano Clark, 2007).

One of the many advantages of this model's two-phase approach is its ease in implementation and its straightforwardness in describing and reporting results. The primary focus of this model is to explore a phenomenon. Further, as Creswell (2009) postulates, "this model is especially advantageous when a researcher is building a new instrument" (p. 212). The sequential approach enables the researcher to obtain themes and specific statements from participants in an initial qualitative data collection, and then use these statements as specific items and themes for scales to build upon an existing survey instrument (Creswell & Plano Clark, 2007). Finally, the modified instrument can be validated with the sample population. Thus, the sequential exploratory strategy is often discussed as the procedure of choice when a researcher needs to develop an instrument because existing instruments are inadequate or not available (Creswell, 2009). To conclude, the use of this approach appeared to be appropriate because it enabled this researcher to build on to the existing CoI survey instrument. Figure 3 illustrates the design typology utilized in this study.

Figure 3. Model of Sequential Exploratory Design
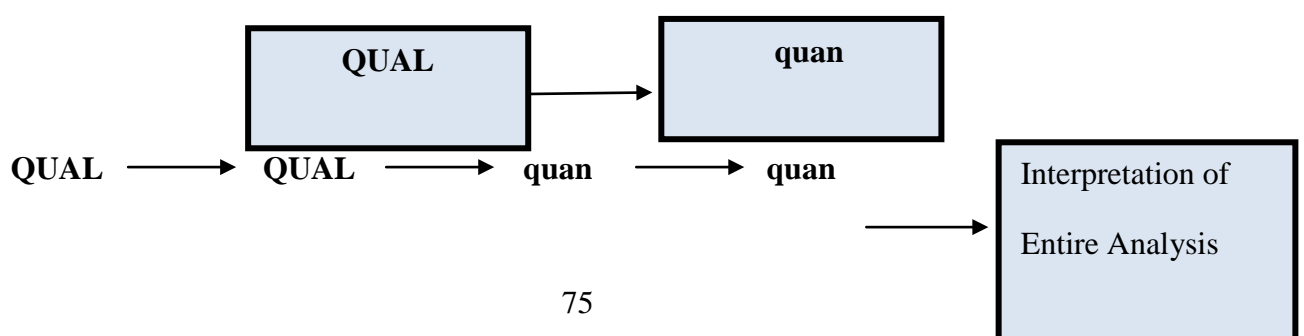
| Data | Data | Data | Data |
| Collection | Analysis | Collection | Analysis |

Note (1). **QUAL** refers to qualitative data and its weight or priority in the study. **quan** refers to quantitative data and its weight or priority in the study. An ⟶ indicates a sequential form of data collection, with quantitative data being built from (on) qualitative data. *Note (2)*: From: *Qualitative Inquiry and Research Design. Choosing among five approaches* (2nd *ed.*)(p. 209), by J.W. Creswell, 2009, Sage Publications, Inc.

Research design of the study

Research design refers to the strategy for cohesively and coherently integrating the various components of a research project. In contrast with a "cookbook" from which you chose the best recipe, it is a means structuring a research project to address a defined set of questions (Trochim & Land, 1982). The study of complex learning environments undergoing constant change calls for research designs that transcend the quantitative and qualitative research paradigms (Salomon, 1991). Therefore, the research design's purpose is to identify a unique variance that might otherwise have been neglected if a single (monomethod) approach had been used (Hanson, Creswell, Clark, Petska, & Creswell, 2005).

Considering the complex, dynamic, and continually evolving nature of culture and online teaching and learning as variables in this study, a partially mixed sequential exploratory design was adopted to test, refine, and build upon the CoI survey instrument. This design also enabled the researcher to uncover unknown variables that enabled better exploration of the relationship between instructors and cross-cultural issues. The research design prioritized the collection and analysis of qualitative data over quantitative data so as to augment the latter. Figure 4 is a schematic representation that outlines the procedural steps in the study.

Figure 4. Sequential Exploratory Design of the Study

Research Questions

1. To what extent are instructors cognizant of cultural diversity in an online community of inquiry?

2. What is the multicultural efficacy level (perceived as knowledge, understanding, attitude, and skill) of instructors in an online community of inquiry?

3. Does the multicultural efficacy of the instructors affect the emergence of an online community of inquiry?

4. If so, how does the multicultural efficacy of the instructor affect the emergence of an online community of inquiry?

Sequential

Exploratory Design

Data Collection

Open-ended survey questions based on Adapted Multicultural Efficacy Questionnaire

(1)

Conclusion

Drawing Final Report

(5)

Legitimation

(4)

Data consolidation and integration

Inductive text analysis

(2)

Data interpretation

(3)

Data Reduction

Data Display

Data Transformation

COI Instrument

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Data Collection Process

Sample and inclusion criteria

According to Onwuegbuzie and Collins (2007), the most common combination of sampling schemes in mixed methods regardless of the research goal, research objective, research purpose, and research question is the non-random sampling scheme. In addition, if the goal is not to generalize to a population but to obtain insights into a phenomenon or individuals, then the researcher purposefully selects individuals for this phase to maximize understanding of the underlying phenomenon (Onwuegbuzie & Collins, 2007), and "small samples can be used in quantitative research that represents exploratory research or basic research" (Onwuegbuzie & Collins, 2007, p. 288). Thus, taking into consideration the QUAL-quan design of this study, in which results from the first strand inform the methodology of the second strand, a purposive sequential sampling technique was utilized (Creswell, 2009; Teddlie & Yu, 2007; Onwuegbuzie & Collins, 2007). The sequential design used identical samples for both qualitative and quantitative components of this study. This sampling technique appeared to be suitable because it allows for examining particular instances of the phenomenon of interest to define and elaborate on its various manifestations in addition to being appropriate for small sample sizes (usually 30 cases or less) (Teddlie & Yu, 2007). Criterion sampling was also used in this study. This strategy works well when all individuals studied represent people who have to some extent experienced the phenomenon under investigation and is also useful for quality assurance (Creswell, 2007).

Eighty one participants were initially recruited from two Alberta post-secondary institutions for both the QUAL and quan phases of the study. Ethics approval was obtained from the higher education institutions that participated in the thesis research. A list of potential and target respondents was provided by the two institutions based on participation inclusion criteria. Respondents were recruited from three different graduate courses to provide a wide range of perspectives and to secure an adequate response base. The criteria for participant identification and inclusion in this study were as follows (a combination of criterion 1 and 2 *or* 3 was required):

1. Participant must be currently teaching a predominantly asynchronous text-based online undergraduate or graduate course.

2. Participant must be currently teaching an online undergraduate or graduate course in which there are foreign or international students enrolled who may or may not be currently living in Canada but were born in another country and whose native language is notably not English.

3. Participant must be currently teaching an online undergraduate or graduate course in which there are students where English is not their native language and they identify with a culturally distinct group (e.g., Aboriginals, French Canadians, or a new immigrant group now residing in Canada).

A total of ten instructors ($N = 10$) from two Alberta post-secondary institutions volunteered to participate in the study. Among these ten instructors, three instructors ($N = 3$) came from one institution and seven instructors ($N = 7$) came from the second institution. An initial contact email, stating the purpose of the research and the criteria for inclusion in the study, was sent to instructors (See Appendix B – Faculty Letter of Invitation and Consent Form). Participants were asked to indicate agreement to

participate in this study via email. Informed and deemed consent was obtained for both online surveys prior to the commencement of the study (See Appendix C – Informed Consent Package).

Instruments and Time Requirement of Participants

Participants were invited to respond to two online surveys over the course of the Spring/Summer 2011 Semester. Online survey 1 was called the Adapted Multicultural Efficacy Questionnaire (AMEQ) (See Appendix D – Online Survey 1 - Adapted Multicultural Efficacy Questionnaire). The AMEQ was designed to assess instructors' perceived multicultural efficacy in teaching cross-cultural students online. This survey contained fifteen open-ended survey questions. Before being administered to the respondents, the AMEQ was pre-tested for face validation and clarity by four volunteers from two Alberta post-secondary institutions. Informed consent was obtained from all four pre-testers. The AMEQ was administered to ten participants ($N = 10$) during the months of June and July, 2011, and approximately 30 to 40 minutes of the instructor's time was required to answer this survey.

The second online survey instrument utilized in this research study was the 5 point Likert-type scale CoI instrument designed to measure teaching presence, social presence, and cognitive presence in an asynchronous text-based Computer Mediated Communication (CMC) environment. This instrument underwent adaptations informed by the qualitative data collected from the AMEQ. Data taking into consideration instructor multicultural efficacy in an online intercultural context was tested for face validity. This survey was administered to the same sample population during the months of August and September, 2011. However, only nine participants ($N = 9$) of the sample population responded to the questionnaire. Approximately an hour of the instructor's time was required to answer this survey.

Data collection

Data collection followed the three-phase approach. Intra-method mixing was utilized for data collection (Johnson & Turner, 2003), as follows. The first phase employed a pure qualitative approach, the second phase also made use of a qualitative approach, and the third phase, informed by the first and second phases, was quantitatively-oriented.

Phase one consisted of collecting qualitative data by using the AMEQ. Data for Online Survey 1 was collected with LimeSurvey software.

During phase two, survey data collected in phase one underwent inductive qualitative analysis. The primary goal of this phase was to establish coding and themes based on instructors' intercultural level of awareness, perceived intercultural efficacy level, and general "lived" experiences as reported in the AMEQ. Indicators and descriptors measuring intercultural competency and instructors' personal perspectives were created and tested to determine how they intersected with existing teaching and social presence categories in the CoI instrument. The primary objective of this phase was to suggest additional roles or indicators to these two presences in an intercultural context. It is important to mention that the focus of this study was to observe how instructors addressed cultural differences in the overlap between teaching and social presence. The underlying premise of this study was that issues of cross-cultural relations are related more to social and teaching presence than to cognitive presence. Therefore, the construct of cognitive presence was not included or tested, as it was not considered a major consideration in instructional differences.

Finally, in phase three the modified version of the CoI Likert-like scale instrument-based questions (See Appendix E - Online Survey 2- Revised Community of

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Inquiry Survey Instrument) was administered to the target population to check for its face validity and to supplement the research questions raised in this study. Data for the CoI survey instrument was also collected with LimeSurvey software. In addition, participants were provided a token identifier number to complete both online surveys so that both demographic data and open-ended survey questions could be compared to CoI scores. Both surveys contained a field for entering this token identifier, and participants were informed of how they could withdraw their data after they had submitted it if they so desired.

Data Analysis

Onwuegbuzie & Teddlie (2003) posit that there are seven phases of the mixed methods data analysis process that can be used independently or in combination. These are (a) data reduction (e.g., quantitative data are analyzed using descriptive statistics and qualitative data are categorized as descriptive themes), (b) data display (e.g., data pertaining to both strands are organized and presented visually in graphs and matrices), (c) data transformation (quantitative data converted into narrative codes [qualitized] that can be analyzed using qualitative techniques and qualitative data converted into numerical codes [quantitized] and analyzed using quantitative techniques), (d) data correlation (correlating quantitative data with qualitized data or vice versa, (e) data consolidation (different data types merged into one data set), (f) data comparison (comparing data from two different sources), and (g) data integration (integrating quantitative and qualitative data into one coherent for analysis and interpretation simultaneously as a single data set or two data sets [quantitative and qualitative] to be analyzed separately by the researcher).

For this study, five of the above-described data analysis phases were utilized. Data reduction was used during phase one by categorizing qualitative data obtained from the AMEQ into descriptive themes and codes. Subsequently, data obtained from coding was consolidated (merged) into the CoI survey instrument data set. The next step was to perform data integration in which qualitative and quantitative data was integrated into one coherent whole for analysis and interpretation as one data set. The goal of this step was to use specific items and recurring themes as indicators to build upon the teaching and social presence constructs of the CoI survey instrument, on the basis of the participants' views (Creswell, 2009). This activity occurred primarily during phase three in the study after the CoI instrument had been revised, informed by the findings of the qualitative data analysis. To support the data analysis, qualitative data was displayed as matrices, and quantitative data was displayed as graphs and descriptive statistics. Data comparison was performed to compare demographic data and open-ended survey questions to final CoI scores. Frequency distributions were analyzed and reported according to the grouping of questions into corresponding indicators (teaching presence, social presence, and cultural indicators). Graphs were used to report data for frequency distributions expressed as percentages for the indicators of teaching presence, social presence, and cultural descriptors. Finally, Spearman's rank correlation coefficient (Spearman's rho), a non-parametric measure of statistical dependence, was calculated to measure the strengths of association between the ordinal variables: teaching presence, social presence, and the cultural indicators.

Coding methodology for the AMEQ (Online Survey 1).

Coding qualitative data involves searching through data for regularities and patterns as well as for topics the data cover, and consequently developing coding categories derived from words and phrases that represent and arise from topics and

patterns (Bogdan & Bilken, 2006). Open-ended survey responses were loaded into NVivo 9.0, a software package designed to support the analysis of textual, non-numerical, and unstructured data (Basit, 2003). For this study a "grounded theory" approach to the analysis and interpretation of data as advocated by Strauss and Corbin (1998) was utilized. In line with this approach, coding category labels and cultural indicators and descriptors were devised based on two conceptual frameworks (CoI and AMEQ instruments), research questions, literature review, and other key variables in the study (Basit, 2003).

Three stages of coding conducted out. First, "open coding" was utilized to identify, label, categorize, and describe cultural descriptors and indicators present in the AMEQ instrument. Ten coding categories were identified based on the questions contained in the AMEQ instrument. Codes for cultural indicators were devised to be relatively straightforward and explicit in meaning. These coding categories were then assigned abbreviations. Garrison, Cleveland-Innes, Koole, and Kappelman (2006) hold that categories must be meaningful and indicators must be relatively discernible (i.e., explicit) if coding is to have reliability. Cultural indicator categories were loaded into the NVivo 9.0 analytic tool as free nodes to determine how they related to the CoI elements of teaching presence and social presence. Free nodes were created rather than tree nodes because NVivo 9.0 does not allow for the creation of tree nodes. The unit of analysis was each of the open-ended survey responses in the form of utterances, sentences, or paragraphs submitted by the respondents. As Jackson and Trochim (2002) postulate

> The list-like format of open-ended survey question text lends itself to relatively easy creation of units of analysis. A unit of analysis consists of a sentence or phrase containing only one concept—units can often be lifted intact

from the response because respondents tend to express one idea for each concern or opinion they list. (p. 313)

Only one cultural indicator code was assigned at the response level. Some responses were too vague to be coded, and other respondents indicated that they did not accommodate or otherwise alter their teaching activities to account for cultural differences. Such responses were not coded according to cultural indicators. Survey responses were first coded for cultural indicators and subsequently for CoI indicators. Table 5 provides a breakdown of the cultural descriptors, corresponding abbreviations, and definitions.

Table 5. Cultural Indicators and Descriptors

Indicator abbreviation	Definition
ACC	**accommodation** - instructor adapts or modifies instructional material to address cross-cultural students' needs (also includes ways in which instructor adapts or modifies instructional material for cross-cultural learners)
CON	**contextualization** - instructor takes into account specific cultural factors when adapting curricula and activities
CSS	**creation of safe spaces** - instructor develops and incorporates activities designed to promote the success of cross-cultural learners
ENC	**encouragement** - instructor encourages cross-cultural collaborative online

engagement

ANT   **anticipation** - instructor can anticipate
                       online cross-cultural learner difficulties

PREV   **prevention** - instructor can take
                       preventative measures to lessen or relieve
                       learner difficulties

ADAP   **adaptation** - instructor can adapt to
                       concerns and expectations of culturally
                       diverse learners

ID   **identification** - instructor can identify
                       solutions to possible online cultural
                       clashes

KOD   **knowledge of diversity** - instructor can
                       identify ways in which culturally diverse
                       learners contribute to the online learning
                       community and environment

SOD   **supportive of diversity** - instructor
                       encourages online learners to assimilate
                       and accept the perspective of ethnic and
                       cultural groups different from their own

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Categories for teaching presence and social presence, also set up as free nodes, were loaded into NVivo, version 9.0. Social presence was analyzed in the responses to the open-ended questionnaire by coding for affective expression, open communication, and group cohesion (Garrison, 2011). Teaching presence was coded for design and organization, facilitating discourse, and direct instruction (Garrison, 2011). Cognitive

presence was not coded as aforementioned because the conceptualization of this study relied on the overlap between teaching and social presence. CoI indicators were also coded at the response level; however, responses were double coded. That is, overlapping CoI codes were added to each response. Justifications for this technique are based upon the CoI indicators' complexity in coding because an utterance or a paragraph may have more than a single implication. Next, an "axial coding" procedure was performed to create explicit connections between the CoI indicators and the cultural indicators. The goal of this stage was to explain and understand relationships between categories to better understand the phenomena to which they relate, thus hypothesizing causal and generic relationships on the basis of this cross-referencing. Concepts and CoI model indicators associated with teaching presence and social presence were used as references. Evidence within and underpinning the discussions about cultural differences was sought to evaluate whether social presence and teaching presence would emerge. That is, the extent to which instructors referred to concepts of social presence and teaching presence in their discussion of cultural differences was evaluated. Finally, "selective coding" was undertaken to detect the emergence of patterns to generate theory and to validate theory with data. Table 6 provides an overview of the final coding scheme or code family.

Table 6. Code Family

Core Codes (Conceptual order or relationships are present)	Sub-Codes CoI indicators cross-referenced with Cultural Indicators and Descriptors	Description of CoI Indicators
Teaching Presence (TP)		
	TP 1 – ACC- instructor adapts or modifies instructional material to	Teaching Presence, Design (setting curriculum, establishing time parameters,

	address cross-cultural students' needs (also includes ways in which instructor adapts or modifies instructional material for cross-cultural learners), CON - instructor takes into account specific cultural factors when adapting curricula and activities.	netiquette, macro-level comments on course contents, utilizing medium effectively)
	TP 2 – ADAP - instructor can adapt to concerns and expectations of culturally diverse learners ANT - instructor can anticipate online cross-cultural learner difficulties CSS - instructor develops and incorporates activities designed to promote the success of cross-cultural learners ENC - instructor encourages cross-cultural collaborative online engagement ID - instructor can identify solutions to possible online cultural clashes PREV - instructor can take preventative measures to lessen or relieve learner difficulties SOD - instructor encourages online learners to assimilate and accept the perspective of ethnic and cultural groups different from their own	Teaching Presence, Facilitation (identifying areas of agreement/disagreement, encouraging, acknowledging contributions, establishing a climate for learning, seeking consensus, drawing in participants, assessing the efficacy of the process)

	TP 3	Teaching Presence, Direct Instruction (presenting content/questions, focus and/or summarizing discussion, diagnosing misconceptions, evaluation/feedback, responding to technical concerns)
Social Presence		
	SP1	Social presence, Affective Expression (expressing emotions, use of humor, self-disclosure)
	SP 2 - KOD - instructor can identify ways in which culturally diverse learners contribute to the online learning community and environment	Social presence, Open Communication (continuing thread, quoting, questions, referring to other messages, complements, expressing appreciation)
	SP 3	Social presence, Group Cohesion (referring by name, use of inclusive pronouns, greetings)

Building onto the CoI instrument

The AMEQ was intended to explore instructors' perceived multicultural efficacy in an online community of learning. The intent of the analysis was to explore what categories or themes would emerge from the sample as a whole at the time of measurement, taking into consideration instructor perspectives and challenges in this environment. From a grounded theory perspective, the purpose of the analysis was to discover whether indicators for teaching and social presence would emerge from the instructor responses. While the questions were not designed specifically to ask about instructor teaching and social presence, qualitative data was coded for evidence of their

emergence. Evidence of social presence and teaching presence indicators emerged in instructors' discussion of teaching and attention to cultural differences. That is, CoI evidence was sought in the qualitative data but was not specifically requested.

Matrix coding queries that combined the CoI presences with the cultural descriptors and indicators were run to cross-reference data. The intent of this process was to determine frequencies and patterns in relationship to the impact of the ten cultural indicators and descriptors on the CoI teaching presence and social presence elements. Cultural indicators that correlated highly with design, facilitation, and open communication generated a final coding scheme (a code family). As a result, additional roles were added to the elements of teaching and social presence in light of the matrix query results. Three new indicators that consider the role of instructors in an intercultural context, two for teaching presence and one for social presence, were incorporated into the original 34-item CoI survey instrument. Thus, the CoI instrument administered to participants contained 37 items (See Appendix E - Online Survey 2- Revised Community of Inquiry Survey Instrument). Table 7 shows the elements and the incorporated cultural indicators in the CoI instrument.

Table 7. CoI Instrument and Incorporated Indicators

Core Codes	Cultural indicator
Teaching presence – design and organization	The instructor allows for adjustments to the design and organization when necessary to accommodate cultural diversity.
Teaching presence – facilitation	The instructor supports interaction among culturally diverse learners.
Social presence – open communication	Open communication in this community allows for culturally diverse presentation.

Data Analysis for CoI instrument (Online Survey 2)

Nine participants ($N =9$) from the original sample population responded to the revised 37-item CoI survey instrument. Ordinal responses were scored using a 5 point Likert-like scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The analytic tool for quantitative data analysis was SPSS, version 17.0. To obtain frequency distributions, CoI survey questions were grouped in the following manner: (a) teaching presence indicators comprised 13 questions in the CoI survey instrument; (b) social presence indicators comprised 9 questions in the CoI survey instrument; and (c) cultural indicators refer to the 3 questions (questions 35, 36, and 37) incorporated in the CoI survey instrument. Frequency distributions expressed as percentages were calculated according to the total number of respondents.

To calculate whether there was any degree of association between the ordinal variables (teaching presence, social presence, and the cultural indicators), Spearman's rank correlation non-parametric measure was utilized. The null hypothesis was that there would be no association between the variables in the underlying population. H0: There is no association between the variables in the underlying population. "Correlation is a bivariate analysis that measures the strengths of association between two variables. In statistics, the value of the correlation coefficient varies between +1 and -1. When the value of the correlation coefficient lies around ± 1, then it is said to be a perfect degree of association between the two variables. As the correlation coefficient value goes towards 0, the relationship between the two variables will be weaker" (http://tinyurl.com/4xdqtvw, n.d.). It is also important to note that the Spearman rank correlation test makes no assumptions about the distribution. The formula for calculating the Spearman rank correlation is as follows: $r_s = 1 - \dfrac{6 \sum d_i^2}{n(n^2 - 1)}$, where, r_s denotes Spearman's coefficient of rank correlation and d_i is the difference between the ranks

given to the two variable values for each item of data. This is an equivalent formula when there are no tied ranks, but, if there are only a few tied ranks, it provides a sufficiently good approximation (http://www.mei.org.uk/files/pdf/Spearmanrcc.pdf, 2007).

Trustworthiness

Most scholars have advocated the use of validity procedures for both the quantitative and the qualitative phases of the study (Tashakkori & Teddlie, 1998; Creswell, 2009). Creswell and Plano Clark (2007) affirm that "validity, within a mixed methods context, is the ability of the researcher to draw meaningful and accurate conclusions from all the data in the study" (p. 146). Thus, validity will be herein addressed within the context of both qualitative and quantitative research approaches, taking into consideration this study's research design.

The concepts of credibility, dependability, and transferability have been used to describe various aspects of trustworthiness in qualitative research (for example, Guba, 1981; Lincoln & Guba, 1985; Patton, 1987). These concepts are often used to embrace and expand upon the traditional notions of reliability and validity employed in quantitative research. Whereas reliability plays a limited role in qualitative research and relates primarily to inter-coder agreement in qualitative data analysis, qualitative data validity also "comes from the analysis of the researcher and from information gleaned while visiting with participants and from external reviewers" (Creswell & Plano Clark, 2007, p. 134). Further, Creswell and Plano Clark (2007) recommend that the term *validity* be used in mixed methods studies.

Several strategies were adopted to assess the trustworthiness of the findings. These included (a) ascertaining the consistency and accuracy in the definition of codes by asking experts to examine and validate pre-established cultural codes, indicators and

qualitative findings; (b) using rich, thick description to convey findings; and (c) avoiding generalization of findings to other sites. In addition, the exploratory design utilized in this study promoted "triangulation validity," which is obtained when the researcher can draw evidence from two different datasets, because two datasets provide better results than either dataset alone. Further, the same participants were chosen for the quantitative follow-up, and major themes and indicators were used as the basis for the quantitative phase. These measures enabled the minimization of potential threats to validity during the data collection and data analysis process.

In regard to the quantitative data analysis, two potential threats were taken into consideration: internal and external validity threats. The first was related to instrumentation, because the instrument utilized for measuring instructor multicultural efficacy and related questions changed between Phases 1 and 3 of this study. This fact could have adversely affected the scores on the outcome. Therefore, it would be advisable to use the same instrument (in this case the revised CoI survey instrument) for a longer period of time (Creswell, 2009). It is also important to address past scores obtained from the CoI instrument utilized in this study (Creswell & Plano Clark, 2007). The CoI framework survey instrument contains 34 items with ordinal responses scored using a 4 point Likert-like scale (0 = Strongly Disagree) to (4 = Strongly Agree). Mean responses ranged from 2.90 to 3.63. Standard deviations were highest for item 16 (S.D. = 1.04) and lowest for item 1 (s.d. = 0.66). Teaching presence items, which concerned this study, yielded a mean score of 3.34 (s.d. = 0.61). Social presence items yielded a mean score of 3.18 (s.d. = 0.65). Keyser-Meyer-Olkin (KMO) = 0.96. (Arbaugh et al., 2008). It is important to stress that the design of the CoI scale remained consistent with the scale devised by Arbaugh et al. (2008). The primary objective of this study was not to change the existing scale but rather to build upon it so that it would incorporate

instructor readiness for dealing with learners in an intercultural context. Further, test-retest reliability is beyond the scope of this study. Therefore, threats to validity were minimized because it was not in this study's interest to design an entirely new instrument with sound psychometric properties but rather to add indicators to the existing CoI instrument. External validity was also a potential problem because this study relied on small nonrandom samples of instructors (Neumann, 2006). Nonetheless, as previously discussed, small samples are commonly used in exploratory research (Onwuegbuzie & Collins, 2007). Further, due to limited resources, the selection of different individuals for the quantitative data collection as recommended by Creswell and Plano Clark (2007) was impossible and poses a potential threat to the validity of the research design. Consequently, it is recommended that this study be replicated in the future, utilizing a different and larger sample size for the quantitative data collection phase to obtain statistically significant results. Thus, it is important to note that no generalizations of this study's findings may be made to other populations (distance education instructors/learners or not) because of the nonrandom sampling procedure (T. Jones, personal communication, December 16, 2010).

Limitations of the Methodology

Major concerns about mixed methods relate to (a) being aware of the limitations of traditional methods as they are modified in a mixed methods study, (b) using and interpreting appropriately quantitized coding from qualitative data, (c) utilizing varied methods of treatment of "error" or "deviance" in quantitative data, and (d) generalizing appropriately, considering sample choice and methods employed (Bazeley, 2002).

The choice of a research design that placed more weight on the qualitative phase and whose time orientation was sequential appeared logical given that the questions raised in this study required the exploration of a phenomenon not yet included in theory.

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Thus, the research required a flexible design that fostered the exploration of nuances of the meaning of instructor multicultural efficacy in a complex online community of learning environment. Although the collection and analysis of open-ended key informant survey questions and structured survey questions in an iterative analytic process yielded important information on instructor multicultural efficacy in an online community of inquiry, constraints related to sample size curtailed the types of statistical procedures that might be used, particularly the more rigorous parametric measures of association, such as t-tests and analyses of variances (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). *Principal Components Analysis* (PCA) was also impossible due to the small sample size. Thus, there are no statistics for generalizing from small purposive samples. Further, "although no qualitative studies are generalizable in the statistical sense, their findings may be transferable" (Marshall & Rossman, 1999, p. 43). Findings can be transferable only to the extent that those contacted are representative of online instructors currently teaching cross-cultural students. Therefore, extra caution and effort was used in providing thick descriptions to convey findings. As the mixed methods design of this study did not require data transformation, the issue of quantifying qualitative data for the quantitative data set was not a limitation to, or concern of, this research (Driscoll et al., 2007; Bazeley, 2002).

Lastly, "inferences are based on the inquirer's coordinating multiple lines of evidence to gain an overall understanding of the phenomenon....Yet, because the inquirer is the instrument, all information flows through a single perspective" (Smith, 1997, p.77 as cited in Bazeley, 2002, p. 8). This single perspective may bias findings; however, it is expected that the use of two different methods adds insight to focus of this study, enhancing its credibility. Finally, in-depth methodological description enables this study to be repeated with different and larger sample populations.

CHAPTER IV

RESULTS

Introduction

This chapter describes the major data findings and comprises seven sections. The first section describes participants' demographic information: gender, age group, and cultural background. The second section outlines the qualitative data analysis and matrix coding query results. The third and fourth sections present how the cultural indicators correlated with the elements of teaching and social presence by providing a detailed description of the participants' accounts. Direct quotes from participants are also used to support and clarify emerging perspectives, challenges, and actions as they relate to the CoI elements. To avoid over-generalization and prevent losing focus of the participants' perspectives and experiences, a *thick description* of the participant's account is provided. Section five presents obtained CoI results and analysis of the quantitative data. Section six contains a brief discussion of instructors' additional perspectives, based on data collected from both the AMEQ and the CoI instrument as it relates to multicultural engagement in an online community of inquiry. The analytic tools used were NVivo 9.0 for the qualitative data analysis and SPSS 17.0 for the quantitative data analysis. Section seven summarizes the limitations of the study. Finally, section eight summarizes the qualitative and quantitative findings as they relate to the four research questions posed in this study.

Participants' Demographic Information

The approach to establishing a pool of participants for this exploratory study was informed by Onwuegbuzie and Collins (2007), who endorsed the use of small purposeful samples to maximize the understanding of an underlying phenomenon. The conditions established for this study were that participants meet the inclusion criteria presented in the methodology section. Accordingly, all ten respondents (N= 10) were instructors who were currently teaching a predominantly asynchronous text-based online graduate course in which there were students who were culturally distinct from the mainstream Canadian culture. For the purpose of this study "culturally distinct" refers to (a) foreign or international students who may or may not be currently living in Canada but were born in another country and whose native language is notably not English and (b) students whose native language is not English and who identify with a culturally distinct group (e.g., Aboriginals, French Canadians, or a new immigrant group now residing in Canada). The richness of data was enhanced by the diverse sample of ten online instructors teaching three different graduate courses in two Alberta post-secondary institutions. Table 8 provides a synopsis of participants' demographic information: gender, age group, and cultural background. In the context of this study, "cultural background" refers to the group with whose activities, beliefs, and customs the respondent most strongly identifies.

Table 8. Participants' Demographic Information

Respondents	Total Number	Age Group	Cultural Background
Female ($N = 7$)	2	35-44	Canadian
	1		Western European (Dutch) descent

	1	45-54	Canadian
	2	55-64	Canadian
	1	65-74	Canadian
Male (*N* = 3)	1	35-44	Greek
	1	55-64	Indian
	1		Canadian

None of the respondents were in the following age groups: under 25, from 25 to 34, and over 75. Instructors who responded they were Canadian provided additional information on their cultural background. This included stating their race, religious identification, and mother tongue. For this sample group, race and religious identification appear to be important factors in establishing most-identified-with groups and beliefs. Five respondents self-identified as being Caucasian, one respondent reported being a Protestant and coming from Ukrainian ancestry, and one respondent reported being an English speaker. The Greek respondent reported being an Orthodox Christian. It is also important to mention that the sequential design used identical samples for both qualitative and quantitative components of this study.

Qualitative Data Findings: Matrix Results

The qualitative phase of the study comprised instructors' responses to an open-ended survey questionnaire (AMEQ). The AMEQ was designed to explore instructor multicultural efficacy in an online community of learning. After the code family had been established, matrix coding queries were run with the objective of verifying whether there was any correlation between the cultural indicators and the elements of

teaching presence and social presence. The unit of analysis consisted of an utterance,

sentence, or paragraph containing instructor responses. Unanswered responses were not

coded. It is also important to stress that responses to the CoI indicators were double

coded while responses to the cultural indicators were single coded. For example, some

responses were coded as being both teaching presence – design and teaching presence –

facilitation. Thus, frequency results might have been different if the CoI indicators had

been single coded; however, instructor responses appeared to fit in more than one

category. Cultural indicators were divided into the following categories:

accommodation (ACC), *adaptation* (ADAP), *anticipation* (ANT), *contextualization*

(CON), *creation of safe spaces* (CSS), *encouragement* (ENC), *identification* (ID),

knowledge of diversity (KOD), *prevention* (PREV), and *support of diversity* (SOD).

Teaching presence was divided into three sub-elements: design (TP-D), facilitation (TP-

F), and direct instruction (TP-DI) (Garrison, 2011). Social presence was also divided

into three sub-elements: affective expression (SP-AE), group cohesion (SP-GC), and

open communication (SP-OC) (Garrison, 2011). As the AMEQ was predominantly

instructor-focused, the element of cognitive presence was not included in the coding

scheme. Findings indicate a high correlation between *accommodation* and teaching

presence – design, *adaptation* and teaching presence – facilitation, *anticipation* and

teaching presence – facilitation, *contextualization* and teaching presence – design,

creation of safe spaces and teaching presence – facilitation, *encouragement* and

teaching presence – facilitation, *identification* and teaching presence – facilitation,

knowledge of diversity and social presence – open communication, *prevention* and

teaching presence – facilitation, and *support of diversity* as cross-referenced with

teaching presence – facilitation and social presence – open communication. Table 9

shows the frequency counts for each cultural indicator when cross-referenced with the

core elements of teaching presence and social presence and their respective sub-elements. Matrix cell shadings in a darker blue indicate higher frequencies.

Table 9. Matrix Coding Query Results

	A : SP - OC	B : SP -GC	C : SP-AE	D : TP - D	E : TP -DI	F : TP -F
1 : ACC	0	0	0	8	0	6
2 : ADAP	3	0	0	6	2	9
3 : ANT	0	0	0	0	2	4
4 : CON	1	0	0	7	3	3
5 : CSS	4	0	0	3	3	5
6 : ENC	4	0	1	0	0	7
7 : ID	4	0	0	2	1	6
8 : KOD	8	0	0	1	1	1
9 : PREV	1	0	0	3	4	6
10 : SOD	5	0	0	1	0	6
Total Frequency	30	0	1	31	16	53

Cultural Indicators and Teaching Presence

Matrix coding query results show that all 10 cultural indicators appear to affect and span teaching presence categories, some to a higher degree than others. This is not surprising because several studies have underscored the fact that teaching presence plays a central role in the development of a community of inquiry (Akyol & Garrison, 2008; Diaz, Swan, Ice & Kupczynski, 2010; Garrison, Cleveland-Innes, & Fung; 2010; Shea & Bidjerano, 2009a as cited in Garrison, 2011). It is also noteworthy that instructors were not asked on the AMEQ instrument to indicate whether they had designed the courses they taught. Regardless of design authorship, instructors' responses indicate that they are authorized to modify or adapt instructional material and activities as necessary. Findings cover specific frequency counts presenting examples and relevant quotes that illustrate each teaching presence sub-element when cross-

referenced with a specific cultural indicator. For clarity, findings for each sub-element are discussed separately.

Design

"Design refers to structural decisions made before the process begins, while organization refers to similar decisions that are made to adjust to changes during the educational transaction (i.e., *in situ* design)" (Garrison, 2011, p. 57). Indicators for design are setting curriculum, designing methods, establishing time parameters, utilizing medium effectively, establishing netiquette, and making macro-level comments about course content. The total frequency count for teaching presence – design was 31. The cultural indicators *accommodation* (ACC) and *contextualization* (CON) appear to significantly affect teaching presence – design with a total reported frequency of, respectively, 8 and 7 for both datasets.

The cultural indicator ACC refers to whether and how instructors adapt curricula and activities to address the needs of students from other cultures. Three instructors claimed that they did adapt curricula and activities whenever necessary to meet the needs of culturally diverse learners. A fourth respondent stated that at times she would change an assignment to align more appropriately with the student's context. Another instructor asserted he used examples that were not only relevant but also acceptable to the other cultures. Some instructors did not state objectively that they did adapt curricula and activities to address the needs of students from other cultures but emphasized that learners are free to explore the instructional material and apply it to their own personal context or culture. This resonates with Farmer (2010), who recommends that instructors enable learners to seek self-relevant resources. Instructor responses that follow illustrate this concept.

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Only in so much as the assignments can be customized to something that is relevant to them in their work but this option is open to all students in the course (Instructor 3, reference 1).

The instructional activities encourage students to share their own experiences including business experiences from other countries. The activies [sic] and curricula were not spectifically [sic] designed to cater to needs of students from other cultures (Instructor 7, reference 1).

The course is student-directed and group-work based and the instructor facilitates. The students identify projects/topics according to their interests. So long as the project involve [sic] DE technology, they are free to explore cultural issues (or issues from their own cultural perspectives) (Instructor 8, reference 1).

I don't specifically create instructional activities designed for non-Canadian cultures or even teach in French. However, many of my assignments and discussions are designed to allow for considerable individual input (i.e., applied such that theory or research, etc., is applied by the individual student to a situation or context of their own choosing) (Instructor 10, reference 1).

These statements appear to indicate that accommodation is present to a certain degree in design and organization. Finally, one instructor emphasized that it was up to the student to indicate a need for accommodation in regard to the curricula or instructional activities, as the comment below suggests.

Unless students self-identify and indicate a need/desire for accommodation, I assume they are comfortable with the same treatment as all students receive, including individualized attention as required (Instructor 4, reference 1).

In regard to the ways in which instructors adapt curricula and activities to address the needs of culturally diverse learners, two instructors affirmed that they changed the language in which they posted their responses so that it would be more cross-cultural. In addition, one instructor pointed out that she would choose more culturally "neutral" assignments or spell out assumptions where modifications were not possible. Other instructors asserted having different strategies in regard to design, such as incorporating international cultural examples throughout the courses they teach and encouraging learners to bring examples from their own cultural realities in the online discussions. Data analysis revealed that cross-cultural learners can also adapt assignments to meet their needs and choose their own subject for analysis in certain types of assignments. Finally, one of the core components of intercultural competence is attitude. Attitude involves being aware of cultural differences in order to minimize one's own prejudices and misconceptions (Bennett et al., 1990). The statement below illustrates the intercultural competence of one instructor.

I encourage students to proceed through courses with their own cultural realities and make no judgements [sic] about their culture. I also do not try in any way to impart my culture on the students (Instructor 6, reference 1).

The cultural indicator *contextualization* (CON) also correlated highly with teaching presence – design. CON means the instructor takes into account specific cultural factors such as language barriers, gender issues, salutation issues, religious issues,

technological issues, and the like when adapting curricula and activities. Data revealed that three instructors are sensitive to and take into account religious and demographic issues. Two instructors take into account the gender of the student when adapting curricula and activities and one instructor considers differences in what is considered an appropriate salutation when adapting instructional material. Finally, five instructors declared they take into account language limitations and barriers when adapting curricula and activities. The statements that follow demonstrate more clearly how instructors deal with language limitations.

> I take into account ESL students who may have difficulty in reading/writing/understanding english [sic]. I provide feedback on spelling/grammar/writing. Exams and assignments are written to reduce use of colloquial expressions and words/phrases that may be more difficult for ESL to understand (Instructor 7, reference 2).

> If English is the second language of a student and their assignment writing is not perfect, if student demonstrates understanding and relevance to the assignment requirements, I do not deduct marks for the quality of their English. I believe we are teaching concepts not English (Instructor 6, reference 2).

> I try to remain sensitive to the difficulties that international students may encounter in our courses and especially pay attention to language issues. For instance, I may grant them extra time to complete assignments or may disregard non-standard English when their meaning is otherwise clear. In online discussions, I encourage them to bring examples from their cultures in their

postings and, if appropriate, will privately explain Canadian cultural references or idiomatic expressions (Instructor 10, reference 2).

Although *adaptation* (ADAP) correlated more highly with teaching presence – facilitation, it appears to also affect the teaching presence – design construct with a reported frequency of 6. ADAP refers to the ability of the instructors to adapt to the concerns and expectations of culturally diverse learners. Some examples of ADAP in teaching presence – design specifically in regard to technology limitations in the online learning environment can be found in the affirmations that follow.

I have on occasion had to deal with time zone differences and actually prefer to use asynchronous instructional approaches because of this issue (as time zone differences can even be significant in Canada). When using synchronous methods like live sessions using Adobe Connect, I also consult with the class about the most appropriate times and make adjustments accordingly (Instructor 10, reference 7).

I try to cope with technical issues by providing various and alternative opportunities for communication (Instructor 8, reference 7).

Because of the remote locations of some students, they technology may not be adequate for completion of course work. In this case, it is important to have [sic] flexible on when assignments are due. Also, with the different time zones, I get students to agree on the best time for synchronous sessions (Instructor 9, reference 7).

Because the two Alberta post-secondary institutions offer predominantly asynchronous courses, this feature appears to lessen the effects of time zone limitations. Finally, only one instructor addressed the possibility of international students having limited computer access and stated she would give extra time to students in that case.

Summary

Total frequency counts for the sub-element teaching presence – design was 31. Results from the qualitative data analysis show that the cultural indicators that more highly correlated with teaching presence – design were *accommodation* (ACC) and *contextualization* (CON). In regard to the cultural indicator ACC, findings revealed that three instructors adapted curricula and instructional activities to address the needs of culturally diverse students, one instructor would modify an assignment to align with the student's context, and four instructors stated that although they did not design instructional activities for non-Canadian cultures, learners were free to apply the instructional material to their own personal context or culture. Instructors were also asked in what ways they adapted curricula and activities to address the needs of cross-cultural students. Answers ranged from changing the language in which they posted their responses so that it would be more cross-cultural and choosing more culturally "neutral" assignments to incorporating international cultural examples throughout the courses they teach. Learners were also encouraged to bring examples from their own cultural realities in the online discussions. In relation to the cultural indicator CON when cross-referenced with teaching presence – design, data showed that three instructors are sensitive to and take into account religious and demographic issues when adapting curricula and activities, two instructors take into account the gender of the

student, and five instructors take into account language limitations and barriers. Finally, the cultural indicator *adaptation* (ADAP) also appears to affect teaching presence – design, even though it correlated more highly with teaching presence – facilitation. In regard to technology limitations, data for ADAP showed that three instructors either consulted with the class to establish synchronous sessions, were more flexible in relation to assignment deadlines, or provided alternative communication modes.

Facilitation

Instructor facilitation of reflection and discourse in order to build understanding is just as central to the online learning experience as it is to the face-to-face learning environment. It is within this sub-element of teaching presence that interest, engagement, and learning converge (Garrison, 2011). Further, it is the instructor's responsibility to ensure that the discourse is focused and productive by encouraging quality contributions and sustaining learner engagement (Garrison, 2011). Indicators for facilitation comprise identifying areas of agreement/disagreement; seeking to reach consensus/understanding; encouraging, acknowledging, or reinforcing student contributions; setting climate for learning; drawing in participants; and assessing the efficacy of the process. The total frequency count for facilitation was 53 in both datasets. Cultural indicators that appeared to correlate highly with facilitation were *adaptation* (ADAP) with a frequency of 9, *encouragement* (ENC) with a frequency of 7, *accommodation* (ACC), *identification* (ID), *prevention* (PREV), and *support of diversity* (SOD) with a total reported frequency of 6.

ADAP, as mentioned in the section above, refers to instructors' ability to adapt to the concerns and expectations of culturally diverse learners. The paragraphs below make clear how ADAP can be found in facilitation.

Our department has had many discussions about the appropriate choice of technology for allowing access to our courses by International students and I will take bandwidth issues into account for students living in less developed parts of the world or, in fact, even Canadian students living in remote and rural parts of Canada (e.g., First Nations students living on reserves). Asynchronous delivery methods like Moodle work well in most situations, but we do sometimes have to be careful about the inclusion of items like large graphics and streaming video and audio conferencing can be problematic for such students (Instructor 10, reference 7).

…in so much as I am flexible in what the learner needs to achieve from particular assignments and if they suggest an option that is outside the scope of the course activity but meets the same assignment requirements then that is fine. There is also flexibility in due dates etc. and my online style is facilitative not directive (Instructor 3, reference 7).

When teaching the Afghan students, I have read everything that I can find to understand their daily lives, the history of the country and I read the daily news regarding Afghanistan, so that I am aware of their surroundings and challenges. I try to put myself in their world, as much as possible, so that I can effectively respond to their questions and to comprehend their assignment work (Instructor 6, reference 7).

Yes, I get the students from different cultures to work together so that they can mentor each other (Instructor 9, reference 7).

Further, three instructors noted that they respect the personal requirements and needs of their learners and are willing adapt or modify assignments regardless of cultural background.

The cultural indicator *encouragement* (ENC) relates to whether instructor encourages cross-cultural collaborative engagement.   Eight instructors responded that they agreed that promoting cross-cultural collaborative engagement was important in the online environment. Liaw (2006) contends that being able to acknowledge that such interaction is an enriching experience signals instructor intercultural competence. The direct quotes that follow corroborate this assertion.

Yes, I believe that having more diverse perspectives in the room will lead to a more successful and creative end result (Instructor 5, reference 4).

Some of the on-line courses that I teach incorporate team assignments. I try to mix genders and cultures within each team. Although there are times in an on-line course where it can be difficult to determine if a name is female or male, in which case I mix the groups as best I can based on a diverse group (Instructor 6, reference 4).

yes - it is important for cross-cultural learners to interact with all students. In an online forum students learn much from each other regardless of cultural background [sic] - they learn because they all have differenct [sic] backgrounds and experiences to draw from. Cross-cultural learners have the opportunity to

learn "Canadian" things but the Canadians have the opportunity to learn from the students of other cultures (Instructor 7, reference 4).

Yes, one of the strengths of taking online courses which have students from different cultures is students can share their cultural experiences. So I encourage students from different cultures to work collaboratively so that they can learn from each other (Instructor 9, reference 4).

Yes. On the one hand, English-speaking Canadian students can be a great help in assisting International students who speak and write English as a 2nd language in learning to write English at an academic level. So, in the case of collaborative assignments, I do try to assign cross-cultural learners to teams with Canadian students (although this can lead to frustrations among the English speakers when International students are not strong in English). I also believe that this interaction and the learning of each others' cultures that takes place enriches the instructional experience for both sides (Instructor 10, reference 4).

Other cultural indicators that appeared to correlate highly with facilitation and reported a total of 6 equal frequencies are *identification* (ID), *prevention* (PREV), and *support of diversity* (SOD). ID means the instructor can identify solutions to possible online cultural clashes. PREV means the instructor is able to take preventative measures to lessen or relieve learner difficulties. Finally, SOD occurs when instructors encourage online learners to assimilate and accept the perspective of ethnic and cultural groups different from their own.

In regard to ID, instructors affirmed that some of the cultural clashes that occur online are: (a) group work and the amount of effort, and the roles of group members; (b) cultures providing ultimate respect for the instructor and taking a more formal style of interaction due to this; (c) learners from different cultures perceiving there is only one right answer, closely tied to the textbook answer, and being afraid of posting their personal perspectives; and (d) insensitive or offensive postings by mainstream or local students (Canadians). Instructor solutions to remedy these cultural clashes vary from allowing group members to submit assignments individually, speaking to individuals on a one to one basis, steering discussions to a more neutral information exchange to removing offensive postings, and emailing offending student to explain why their posting was removed.

Preventative measures to lessen or relieve learner difficulties (PREV), as reported by instructors, include developing assignments and exams to be understood by all, urging all learners to complete a "user profile" (in Moodle) and participate in the "welcome forum" so that these two may serve to alert the instructor as well as the students to potential cultural or language difficulties on the part of an International student in the class, and checking language issues to make amendments as appropriate. PREV is closely associated to *anticipation* (ANT), the instructor's ability to anticipate online cross-cultural learner difficulties, which reported a frequency of 4 for facilitation. Instructors seem to be able to anticipate language proficiency problems and broad problems more readily than specific problems. The statement below echoes the sentiment of one instructor in relation to ANT and facilitation.

> It is easiest with language issues. Cultural norms are often discovered by 'stumbling upon' them. In those cases I can anticipate the same issues in subsequent classes or similar situations (Instructor 5, reference 5).

Regarding *support of diversity* (SOD), it appears that instructors not only support diversity but also encourage cross-cultural learners to share their experiences and examples from their cultures with their peers and with themselves. Being open to learning about other cultures and sharing one's culture is fundamental for effective intercultural teaching and learning (Liaw, 2006). This cultural indicator also exhibited a significant high frequency in the sub-element social presence – open communication, which is addressed in the section on cultural indicators and social presence.

The cultural indicator *creation of safe spaces* (CSS) also deserves mention in regard to facilitation. CSS indicates that instructor develops and incorporates activities designed to promote the success of cross-cultural learners. Although the frequencies for CSS are dispersed throughout teaching presence – design, teaching presence – direct instruction, and social presence – open communication, its highest frequency (5) is found in teaching presence – facilitation. Examples of CSS as they relate to facilitation are provided below.

> Yes. With every student, I use the sandwich method - praise, critique and praise in responding to their work and activities (Instructor 2, reference 3).

> …in courses I teach at other post secondary institutions - yes (group invovlement [sic] in creating course activites [sic] that are relevant to their culture; walk a step in another's shoes type activities to foster appreciation of differing demands and requirements in other cultures (Instructor 3, reference 3).

I tend to questions promptly. I try to create a safe environment. I try to acknowledge positive aspects of student contributions regardless of their linguistic or cultural backgrounds (Instructor 8, reference 3).

Some cultures are passive and hesitate to contribute to conferences. So for certain students I will encourage them to participate by asking them relevant questions (Instructor 9, reference 3).

Finally, *accommodation* (ACC) also seems to play an important role in facilitation as the reported frequency of 6 suggests. Some examples of ACC in facilitation can be found in the paragraphs that follow.

I make every effort to accommodate my students who may be located in developing countries, new to Canada or English is their second language, to help them grasp/engage in the context of the course learning (Instructor 6, reference 1).

I do not adjust the curricula, but I offer phone conversations, Skype conversations and electronic connections to provide whatever support the student may require to find success within each course that I teach (Instructor 6, reference 1).

Give the students from other cultures the opportunity to express themselves and to share their experiences with the class (Instructor 9, reference 1).

Summary

The highest frequency count for both datasets was observed in the sub-element teaching presence – facilitation (53). This fact was not surprising because the majority of the respondents stated that they did not design specific instructional activities for cross-cultural learners. Thus, the absence of proper design makes effective facilitation strategies essential when dealing with cross-cultural learners. Findings demonstrated that the cultural indicators that appeared to correlate highly with facilitation were *adaptation* (ADAP), *encouragement* (ENC), *accommodation* (ACC), *identification* (ID), *prevention* (PREV), and *support of diversity* (SOD). Instructor responses for ADAP in regard to teaching presence – facilitation include deciding on the appropriate choice of technology for international students, being flexible in relation to what the learner needs to achieve from a particular assignment, being flexible in due dates, acquiring information on a culturally diverse student population, promoting collaborative work between students from different cultures, and making adaptations or modifications in assignments based on the personal requirements and needs of the learners. Data for ENC revealed that eight instructors agreed that promoting cross-cultural collaborative engagement was important in the online environment. Findings for ID indicated that only four instructors could identify solutions to possible online cultural clashes in addition to presenting solutions to remedy these cultural clashes. The cultural indicator PREV, as reported by instructors, includes developing assignments and exams to be understood by all, checking the "user profile" in Moodle and the "welcome forum" to detect potential cultural or language difficulties, offering extra support to students with language proficiency problems, encouraging students with language limitations to proofread their work, and checking language issues to make amendments as appropriate. Interestingly, instructors seem to be able to anticipate

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(ANT) language proficiency problems more readily than specific cultural differences and problems. Finally, data for SOD reinforces the idea that instructors not only support diversity but also foster cross-cultural collaboration.

Direct instruction

Direct instruction is primarily associated with specific content issues, such as diagnosing misconceptions, summarizing the discussion, injecting knowledge from diverse sources, presenting content, and responding to technical concerns (Garrison, 2011). The total frequency count for direct instruction was 16. Thus, there is little data to report on direct instruction. Low frequencies are shown scattered throughout 7 of the 10 cultural indicators. Perhaps this results from the method of data collection focusing primarily on design and facilitation issues. Thus, direct instruction requires further research.

Cultural Indicators and Social Presence

Eight of the 10 cultural indicators appear to affect to some extent the sub-element social presence – open communication with a total reported frequency of 31 for both datasets. The cultural indicator *knowledge of diversity* (KOD) ranked in first place for the sub-element open communication (8 frequencies). KOD indicates that the instructor can identify ways in which culturally diverse learners contribute to the online learning community and environment. It is important to note that there is no information on how affective expression and group cohesion would play out when cross-referenced with the cultural indicators because of how the data was collected. These two components were not the focus of this study as the instructors reported primarily what they do and how they handle cross-cultural learners in the online environment. Therefore, they require further research.

Open communication

Open communication is vital to establishing learner trust and acceptance of questioning in the community of inquiry. It "is built through a process of recognizing, complimenting, and responding to the questions and contributions of others, thereby encouraging reflective participation and interaction" (Garrison, 2011, p. 39). Further, being able to communicate effectively across cultures is paramount in achieving intercultural competence (Liaw, 2006). In general, instructors agreed that culturally diverse learners contribute to and enrich the online learning environment because they introduce examples that open other students' minds to differences and provide their own experiences and perspectives, which add to the discussions. These different experiences and perspectives appear to be valued by instructors as they commented that they also learn a great deal from this cross-cultural interaction. Other instructor responses speak to the challenges and difficulties faced by culturally diverse learners in communicating and interacting online. An interesting example of how one instructor communicates with culturally diverse learners in the online learning environment is provided below.

> Responses to discussion posts will be more congratulatory in nature versus challenging each other and digging deeper in the learning (Instructor 5, reference 9).

Finally, the direct quote that follows offers important insight into some of the challenges faced by instructors when engaging with cross-cultural students in the online teaching and learning environment.

> Students from certain cultures tend to provide less information when interacting with others because they are not very experienced with sharing information. Also, because of the level of the language, they tend to be brief. Also, certain

cultures are more comfortable speaking rather than writing (Instructor 9, reference 9).

This comment validates certain educational value differentials for understanding cultural issues in Internet-based learning proposed by Bentley et al. (2005). Social context differential, language differentials, and learning style differentials are important factors to consider when teaching cross-cultural learners. Bentley et al. (2005) claimed that language and culture are intertwined. Further, in a study conducted with 41 individuals from nine countries, Shachaf (2008) concluded that cultural and language barriers produced communication challenges because lack of accuracy created difficulties in both written and spoken language.

Summary

The sub-element social presence – open communication reported a total frequency count of 31 for both datasets with 8 of the 10 cultural indicators affecting it to some extent. Findings showed that the cultural indicator *knowledge of diversity* (KOD) correlated highly with social presence – open communication. In practice what this means is that 50% of the instructors not only value the different perspectives and experiences of culturally diverse learners because it enhances their learning experience but also agree that these different perspectives contribute to the overall quality of the online discussions. These findings are important because as Garrison (2011) maintains, "a sense of isolation or of not being connected will not encourage or support critical inquiry" (p. 92). Thus, the more cross-cultural learners are encouraged to project their individual personalities in an environment that respectfully acknowledges their cultural differences, the less isolated they will feel, engendering purposeful and deep learning. Finally, the method of data collection produced no information on how the sub-elements

of affective expression and group cohesion would play out when cross-referenced with the cultural indicators.

Quantitative Data Findings: CoI Results

To better visualize the CoI scores, frequency distribution results are illustrated through the use of figures and descriptive statistics, followed by a brief discussion of the data analysis. Results for Spearman's rank correlation test are reported in Table 10 and include a discussion on how strongly the cultural indicators correlated with teaching presence and social presence. It is important to note that only 9 of the 10 participants of the sample population responded to the CoI survey instrument; therefore, final results for the CoI instrument may have been different if all 10 respondents had answered.

Figure 5 presents the frequency distributions for the Teaching presence indicators. As to the agreement on the indicators, one can observe that most of the respondents stated they agree (52%) or strongly agree (43%) with the 13 teaching presence indicators.

Figure 5. Frequency Distributions of Teaching Presence Indicators using a 5 Point Likert-type Scale
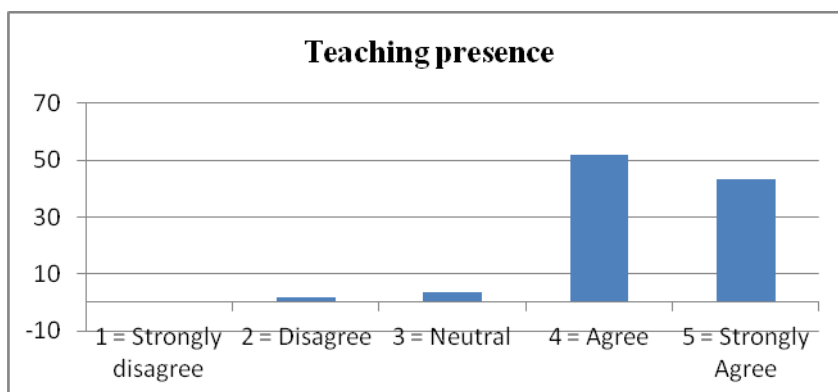

Figure 6 illustrates the frequency distributions for the Social presence indicators. Similarly, most respondents indicated they agree (68%) or strongly agree (14%) with

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the nine social presence indicators. It is important to highlight that 14% of the respondents stated they were neutral and 4% stated they disagreed with the statements.

Figure 6. Frequency Distributions of Social Presence Indicators using a 5 point Likert-type Scale
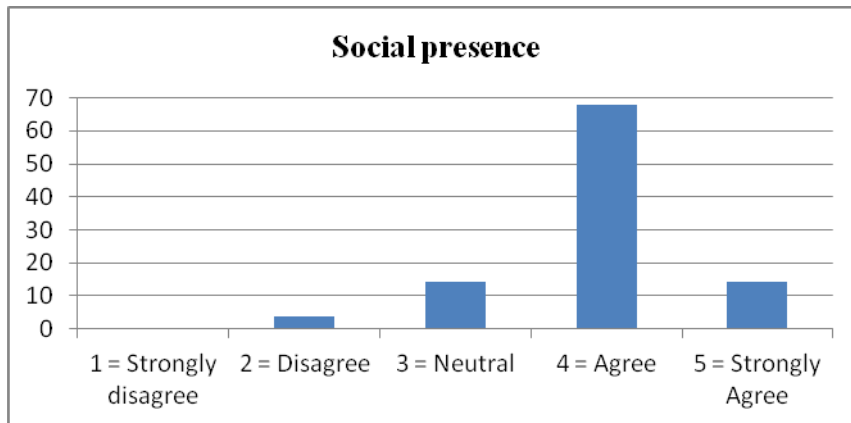
Results of the quantitative data analysis for teaching and social presence suggest that respondents believe in and follow the practices of the teaching and learning principles of the CoI model. Agreement on both indicators appears to demonstrate that the instructors have made the necessary adjustments through proper interaction, self-identity, instructor role, course design, and technology (Cleveland–Innes, Garrison, & Kinsell, 2007), and are thereby guiding the online course activities effectively.

Figure 7 shows the frequency distributions for the three cultural indicators, questions 35, 36, and 37, which were incorporated into the CoI survey instrument. The cultural indicators appear to follow the same distribution pattern as the indicators for teaching and social presence. It is important to note that 7% of the respondents stated that they were neutral and 7% disagreed with the presented statements.

Figure 7. Frequency Distributions of Incorporated Cultural Indicators using a 5 Point Likert-type Scale
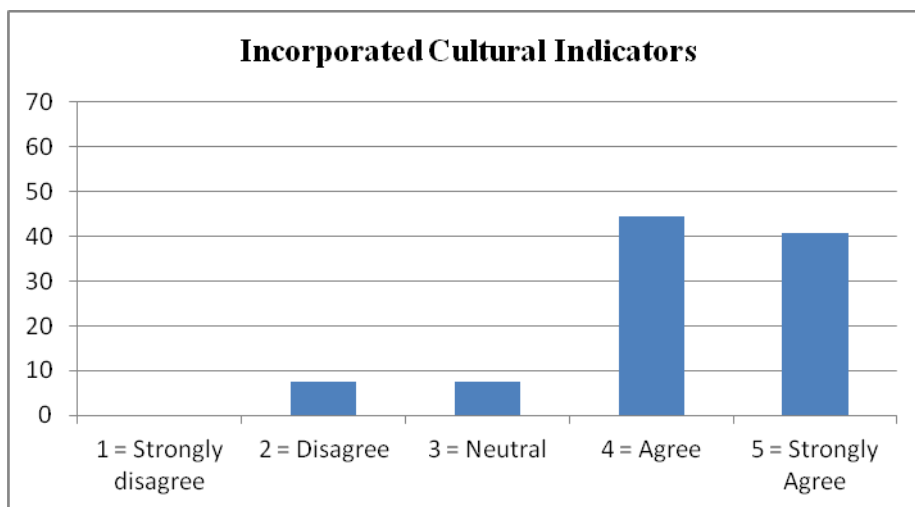
These results seem to indicate that most instructors are not only aware of the importance of design and organization in the CoI context, but are also willing to make the necessary adjustments to accommodate culturally diverse learners. Data also corroborates the concept that most respondents' practice supports interaction among culturally diverse learners via facilitation. Further, 56 % of the respondents agreed that open communication enables learners to present themselves as culturally diverse. This is consistent with Garrison's (2011) argument that "the design must be inherently flexible and adaptable to unpredictable and individual learning needs as they arise" (p. 87). Therefore, findings suggest the usefulness and need of incorporating cultural indicators into the elements of teaching and social presence in the CoI model when dealing with an intercultural context. Further studies conducted with larger samples and within different contexts will help validate this data.

Spearman's rank correlation test was conducted to determine the degree of correlation between the ordinal variables: teaching presence, social presence, and the cultural indicators. Table 10 presents the data results for the Spearman rank correlation test.

Table 10. Data Results for Spearman's Rank Correlation Test

	Teaching Presence	Social Presence	Cultural Indicators
Teaching Presence	1.00	0.91	0.86
Social Presence	0.91	1.00	0.73
Cultural Indicators	0.86	0.73	1.00

Results show that the cultural indicators correlated highly with the teaching presence indicators (r_s = 0.86). A high r_s (close to 1) means that the two variables are strongly correlated. Conversely, the cultural indicators showed a moderate to good degree of correlation with the social presence indicators (r_s = 0.73). Findings suggest the variables have a strong relationship, indicating that the cultural indicator is first an artifact of teaching presence, but also a concept that relates to social presence. Thus, the null hypothesis is rejected.

Summary

Data analysis of the frequency distributions for teaching presence questions in the CoI survey instrument showed that 52% of the respondents agreed and 43% of the respondents strongly agreed with the teaching presence indicators. Frequency distributions for social presence questions revealed that 68% of the respondents agreed, 14% strongly agreed, 14% were neutral, and 4% disagreed with the indicators for social presence. Finally, results of frequency distributions for the three incorporated cultural indicator questions to the CoI survey instrument showed that 45% of the respondents

agreed, 40% strongly agreed, 7% were neutral, and 7% disagreed. Results for the Spearman rank correlation test revealed a high degree of correlation between the cultural indicators and teaching presence (0.86 r_s). The degree of correlation between the cultural indicators and the indicators for social presence was a bit more moderate (0.73 r_s). Thus, there is a strong relationship between the variables, indicating that the cultural indicator is first an artifact of teaching presence, but also a concept that relates to social presence.

Instructors' Additional Perspectives

Instructors were provided a field in the AMEQ to make additional comments or statements regarding cross-cultural engagement in the asynchronous, text-based, online educational context. One instructor responded that students learn a great deal from each other in a cross-cultural environment. Another instructor stated that some cultures are at a disadvantage in the text-based CMC context because they are more oral that textual. Indeed, the literature suggests that feelings of isolation are possible as a result of the medium utilized (Ku & Lohr, 2003). To alleviate this problem, Ku and Lohr (2003) recommend that the instructor foster abundant interaction between students geared toward promoting richer cultural exchanges. Finally, a third instructor felt that the courses were not appropriate or effective for students from widely disparate cultural backgrounds.

The CoI survey instrument also contained a field that prompted instructors to comment on their responses to questions 35, 36, and 37 of the survey (the suggested additional indicators). Instructors were also asked to discuss how important these instructor actions were in establishing a successful online CoI in an intercultural context. Data revealed that the primary strategies adopted by instructors when dealing

with cross-cultural learners to establish a successful online community of learning include: (a) practicing "active" listening, modeling, and encouraging diversity; (b) promoting open communication, respectful communication, and timely feedback; (c) being sensitive and being willing to adjust to the realities and needs of culturally diverse learners; (d) being proactive to allow for interaction between culturally diverse learners; (e) including information on designing and tutoring of culturally diverse students on instructor orientation; (f) being aware of language and grammar limitations, and allowing cross-cultural students extra time to complete assignments if necessary; and (g) assigning international or cross-cultural students to collaborative groups with North American students for cultural and linguistic support. Strategies adopted by instructors are very much in line with several of Farmer's (2010) recommendations and strategies for designing culturally-sensitive e-learning.

Limitations to the Study

There were some limitations to this study. The first limitation relates to the small non-random sample size ($N = 10$). Second, identical samples were used for both the qualitative and the quantitative components of the study. Due to limited resources, the selection of different individuals for the quantitative data collection as recommended by Creswell & Plano Clark (2007), was not possible and poses a potential threat to the validity of the research design employed. In addition, constraints related to sample size curtailed the kinds of statistical procedures that might be used, particularly the more rigorous parametric measures of association, such as t-tests ,analyses of variances and principle components analysis (PCA) (Driscoll, Appiah-Yeboah, Salib & Rupert, 2007). Therefore, there are no statistics for generalizing from small purposive samples. In sum, no generalizations of this study's findings may be made to other populations (distance education instructors/learners or not) due to the nonrandom

sampling procedure employed (T. Jones, personal communication, December 16, 2010). In conclusion, it is highly recommended that this study be replicated utilizing a different and larger sample size for the quantitative data collection phase in the future to obtain statistically significant results.

Results and Guiding Research Questions

The guiding research questions of this study are:

1. To what extent are instructors cognizant of cultural diversity in an online community of inquiry?

2. What is the multicultural efficacy level of instructors (as perceived in their knowledge, understanding, attitudes, and skills) in an online community of inquiry?

3. Does the multicultural efficacy of the instructors affect the emergence of an online community of inquiry?

4. If so, how does the multicultural efficacy of the instructor affect the emergence of an online community of inquiry?

In regards to the two first questions posed in this study, qualitative data results revealed that instructors appear to be quite cognizant of cultural diversity and have strong multicultural efficacy in terms of their knowledge of diversity and the strategies that they use to promote learning and prevent conflict in an online community of inquiry. In the absence of any cross-cultural design, instructors use facilitation activities that take into account cultural diversity when assigning group work that encourages learners to apply the course contents to their own personal contexts and that encourages multiple perspectives in online discussions. Open communication seems to be a strategy for promoting learning and preventing conflict as well. In conclusion, the

findings of this study refuted the initial hypothesis of this study that instructors were not cognizant of cultural diversity and had poor multicultural efficacy in an online community of inquiry.

In regards to questions three and four posed in this study, quantitative data results have indicated that most instructors are not only aware of the importance of design and organization in the CoI context, but also willing to make necessary adjustments to accommodate culturally diverse learners. Moreover, most respondents make use of facilitation strategies to support interaction between culturally diverse learners. In addition, 56% of the respondents agreed that open communication enables learners to present themselves as culturally diverse. These findings suggest the importance of instructor development of effective facilitation and open communication strategies for building trust and improving cross-cultural relationships in a learning community as these may be crucial factors in establishing a successful online community of learning. In addition, these strategies and skills may be particularly vital especially in the lack of any cross-cultural design that addresses the needs of cross-cultural students. However, further studies using the CoI framework in an intercultural context in addition to the revised 37-item CoI survey instrument are required to validate data. More studies should help clarify if and to what extent the multicultural efficacy of instructors affects the emergence of an online community of inquiry.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This study was guided by two conceptual frameworks: the CoI framework and the Multicultural Efficacy Scale (MES) framework. The latter underwent adaptations and was transformed into an open-ended survey questionnaire, the Adapted Multicultural Efficacy Scale (AMEQ). The AMEQ was designed to assess instructor multicultural efficacy in an online learning environment. The study explored how instructors of online courses accommodate and make provisions for culturally diverse learners in an online community of inquiry. Through use of a sequential exploratory design, the study focused on the experiences and perceptions of online instructors to investigate how these related to the teaching and social presence elements to build on the existing 34-item CoI survey instrument. The personal experiences and challenges of the participants in dealing with cross-cultural learners were collected via the AMEQ and analyzed with the objective of developing hypothesis and/or theories grounded in both the actions and perceptions of the instructors. Data analysis of the AMEQ revealed that the elements of teaching presence and social presence were present within and underpinning instructors' discussions on teaching and attention to cultural differences. Initially CoI evidence was sought in the AMEQ questionnaire, but the questionnaire did not specifically ask for this evidence. The intent of this was to verify whether the elements of teaching and social presence would emerge naturally from qualitative data. From a grounded theory perspective, qualitative data results strengthen this study. Although the sample population was small ($N = 10$) Glaser and Strauss (1967) have maintained that

Theory generation doesn't require lots of cases. One case could be used to generate conceptual categories and a few more cases used to confirm the indication. (The researcher's) job is not to provide a perfect description of an area, but to develop a theory that accounts for much of the relevant behavior. (p. 30)

Matrix query results showed that certain the cultural indicators correlated highly with the sub-elements of teaching presence: design and facilitation with social presence – open communication. Qualitative data findings were then used to inform and augment the original 34-item CoI survey instrument. As a result, additional roles relating to instructor cross-cultural efficacy were incorporated into both teaching presence and social presence elements in the CoI survey instrument. Finally, the revised 37-item CoI survey instrument was administered to the same respondents for face validity. Important information was generated from both instruments. As Glaser and Strauss (1967) further note

In many instances, both forms are necessary — not quantitative used to test qualitative, but both used as supplements, as mutual verification and, most important for us, as different forms of data on the same subject, which, when compared, will each generate theory. (p. 18)

Despite these important findings, No generalizations of this study's findings may be made to other populations (distance education instructors/learners or not) because of the nonrandom sampling procedure utilized.

This chapter first presents a discussion on the findings as they relate to instructor multicultural efficacy in a community of practical inquiry. Second, it assesses how cross-cultural learners' self-present in an asynchronous, text-based Computer Mediated

Communication (CMC), online environment and that environment's underlying challenges for instructors. Third, it addresses practical implications for dealing with cross-cultural learners in the CoI model. Finally, it provides recommendations for research practice using the revised 37-item CoI survey instrument and recommendations for future research.

Discussion of Findings

This study investigated how instructors accommodate and make provisions for cross-cultural learners in an online community of learning, with the intent of adding to that body of knowledge. The findings of this study provided three insights: (i) there is evidence that ten cultural indicators appear to affect and span all three teaching presence categories, some to a higher degree than others; (ii) effective facilitation and open communication strategies for building trust and improving cross-cultural relationships in a learning community are crucial factors in establishing a successful online community of learning; and (iii) highly significant and significant degrees of correlation between the cultural indicators and the indicators for teaching presence and social presence suggest that the incorporated cultural indicators are in fact playing a role in addition to these two presences because of the intercultural context for this sample group. The first insight is not surprising as several studies have underscored the fact that teaching presence plays a central role in the development of a CoI (Akyol & Garrison, 2008; Garrison et al.; 2010). In regard to the second insight, Gunawardena and Lapointe (2007) have posited that the greater the bond between participants (the greater the sense of social presence), the greater the ability to resolve conflict and to adopt face-saving strategies. Consequently, these strategies and skills are particularly vital, especially absent a design that addresses the needs of cross-cultural students.

Finally, in regards to the third insight it is important to note that these results are not causal but rather correlational.

The core components of intercultural competence espoused by Bennett et al. (1990) comprise knowledge of the culture and values of culturally diverse learners, skills in planning and providing for effective multicultural practices especially absent a culturally sensitive design, and attitudes that minimize one's own prejudices and misconceptions in regard to cross-cultural students. Results from the qualitative dataset revealed that instructors appear to be quite cognizant of cultural diversity and have strong multicultural efficacy in their knowledge of diversity and the strategies that they use to promote learning and prevent conflict. When relevant design elements are absent, instructors seem willing to alter the design through facilitation activities that take into account cultural diversity when assigning group work that encourages learners to apply the course contents to their own personal contexts and that encourages multiple perspectives in online discussions. Open communication seems to be an effective strategy for promoting learning and preventing conflict. This strategy is crucial because the perception of an increased cultural gap between communicators can lead to a feeling of anxiety which can, in turn, result in increased miscommunication (Chase, Macfadyen, Reeder, & Roche, 2002).

Results from the quantitative dataset indicated that most instructors are not only aware of the importance of design and organization in the CoI context, but are also willing to make the necessary adjustments to accommodate culturally diverse learners. Data also corroborates the idea that most respondents' practice supports interaction among culturally diverse learners via facilitation. Further, a majority of respondents (56%) agreed that open communication enables learners to present themselves as culturally diverse. This finding is consistent with Garrison's (2011) argument that "the

design must be inherently flexible and adaptable to unpredictable and individual learning needs as they arise" (p. 87). In regard to the lower degree of correlation between the cultural indicators and the indicators for social presence, adding to this element more roles relating to an intercultural context might obtain a higher degree of correlation. Further research will help clarify this issue. Additionally, further studies conducted with larger samples and within different contexts will help validate this data.

In sum, findings from both the qualitative and quantitative datasets provided valuable insights into the first two guiding research questions posed in the study:

1. To what extent are instructors cognizant of cultural diversity in an online community of inquiry?

2. What is the multicultural efficacy level of instructors (as perceived in their knowledge, understanding, attitudes, and skills) in an online community of inquiry?

Data refuted the initial hypothesis that instructors were not cognizant of cultural diversity and had poor multicultural efficacy in an online community of inquiry. In contrast, data revealed that instructors appear to be quite cognizant of cultural diversity and have strong multicultural efficacy in terms of their knowledge of diversity and the strategies (facilitation and open communication) that they use to promote learning and prevent conflict in an online community of inquiry. In addition, data suggest that instructor effective facilitation and open communication strategies may be crucial factors in establishing a successful online community of learning, especially in the lack of any cross-cultural design that addresses the needs of cross-cultural learners.

In regards to guiding research questions three and four posed in the study:

3. Does the multicultural efficacy of the instructors affect the emergence of an online community of inquiry?

4. If so, how does the multicultural efficacy of the instructor affect the emergence of an online community of inquiry?

Data helped support the idea that most instructors are not only aware of the importance of design and organization in the CoI context, but are also willing to make the necessary adjustments to accommodate culturally diverse learners. However, more data are needed to inform whether and exactly to what extent the multicultural efficacy of instructors affects the emergence of an online community of inquiry. Therefore, additional studies on multicultural engagement in an online community of inquiry are required in order to glean deeper insight into if and in what ways instructor multicultural efficacy impacts the emergence of an online community of inquiry. Learners' perspectives and challenges as they relate to multicultural engagement in an online community of practical inquiry would help complement and support these data.

Cross-cultural Learners and Online Self-Presentation

In the face-to-face environment, teachers have gotten used to teaching diverse groups of students, and most recognize the advantages of teaching such groups. To an extent this experience has fostered cultural awareness and sensitivity in addition to an overall sense that diversity within a teaching environment is positive. Nevertheless, the reality of the asynchronous, text-based, CMC online environment is quite different and presents additional challenges because it is much more difficult to intuit meaning without non-verbal cues. "People, when communicating in person, automatically generate meaning through different ways such as dress, nonverbal behavior, spatial distance, manner of speaking, etc." (Gunawardena, Alami, Jayatilleke, & Bouachrine, 2009, p. 31). However, in text-based, CMC, online learning environments, learners

need to utilize other means to present themselves, their ideas, and their personalities. For example, instructors cannot detect a foreign accent in the online learning environment. This fact raises three important questions: How can instructors identify which learners are culturally diverse in the online environment? Are they informed prior to the beginning of the course by the program director that a cross-cultural learner has enrolled in their course? How effective are "user profiles" and "welcome forums" in portraying culturally diverse learners and their potential limitations to instructors and peers? Suspecting that instructors do not receive advance information about the cultural background of their students, it is reasonable to presuppose that they discover that there are culturally diverse learners in the class when these self-present in the user profiles and welcome forums. This process holds several implications. As one instructor noted, it is often difficult to recognize whether students with foreign sounding names identify with a culturally distinct group (Instructor 11, reference 1). Further, having to identify from a student roster whether students are male or female from their name alone before students complete their user profiles and post on the welcome forums poses an additional challenge to online instructors. Higher education administrators of online programs may play a key role in informing instructors of the presence of culturally diverse learners prior to the commencement of the academic term.

There are also consequences to the way cross-cultural learners self-present in the online environment that need to be dealt with by both instructors and peers. In a large scale analysis of intercultural communications factors in the ICT elements of international, networked learning courses run by a large Canadian university, Chase, Macfadyen, Reeder, and Roche (2002) concluded that "significant cultural differences become apparent in the ways in which participants write about their own identity in online postings. This includes the nature of their short introductions (content, length,

style), the degree of 'self-revelation' they display" (p. 9). The perception of an increased cultural gap between communicators can lead to a feeling of anxiety which can, in turn, result in increased miscommunication (Chase et al., 2002). Kim and Papacharissi (2003) also agree that individuals from different cultural backgrounds indicate varying preference for direct/indirect communication and display certain communicative traits such as apprehension and argumentativeness. Self-disclosure may also be very difficult for certain cultures, but "expression of identity through introductions is important for relationship building in online learning communities" (Gunawardena et al., 2009). Thus, it may be difficult for instructors to assess exactly how culturally diverse new students are. Likewise, detecting cross-cultural students' limitations and needs through user profiles and welcome forums postings also poses a great challenge for instructors. As Hewling (2005) has noted, in the "reduced cues" online learning environment, facilitating communication within these groups of culturally diverse students is critical to promoting successful learning. Finally, Gunawardena et al. (2009) recommend that institutions provide guidelines and protocols for how introductions should be done, in addition to the type of information desired, while allowing for some degree of anonymity. These measures would greatly assist instructors in identifying the culturally diverse student population in an online community of learning environment.

Practical Implications for the CoI Model

The findings of this study have corroborated the underlying concept that the instructor is responsible for establishing the learning climate by providing macro-level guidelines and examples at the beginning of the course when dealing with intercultural learners in a community of inquiry context. In the CoI model, the roles of teaching presence and social presence, more specifically in their overlap – *setting climate*, are essential in establishing successful educational outcomes. Teaching presence is

perceived as vital to establishing and maintaining both social and cognitive presence and consequently higher-order learning. Further, as Garrison (2011) claims, "social presence is an important motivational variable that has considerable influence in group cohesion and persistence" (p. 127). Therefore, when dealing with an intercultural population in higher education, instructor knowledge, skills, and attitudes are fundamental factors in creating worthwhile communities of inquiry that sustain critical discourse, deep and meaningful learning, and community building. There is also evidence that group identity may be important at the beginning of a course (Garrison, 2011). Therefore, instructor knowledge, awareness, sensitivity, and responsiveness to the limitations and challenges faced by cross-cultural learners can be crucial in drawing in such learners at the beginning of the online learning experience. Modeling of appropriate messages and responses can also help learners feel welcome and provide them a sense of belonging. Effective facilitation and open communication strategies can support building trust and improving cross-cultural relationships in a learning community. To this effect, Gunawardena et al. (2009) propose that trust-building activities be conducted during the first two weeks of an academic course to help participants build trust and become comfortable with each other. Therefore, the greater the bond between participants, the greater the sense of social presence, the ability to resolve conflict, and ease in adopting face-saving strategies (Gunawardena & Lapointe, 2007). These strategies and skills are particularly crucial in the absence of a design that addresses the needs of cross-cultural students.

Cultural awareness and sensitivity are also highly related to course design issues (Saxena, 2010). Attaining the right balance or mix of design and teaching strategies when dealing with cross-cultural learners in an online CoI may be equally, if not more, challenging. Higher education institutions and instructors should focus their efforts on

designing distance learning courses that facilitate cultural inclusivity. Courses should be designed to remove or at least reduce barriers such as language limitations, communication tool use, plagiarism, time zone differences, and a lack of multicultural content, which may affect cross-cultural learners' educational outcomes (Liu, Liu, Lee, & Magjuka, 2010). To this end, Farmer (2010) provides recommendations to instructors that may help ease the accommodation of cross-cultural learners, thus enhancing their social and cognitive presence in online learning. These recommendations include (a) providing alternative topics, resources or ways of learning that do not disadvantage affected learners, (b) enabling learners to seek self-relevant resources, (c) providing clear expectations and norms about the course, (d) providing a mix of individual, collaborative, cooperative and competitive activities that address different learning styles, (e) initiating discussion when introducing problem-based learning, (f) providing step-by-step guidelines for field dependent learners, and (g) providing inclusive instructional design that makes provisions for *all* learners. Data from the CoI Survey Instrument revealed that this sample population does follow some of Farmer's (2010) recommendations as outlined above, such as (a) providing alternative topics, resources or ways of learning that do not disadvantage affected learners, (b) enabling learners to seek self-relevant resources, (c) providing clear expectations and norms about the course, and (d) providing a mix of individual, collaborative, cooperative and competitive activities that address different learning styles. However, more data are needed to determine whether instructors initiate discussions when introducing problem-based learning or provide step-by-step guidelines for field dependent learners. Finally, the findings from both qualitative and quantitative datasets indicated that seven out of ten instructors do not provide inclusive instructional design that addresses the needs of cross-cultural learners.

Recommendations

The findings of this study are important for four reasons. First, the extent to which a particular cultural indicator affected a specific teaching presence was at the heart of this study's understanding of how instructors are accommodating and making provisions for cross-cultural learners in an online community of learning. Second, the instructor's ability to facilitate and communicate efficiently with culturally diverse learners is central to effective teaching and learning in an intercultural context. Third, findings from the qualitative dataset served as building blocks for the formulation of additional roles in the teaching and social presence elements of the CoI survey instrument. Finally, results from the quantitative dataset supported the idea that the incorporated cultural indicators may be useful to measure multicultural efficacy in the CoI framework.

Through use of a sequential exploratory design, this study provided important insight into the dynamics of cross-cultural teaching and learning in online environments. Findings demonstrated the importance of instructors in accommodating and making provisions for culturally diverse learners in this environment. However, several limitations to this study have already been acknowledged. Several of these limitations can be regarded as fruitful avenues for future research on multicultural engagement in asynchronous, text-based CMC learning. Accordingly, recommendations are categorized under two major themes: research practice in assessing multicultural efficacy in the CoI framework using the mixed methodology employed in this study, and future research subjects.

Research practice using a mixed methods design

It is important that instructors clearly understand what the terms culture and cross-cultural refer to prior the use of the AMEQ. This will allow instructors to identify those individuals who are indeed cross-cultural and will yield more accurate responses to the questionnaire. Definition of these terms and assumed shared meanings should be verified during participant recruitment and initial contact.

Interviews conducted with groups of two or three individuals or one-on-one interviews using the AMEQ would also enable a more dialectic exploration of intercultural issues.

It is also recommended there be a participant follow-up to the AMEQ survey instrument in order to explain the results. Ideally, this follow-up should occur within one or two weeks after participants have responded to the AMEQ.

For future studies it is advisable that responses for the CoI indicators be single coded. Time constraints caused double coding the responses to the CoI indicators. For example, some responses were coded as being both teaching presence – design and teaching presence – facilitation. Single coding CoI indicators may be more time consuming; however, obtaining consensus on one code might produce different, if not more accurate, matrix query frequency results.

For the revised 37-item CoI survey instrument, it is strongly advisable that a larger sample group and different individuals be selected for the exploratory design. Time and financial constraints curtailed that activity in this study.

Future research

This research presents a revised 37-item CoI instrument for dealing with cross-cultural students in an online community of practical inquiry. Still, this research was exploratory in nature, and future research should seek to expand and confirm these findings. First, a larger and more diverse sample should be used to test and validate the revised 37-item CoI survey instrument. More online or blended-learning higher education institutions in Canada and in other countries should be investigated to further clarify how instructors are accommodating and making provisions for cross-cultural learners using the CoI model.

Second, further research is needed to examine more closely how the cultural indicators correlate and play out with the sub-elements of direct instruction, affective expression, and group cohesion. It would be worthwhile to develop an open-ended survey questionnaire that focused more on instructor actions in regard to these sub-elements and cross-reference them with the cultural indicators to further clarify their importance and impact in an intercultural context. As a consequence, additional roles and indicators could be incorporated into these sub-elements in the CoI survey instrument based on such studies' findings.

Third, further studies could investigate how cognitive presence and its four distinct phases may vary across cultures even though the practical inquiry process is not amenable to cultural differences. Although cognitive presence was not included in this study because it was not considered the first point of consideration in instructional differences, its emergence as cognitive presence in the practical inquiry process may be unique and merits additional studies. It would also be very interesting to explore to

what extent the absence of a cross-cultural design affects learner's critical discourse and meaningful, deep learning.

Fourth, future research should look at transcripts of online discussion to see what instructors do. This additional material would be valuable to complement data obtained from the AMEQ survey instrument and would enhance qualitative data results.

Last but not least, cross-cultural students' perspectives and challenges as they relate to multicultural engagement in an online community of practical inquiry would be highly valuable to inform and balance this body of knowledge.

Summary and final thoughts

An online community of practical inquiry environment is a place where students from different countries and cultural backgrounds can come together regardless of place and time. Asynchronous, online, text-based discussions have the potential to promote deep knowledge and higher-level thinking skills for learners. Additionally, asynchronous text-based discussions offer students additional time for research and considered response in addition to encouraging reflection (Redmond, 2010). However, such goals cannot be fully achieved without careful instructional planning and support that takes into account cultural diversity. When teaching courses in such communities of inquiry, educators need to rethink their mindset about culturally diverse learners and adopt instructional practices that address the needs of such populations.

This study has revealed that instructor intercultural competence in the form of effective facilitation and open communications strategies can compensate for the absence of culturally-oriented and inclusive instructional design. Further, this study has produced a revised 37-item CoI survey instrument informed by professionals in the field. Therefore, it contributes to the literature by clarifying how instructors are

accommodating and making provisions for cross-cultural learners in the CoI framework and by proposing a revised CoI survey instrument that takes into account an online intercultural teaching and learning environment. Teaching and social presence in this context must be flexible to adapt to the various needs and limitations of cross-cultural students.

The objective of the proposed revised CoI survey instrument is to raise awareness of and appreciation for cultural diversity, and to incorporate indicators for measuring instructor multicultural efficacy. The goal is to persuade higher education institutions and educators to acknowledge the necessity for such cultural considerations when using the CoI framework. Those institutions that offer global e-learning must consider their learners' diverse cultural backgrounds to offer customized, value-added higher education. As an increasing number of online higher education institutions tap into new global education markets, research into the potential of existing distance education frameworks, such as the CoI model, to effectively address cross-cultural aspects is imperative to the survival and propagation of such transactional teaching and learning theories. In conclusion, expansion of the CoI model will ensure its effectiveness and success in global education markets.

REFERENCES

Arbaugh, J.B., & Benbunan-Fich, R., (2006). Separating the effects of knowledge
construction and group collaboration in learning outcomes of web-based
courses. *Information and Management*, *43*(6), 778-793. doi:
10.1016/j.im.2005.09.001.

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S., Garrison, D. R., Ice, P., Richardson, J.
C., Shea, P., & Swan, K. (2008). Developing a community of inquiry
instrument: testing a measure of the Community of Inquiry framework using a
multi-institutional sample. *The Internet and Higher Education. 1*, 133-136.
Elsevier Inc.

Akyol, Z., Arbaugh, B.J., Cleveland-Innes, M., Garrison, R.D., Ice, P., Richardson, J.C.,
& Swan, K. (2009). A response to the review of the community of inquiry
framework. *Journal of Distance education*, *23*(2), 123-136.

Akyol, Z., & Garrison, D.R. (2008). The development of a community of inquiry over
time in an online course: understanding the progression and integration of social,
cognitive and teaching Presence. *Journal of Asynchronous Learning Networks*,
12 (3-4), 3-22. Retrieved March 28, 2011 from
http://eric.ed.gov/PDFS/EJ837483.pdf

Argyle, M., & Dean, J. (1965). Eye contact, distance, and affiliation. *Sociometry, 28*(3),
289-304. Retrieved March 28, 2011 from
http://www.columbia.edu/~rmk7/HC/HC_Readings/Argyle.pdf

Banks, J.A., Cookson, P., Gay, G., Hawley, W.D., Irvine, J.J., Nieto, S., Schofield, J.W.
& Stephan, W.G. (2001). *Diversity within unity: essential principles for
teaching and learning in a multicultural society*. Center for Multicultural
Education. University of Washington. Retrieved July 6, 2010 from

http://education.washington.edu/cme/DiversityUnity.pdf

Basit, T.N. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational Research*, *45* (2), 143-154. doi: 10.1080/0013188032000133548.

Bates, A.W. & Gpe, J.(1997). Crossing boundaries: making global distance education a reality. *Journal of Distance Education*. *12* (1/2), 49-66.

Bazeley, P. (2002, April). *Issues in mixing qualitative and quantitative approaches to research*. Paper presented at the First International Conference on Qualitative Research in Marketing and Management, Vienna, Austria. Retrieved September 2, 2011 from www.researchsupport.com.au/MMIssues.pdf

Bélisle, C. (2007). E-learning and intercultural dimensions of learning theories and models. *Digital Kompetanse*, *2*(3), 139-161. Retrieved March 30, 2011 from http://www.elearningeuropa.info/files/media/media14903.pdf

Bentley, J.P.H., Tinney, M.V., & Chia, B.H. (2005). Intercultural Internet-based learning: Know your audience and what it values. *Educational Technology Research & Development*, *53*(2), 117-127. Retrieved July 17, 2010 from http://www.nathanstrenge.com/page10/files/intercultural-internet-based-learning--the-importance-of-student-values.pdf

Bennett, C., Niggle, T. & Stage, F. (1990). Preservice multicultural teacher education: predictors of student readiness. *Teaching & Teacher Education*. *6*(3), 243-254.

Bdra, M. (2009). Text vs. voice-based communication in Second Life. *Beyond Distance Research Alliance*, University of Leicester. Retrieved January 31, 2011 from http://beyonddistance.wordpress.com/2009/03/19/text-vs-voice-based-communication-in-second-life/

Berge, Z. L. (2007). Training in the corporate sector. In M. G. Moore (Ed.). *Handbook of Distance Education* (*2nd ed.*). Mahwah, NJ: Lawrence Erlbaum Associates.

Blanchard, E., Ryad, R., & Frasson, C. (2005). Cross-cultural Adaptation of E-learning Contents: A Methodology. HERON Laboratory, Computer Sciences Department. Université de Montréal, Montréal, Québec, Canada. Retrieved June 28, 2010 from:

http://www.iro.umontreal.ca/labs/HERON/art/blanchard_razaki_frasson_2005.pdf

Bogdan, R.C. & Biklen, S.K. (2006). *Qualitative Research for Education: An Introduction to Theories and Methods (5th ed.)*. Pearson Education, Inc.

Bottery, M. (2006). Education and globalization. Redefining the role of the educational professional. *Educational Review*. *58*(1), 95-113.

Bransford, J.D., Brown, A.L., & Cocking, R.R. (2000). *How People Learn: Brain, Mind, Experience, and School*. Washington, DC: National Academy Press.

Byram, M., Gribkova, B. & Starkey, H. (2002), Developing the intercultural dimension In language teaching. *A Practical Introduction for Teachers, Council of Europe, Strasbourg*. Retrieved March 30, 2011 from http://lrc.cornell.edu/director/intercultural.pdf

Catterick, D. (2007). Do the philosophical foundations of online learning disadvantage non-western students? In Edmundson, A. (Ed.), *Globalized E-learning Cultural Challenges* (pp. 116 – 127). Hershey, PA: Information Science Publishing.

Celentin, P. (2007). Online training: Analysis of interaction and knowledge building patterns among foreign language teachers. *Journal of Distance Education*, *21*(3), 39−58. Retrieved March 29, 2011 from http://www.eric.ed.gov/PDFS/EJ805056.pdf

Chase, M., Macfadyen, L., Reeder, K. & Roche, J. (2002). Intercultural challenges in networked learning: hard technologies meet soft skills. *First Monday*, *7*(8), 1-22. doi: 10.1.1.131.9140.

Cleveland-Innes, M. (2010). MDDE 702 Course. Comments on proposed thesis on Discussion Forum 2: Research Framework. Athabasca University.

Cleveland-Innes, M., Garrison, D.R. & Kinsel, E. (2007). Role adjustment for learners in an online community of inquiry: identifying the challenges of incoming online learners. *International Journal of Web-Based Learning and Teaching Technologies*, *2*(1), 1-16.

Collis, B. (1999). Designing for difference: cultural issues in the design of WWW-based course-support sites. *British Journal of Educational Technology 30*(3), 201 - 215.

Collis, B. & Remmers, E. (1997). The World Wide Web in education: Issues related to cross-cultural communication and interaction. In Khan, B. H. (Ed.), *Web-Based Instruction* (*1st ed*.). Englewood Cliffs, NJ: Educational Technology Publications, Inc.

Creswell, J.W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (*3rd ed.).* California, London, New Delhi and Singapore: Sage publications, Inc.

Creswell, J.W. (2007). *Qualitative Inquiry & Research Design. Choosing Among Five Approaches* (*2nd ed*). California, London and New Delhi: Sage publications, Inc.

144

Creswell, J.W. & Garrett, A. L. (2008). The "movement" of mixed methods research and the role of educators. *South African Journal of Education*, *28*, 321- 333. Retrieved April 6, 2011 from http://www.ajol.info/index.php/saje/article/viewFile/25155/4358

Creswell, J.W. & Plano Clark, V.L. (2007). *Designing and Conducting Mixed Methods Research*. California, London and New Delhi: Sage Publications, Inc.

Curtis, D. D. & Lawson, M.J. (2001). Exploring collaborative online learning. *Journal of Asynchronous Learning Networks, 5*(1), 21 - 32. Retrieved January 31, 2011 from http://wikieducator.org/images/6/60/ALN_Collaborative_Learning.pdf

Dantas, M. L. (2007). Building teacher competency to work with diverse learners in the context of international education. *Teacher Education Quarterly*. *34*(1), 75-94, Win 2007.

Davis, B. & Sumara, D. (2003) Why aren't they getting this? Working through the regressive myths of constructivist pedagogy. *Teaching Education*, *14* (2), 123 — 140. doi: 10.1080/1047621032000092922.

Driscoll, D. L.; Appiah-Yeboah, A.; Salib, P. & Rupert, D.J. (2007). Merging qualitative and quantitative data in mixed methods research: how to and why not. *Ecological and Environmental Anthropology*, *3*(1), 19 – 28. Retrieved September 2, 2011 from eea.anthro.uga.edu/index.php/eea/article/viewFile/26/36

Driscoll, M.P. (2005). *Psychology of Learning for Instruction (3rd ed.*). Toronto: Pearson.

Edmundson, A., editor (2007). *Globalized E-learning Cultural Challenges*. Hershey, PA: Information Science Publishing.

Edmundson, A. (2009). *Culturally Accessible E-Learning: An Overdue Global Business Imperative*. The American Society for Training and Development. Retrieved May 24, 2010 from http://www.astd.org/LC/2009/0509_edmundson.htm

Ess, C. & Sudweeks, F. (2005). Culture and computer-mediated communication: Toward new understandings. *Journal of Computer-Mediated Communication*. *11*(1), article 9. http://jcmc.indiana.edu/vol11/issue1/ess.html

Evans, T., & Nation, D. (2007). Globalization and emerging technologies. In M. G. Moore (Ed.). *Handbook of Distance Education* (*2nd ed.*), pp. 649-659). Mahwah, NJ: Lawrence Erlbaum Associates.

Faiola, A. & Matei, S.A. (2005). Cultural cognitive style and web design: beyond a behavioral inquiry into computer-mediated communication. *Journal of Computer-Mediated Communication*. *11*(1), article 18. http://jcmc.inidiana.edu/vol11/issue1/faiola.html

Farmer, L.S.J. (2010). Culturally-sensitive e-learning practices for teacher education. In Maddux, C.D., Gibson, D., & Dodge, B. (Eds.). *Research Highlights in Technology and Teacher Education 2010* (pp. 203-210). Society for Information Technology & Teacher Education (SITE).

Fay, R. & Hill, M. (2003). Educating language teachers through distance learning: the need for culturally-appropriate DL methodology [Abstract]. *Open Learning: The Journal of Open and Distance Learning*. *18*(1), 9-27. doi: 10.1080/0268051032000054095.

146

Field, M.H. (2009). Crossing Borders is Inevitable in Higher Education. In Fegan, J. &
Field, M.H. (Eds.), *Education Across Borders*.

doi: 10.1007/978-1-4020-9411-8 1.

Finegold, A.R.D. and Cooke, L., (2006). Exploring the attitudes, experiences and
dynamics of interaction in online groups. *Internet and Higher Education*, *9*(3),
201–215. Retrieved March 28, 2011 from http://hdl.handle.net/2134/3279

Garrison, D.R. (2003). Cognitive Presence for Effective Asynchronous Online
Learning: The Role of Reflective Inquiry, Self-direction and Metacognition.
Cuny.edu. Retrieved July 8, 2010 from
http://oit.hostos.cuny.edu/socialnetwork/effectiveonlinelearning/files/2009/09/L
earning-Effectiveness-paper-Garrison.pdf

Garrison, D.R. (2007). Online community of inquiry review: social, cognitive, and
teaching presence issues. *Journal of Asynchronous Learning Networks*, *11*(1),
61-72. Retrieved March 28, 2011 from
http://sloanconsortium.org/sites/default/files/v11n1_8garrison.pdf

Garrison, D.R. (2011). *E-Learning in the 21st Century: A Framework for Research and
Practice (2nd ed.)*. London and New York: Routledge, Taylor & Francis Group.

Garrison, D.R. & Anderson, T. (2003). *E-Learning in the 21st Century. A Framework
for Research and Practice.* London and New York: Routledge, Taylor & Francis
Group.

Garrison, D.R., Anderson, T. & Archer, W. (2000). Critical inquiry in a text-based
environment: computer conferencing in higher education. *The Internet and
Higher Education*. *2*(2-3), 87-105. Retrieved May 24, 2010 from
http://hdl.handle.net/2149/739

Garrison, D.R., Anderson, T. & Archer, W. (2004). Critical Thinking, Cognitive Presence, and Computer Conferencing in Distance Education. Retrieved May 24, 2010 from http://www.communityofinquiry.com/files/CogPres_Final.pdf

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

Garrison, D.R. & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. *The American Journal of Distance Education*, *19*(3), 133 – 148.

Garrison, D.R., Cleveland- Innes, M., Koole, M. & Kappleman, J. (2006). Revisiting methodological issues in transcript analysis: negotiated coding and reliability. *Internet and Higher Education*, *9*(2006), 1 -8. Retrieved August 9, 2011 from http://auspace.athabascau.ca:8080/dspace/bitstream/2149/611/1/sdarticle.pdf

Garrison, D.R., Cleveland-Innes, M. & Fung, T.S. (2010). Exploring causal relationships among teaching, cognitive and social presence: Students perceptions of the community of inquiry framework. *Internet and Higher Education*, *13*(2010), 31-36.

Gayeski, D.; Sanchirico, C., & Anderson, J. (2002). Designing training for global environments: Knowing what questions to ask. *Performance Improvement Quarterly*. *15*(2), 15-31.

Gilbert, P. K. & Dabbagh, N. (2005). How to structure online discussions for a meaningful discourse: a case study. *British Journal of Educational Technology*, *36*(1), 5-18. Retrieved March 28, 2011 from http://ritv.les.inf.puc-rio.br/groupware/temp/denise/071212/structured.foruns_j.1467-8535.2005.00434.pdf

Glaser, B. G. & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing Company. Retrieved September 28, 2011 from

http://faculty.babson.edu/krollag/org_site/craft_articles/glaser_strauss.html

Goodfellow, R., Lea, M., Gonzalez, F. & Mason, R. (2001). Opportunity and equality: intercultural and linguistic issues in global online learning. *Distance Education*. *22*(1), 65-84. ODLAA Inc.

Graham, M. & Scarborough, H. (1999). Computer mediated communication and collaborative learning in an undergraduate distance education environment. *Australian Journal of Educational Technology*, *15*(1), 20 – 46. Retrieved January 30, 2011 from http://www.ascilite.org.au/ajet/ajet15/graham.html

Gunawardena, C.N., Alami, A.I., Jayatilleke, G. & Bouachrine, F. (2009). Identity, gender and language in synchronous cybercultures: a cross-cultural study (pp.30 -51). In Goodfellow, R. & Lamy, M-N. (Eds.). *Learning Cultures in Online Education*. London and New York: Continnuum International Publishing Group.

Gunawardena, C., & Lapointe, D. (2007). Cultural dynamics of online learning. In M. G. Moore (Ed.). *Handbook of Distance Education* (*2nd ed.*), (pp. 593-607). Mahwah, NJ: Lawrence Erlbaum Associates.

Gunawardena, C., Wilson, P. L. & Nolla, A. C. (2003). Culture and Online Education (pp. 753- 775). In Moore, M. G. & Anderson, W.G. (Eds.). *Handbook of Distance Education.* Mahwah, NJ: Lawrence Erlbaum Associations.

Guyton, E.M. & Wesche, M.V. (2005). The multicultural efficacy scale: development, item selection, and reliability. *Multicultural Perspectives*, *7*(4), 21-29. Lawrence Erlbaum Associates, Inc.

Hall, E.T. (1981). *Beyond Culture: Into the Cultural Unconsciousness*. Garden City, NY: Anchor Press.

Hanson, W.E., Creswell, J.W., Clark, V.L., Petska, K. S. & Creswell, J.D. (2005). Mixed methods research in counseling psychology. *Journal of Counseling Psychology*, *52*(2), 224-235. doi: 10.1037/0022-0167.52.2.224.

Harasim, L. (2002). What makes online learning communities successful? The role of collaborative learning in social and intellectual development. In C. Vrasidas & G.V. Glass (Eds.). *Distance Education and Distributed Learning* (pp. 181-200). Greenwich, CT: Information Age Publishing.

Harrington, H.L., & Hathaway, R.S. (1994). Computer conferencing, critical reflection, and teacher development. *Teaching & Teacher Education. 1O*(5)*, 543- 554. Elsevier Science Ltd. Retrieved July 19, 2010 from http://deepblue.lib.umich.edu/bitstream/2027.42/31371/1/0000284.pdf

Hase, S., & Kenyon, C., (2000). From andragogy to heutagogy. *Ultibase, RMIT,* Dec.2000 Edition. Retrieved January 26, 2011 from http://pdfcast.org/pdf/from-andragogy-to-heutagogy

Hearne, B. & Nielsen, A. L. (2004). Catch a cyber by the tale: Online orality and the lore of a distributed learning community. In Haythornthwaite, C. & Kazmer, M. M. (Eds.). *Learning, Culture And Community In Online Education* (Vol. 21). New York: Peter Lang Publishing, Inc.

150

Henderson, L. (1996). Instructional design of interactive multimedia: A cultural critique. *Educational Technology Research and Development*. *44*(4), 85-104.

Hewling, A. (2005). Culture in the online class: Using message analysis to look beyond nationality-based frames of reference. *Journal of Computer-Mediated Communication*. *11*(1), article 16.

Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*. London: McGraw-Hill.

Holmes, B., Tangney, B. FitzGibbon, A., Savage, T. & Mehan, S. (2001). Comunal constructivism: students constructing learning *for* as well as *with* others. Proceedings from the 12th SITE: *International Conference of the Society for Information Technology & Teacher Education*. Charlottesville, VA, USA. Retrieved January 30, 2011 from http://www.scss.tcd.ie/publications/tech-reports/reports.01/TCD-CS-2001-04.pdf

Hoven, D. (2012). Personal communication. February 23, 2012.

Hoven, D. (2006). Communicating and Interacting: An exploration of the changing roles of media in CALL/CMC. *Calico Journal*. 23 (2), pp. 233 -250. Retrieved February 24, 2012 from
https://calico.org/memberBrowse.php?action=article&id=114

Howell, S., Williams, P.B., & Lindsay, N.K. (2003). Thirty-two trends affecting distance education: An informed foundation for strategic planning. *Online Journal of Distance Learning Administration*, *6*(3). State University of West Georgia.

Huang, H.M. (2002). Toward constructivism for adult learners in online learning environments. *British Journal of Educational Technology*. *33*(1), 27-37.

Jackson, K. M. & Trochim, W.M.K. (2002). Concept mapping as an alternative
    approach for the analysis of open-ended survey responses. *Organizational
    Research Methods*, *5*(4), 307-336. doi: 10.1177/109442802237114.

Jick, T.D. (1979). Mixing qualitative and quantitative methods: Triangulation in action.
    Administrative Science Quarterly, *24*(4), 602-611. Retrieved April 14, 2011
    from
    http://www.tim.ethz.ch/education/courses/courses_fs_2010/course_docsem_fs_2
    010/Literature/22_Jick_Mixing_qualitative_and_quantitative_methods.pdf

Johnson, C.M. (2001). A survey of current research on online communities of practice.
    Internet and Higher Education, *4*, 45-60. Retrieved January 31, 2011 from
    http://repository.maestra.net/valutazione/MaterialeSarti/articoli/Johnson-
    Survey.pdf

Johnson, R.B. & Turner, L.A. (2003). Data collection strategies in mixed methods
    research. In Tashakkori, A., & Teddlie, C. (Eds.). *Handbook of Mixed Methods
    in Social and Behavioral Research* (pp. 297-319). Thousand Oaks, CA: Sage.

Johnson, R.B. & Onwuegbuzie, A. J. (2004). Mixed methods research: A research
    paradigm whose time has come. *Educational Researcher*. *33*(7), 14-26. doi:
    10.3102/0013189X033007014.

Jones, T. (2010). Personal communication. December 16, 2010.

Kanuka, H. & Anderson, T. (1999). Using constructivism in technology-mediated
    learning: Constructing order out of chaos in the literature. *Radical Pedagogy*.
    1(2). Retrieved March 1, 2005, from
    http://www.radicalpedagogy.icap.org/content/issue1_2/02kanuka1_2html

Kim, H. & Papacharissi, Z. (2003). Cross-cultural differences in online self-presentation: a content analysis of personal Korean and US home pages. *Asian Journal of Communication*, *13*(1), 117 – 134. Retrieved October 3, 2011 from http://tigger.uic.edu/~zizi/Site/Research_files/KimPapacharissi.pdf

Kim, K-J. & Bonk, C. J. (2002). Cross-cultural comparisons of online collaboration. *Journal of Computer-Mediated Communication*, *8*(1). Retrieved January 30, 2011 from http://jcmc.indiana.edu/vol8/issue1/kimandbonk.html

Kozulin, A. (2003). Psychological Tools and Mediated Learning. In Kozulin, A., Gindis, B., Ageyev, V.S., & Miller, S.M. (Eds.). *Vygostsky's Educational Theory in Cultural Context* (pp. 15 – 37). Cambridge: Cambridge University Press.

Ku, H-Y. & Lohr, L.L. (2003). A case study of Chinese students' attitudes toward their first online learning experience. *Educational Technology Research and Development*, *51*(3), 95 – 102. doi: 10.1007/BF02504557.

Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. *Theory into Practice*, *34*(3), 159-165. Lawrence Erlbaum Associates (Taylor & Francis Group).

Lambert, W.E. (1973). Culture and Language as Factors in Learning and Education. Proceedings from the ALS'73: *The Fifth Annual Learning Symposium*. Western Washington State College, Bellingham, Washington. Retrieved January 26, 2011 from http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICE xtSearch_SearchValue_0=ED096820&ERICExtSearch_SearchType_0=no&acc no=ED096820

Lauzon, A.C. (1999). Situating cognition and crossing borders: resisting the hegemony of mediated education. *British Journal of Educational Technology*, *30*(3), 261-276.

Lave, J. & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Leech, N.L. & Onwuegbuzie, A.J. (2007). A typology of mixed method research designs. *Quality & Quantity*, *43*(2), 265-275. doi: 10.1007/s11135-007-9105-3.

Liaw, M-L. (2006). E-learning and the development of intercultural competence. *Language Learning & Technology*, *10*(3), 49-64. doi: 10.1.1.110.1555.

Lim, D.H. (2004). Cross cultural differences in online learning motivation. *Educational Media International, 41*(2), 163-175. doi: 10.1080/09523980410001685784.

Liu, Y. (2007). Designing quality online education to promote cross-cultural understanding. (pp. 35 – 55). In Moore, M. G. & Anderson, W.G. (Eds.). *Handbook of Distance Education.* Mahwah, NJ: Lawrence Erlbaum Associations.

Liu, X., Liu, S., Lee, S.-h., & Magjuka, R. J. (2010). Cultural Differences in Online Learning: International Student Perceptions. *Educational Technology & Society*, *13*(3), 177–188. doi: 10.1.1.174.1119.

Lo Bianco, J., Liddicoat, A.J. & Crozet, C. (1999) (Eds.). *Striving for the Third Place: Intercultural Competence through Language Education*. Language Australia Ltd. Retrieved January 28, 2011 from http://eric.ed.gov/PDFS/ED432918.pdf

Lowenthal, P. R. (n.d.) (in press). Social presence. In P. Rogers, G. Berg, J. Boettcher, C. Howard, L. Justice, & K. Schenk (Eds.). *Encyclopedia of Distance and Online Learning* (*2nd ed*.). Information Science Reference. Retrieved July 8, 2010 from http://patricklowenthal.com/publications/socialpresenceEDOLpre-print.pdf

Luria, A. R. (1976). *Cognitive Development: Its Cultural and Social Foundations*. Cambridge, MA: Harvard University Press.

Marshall, C. & Rossman, G.B. (1999). *Designing qualitative research* (*3rd ed*.). Sage Publications.

Mason, R. (2007). Internationalizing education. In M. G. Moore (Ed.). *Handbook of Distance Education* (*2nd ed*., pp. 583-591). Mahwah, NJ: Lawrence Erlbaum Associates.

Matsumoto, D. (1996). *Culture and Psychology*. Pacific Grove, CA: Brooks/Cole Publishing Company.

Mayer, R.E. (1999). Designing instruction for constructivist learning. In C.M. Reigeluth (Ed.). *Instructional Design Theories and Models: A New Paradigm of Instructional Theory* (pp. 141- 159). Mahwah, NJ: Lawrence Erlbaum Associations.

McIssac, M. (2002). Online learning from an international perspective. *Education Media International*. Online © 2002 International Council for Education Media. doi: 10.1080 /09523980210131196.

McLoughlin, C. and R. Oliver (2000). Designing learning environments for cultural inclusivity: a case study of indigenous online learning at tertiary level. *Australian Journal of Educational Technology*, *16*(1), 58-72. Retrieved January 26, 2011 from http://ascilite.org.au/ajet/ajet16/mcloughlin.html

Moore, M. (2006). Editorial: questions of culture. *The American Journal of Distance Education*. *20*(1), pp. 1-5.

Moore, M. & Kearsley, G. (2005). *Distance Education a Systems View (2ⁿᵈ ed.)*. Toronto: Thomson Wadsworth.

Moore, M.G., Shattuck, K. & Al-Harthi, A. (2005). Cultures meeting cultures in online distance education. *Journal of e-Learning and Knowledge Society (Je-LKS). 1*(2), 187-207.

Morgan, T. (2011). Online classroom or community-in-the-making? Instructor conceptualizations and teaching presence in international online contexts. *The Journal of Distance Education*, *25*(1), 1-15. Retrieved March 24, 2011 from http://www.jofde.ca/index.php/jde/article/view/721/1190

Morse, K. (2003). Does one size fit all? Exploring asynchronous learning in a multicultural environment. *The Journal of Asynchronous Learning Networks. 7*(1). Retrieved May 24, 2010 from citeseerx.ist.psu.edu/viewdoc/download. doi:10.1.1.138.6050.

Murray, T. R. (1993). *Comparing Theories of Child Development(3ʳᵈ ed.).* Belmont, California: Wadsworth Publishing Company.

Nisbett, R.E. & Norenzayan, A. (2002). Culture and Cognition. In Medin, D.L. (Ed.). *Steven's Handbook of Experimental Psychology* (*3ʳᵈ ed.*). *John* Wiley & Sons, Inc. Retrieved July 17, 2010 from www-personal.umich.edu/~nisbett/cultcog2.pdf

Neuman, W. L. (2006). *Social research methods: Qualitative and quantitative approaches. (6ᵗʰ ed.)*. New York, NY: Pearson Publishing.

Oren, A., Mioduser, D., & Nachmias, R. (2002). The development of social climate in

virtual learning discussion groups. *International Review of Research in Open and Distance Learning*. *3*(1). Retrieved May 24, 2010 from

http://www.irrodl.org/index.php/irrodl/article/view/80/154

Onwuegbuzie, A.J. & Collins, K.M.T. (2007). A typology of mixed methods sampling designs in social science research. *The Qualitative Report*. *12*(2), 281 – 316. Retrieved December 12, 2010 from http://www.nova.edu/ssss/QR/QR12-2/onwuegbuzie2.pdf

Onwuegbuzie AJ and Teddlie C (2003) A framework for analyzing data in mixed methods research. In Tashakkori, A., & Teddlie, C. (Eds.). *Handbook of Mixed Methods in Social and Behavioral Research* (pp. 351-383) Thousand Oaks, CA: Sage.

Paine, S. J. & Whitney, P.J. (2002). Developing L2 oral proficiency through synchronous CMC: output, working memory, and interlanguage development. *The Computer Assisted Language Instruction Consortium Journal*, *20*(1), 7-26. Retrieved January 31, 2011 from https://www.calico.org/a-327-Developing%20L2%20Oral%20Proficiency%20through%20Synchronous%20CMC%20Output%20Working%20Memory%20and%20Interlanguage%20Development.html

Palaiologou, N. (2007). Intercultural dimensions in the information society: reflections on designing and developing culturally-oriented learning. In Edmundson, A. (Ed.). *Globalized E-learning Cultural Challenges* (pp. 74 - 85). Hershey, PA: Information Science Publishing.

Panitz, T. (1996). A Definition of Collaborative vs. Cooperative Learning. Retrieved March 1, 2005, from

http://www.city.londonmet.ac.uk/deliberations/collab.learning/panitz2.html.

Parrish, P. & Linder-VanBerschot, J. A. (2010). Cultural dimensions of learning:

addressing the challenges of multicultural instruction. *International Review of*

Research in Open and Distance Learning. *11*(2), May – 2010. Retrieved May

28, 2010 from http://www.irrodl.org/index.php/irrodl

Phillipson, R. (2007). Linguistic imperialism: a conspiracy, or a conspiracy of silence?

Lang Policy (2007), 6, 377 – 383. doi:10.1007/s10993-007-9058-3.

Pincas, A. (2001). Culture, cognition and communication in global education. *Distance*

Education. *22*(1), 30-51. doi: 10.1080/0158791010220103.

Protheroe, N., & Turner, J. (2003). *Culturally Sensitive Instruction.* Arlington, VA:

Educational Research Service.

Proulx, J. (2006). Constructivism: A re-equilibration and clarification of concepts, and

some potential implications for teaching and pedagogy. *Radical Pedagogy*, *8*(1),

1-19. Retrieved January 30, 2011 from

http://radicalpedagogy.icaap.org/content/issue8_1/proulx.html

Raybourn, E.M., Kings, N., & Davies, J. (2003). Adding cultural signposts in adaptive

community-based virtual environments. *Interacting with computers*, *15*(2003),

91-107.

Redmond, P. (2010). Investigating the use of online discussions in an undergraduate

face-to-face course (pp. 27 – 33). In Maddux, C.D., Gibson, D., & Dodge, B.

(Eds.). *Research Highlights in Technology and Teacher Education 2010* (pp. 27-

33). Society for Information Technology & Teacher Education (SITE).

Richardson, J., & Swan, K. (2003). Examining social presence in online courses in

relation to students' perceived learning and satisfaction. *Journal of*

Asynchronous Learning Networks, 7(1). doi:10.1.1.119.9339.

Salomon, G. (1991). Transcending the qualitative-quantitative debate: The analytic and systemic approaches to educational research [Abstract]. *Educational Researcher*, *20*(6).

Savery, J.R. & Duffy, T.M. (2001). Problem Based Learning: An Instructional Model and its Constructivist Framework. Center for Research on Learning and Technology, Indiana University. Retrieved May 24, 2010 from crlt.indiana.edu/publications/duffy_publ6.pdf

Saxena, M. (2010). Learner Analysis framework for Globalized E-Learning. Dissertation. Capella University. Ann Arbor, MI. Proquest LLC.

Shachaf, P. (2008). Cultural diversity and information and communication technology impacts on global virtual teams: An exploratory study. *Information and Management, 45*(2), 131-142.

Shattuck, K. (2005). *Cultures Meeting Cultures in Online Distance Education: Perceptions of International Adult Learners of the Impact of Culture when Taking Online Distance Education Courses Designed and Delivered by an American University*. Unpublished doctoral dissertation, The Pennsylvania State University, University Park.

Shea, P., Li, C.S., & Picket, A. (2006). A study of teaching presence and student sense of learning community in fully online and web-enhanced college courses. *Internet and Higher Education, 9*(2006), 175–190. Retrieved March 28, 2011 from http://gpc.edu/~onlineis/teaching_presence.pdf

Simpson, J. (2002). Computer-mediated communication. *ELT Journal 2002, 56*(4), 414-415; doi: 10.1093/elt/56.4.414. Oxford University Press.

Smith, D. R. & Ayers, D.F. (2006). Culturally responsive pedagogy and online learning: implications for the globalized community college. *Community College Journal*

159

of Research and Practice. *30*, 401-415. Taylor & Francis Group, LLC.

Stodel, E.J., Thompson, T.L. & MacDonald, C.J. (2006). Learner's perspectives on what is missing from online learning: Interpretations through the Community of Inquiry Framework. *The International Review of Research in Open and Distance Learning*, *7*(3), 1-23. Retrieved March 28, 2011 from http://www.irrodl.org/index.php/irrodl/article/viewArticle/325/743

Strauss, A. & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA : Sage Publications.

Swan, K. (2010). Teaching and learning in post-industrial distance education. In Cleveland-Innes, M. & Garrison, R. (Eds.). *Introduction to Distance Education: Understanding Teaching and Learning in a New Era,* pp. 108-134. Routledge. Taylor & Francis Group.

Tashakkori, A. & Teddlie, C. (2003). *Handbook of Mixed Methods in Social and Behavioral Research*. Sage Publications, Inc. Retrieved July 14, 2010 from http://books.google.com.br/books?hl=en&lr=&id=F8BFOM8DCKoC&oi=fnd&pg=PA209&dq=brief+history+of+mixed+methods+research&ots=gShUtFozJb&sig=Sr57VD2rYfMvqrQEJ6_9nbt9gGc#v=onepage&q=brief%20history%20of%20mixed%20methods%20research&f=false

Teddlie, C. & Tashakkori, A. (2009) *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences.* Thousand Oaks, CA: Sage.

Teddlie, C. & Yu, F. (2007) Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*, 77-100. Retrieved April 6, 2011 from http://wtgrantmixedmethods.com/pdf_files/Teddlie%20and%20Yu_2007.pdf

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Thompson, F. (2009). The development and validation of the multicultural dispositions index. *Multicultural Perspectives¸ 11*(2), 94-100. National Association for Multicultural Education. doi: 10.1080/15210960903028776.

Trochim, W. M. K. & Land, D. A. (1982). Designing designs for research. *The Researcher*, *1*(1), 1-6. Retrieved April 6, 2011 from http://www.socialresearchmethods.net/kb/desdes.php

Trompenaars, F., & Hampden-Turner, C. (1997). *Riding the Waves of Culture: Understanding Diversity in Global Business (2nd ed.).* NY, SF, Washington, D.C., Auckland, Bogotá, Caracas, Lisbon, London, Madrid, Mexico City, Milan, Montreal, New Delhi, San Juan, Singapore, Sydney, Tokyo and Toronto: McGraw-Hill.

Tu, C-H. (2000). On-line learning migration: from social learning theory to social presence theory in a CMC environment. *Journal of Network and Computer Applications, 2*, 27-37.

Tu, C-H. (2002). The measurement of social presence in an online learning environment. *International Journal on E-Learning*. April-June 2002, 34-45.

Uzuner, S. (2009). Questions of culture in distance learning: A research review. *International Review of Research in Open and Distance Learning*. *10*(3).

Van den Braden, J., & Lambert, J. (1999). Cultural issues related to transnational open and distance learning universities: A European problem? *British Journal of Educational Technology*, *30*(3), 251-260.

Vaughan, N., & Garrison, D. R. (2005). Creating cognitive presence in a blended faculty development community. *Internet and Higher Education*, *8*, 1−12.

von Glasersfeld, E. (1984). An Introduction to Radical Constructivism. In P. Watzlawick (Ed.). *The Invented Reality.* New York: Norton, 1984. Retrieved February 24, 2012 from http://www.cesipc.it/materiali/articoli/vG1.html

Wallace, B. (2000). A call for change in multicultural training at graduate schools of education: Educating to end oppression and for social justice. *The Teachers College Record*, *102*(6), 1086 – 1111. Retrieved July 12, 2010 from http://donnacooke.com/A%20call%20for%20change%20in%20Multicultural%20Training%20at%20Graduate%20Schools%20of%20Education.pdf

Wang, C.M., & Reeves, T.C. (2007). The meaning of culture in online education: Implications for teaching, learning, and design. In Edmundson, A., *Globalized E-Learning Cultural Challenges* (pp. 1-17). Hershey, PA: Information Science.

Weckert, J. & Adeney, D. (1997). Cultural Imperialism and the Internet. *1997* International Symposium on Technology and Society Technology and Society at a time of Sweeping Change. Proceedings. Retrieved May 24, 2010 from http://library.athabascau.ca/

Welsh, E.T., Wanberg, C.R., Brown, K.G. & Simmering, M.J. (2003). E-learning: emerging uses, empirical results and future directions. *International Journal of Training and Development*. *7*(4), 245- 258. Retrieved January 26, 2011 from http://kanjiteacher.googlecode.com/svn-history/r62/Non-Code/Papers/Learning/welsh_E-learning.pdf

Wiener, M., & Mehrabian, A. (1968). *Language within Language: Immediacy, a Channel in Verbal Communication.* New York: Appleton-Century-Crofts.

Wu, D. & Hiltz, S.R. (2004). Predicting learning from asynchronous online discussions. *Journal of Asynchronous Learning Networks, 8*(2), 139 – 152. Retrieved January 31, 2011 from http://www2.hawaii.e.,du/~pusal/predicting_asyn_learning.pdf

Zawacki-Richter, O., Bäcker, E.M., & Vogt, S. (2009). Review of distance education
research (2000 to 2008): Analysis of research areas, methods, and authorship
patterns. *International Review of Research in Open and Distance Learning.*
10(6), 1-30. Retrieved June 14, 2010 from
http://www.irrodl.org/index.php/irrodl/article/view/741/1461

Zawacki-Richter, O. (2009). Research areas in distance education: a Delphi study.
International Review of Research in Open and Distance Learning. 10(3), 1-17.
Retrieved June 29, 2010 from
http://www.irrodl.org/index.php/irrodl/article/view/674/1294

Zhang, Z. & Kenny, R.F. (2010). Learning in an online distance education course:
Experiences of three international students. *International Review of Research in*
Open and Distance Learning. 11(1).

Zhao, N. & McDougall, D. (2008). Cultural influences on Chinese students'
asynchronous online learning in a Canadian university. *Journal of Distance*
Education. 22(2).

Zheng, Y. (2005). Information culture and development: Chinese experience of e-
health. *Proceedings of the 38th Hawaii International Conference on System*
Sciences. Retrieved January 28, 2011 from
http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan028244.pdf

APPENDICES

Community of Inquiry Survey Instrument

1. Students in this course can describe ways to test and apply the knowledge created in this course.
2. My actions reinforced the development of a sense of community among course participants.
3. Students in this course are motivated to explore content-related questions.
4. Course activities piqued students' curiosity.
5. I clearly communicated important due dates/time frames for learning activities.
6. Students in this course are able to form distinct impressions of some other course participants.
7. I clearly communicated important course goals.
8. I provided feedback in a timely fashion.
9. I provided feedback that helped students understand strengths and weaknesses relative to the course goals and objectives.
10. I helped to identify areas of agreement and disagreement on course topics that helped students to learn.
11. Students felt comfortable disagreeing with other course participants while still maintaining a sense of trust.
12. Reflection on course content and discussions helped students understand fundamental concepts in this class.
13. Online discussions were valuable in helping students appreciate different perspectives.
14. I encouraged course participants to explore new concepts in this course.
15. I clearly communicated important course topics.
16. Combining new information helped students answer questions raised in course activities.
17. Brainstorming and finding relevant information helped students resolve content-related questions.
18. Learning activities helped students construct explanations/solutions.
19. Students felt his/her point of view was acknowledged by other course participants.
20. I keep the course participants on task in a manner that helps students to learn.
21. Students utilized a variety of information sources to explore problems posed in this course.
22. I keep course participants engaged and participating in productive dialogue.
23. Students felt comfortable interacting with other course participants.
24. I provided clear instructions on how to participate in course learning activities.
25. Getting to know other course participants gave students a sense of belonging in the course.
26. Students felt comfortable conversing through the online medium.
27. Online or web-based communication is an excellent medium for social interaction.
28. Problems posed increased student interest in course issues.

29. I helped to focus discussion on relevant issues in a manner that helped students to learn.
30. Students can apply the knowledge created in this course to his/her work or other non-class related activities.
31. Students felt comfortable participating in the course discussions.
32. Students developed solutions to course problems that can be applied in practice.
33. I was helpful in guiding the class towards understanding course topics in a way that helped students clarify his/her thinking.
34. Online discussions helped students to develop a sense of collaboration.

5 point Likert-type scale

0 = strongly disagree, 1 = disagree, 2 = neutral, 3 = agree, 4 = strongly agree

Note. From Arbaugh, J. B., Cleveland-Innes, M., Diaz, S., Garrison, D. R., Ice, P., Richardson, J. C., Shea, P., & Swan, K. (2008). Developing a community of inquiry instrument: testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and Higher Education. 11*(2008), 133-136. © 2008 Elsevier Inc. Adapted with permission.

Faculty Letter of Invitation and Consent Form

An exploratory study of cross-cultural engagement in the Community of Inquiry: instructor perspectives and challenges

Dear Professor,

My name is Viviane Vladimirschi and I am a graduate student at Athabasca University's Master of Distance Education Program.

This letter is to invite you to participate in a study that I'm conducting aimed at exploring how instructors of online courses accommodate and make provisions for cross-cultural learners in a community of learning at an online higher education university. Recent studies underscore that culture is not independent of learning; good practices that address cultural diversity need to be developed and online instructors need to be more cognizant and efficacious in regards to cultural issues. Online environments may be even more prone to cultural conflicts than traditional classrooms as instructors in these settings have to interact with learners who remain physically and socially within their native culture, a culture that is largely foreign to the instructor.

The purpose of this research is

1. To add knowledge to the extant literature on online cross-cultural engagement.
2. To identify evidence of instructors' perspectives on cross-cultural engagement in online learning as it relates to communities of inquiry.
3. To enhance and build on the Community of Inquiry (CoI) framework for dealing with intercultural and international learners.

Thirty instructors from two Alberta post-secondary institutions have been invited to participate in this study. To participate in this study it is necessary you meet the following criteria: 1) Be currently teaching a predominantly asynchronous text-based online undergraduate or graduate course; 2) Be currently teaching an online undergraduate or graduate course in which there are foreign or international students enrolled who may or may not be currently living in Canada but were born in another country and whose native language is notably not English, **or** 3) Be currently teaching an online undergraduate or graduate course in which there are students where English is not their native language and they identify with a culturally distinct group (e.g., Aboriginals, French Canadians, or a new immigrant group now residing in Canada).

In order to develop practices that address the issues and concerns of cross-cultural learners engaged in online learning in an international online environment, it is

extremely important that the experiences and perspectives of instructors such as yourselves be heard by researchers, practitioners, and decision makers involved in developing online courses.

The study will take place over the Spring/Summer term, May to August, 2011. I anticipate that one to two hours of your time will be required over the course of one to two weeks during the Spring/Summer 2011 Semester. You will need access to the Internet and an e-mail address. For this study, you will be asked to respond to two online surveys as described below.

Online Survey 1 consists of open-ended survey questions that address your perceived multicultural efficacy in teaching cross-cultural online students. This survey is comprised of 15 open-ended survey questions. It is anticipated that approximately thirty to forty minutes of your time will be required to answer this survey.

Online survey 2 is a 5 point Likert-type scale CoI (Community of Inquiry) instrument aimed at measuring teaching presence, social presence and cognitive presence in an asynchronous text-based Computer Mediated Communication (CMC) online environment. This instrument will undergo enhancements and adaptations informed by the data collected from the first online survey. It is estimated that approximately one hour of your time will be required to answer this survey.

Please be assured that your involvement in this research is completely voluntary and there are no known or anticipated risks to participation in this study. Your answers to Online Surveys 1 and 2 will be identified with a token identifier number that has been generated for you; your name will not be presented on any documents. If you change your mind about taking part, you can withdraw at any time. To do this simply contact Viviane (vladimirschi@uol.com.br), and give your token identifier number. Your data will then be destroyed and will not be included within the study. There will be no consequences from deciding to withdraw your participation and no need to explain your withdrawal. You have the right to refuse to participate and to withdraw at any time during this research, without prejudice.

Furthermore, you may refuse to answer any question during interviews. All questions in the surveys must be completed, but you can choose not to complete the survey. *All information will be held confidential.* All information collected from you will be stored in a secure electronic location that can be accessed by the researcher only and will be destroyed in a confidential manner five years from the date of collection. The data collected will include no identifying information, and the names of all participants will be replaced with pseudonyms.

If you have any questions about this study or would like additional information to assist you in reaching a decision about participation, please feel free to contact Viviane Vladimirschi at 55-11-3285-5635 or vladimirschi@uol.com.br or Dr. Martha Cleveland-Innes at 1-1-800- 788-9041, ext 6426 or martic@athabascaau.ca. This study has been reviewed by and received ethics clearance from the Athabasca Research Ethics Board. If you have any comments or concerns resulting from your participation

in this study, please feel free to contact the Athabasca Research Ethics Board at 1-800-788-9041, ext 6718 or via email rebsec@athabascau.ca.

Thank you in advance for your interest in this project. To participate in this research, please reply to this email by May 24, 2011, and add the following statement in the body of your email, along with your name and an email address:

"Yes, I accept to participate in the research study on cross-cultural engagement in the CoI to be conducted May–July 2011, at Athabasca University."

This statement will indicate your consent to participate in the study. Volunteers will be contacted by email, at which time they will be notified of the survey link.

Yours sincerely,

Viviane Vladimirschi

Principal Researcher

MDE Student

Athabasca University

<center><u>**Appendix C**</u></center>

<center><u>**INFORMED CONSENT PACKAGE**</u></center>

1. **Title of Thesis:**   An exploratory study of cross-cultural engagement in the Community of

 Inquiry: instructor perspectives and challenges.

2. **Contact Information:**   Principal researcher: Viviane Vladimirschi
Tel: 55-11-96512006 (Brazil time)
E-mail: vladimirschi@uol.com.br

 Thesis Supervisor: Dr. Martha Cleveland – Innes
Tel: 1-800- 788-9041, ext 6426
E-mail: martic@athabascaau.ca

 Athabasca Research Ethics Board
Tel: 1-800-788-9041, ext 6718
E-mail: rebsec@athabascau.ca

3. **Responsibilities and time commitment of participants:** Thirty instructors from two Alberta post-secondary institutions have been invited to participate in this study. To participate in this study it is necessary participants meet the following criteria: 1) Be currently teaching a predominantly asynchronous text-based online undergraduate or graduate course; 2) Be currently teaching an online undergraduate or graduate course in which there are foreign or international students enrolled who may or may not be currently living in Canada but were born in another country and whose native language is notably not English, **or** 3) Be currently teaching an online undergraduate or graduate course in which there are students where English is not their native language and they identify with a culturally distinct group (e.g., Aboriginals, French Canadians, or a new immigrant group now residing in Canada).
It is anticipated that approximately one to two hours of your time will be required over the course of one to two weeks during the Spring/Summer 2011 semester. You will be asked to respond to two online surveys. Online Survey 1 consists of open-ended survey questions that address your perceived multicultural efficacy in teaching cross-cultural online students. This survey is comprised of 15 open-ended survey questions. It is anticipated that approximately thirty to forty minutes of your time will be required to answer this survey.

 The second online survey you are expected to respond to is a 5 point Likert-type scale CoI (Community of Inquiry) instrument that will undergo enhancements and adaptations informed by the data collected from the first online survey. It is

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estimated that approximately one hour of your time will be required to answer this survey.

You will need access to the Internet and an e-mail address.

4. **Purpose of the research:** Asynchronous text-based Computer Mediated Communication (CMC) grounded on constructivist teaching and learning principles have become a major education delivery medium inasmuch as these environments are able to lift geographic and temporal limitations for global learners. Such environments promote collaborative teaching and learning in addition to fostering high levels of interaction. In a globalized online environment teaching cannot be based on one dominant set of values or instructional assumptions. Recent studies underscore that culture is not independent of learning; good practices that address cultural diversity need to be developed and online instructors need to be more cognizant and efficacious in regards to cultural issues. Online environments may be even more prone to cultural conflicts than traditional classrooms as instructors in these settings have to interact with learners who remain physically and socially within their native culture, a culture that is largely foreign to the instructor. The Community of Inquiry (CoI) framework appears to be an invaluable instrument for establishing and facilitating dialogue in asynchronous communication yet the model fails inasmuch as it does not consider cultural issues as a factor in the development of a community of inquiry.

   The purpose of this mixed methods study is threefold: 1) add knowledge to the extant literature on online cross-cultural engagement; 2) to identify evidence of instructors' perspectives on cross-cultural engagement in online learning as it relates to communities of inquiry; and 3) enhance and build on the CoI framework for dealing with intercultural and international learners.

5. **Risks and benefits:** The risks associated with participating in this study are negligible and are certainly no greater than those encountered in regular CMC conferencing. Participation is voluntary. Your answers to Online Surveys 1 and 2 will be identified with a token identifier number that has been generated for you; your name will not be presented on any documents. If you change your mind about taking part, you can withdraw at any time. To do this simply contact Viviane Vladimirschi (vladimirschi@uol.com.br), and give your token identifier number. Your data will then be destroyed and will not be included within the study. There will be no consequences from deciding to withdraw your participation and no need to explain your withdrawal. You have the right to refuse to participate and to withdraw at any time during this research, without prejudice.

   The benefits are your contribution to a better understanding of how instructors could deal more effectively with cross-cultural learners in an asynchronous collaborative and constructivist online learning environment. This study will help inform not only the design of online courses for cross-cultural learners but also the practices of instructors who are engaged in intercultural online teaching.

6. **Privacy:** All information will be held confidential. Data in the form of word files, surveys and any other information about participants will be electronically

saved on the researcher's computer. Two backup copies will be committed to removable data storage devices. The two data storage devices will be kept in the researcher's office under lock. Hard copies of the data (open-ended survey questions and CoI survey results) will be printed and stored under lock at the researcher's office. These will be saved for five years and then destroyed. Furthermore, the data collected will include no identifying information and the names of all participants will be replaced with pseudonyms.

The personal information recorded on this form is being collected under the authority of the Post-Secondary Learning Act and Section 33(c) of the Freedom of Information and Protection of Privacy Act. This information will be used to research how instructors of online courses accommodate and make provisions for cross-cultural learners in an online community of learning, and is protected under the privacy provisions of the Freedom of Information and Protection of Privacy Act. If you require further information concerning the collection and use of this personal information, please contact Viviane Vladimirschi at 55-11-3285-5635 or vladimirschi@uol.com.br.

7. **Availability of Results:** The existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room; and the final research paper will be publicly available. The whole or parts of the thesis may be published and/or made available on the WWW.

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this study, please contact the Office of Research Ethics at 780-675-6718, ext 6718 or by e-mail to rebsec@athabascau.ca

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Deemed consent:

PROCEED TO SURVEY

"Submission of the completed questionnaire will constitute consent to include the data in the study."

Online Survey 1- Adapted Multicultural Efficacy Questionnaire (AMEQ)

Demographic Information:

TO THE RESPONDER: The demographic information requested is necessary for the research process. Completion of these items is mandatory for the research process since data obtained in Online Survey 1 will be compared to that of Online Survey 2. However, participants may opt out from answering any questions. Please rest assured that this information and all your responses on this questionnaire will be kept **strictly confidential**. Data will be reported in such a way that identification of individuals will be impossible.

Token ID #: _____

Gender (Check one): _____Male _____Female

Age (Check one group): _____under 25

_____25 to 34

_____35 to 44

_____45 to 54

_____55 to 64

_____65 to 74

_____ over 75

Are there students participating in your course(s) who are culturally distinct from the mainstream Canadian culture? (Check one): _____Yes_____No

What is your cultural background? Cultural background in this context refers to what group you identify most in terms of activities, beliefs and customs.

_____

_____

Questionnaire:

Please provide complete answers to the questions that follow.

Definition of terms:

a) The term "culture" is defined here as "the set of attitudes, values, beliefs, and behaviors shared by a group of people, but different for each individual" (Matsumoto, 1996).

b) Cross-cultural online engagement is defined in this study *as interaction between individuals from different cultures in an asynchronous text-based Computer Mediated Communication (CMC) online environment.* For this particular study, individuals from different cultures fall into two categories: 1) foreign or international students enrolled who may or may not be currently living in Canada but were born in another country and whose native language is notably not English; and 2) students enrolled whose native language is not English and who identify with a culturally distinct group (e.g., Aboriginals, French Canadians, or a new immigrant group now residing in Canada).

1. In the online courses you teach, do you usually adapt curricula and instructional activities to address the needs of students from other cultures?

2. In what ways do you adapt curricula and activities to address the needs of students from other cultures?

3. What specific cultural factors or issues do you take into account? If none, why not?

4. In your online lesson plans, do you develop or incorporate activities that are designed to promote the success of cross-cultural or international learners studying online? In what ways?

5. Do you find it important to encourage cross-cultural learners to work collaboratively with mainstream Canadian culture learners? Please explain why or why not.

6. Can you anticipate certain learning difficulties an online cross-cultural learner might have to face during the course?

7. If so, what actions or preventative measures do you take before the semester begins and during the semester to lessen or relieve these difficulties? If none, why not?

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8. Studies have revealed that the inability to understand specific cultural references, language barriers and/or limitations, the inability to question authority (instructors or peers), differing emotional needs, time zone limitations, and technological limitations are just some of the factors that hinder successful online learning (Zhao & McDougall, 2008; Uzner, 2009; Zhang & Kenny, 2010). Taking these facts into consideration, can you adapt to the expectations and concerns of culturally diverse learners in the online learning environment?

9. Cultural clashes in the online environment may arise from learners having attitudes, values, and beliefs that differ from the mainstream Canadian population, and/or from learners having to deal with instructional material or curricula that don't speak to them. Are you usually able to identify solutions to problems that arise from possible cultural clashes in this teaching setting? If so, please explain the measures taken to remedy or alleviate existing cultural clashes.

10. Does the lack of face-to-face interaction tend to increase or decrease potential online cultural clashes in the online learning environment? In what ways?

11. Can you identify ways in which culturally diverse groups contribute in a manner different from that of other, non-diverse students to the online learning community and environment?

12. Do you encourage your online students to assimilate and accept the perspective of ethnic and cultural groups different from their own? If so, in what ways?

13. Can you identify any institutional policies and practices that may harm or adversely affect the educational outcomes of online learners? Conversely, can you identify any policies that are culturally uplifting? If so, please identify which ones.

14. The Community of Inquiry framework is a theoretical distance education model that consists of three overlapping presences: social, cognitive, and teaching. The model "is grounded in a collaborative constructivist view of higher education and assumes that effective online learning requires the development of a community" (Rovai, 2002; Shea, 2006 as cited in Swan, 2010, p. 122). The main objective of the model is to foster deeply meaningful learning in an online community of learners. Researchers believe that all three presences are equally important in promoting higher-order learning based on reflective and collaborative discourse. How do you think cultural presence would fit in this grouping?

15. Please use the space below to add any other additional comments or statements regarding cross-cultural engagement in the asynchronous text-based CMC online educational context.

"When you press the SUBMIT button, your data will be included in the study. If you decide to withdraw after submitting simply contact Viviane Vladimirschi (vladimirschi@uol.com.br), and provide your participation identifier. Your data will then be destroyed and will not be included within the study."

Note. Adapted from Guyton, E.M. & Wesche, M.V. (2005). The multicultural efficacy scale: development, item selection, and reliability. *Multicultural Perspectives*, *7*(4), 21-29. Lawrence Erlbaum Associates, Inc.

Online Survey 2- Revised Community of Inquiry Survey Instrument

1. Students in this course can describe ways to test and apply the knowledge created in this course.
2. My actions reinforced the development of a sense of community among course participants.
3. Students in this course are motivated to explore content-related questions.
4. Course activities piqued students' curiosity.
5. I clearly communicated important due dates/time frames for learning activities.
6. Students in this course are able to form distinct impressions of some other course participants.
7. I clearly communicated important course goals.
8. I provided feedback in a timely fashion.
9. I provided feedback that helped students understand strengths and weaknesses relative to the course goals and objectives.
10. I helped to identify areas of agreement and disagreement on course topics that helped students to learn.
11. Students felt comfortable disagreeing with other course participants while still maintaining a sense of trust.
12. Reflection on course content and discussions helped students understand fundamental concepts in this class.
13. Online discussions were valuable in helping students appreciate different perspectives.
14. I encouraged course participants to explore new concepts in this course.
15. I clearly communicated important course topics.
16. Combining new information helped students answer questions raised in course activities.
17. Brainstorming and finding relevant information helped students resolve content-related questions.
18. Learning activities helped students construct explanations/solutions.
19. Students felt his/her point of view was acknowledged by other course participants.
20. I keep the course participants on task in a way that helps students to learn.
21. Students utilized a variety of information sources to explore problems posed in this course.
22. I keep course participants engaged and participating in productive dialogue.
23. Students felt comfortable interacting with other course participants.
24. I provided clear instructions on how to participate in course learning activities.
25. Getting to know other course participants gave students a sense of belonging in the course.
26. Students felt comfortable conversing through the online medium.
27. Online or web-based communication is an excellent medium for social interaction.
28. Problems posed increased student interest in course issues.

29. I helped to focus discussion on relevant issues in a way that helped students to learn.
30. Students can apply the knowledge created in this course to his/her work or other non-class related activities.
31. Students felt comfortable participating in the course discussions.
32. Students developed solutions to course problems that can be applied in practice.
33. I was helpful in guiding the class towards understanding course topics in a way that helped students clarify his/her thinking.
34. Online discussions helped students to develop a sense of collaboration.
35. I allowed for adjustments to the design and organization when necessary to accommodate cultural diversity.
36. I supported interaction among culturally diverse learners.
37. Open communication in this community allows for culturally diverse presentation.

5 point Likert-type scale

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Note. From Arbaugh, J. B., Cleveland-Innes, M., Diaz, S., Garrison, D. R., Ice, P., Richardson, J. C., Shea, P., & Swan, K. (2009). Developing a community of inquiry instrument: testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and Higher Education*. *11*(2008), 133-136. © 2008 Elsevier Inc. Adapted with permission.