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An Exploration of Learners' Similarities and Differences in

International Online Education

by

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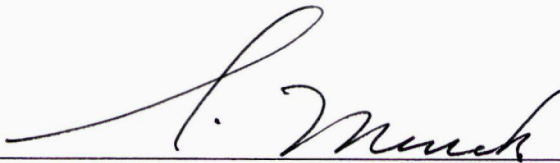An Exploration of Learners Similarities and Differences in International Online Education

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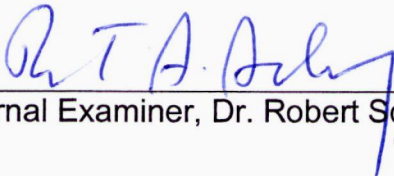requirements for the degree of Master of Continuing Education.

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Abstract

The literature raises awareness of some of the complexities associated with cross-cultural use of e-learning models developed in Western parts of the world. In an effort to enhance awareness and understanding of the nature of cultural factors in international online education, this study explores both the similarities and differences among adult learners from diverse geo-political regions (i.e. the Asian countries of Bangladesh, China, the Philippines and Thailand in comparison to Canada). Approaches to learning and experiences in online education were investigated using Biggs' (1987) Study Process Questionnaire and a series of open-ended questions administered online. The findings indicate similarities in use of deep, meaningful approaches to learning, and experiences with self-direction, critical thinking and online discussion. Differences are evident in use of surface and achieving approaches, technology access and language fluency. Recommendations include face-to-face preparation for online learning and further attention to language and technology related challenges.

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Table of Contents

List of Tables

List of Figures and Illustrations

CHAPTER ONE: INTRODUCTION

Advances in computer and communications technology have transformed distance education and provided the impetus for the creation of innovative, globally delivered adult learning programs. Using computer-mediated communication online courses extend opportunities to professionals located in countries around the world to further their formal education. According to Harasim (1993) international learning networks are "proliferating in universities, colleges, distance education and training institutions" (p. 21).

The proliferation of international online learning is largely due to the flexibility that it provides as learners can participate anywhere, anytime, and in any location as long as they have access to a computer and Internet connection. In developed countries, the convenience associated with e-learning is especially appealing to adults who aspire to continue their education while working. For professionals in less developed parts of the world, online programs greatly expand the range of alternatives available for formal learning.

Although Internet technology now provides exciting new opportunities for enriching learning experiences with people of various cultures, it also introduces new and complex issues into the design and delivery of distance education. As providers of online education venture to serve global markets of learners they face the challenge of meeting the needs of students who present a wide range of individual differences. In order to provide satisfying and effective educational experiences, facilitators of global online learning ventures may need to be sensitive to cultural factors in terms of approaches to

learning and personal experiences with education in general, and online learning specifically, and the implications of these to the teaching-learning transaction.

Background

Two examples of Canadian university graduate level programs that have been delivered online, on an international scale are, The Master's of International Human Resource Development (MIHRD) formerly offered in collaboration between the University of Calgary and the Asian Institute of Technology in Thailand, and the University of British Columbia and Monterrey Institute of Technology (Mexico) Master's in Educational Technology Partnership.

Underlying the computer-mediated distance education model applied to each of these programs is an educational philosophy derived from Western culture. Knowles' (1980) concept of andragogy, "the art and science of helping adults learn" (p.42), is a foundational element of adult education in the Western world (Brookfield, 1995) and a fundamental piece of the model. The central tenets of andragogy are that adults are by nature self-directed and autonomous and that the primary role of the teacher is one of facilitator. Other key features of the model include collaborative learning, critical inquiry, and knowledge creation in a community of practice (Harasim, Hiltz, Teles & Turoff, 1997; Harasim 2000; Pallof & Pratt, 1999).

An additional significant aspect of the former MIHRD program was its delivery in two phases; a face-to-face institute followed by a series of online courses. This mixed-media design is analogous to that of the Master's of Continuing Education (MCE) a similar program which was originally designed for Canadian students but is now offered on an international scale to replace the discontinued MIHRD.

Educators involved with the MIHRD and Master's in Educational Technology Partnership have reported observations that raise awareness of the complexities associated with cross-cultural use of online distance learning models developed in the West. For example, facilitators of the pilot of the MIHRD program noted differences between MIHRD students who were mostly from South/South East Asia and the Canadian students in the MCE program. Specifically, many of the Asian adult learners appeared to experience some level of discomfort with the following elements of the model employed: building a sense of connectedness to others in the online learning community; articulating personal ideas; the student-centered approach; the time demands of the course; and exploring course topics in relation to self (Minuk, 1998).

Bates (1999) describes similar observations based on his involvement with the Master's in Educational Technology Partnership:

> There is a tendency in Western courses from the USA, Britain, Canada, and Australia to encourage critical thinking skills, debate and discussion, where students' views are considered important and where the views of the teacher can be legitimately challenged and where student dissent is even encouraged. In other cultures, there is great respect shown by students for the teacher, and it is culturally alien to challenge the teacher or even express an opinion on a topic. Although more research is needed, in our online courses there appears to be a major difference between ethnic groups in their willingness to participate in online forums, and these differences seem to be independent of skill in conversing in a foreign language. (p. 8)

While it is the differences that challenge us, commonalties provide a starting point for building knowledge and understanding of others. Colin Henry, a professor at Deakin University in Australia reinforces the importance of recognizing similarities:

Just to begin the conversation, I think my experience has taught me that it is wise to recognise that although there may be many kinds of cultural difference between learners in international online learning communities, there are also likely to be many similarities that shouldn't be overlooked either. For example, my experience of working 'online' with international 'students' in Thailand and Malaysia has taught me that it is important to realize that many adult learners already have extensive experience of education in such places as Canada, the UK, the USA and Australia; that encouragement, politeness, graciousness, cheerfulness, etc., are never out of place; and that the creation of online learning communities is enormously enhanced by getting to know each other in and through face-to-face meetings. (C. Henry, personal communication, January, 29, 2001)

Purpose

The purpose of this research is to explore both the differences and similarities among adult learners of diverse cultural backgrounds who have gained some first hand experience in online education with an aim to understand the nature of some of the cultural factors of influence in international e-learning. The two cultural groups of interest in this study represent (1) the Asian regions of Bangladesh, China, Thailand, and The Philippines and (2) Canada. The research question is, "In what ways are Asian and Canadian adult learners who are engaged in online education alike and different?" Because there are likely to be many ways in which Asian and Canadian adult learners are similar and different, two areas of concentration have been selected. They include approaches to learning and personal experiences with online education. This study extends the prior research by involving adults of diverse cultural groups who have gained actual experience as learners in collaborative computer-mediated conferencing environments.

Theoretical Rationale

Literature in the fields of online distance education, adult and higher education, and cross-cultural communication provides a solid research base on which to rest an inquiry into cultural factors in online education. One particular way in which culture and learning have been explored in higher education contexts is from the framework of the approaches to learning literature. This literature examines how students go about learning by investigating the extent to which, and under which circumstances, they adopt a deep, meaning oriented approach or a surface, reproduction oriented approach to learning. Willment (2001) suggests that the collaborative types of learning required in online university graduate level programs depend on a deeper approach to learning than was necessary when transmission teaching styles were used. Research conducted by way of the approaches to learning theoretical framework can therefore enhance our understanding of the online learning processes and experiences of culturally diverse adult learners.

Delimitations of the Study

Culture, defined by Hofstede (1997) as "the collective programming of the mind which distinguishes the members of one group or category of people from another" (p. 260), is in this study limited to national culture, that which is determined by political/geographical region of origin. The cultures of interest in this study correspond to four regions of Asia (i.e. Bangladesh, China, the Philippines and Thailand) and to Canada.

Both Asia and Canada are huge regions of considerable diversity. Each geo-political area cannot be considered completely homogeneous in terms of values, beliefs

and practices, however, it is reasonable to assume a level of consistency in educational systems and challenges across each region. The developing regions of Asia all face similar barriers in the provision of education (Robinson, 1999) and in adopting and using new technology such as online learning (Gunawardena, 1998), therefore it is appropriate to group them together in efforts to explore potential solutions (Robinson, 1999).

The context of this research is online graduate level education in the field of workplace learning. "Online learning" and "e-learning" are used synonymously in reference to the distance education/learning model that employs text-based computer-mediated communication to facilitate collaborative learning, critical inquiry and knowledge creation in a community of practice (Harasim et al 1997; Harasim, 2000; Pallof & Pratt, 1999). Distance education models in which collaborative learning is not fundamental (e.g. Web-based learning), nor computer-mediated (e.g. print based distance education), are not included in this particular discussion.

There are many types of similarities and differences that need to be explored. The focal points of this research are the learning processes, or approaches to learning, of adults and their personal experiences with online education. The approach to learning construct was selected as the conceptual frame for this research because its validity with various ethnic groups has been demonstrated (Richardson, 1994) and it has achieved an established research history in the fields of cross-cultural education and distance learning. Quantitative research methods are usually associated with the approaches to learning framework, however, in this study qualitative methods supplement the quantitative and add to the depth and breadth of information obtained.

The primary focus of this research is comparing one cultural group to another within the limits outlined above. Relationships between variables peripheral to this focal point are not reported at this time, however, they may become the subject of future research and discussion.

Significance of the Study

Hofstede (1986) suggests that the best way to approach the challenge of cross-cultural education is to encourage intellectual and emotional adjustment to the idea that people in different societies learn in different ways. The significance of this study rests on the assumption that the knowledge created by investigating the approaches to learning and personal experiences of culturally diverse adults in online distance education will enhance the awareness and understanding of those involved in international online learning communities. It is hoped that the results of this study will assist to inform further research and lend to the creation of a paradigm for culturally sensitive international online education.

Limitations of the Study

The design of this study necessitated, for practical reasons, a small sample size. This enabled collection of a breadth of data, however, it limits the generalizability of the results. Given the relatively small number of people in developing countries that have had the opportunity to participate in the collaborative type of online learning of interest, it would have been very difficult to draw a much larger sample. When asked to engage in the snowball sampling process, one contact in Thailand wrote, "I try to find somebody who can help you on this. But seems difficult because it's still not popular here (too

expensive)" (S. Phutthaphithak, personal communication, February 26, 2002). In addition, non-random sampling processes (quota and snowball) were utilized which further limits the degree to which the sample selected represents all adults from the cultural groups of interest.

It is also noted that researchers in this field recommend that comparisons of the nature of those of this study be made only between distinct national groups so as to minimize the impact of within-group variance (Smith & Smith, 2000). Studies in which culture is not carefully defined and controlled, and groups of students of one large region are treated as homogeneous, run the risk of masking important differences between individuals and ethnic groups (Smith & Smith, 2000). In this project the Canadian group is limited to representatives of one country while the parameters of the Asian group are expanded to include participants from four countries in order to meet the quota requirement.

Finally, it appears that the participants who volunteered for this study have been fairly successful in their online learning endeavours. No students who were unsuccessful volunteered to participate. This excluded group may have added important information about the approaches to learning and personal experiences of adults in international online distance education.

CHAPTER TWO: LITERATURE REVIEW

This literature review is divided into three sections. The first section contains an overview of the online learning model of distance education and some of the challenges associated with its use across cultures. In the second section three topics of importance to understanding cultural differences in educational contexts are reviewed. The topics include dimensions of culture, conceptions of teaching and learning, and Asian versus Western educational models. Section three is comprised of a description of the approaches to learning theoretical framework, the associated measurement instruments, the research pertaining to construct validity for cross-cultural and distance education use, and a review of findings related to international online education.

Online Learning

Online learning has been described as a new paradigm for education (Harasim et al 1997; Harasim, 2000; Pallof & Pratt, 1999). This paradigm represents the marriage of recent educational theories, such as constructivism and collaborative learning, and the use of technology, particularly computer-mediated communication, in distance education. The technology supports a unique educational transaction where instructors and learners who are separated in time and space communicate with each other asynchronously and/or synchronously via text-based computer conferencing.

Because the teacher and learners are physically separated, the teacher has little direct control of the learning process, therefore a key attribute of the paradigm has become learner independence (Pallof & Pratt, 1999). In university graduate level

programs, this feature compliments the adult education theory of andragogy. One of the main assumptions of andragogy is that adults are self-directed (Knowles, 1980).

The characteristics of online learning in university graduate level education are (Gunawardena, 1998; Harasim, 2000; Pallof & Pratt, 1999):

- the instructor is a facilitator of the learning process;

- students are expected to be self-directed;

- instructor-student and student-student interaction takes place;

- teacher and learner roles are fluid;

- knowledge is socially constructed through dialogue;

- learners are active participants rather than passive recipients;

- learning communities are created;

- online interaction may be supplemented by face-to-face, audio and/or video conferencing.

The goal of higher education, whether it's conducted in an electronic or a face-to-face context, is to create a critical community of inquiry to facilitate higher-order learning (Garrison, Anderson, & Archer 2000). Garrison et al (2000) examined the transcripts of graduate level courses conducted online and found evidence of three essential elements that contribute to the creation of communities of inquiry in text-based computer conferencing environments. They are cognitive presence, social presence, and teacher presence. Cognitive presence refers to the extent to which participants in online learning are able to "construct meaning through sustained communication" (p. 89). Social presence represents the ability of a participant to appear as a real person who interacts with others in the computer-mediated conferencing environment. Teacher presence is

comprised of two functions, design of the learning experience and facilitation. Usually the first function is the responsibility of the instructor while the responsibility for the second function is often shared amongst the instructor and adult learners.

Cognitive presence appears to be closely linked to the deep approach to learning. Newman, Johnson, Cochrane and Webb (1997) used indicators of deep and surface approaches to learning as measures of critical thinking or cognitive presence. The researchers compared measures of different aspects of deep and surface approaches to learning in a face-to-face context and a computer-supported group learning context. By marking each statement in the transcripts for each context as indicative of deep or surface learning then calculating critical thinking ratios, they found higher frequencies of aspects of deep approaches to learning and greater critical thinking ratios for the computer-supported group. The results of this study lend support to Willment's (2001) assertion that a deep approach to learning is an important component of the collaborative process associated with online learning.

Cross-Cultural Issues

"Learning networks enable global collaborations. The opportunity for cross-cultural global contact can help to build mutual respect, trust and the ability to work together" (Harasim et al, 1997, p. 275). However, the model of online learning that has become popular in Western cultures may not fit easily with the cultures of other parts of the world:

> Distance education faces different sets of realities in Asian developing countries. Apart from visible differences in infrastructure, technology and resources, there are deep-

rooted differences in culture and educational tradition which result in distinctive patterns of practices and expectations about learning and teaching, and about the management of distance learning systems. (Robinson, 1999, p. 33)

Access to Technology

There are still large disparities in access to computers and the Internet throughout the regions of the world. In 1999 Dhanarajan wrote, "Even as we near the end of the century, some 500 million people worldwide may not have made their first telephone call, let alone used the Internet" (p. 9).

For the regions included in the current project, the statistics regarding the number of people who own personal computers and use the Internet are presented in Table 1: Computer and Internet Access.

Table 1: Computer and Internet Access

Country	Personal Computers per 1000 people	Internet Users per 1000 people
Bangladesh	1.0	.40
Canada	360.8	360.7
China	12.2	7.1
Philippines	16.9	6.7
Thailand	22.7	13.3

Note. Values are for 1999. From World Development Indicators (2001).

Language

In international online learning communities English tends to be the standard language. Differences in skills and comfort levels with English can potentially pose problems for learners and facilitators. However, Hiltz (as cited in Harasim et al, 1997) argues that online courses might be advantageous to students for whom English is a second language. The text-based nature of computer-mediated communication provides the opportunity for students to read comments several times, consult dictionaries, then draft and edit work prior to uploading replies. The result is that students may feel as though they are able to participate on a more equal level than in the traditional classroom.

When text-based communication is used, the non-verbal cues that are present in face-to- face interactions are absent. Because less information is available to aid in interpretation of a message, misunderstandings may occur. Conversely, in multicultural contexts where social hierarchies might be based on ethnicity, the lack of social and physical cues may help to equalize the group of learners (Gunawardena, 1998).

Learner-Centered Collaborative Learning Models

Gunawardena (1998) has examined issues related to the use of collaborative learning environments mediated by computer conferencing in the Indian sub-continent (i.e. India, Pakistan, Bangladesh, and Sri Lanka) or Asian cultural context. Based on her experiences as a researcher and online learning facilitator, she reports that the interactive student-centered format of online learning may pose the following difficulties for Asian students. Teacher-centered education models are interwoven in the fabric of Asian culture therefore students are more familiar with a more directive teaching style. As well, the social norms of many Asian cultures oppose the practice of sharing and exchanging

personal ideas and interests in an educational forum. Social norms regarding gender roles may also restrain students, especially females, from participating.

Researchers in New Zealand (Liang & McQueen, 1999) support the notion that Asian students may have different expectations than Western students regarding the role of the instructor. They investigated the preferences and learning outcomes of students of diverse cultures in a course in which email interaction was utilized in combination with face-to-face instruction and group work. Participants were adult learners from China, Fiji, Hong Kong, New Zealand, the Philippines, South Africa, Taiwan, and the United States. They found that the Western students tended to be more peer-oriented than tutor-oriented while the Asian students were more tutor-oriented than peer-oriented. The Asian students indicated that they expected more feedback and that they believed the role of the teacher to be to offer information rather than wait for students to request it. Conversely, the Western students said they wanted more peer-interaction. A relationship between orientation and effectiveness of the email interaction component was also identified. Email interaction was found to be more effective for the peer-oriented students.

Making the transition from a teacher-centered to a learner-centered educational model is a challenging endeavour. Research involving Japanese, Chinese, Thai, Indonesian and Nepalese students in a flexible learning environment in which a learner-centered teaching approach was adopted found that the students of the cultures involved held tightly to the assumption that direct teacher involvement is necessary for effective learning (Andrews, Dekkers & Solas, 1998). All of the students involved in this study reported that they found the transition to a learner-centered environment difficult.

Recommendations provided by Gunawardena (1998) for adjustments to the online learning model utilized in the Asian cultural context include: carefully select topics for which computer-mediated conferencing is used; start with teacher-led discussion then move toward student-led discussion as participants become more comfortable; refrain from stimulating controversial topics or questions until students appear comfortable; and introduce small group collaborative activities to start, later, full group discussion of case studies and debates may be attempted. In addition, Gunawardena recommends that more research be conducted into cultural factors in globally delivered online education.

Understanding Cultural Differences

Dimensions of National Cultures

Hofstede (1997) provides a starting point for understanding cultural differences. Culture, he defines as "the collective programming of the mind which distinguishes the members of one group or category from another" (p. 260). To systematically examine and identify the ways in which national cultures differ, Hofstede designed a large research project. He used quantitative methodology to study the work-related values of people from 53 countries. Surveys regarding personal values were administered to over 100,000 employees of IBM during the late 1960's and early 1970s. When the mean scores in different categories of the survey for each of the countries involved were analyzed, patterns emerged that were indicative of the ways in which common issues including distributing power and authority, defining the concept of self, dealing with conflict, and dealing with the unknown are handled in different countries. These patterns were termed

dimensions and lead to the development of the Four-Dimensional (4-D) Model of cultural differences.

The labels for the four dimensions are as follows: power distance (from large to small); collectivism versus individualism; femininity versus masculinity; and uncertainty avoidance (from weak to strong). Large versus small power-distance refers to the manner in which power is distributed. In countries characterized by large power-distance inequalities between people are both expected and desired while in small power-distance countries, inequalities are minimized. An emphasis of hierarchy in families, organizations and society in general is reflective of larger power-distance. The Asian countries fall toward the large power-distance end of this dimension (out of 53 countries/regions, the Philippines ranks 4, Thailand ranks 21/23, Bangladesh and China were not included in the research) while Canada ranks closer to the small power-distance end of the dimension (ranks 39).

Individualism versus collectivism refers to the relationship between the individual and the group. In individualist societies ties between individuals are loose and everyone is expected to look after him/herself. In collectivist societies group ties are very tight. Individuals are born and integrated into extended families and other cohesive in-groups that protect and care for them throughout life in exchange for unquestioned loyalty. People in individualist societies think of themselves in terms of "I" while people in collectivist societies people think of themselves in terms of "we". Identity is based on one's family and social networks in collectivist societies while in individualistic societies it is based on individual accomplishments. Individualistic societies tend toward small

power-distance while collectivism and large power-distance seem to go together. Asian countries are quite collectivist while Canada is highly individualistic.

Masculinity versus femininity refers to the social implications of gender roles. In masculine societies male and female roles are very distinct (i.e. men are supposed to be tough, assertive, and focussed on material success and women are supposed to be caring, modest and focussed on quality of life). In feminine societies gender roles overlap (i.e. both men and women are expected to be caring and tender). Japan ranks as the most masculine country and Sweden as the most feminine. Canada falls right around the middle, a little toward the masculine side while the Asian countries of interest to the current study are widely dispersed (Philippines ranks 11/12, Thailand ranks 44).

Weak versus strong uncertainty avoidance refers to the degree of tolerance for the unpredictable. In countries characterized by weak uncertainty avoidance there is little emphasis on structure or rules while in strong uncertainty avoidance countries, written, and unwritten rules, are seen as a way of controlling the unpredictable. Thailand ranks 30, Canada ranks 41/42 and the Philippines ranks 44, all of which are on the weaker end of the uncertainty avoidance dimension.

Drawing on his research and experience as a teacher and learner in cross-cultural situations as well as a parent of children who attended schools abroad, Hofstede (1986) applied the 4-D model to teacher-student and student-student interaction. Table 2 represents a summary of the dimensions and how they relate to teaching and learning.

Table 2: Cultural Dimensions and Differences Related to Teaching and Learning

Power Distance Dimension	
Large Power Distance (Malaysia, Guatemala, Panama) Teachers are expected to take all initiatives in class, are gurus who transfer personal wisdom, and are never publicly contradicted or criticized.	Small Power Distance (Austria, Israel, Denmark) Teachers expect initiatives from students in class, and are experts who transfer impersonal truths. Students are supposed to ask questions and teachers are challenged in the spirit of learning.
Individualism versus Collectivism Dimension	
Individualist Societies (USA, Australia, Great Britain) Two way communication between teachers and students occurs. It is assumed that learning in life never ends.	Collectivist Societies (Guatemala, Panama, Ecuador) Students do not speak up in class. Learning is seen as a one-time process reserved for the young only.
Masculine versus Feminine Dimension	
Masculine Societies (Japan, Austria, Venezuela) Students try to make themselves visible in class and compete openly with each other (unless collectivist norms put a limit to this). Brilliance in teachers is appreciated. Failure in school is a disaster.	Feminine Societies (Sweden, Norway, Netherlands) Students do not want to appear too eager, mutual solidarity is seen as the goal. Friendliness in teachers is appreciated. Failure in school is a relatively minor incident.
Uncertainty Avoidance Dimension	
Strong Uncertainty Avoidance (Greece, Portugal, Guatamala) Students like structure, precise objectives, detailed assignments, and strict timetables and are concerned with getting the right answers. Teachers are supposed to have all of the answers. Intellectual disagreement is a matter of personal disloyalty.	Weak Uncertainty Avoidance (Singapore, Jamaica, Denmark) Students like open-ended learning situations, good discussions, vague objectives, broad assignments and no timetables at all. Teachers may say, "I don't know". Intellectual disagreement can be seen as a stimulating exercise.

Note. Based on Hofstede (1986, 1997).

The countries listed are those with values that are consistent with the most extreme ends of each dimension.

It should be noted that Hofstede does not suggest that all people from a given culture will hold exactly the same values and behave in the same way; rather, he acknowledges that there is some level of variance on each of the dimensions for each country. Human nature, personality and social influences are intertwined to create unique individuals within each culture. The 4D model is one way to examine and begin to understand the roots of cultural factors in online distance learning.

Conceptions of Teaching and Learning

Cultural differences can also be understood by examining conceptions of self, learning and teaching:

> In all cultures, people come to know their world based on a particular construction of self. This construction is so integral within the consciousness of the individual as to be distinct from the person. It is the ground from which all else is viewed and understood but, which itself, goes unseen. Although it goes unseen, it defines who we are and how we relate to the rest of the world. It shapes the way in which events, relationships, and life in general are interpreted. It is the inseparable soul of our values and our perception. (Pratt, 1991, p. 286)

Pratt (1991) examined the notion that cultural forces within different societies result in different conceptions of self. In his project the conceptions of self within China and the United States were compared. This particular construct of cultural difference is represented in Hofstede's (1997) 4D model as the dimension of individualism versus collectivism. Consistent with the results of Hofstede's research, Pratt found that Chinese

conceptions of self emphasize family, social roles, hierarchical relationships, compliance with authority, and maintenance of stability. While American conceptions of the self center on personal autonomy, individual rights, self-actualization, and independence.

The implications of different conceptions of self in different societies are significant to cross-cultural adult education (Pratt, 1991). Much of adult education in Western parts of the world is based on Knowles (1980) concept of andragogy, which is premised on the conception of self noted to be characteristic of the United States (Pratt, 1991). Pratt suggests that when andragogy is applied outside of the West, facilitators may encounter confusion or resistance as the techniques associated attempt to elicit responses that contradict the self-conceptions of others. For example, he found that the conception of self for Chinese does not consider individual opinions and feelings to be important, therefore teaching practices that emphasize expression of personal opinions, choice of learning assignments, self-evaluation, and challenging the position of someone in authority are often not well received.

Subsequent research of Pratt's (1992) focussed on conceptions of teaching and learning. Based on interviews with 19 Chinese scholars visiting Canada and 38 Chinese adult educators in China about what it means to teach and what it means to learn, three qualitatively different conceptions of teaching and four of learning were identified. The Chinese conceptions of teaching discerned include (1) the delivery of content; (2) the development of character; and (3) a type of relationship. Learning related conceptions identified include: (1) the acquisition of knowledge or skill from others; (2) a fulfillment

of responsibility to society; (3) a change in understanding of something external to self, and (4) change in understanding of one's self. Consistent with Pratt's earlier work on Chinese conceptions of self, the conceptions of teaching and learning point toward de-emphasis of the individual in educational transactions.

Asian and Western Education Models

> Western models and values in distance education predominate in the literature. They represent a particular constellation of values, practices and ideals in the educational process, emphasizing individual development, self-management, autonomy in learners, independent learning, learner choice, active learning, dialogue and two way communication. (Robinson, 1999, p. 34).

In contrast, Robinson (1999) describes some of the attributes of Asian models of education:

- firmly based in knowledge transmission;

- tied to a single, heavily controlled curriculum;

- goal of promoting conformity and social harmony;

- teacher-centered;

- heavy emphasis on coverage of large volumes of content;

- high value is placed on information recall, memorization through repetition;

- respect for the teacher is demonstrated through silence;

- face-to-face, group settings for learning are the norm.

Approaches to Learning

The Theoretical Framework

The approaches to learning theoretical framework has emerged out of efforts to describe how students learn in higher education. Researchers in Sweden, Britain and Australia conducted the foundational studies. This framework has since been used extensively in cross-cultural projects.

Marton and Saljo (1976a) of Gothenburg University in Sweden initiated the research into approaches to learning when they used an interview-based, phenomenographic methodology to explore qualitative differences in the outcomes and processes of learning. To investigate the outcomes of learning, they had students read a passage from an academic article then asked them what the author was trying to say. To get at the processes associated with learning, they asked the students to describe "how they set about learning" (p. 9). Four different levels of outcome and two of processing were identified. The two levels of processing were called surface and deep. The term "surface level" was used to describe the process of focussing on reproducing the text itself while "deep level" was used to describe the process of comprehending or finding meaning in the passage. The researchers also noted a relationship between the students' introspective reports of the learning process and the quality of the learning outcome. Surface level processing related to lower quality outcomes while deep level processing related to higher quality outcomes.

Additional research conducted by Marton and Saljo (1976b) demonstrated that a student's level of processing could be influenced by the demands of the task. In this study the researchers asked two groups of students to read three sections of a textbook. After the first two sections each group received different types of questions. One group received questions intended to elicit a surface level response and the other received questions intended to elicit a deep level response. The researchers found that the group presented with the surface level questions paid close attention to the surface structure of the text. The deep level group exhibited two different processes; some of the students adopted deep level processing while others predicted the demands and developed an algorithm to answer, i.e. a technified approach. Based on the results of this study, the researchers concluded, "Students adopt an approach determined by their expectations of what is required of them" (p. 125). This dynamic was interpreted to mean that intention plays an important role in how a student goes about learning (Entwistle, 1991).

As the research into the outcomes and processes associated with learning for students in higher education evolved, both clarification and confusion over the terms used to describe learning occurred (Entwistle, 1991). In 1984, Marton and Saljo adjusted what they had previously called "deep and surface levels of processing" to "approaches to learning". It was thought that this new term would encapsulate both process and intention.

Entwistle and Ramsden (1983) extended the work on approaches to learning by investigating the impact of individual and contextual differences on students' study

processes. Their research was also highly influenced by that of Pask (1976) which focuses on learning styles or stable, general strategies of thinking and solving problems. In contrast to Marton and Saljo as well as Pask, Entwistle and Ramsden conducted much of their research in the natural environment of the students' academic programs as opposed to a laboratory setting.

Their research project involved many objectives related to understanding the ways in which students learn in higher education. Some of the key findings of their research include:

- A distinction between the surface and deep approach;

- A relationship between approach and level of understanding;

- A different characterization of the deep approach in science versus humanities and social science departments;

- Stylistic differences in terms of Pask's holist and serialist factors;

- A high level of perceived relevance, interest and intrinsic motivation was related to the deep approach;

- A relationship between instructor's attitudes, enthusiasm and concern for the students and approaches to learning;

- A relationship between assessment processes that emphasize reproductive answers and a surface approach.

Research on the correlation between personality factors and academic performance conducted by Biggs in Australia also contributed to the expansion of the

approaches to learning theoretical framework. Biggs (1987a) outlines a model of student

learning comprised of three factors: presage, process and product. Presage factors refer to

anything personal or situational that exists prior to the learning situation. Personal factors

include prior knowledge, abilities, IQ, personality, home background, and competence in

the language of instruction. In his 1987a version of the model situational factors include

the nature of the task, institutional stipulations, instructional process, and formal teaching

strategies. In more recent literature situational factors are replaced with the more specific

term "teaching context" and include curriculum, teaching method, classroom climate and

assessment (Biggs, 1993). Biggs suggests that both personal and situational factors

influence a student's motivation to learn and the strategies he or she will use. Motives

and strategies make up the learning process. The product is the nature of the outcome of

the whole learning situation.

The factors of Bigg's model interact with each other and relate to each other in a

linear progression to form an integrated system:

> Because all parts in a continuing system interact to form an
> equilibrium, the way students go about their learning, both
> with regard to particular tasks, and their schoolwork in
> general will derive from the teaching/learning environment
> in which they are placed. Where the classroom or learning
> context is conducive to deep approaches, the students will
> tend to approach their learning deeply, with appropriate
> complex learning outcomes. Where the context is more
> restrictive, and students perceive that surface approaches
> will suffice, they tend likewise to adapt and outcomes are
> poorly structured. (Biggs, 1999, p. 53)

In contrast to information processing models which emphasize the process that occurs within the student, approaches to learning models locate learning within the whole teaching/learning context (Biggs, 1993).

Measurement Instruments

In an attempt to gain further unbiased understanding of student approaches to learning, researchers developed standardized assessment instruments. Two examples are Biggs' (1987c) Study Process Questionnaire and Entwistle and Ramsden's (1983) Approaches to Study Inventory. Both instruments contain measures of "deep approach" and "surface approach" as well as a third factor called "achieving approach" by Biggs and "strategic approach" by Entwistle and Ramsden. Table 3 represents the categories of the SPQ and Table 4 represents the categories of the ASI.

Table 3: Categories of the SPQ (Biggs, 1987a, p. 11)

Approach	Motive	Strategy
Surface	Main purpose is to meet requirements minimally. Balance working too hard and failing.	Reproduce learning materials. Limit target to bare essentials. Rote learning.
Deep	Intrinsic motivation to find meaning in the learning materials. High level of interest in subject.	Search for meaning by reading widely. Connects new knowledge to prior knowledge.
Achieving	Competition and ego-enhancement. Desire for high grades.	"Model student" behaviour. Highly organized. Use technique that achieves highest grades.

Table 4: Categories of the ASI (Marton, Hounsel & Entwistle, 1984, p. 159)

Meaning Orientation	
Deep Approach	Looks for meaning; interacts actively; links with real life.
Use of evidence	Examines evidence critically and uses it cautiously.
Relating ideas	Actively relates new information to previous knowledge.
Intrinsic motivation	Interested in learning for its own sake.

Reproducing Orientation	
Surface approach	Relies on rote learning; conscious of exam demands.
Syllabus-boundness	Prefers to restrict learning to defined syllabus and specified tasks.
Fear of failure	Anxiously aware of assessment requirements; lacking in self-confidence.
Improvidence	Not prepared to look for relationship between ideas; fact-bound.

Strategic orientation	
Strategic approach	Actively seeks information about assessment requirements; tries to impress staff.
Extrinsic motivation	Qualifications as main source of motivation for learning.
Achievement motivation	Competitive and self confident; motivated by hope for success.

Non-academic orientation	
Disorganized study methods	Organizes time ineffectively, fails to plan ahead, not prompt in submitting work.
Negative attitudes	Little involvement in work set; cynical and disenchanted about higher education.
Globetrotting	Over-readiness to generalize and jump to conclusions without evidence.

Styles of learning	
Comprehension learning	Holist strategies preferred; uses illustrations, anecdotes, analogies and intuition to build up overall picture.
Operation learning	Serialist strategies preferred; concentrates on details and logical analysis.

Construct Validity

Because much of the research that has informed the development of the approaches to learning theory was conducted in Western parts of the world with students in traditional face-to-face undergraduate education, the validity of the constructs represented in this framework for non-Western cultures and distance education environments has been questioned.

When researchers examine the construct validity of the measurement instruments and the underlying theory they are taking an "etic" approach to cross-cultural research (Watkins, 1999). In contrast to the "pseudoetic" approach whereby constructs developed in one culture are imposed on another, the etic approach involves careful demonstration of construct validity prior to the concept's use for cross-cultural comparative purposes.

Kember and Gow (1990) examined the construct validity of deep and surface approaches to learning for students in Hong Kong. The researchers administered the SPQ to 1043 tertiary level students in various disciplines, administered both the SPQ and the ASI to 159 students, then interviewed 20 randomly selected students to probe further their motives and strategies for study. Some evidence of the use of the deep and surface approaches by Hong Kong students was found. Based on these findings, the authors concluded that the constructs represented in the approaches to learning framework and measurement instruments are appropriate for cross-cultural use:

> ...the deep or meaning orientation scales of both instruments can be used with some confidence in settings other than Western countries, as the underlying constructs

> seem to be stable across educational systems. ... There would seem to be no reason to discourage the use of these instruments in non-Western countries provided care is taken with interpretation (p. 362).

In 1994, Richardson reviewed the literature pertaining to cross-cultural specificity of the approaches to learning theoretical framework. In concurrence with Kember and Gow (1990) he notes that although there have been some problems replicating validity-related findings with samples outside of the countries from which the original samples were drawn, there is reasonable support for the distinction between the two constructs of deep and surface learning for Eastern and Western cultures. Watkins (1999) agrees that the theoretical and research methods associated with the approaches to learning framework are appropriate to non-Western cultures.

One area in which careful interpretation of cross-cultural findings is necessary is with regard to the role of memorization. Memorization is usually equated with rote learning and the surface approach, however, many authors suggest that Asian students use memorization in combination with understanding to produce high quality outcomes, which are uncharacteristic of the surface approach (Kember & Gow, 1990; Marton, Dall'Alba & Kun, 1999).

Although some of the participants in the foundational research into approaches to learning were enrolled in the Open University of the United Kingdom, researchers still wondered if the approaches to learning constructs would be valid for the part-time distance learner. To test the construct validity of the approaches to learning framework, Harper and Kember (1986, cited in Kember & Harper, 1987) administered the ASI to 779

students in Australia. Some of these students were enrolled in face-to-face programs while others were external students enrolled in distance education programs. The results demonstrated similar factor structures for the total sample in comparison to the sample of distance education students. As well, when sub-scale scores were subjected to analysis of variance, age, discipline and gender showed significant main effects, however, mode of delivery did not. The authors concluded that these results are evidence of the construct validity of the approaches to learning framework for distance education students.

A more recent study conducted by Richardson, Morgan and Woodley (1999) compared, using the ASI, a random sample of 2,600 undergraduate students from the Open University of the United Kingdom to a sample of 2,208 campus based students. It was found that in general, the distance education students produced higher scores on the sub-scales related to meaning or deep approach and lower scores on those related to reproducing or surface approach. The authors attributed this difference to age. Older students appeared to be more likely to adopt a deep or meaning approach and less likely to adopt a surface or reproducing approach. The authors suggest that when age is controlled for, the results for distance education and campus-based students are likely the same.

Comparative Research

An aim of cross-cultural research conducted within the approaches to learning framework has been to clear up certain misperceptions of the Asian learner. Kember (1999) outlines what he calls "a rather puzzling set of characteristics" (p. 82) that are said

to be representative of Asian students. The characteristics include rote learning, extrinsic motivation, high levels of achievement motivation, high achievement, good at group projects, and willingness to invest in education. Of particular concern has been the attribute of rote learning which suggests that Asian students adopt a surface approach to their studies. Many studies in which the approaches to learning of Chinese and Hong Kong students were compared to those of Western students from countries such as Australia and the United Kingdom found that the Asian participants were not more inclined to the surface approach and less inclined to the deep approach than their Western counterparts (Biggs, 1987a; Kember, 1999; Smith & Smith, 1999; Sadler-Smith & Tsang, 1998).

Online Distance Learning

To date there are few studies that have investigated the approaches to learning of adults of diverse cultures who are actually involved in computer-mediated distance education courses. Calder and Wijeratne (1999) conducted a study that involved participants from the Open University of the United Kingdom and the Sri Lanka Open University. At the time of the study the Open University of the United Kingdom was using the online learning mode of delivery, however, the Sri Lanka Open University was using print based distance education materials. Although participants of diverse cultures were involved in this study, the aim was not to compare the approaches to learning of one culture to those of another. Rather the aim was to investigate factors associated with students approaches to learning and see if these factors differed between the two student

groups. Two factors, surface approach and deep/strategic approaches were found to be common to the two groups. Significant differences related to age were also found for each group whereby older students tended toward a deep approach.

Other authors have applied the findings of studies conducted with students in face-to-face educational environments to the context of cross-cultural distance education. Smith and Smith (1999) identified differences between Chinese and Australian on-campus undergraduate students on a scale by scale basis using the ASI. They found that the Chinese students scored higher on the majority of the scales related to the deep approach and lower on the majority of the scales related to the surface approach than their Australian counterparts. They also found that the Chinese participants tended toward a more disorganized approach to study, globetrotting and improvidence. The authors interpreted these findings to mean that in distance education Asian students may desire greater structure and instructor guidance and possibly benefit from the development of independent study techniques specific to distance learning. In addition, it was found that the Chinese participants had high achievement motivation and high expectations of themselves. The authors suggested that this would likely translate into high expectations regarding distance education programs.

CHAPTER THREE: METHODOLOGY

Research Design

This research project utilized a cross-cultural comparative design. The focus of comparative research is on examining patterns of similarities and differences across cases with an aim of coming to terms with their diversity (Ragin, 1994, cited in Neuman, 2000). The act of comparing one unit to another provides information that is central to knowing and perceiving (Warwick & Osherson, 1973, cited in Neuman, 2000).

Both quantitative and qualitative methods were utilized as a means of gaining a breadth of data from two different perspectives on the issue at hand. The quantitative piece took the form of a survey involving a standardized measurement instrument. Neuman (2000) defines survey research as "quantitative social research in which one systematically asks many people the same questions, then records and analyses their answers" (p. 520). The qualitative part consisted of open-ended questioning in the format of a semi-structured online interview to access in-depth information about the lived experiences of adults in online education.

Definition of Comparison Units

Definition of the units of comparison is particularly difficult in cross-cultural comparative research. Nation-state is the typical unit of comparison in this type of research as it is a socially and politically defined concept. Within the boundaries of a nation-state people usually share a common political system, economy, language,

customs, communication system, legal system and educational system (Neuman, 2000). As Hofstede's (1997) research has demonstrated, nations also share a culture or "a collective programming of the mind" which includes common values in relation to how power is distributed, what the gender roles are, how identity is defined, and what is to be feared. These values are reflected in common expectations and routines regarding teaching and learning.

One problem with the nation-state definition of culture is the reality of intra-national differences. Within a nation there may be a group, or groups, of people with distinct ethnic backgrounds in terms of language, customs, social institutions and identity. Beyond distinct ethnic intra-cultural differences there are also layers of subculture within a given nation. As well, national culture is not a static concept; cultures are constantly evolving and borders can change.

In this study, an expanded version of the nation-state definition of culture was used. The two comparison groups were comprised of participants from either Asia or Canada. It is recognized that Asia refers to a large geographical region rather than a nation-state. Although Canada can be defined as a nation-state, it is also a huge geographical area with considerable intra-national diversity. An assumption of this research was that there are likely to be many commonalties within Asia and within Canada in terms of educational systems and the educational experiences of adults who live in each of these regions.

Criteria for participation in the Asian group were originally confined to adult online learners who were born and received the majority of their education in South or South East Asia. Once it became evident that enough participants of the desired background could not be recruited, the parameters were widened to include other regions of Asia. Criteria for participation in the Canadian group were limited to adult online learners who were born in Canada and received the majority of their education in Canada.

The educational criterion was included as a means of controlling a potential intervening variable. That is, an extensive amount of education and socialization outside of one's country of origin may impact the ways in which one approaches and experiences online learning.

Sample

Selection

Participants were selected via a snowball/quota sampling approach. The University of Calgary's Faculty of Continuing Education assisted in recruiting participants for the Asian group by supplying the names and email addresses of four students who had participated in online courses with the MIHRD or MCE programs. The researcher invited each of these adult learners to participate and asked them to forward the names and email addresses of others who met the criteria and would potentially be interested in being involved. The Canadian participants were recruited by posting an invitation on the MCE program's electronic bulletin board.

Contact was made with 15 prospective Asian participants. Eleven participants from four regions of Asia completed the research activities. Five were from Bangladesh, one from China, three from the Philippines, and two from Thailand. Eleven prospective Canadians offered to participate. Ten completed the research activities. The final total sample size was 21.

Demographic and Background Information

The participants presented the following characteristics. In the Asian group there were four females and seven males. The Canadian group consisted of nine females and one male.

The age range of the Asian group was 29 to 45 years with a mean of 36.5 and a median of 34. The age range of the Canadian group was 27 to 53 with a mean of 43.2 and a median of 44.5.

English was a second language for all of the participants in the Asian group. The native language of all of the Canadian participants was English (one participant indicated that both English and French are his/her native languages).

Occupations of the Asian group included human resources manager and specialist, service, private service, management trainer, government employee, engineer and full time student. Occupations of the Canadian group included nurse, web manager, principal, consultant and counsellor.

The number of years of computer experience for participants in the Asian group ranged from 5 to 14 years with a mean of 10.4 years. Computer experience for the Canadian group ranged from 1.5 to 20 years with a mean of 12.2 years. All of the participants in both groups rated their computer and Internet experience as intermediate or advanced except for one Canadian participant who rated his/her Internet experience as beginner level.

All but one Asian participant had access to a home computer. Three Asian participants did not have access to the Internet at home. All participants had access to a computer at work. One Asian and one Canadian participant did not have access to the Internet at work.

All of the participants were, at the time of the study, engaged in or had recently completed graduate level courses in the field of workplace learning delivered online via computer-mediated conferencing. The Asian participants had taken online courses offered by institutions based in Canada, Singapore, Thailand, and the United States. The Canadian participants had all taken online courses offered by the University of Calgary's MCE program. One of the Canadian participants had also completed an online course hosted by Deakin University in Australia.

Of the participants in the Asian group, four rated their achievement in online courses as excellent, four as very good, two as good, and one as fair. One participant in this group had in the past withdrawn from an online course. The self-ratings of

achievement for the Canadian participants were as follows: nine excellent and one very good.

Levels of satisfaction with online learning were almost equivalent for the two cultural groups. Five participants in each group said they were "very satisfied" with online learning, four in each group said that they were "satisfied", two in the Asian group said they were "somewhat unsatisfied" and one in the Canadian group indicated that she/he was "very unsatisfied". Five of the eleven participants in the Asian group and four of the ten participants in the Canadian group indicated a preference for online learning as opposed to face-to-face.

Measures

Study Process Questionnaire

The SPQ is a 42-item self-report inventory designed to measure a student's approaches to learning in higher education and the underlying motives and strategies (Biggs, 1987a). It consists of six sub-scales: surface motive; surface strategy; deep motive; deep strategy; achieving motive; and achieving strategy. The composite of each motive/strategy pair forms an approach: surface approach; deep approach; and achieving approach. A higher order factor called deep-achieving is also included.

Each item in the SPQ is a statement of a motive or strategy. A 5-point scale is used to measure self-reported use of a particular motive or strategy. The possible responses for each item are as follows:

5 – this item is *always* or *almost always* true of me

4 – this item is *frequently* true of me

3 – this item is true of me about *half the time*

2 – this item is *sometimes* true of me

1 – this item is *never or rarely* true of me

Table 5 represents the SPQ items used to measure each motive and strategy.

Table 5: The SPQ - Measurement of Motives and Strategies

Surface Motives

- I chose my present courses largely with a view to the job situation when I graduate rather than out of their intrinsic interest to me.

- I am discouraged by a poor mark on a test and worry about how I will do on the next test.

- Whether I like it or not, I can see that further education is for me a good way to get a well-paid secure job.

- Even when I have studied hard for a test, I worry that I may not be able to do well in it.

- Lectures shouldn't expect students to spend significant amounts of time studying material everyone knows won't be examined.

- I almost resent having to spend a further three or four years studying after leaving high school, but feel that the end results will make it all worth while.

- I am in college/university mainly because I feel that I will be able to obtain a better

job with post-secondary credentials.

Surface Strategies

- I think browsing is a waste of time, so I only study seriously what's been given out in class or in the course outlines.

- I learn some things by rote, going over and over them until I know them by heart.

- I tend to choose subjects with a lot of factual content rather than the theoretical kinds of subjects.

- I generally restrict my study to what is specifically set out as I think it is unnecessary to do anything extra.

- I learn best from lecturers who work from carefully prepared notes and outline major points mainly on the blackboard (or website).

- I find it best to accept the statements and ideas of my lecturers and question them only under special circumstances.

- I am very aware that lecturers know a lot more than I do and so I concentrate on what they say is important rather than rely on my own judgement.

Deep Motives

- I find that at times studying gives me a feeling of deep personal satisfaction.

- While I realize that truth is forever changing as knowledge is increasing, I feel compelled to discover what appears to me to be truth at this time.

- I feel that virtually any topic can be highly interesting once I get into it.

- I find that studying academic topics can at times be as exciting as a good novel or

movie.

- I usually become increasingly absorbed in my work the more I do.

- I believe strongly that my aim in life is to discover my own philosophy and belief system and to act strictly in accordance with it.

- My studies have changed my views about such things as politics, my religion, and my philosophy of life.

Deep Strategies

- While I am studying, I often think of real life situations to which the material that I am learning would be useful.

- In reading new material I often find that I'm continually reminded of material I already know and see that latter in a new light.

- I find that I have to do enough work on a topic so that I can form my own point of view before I am satisfied.

- I try to relate what I have learned in one subject to that in another.

- I find most new topics interesting and often spend extra time trying to obtain more information about them.

- I spend a lot of my free time finding out more about interesting topics which have been discussed in different classes.

- I try to relate new materials, as I am reading it, to what I already know on that topic.

Achievement Motives

- I want top grades in most or all of my courses so that I will be able to select from

among the best positions available when I graduate.

- I have a strong desire to excel in my studies.

- I would see myself basically as an ambitious person and want to get to the top, whatever I do.

- If it came to the point, I would be prepared to sacrifice immediate popularity with my fellow students for success in my studies and subsequent career.

- One of the most important considerations in choosing a course is whether or not I will be able to get top marks in it.

- I see getting top grades as a kind of competitive game, and I play to win.

- I believe that society is based on competition and schools and universities should reflect this.

Achievement Strategies

- I summarize suggested readings and include these as part of my notes on a topic.

- I try to work consistently throughout the term and review regularly when exams are close.

- I try to do all of my assignments as soon as possible after they are given out.

- After a lecture or lab I reread my notes to make sure they are legible and that I understand them.

- I test myself on important topics until I understand them completely.

- I make a point of looking at most of the suggested readings that go with lectures.

- I keep neat, well-organized notes for most subjects.

Reliability and Validity

Test-retest reliability gives the correlation between respondents' scores on the same test given on two separate occasions. Biggs (1987b) does not provide test-retest reliability information for the SPQ, however, he does provide this type of information for the LPQ, a similar test designed for secondary students. In general, Biggs considers the test-retest reliability to be adequate as it is expected that students' motives and strategies will vary over time and context.

Biggs (1987b) provides reliability data for the SPQ in the format of internal consistency measured by the alpha coefficient. This measure provides information about the extent to which items comprising a scale intended to measure a particular construct are actually measuring the construct of interest. A low alpha coefficient suggests that the items that comprise the scale are measuring different constructs. The alphas obtained with Australian university students are considered satisfactory and are further supported by the research of O'Neil and Child (1984, cited in Biggs, 1987b) and Hattie and Watkins (1981, cited in Biggs, 1987b).

Validity refers to the extent to which an instrument measures what it is intended to measure. The SPQ has been examined in terms of construct validity which addresses the question, "If the measure is valid, do the various indicators operate in a consistent manner?" (Neuman, 2000, p. 170). Biggs (1987b) suggests that findings of positive correlation between deep approaches and plans to continue education, age, intensity of a

learning experience, interest in subject matter, intrinsic motivation, and high levels of academic performance are indicative of satisfactory construct validity.

The cross-cultural validity of the approaches to learning constructs and measurement instruments has been examined by Watkins (1999) who reviewed a number of studies involving school and university students of various geographical regions, religions, and socio-economic backgrounds. Based on this review he reports that the findings are demonstrative of satisfactory construct-validity for the SPQ and that this instrument is generally appropriate for cross-cultural use.

Permission

The SPQ is designed as a paper and pencil questionnaire. The test and score sheets can be purchased from the copyright holder, The Australian Council for Educational Research (ACER). It was not designed for online use. Because the researcher wanted to administer the instrument online, it was necessary to obtain written permission from ACER to use it in the desired way. The researcher sent an email message to ACER requesting permission for online administration. ACER contacted the author of the SPQ, John Biggs, on behalf of the researcher. John Biggs gave his consent for the administration of the SPQ online via personal, confidential email. ACER approved this administration method on the conditions that a hard copy of the test and answer sheet were purchased for each participant and each participant agreed through the consent process to refrain from copying or disseminating the instrument.

Open-ended Questions

Open-ended questions were created by the researcher to collect in-depth qualitative data about personal experiences with online learning. Kvale's (1996) semi-structured interview guide was used as a template for the design of the questions. The research and participant questions are represented in Table 6 Open-ended Questions.

Table 6: Open-ended Questions

Research Questions	Questions for Participants
What are the similarities and differences between the online learning experiences of Asian and Canadian adults?	I am interested in your story of your experiences using computer-mediated conferencing as part of a course. Please use the following questions to guide your response.
What expectations of online learning and teaching are held by Asian and Canadian adults?	What expectations did you have when you began taking online courses? What was different than you expected? How comfortable were you with the differences between your expectations and your actual experiences?
	What aspects of the course design and flow, the online classroom environment, the teacher's behaviours, and the behaviours of the other student's helped or hindered your learning?
What are the similarities and differences between the facilitation method preferences of Asian and Canadian adults?	Were you expected to manage your own learning, critically analyze your professors' and other experts' ideas and engage online discussion? How did you feel about participating in each of these learning processes?
	What roles do you think your personal characteristics and or life experiences played in the uniqueness of your online learning experience?
What relationships might there be between culture and learning approach?	Please share any advice you have for designers and facilitators of online courses to make learning more effective and enjoyable.
How can online education be designed and facilitated to reflect sensitivity to cultural and individual differences?	

Data Collection

Prior to beginning the data collection process, ethics approval from the University of Calgary was sought. This process involved writing of the proposal for the research project, the required letter of introduction (see Appendix A), and the consent form (see Appendix B). Ethics approval was granted in August 2001.

The study was conducted entirely in cyberspace. All direct communication between participants occurred via personal email. The letter of introduction outlining the study was sent by email to each prospective participant. Those who indicated an interest were sent the approved consent form. Once a participant supplied a statement expressing his/her consent, a set of instructions was forwarded.

Demographic and background information was collected via an online survey posted on a website through which the results were sent to the researcher's personal, confidential email box.

The SPQ (Biggs, 1987c) was administered by email. The researcher requested and received permission from the author and copyright holder of the inventory to administer it in this way under the condition that participants agreed, through the consent process, that they would not reproduce the document. A hard copy of the inventory and a score sheet was purchased for each participant.

Biggs' (1987c) SPQ directions were supplemented with the following instruction, "If you think that your answer to a question would depend on the subject being studied,

give the answer that would apply to the courses in which computer-mediated conferencing has been used".

Information about the participants' personal experiences with online learning was collected via a series of open-ended questions administered by email. In an effort to stimulate dialogue similar to that of a semi-structured interview, the researcher responded to some participants with follow-up questions of clarification or further probing.

Kolb's (1985) Learning Style Inventory was also administered by means of providing each participant with an access code and password for the Hay Group website, however, the results of this assessment are not reported at this time.

Data collection took place from October 2001 until May 2002.

Data Analysis

Quantitative Data

Quantitative data were analyzed using the Statistical Package for the Social Sciences (Version 8.0, 1998). Summary statistics including the mean, standard deviation and range of scores for the two samples on each of the SPQ scales and sub-scales were obtained. The Mann-Whitney test was used to determine the statistical significance of the differences between the two cultural groups' scores on each scale and sub-scale. A non-parametric test was chosen because a normal distribution could not be assumed, as a small, non-random sample was selected.

Biggs' (1987b) provides scale and sub-scale norms for Australian university and college male and female students in the faculties of arts, science and education. The scores obtained in the current study were not formally compared to these norms as they are representative of a younger population of students in undergraduate as opposed to graduate level education, however, the norms were used as a casual point of reference in making sense of the obtained scores. The researcher contacted John Biggs by email to ask if norms for adult learners in graduate level education are available. He responded by informing the researcher that there are no such norms available at this time.

Qualitative Data

Qualitative data were analyzed using a combination of "meaning condensation" and "meaning categorization" as outlined by Kvale (1996). The steps in the process are as follows:

1. The entire response is read to gain a sense of the whole.

2. The "natural meaning units" as expressed in the participant's words are determined by the researcher.

3. The researcher discerns the main theme of a natural meaning unit.

4. The natural meaning units are categorized according to the predominant theme assigned to each.

5. The categories are reviewed and necessary adjustments are made.

Assumptions and Limitations

Exploring similarities and differences between cultural groups is not a simple task. According to Pratt (1992), "Our cultural eyeglasses blind us to the logic or meaning and practices of the cultures we are studying" (p. 306). When research is conducted in the West, Western constructs of teaching and learning influence what is observed and interpreted making it difficult to achieve an objective, comprehensive and fair view of the dynamics at play. In an effort to deal with this limitation the researcher attempted to remain as open as possible to interpretations other than her own. To help in this regard, literature published in Asia was consulted whenever possible.

Watkins (1999) raises the issue of scalar equivalence. In order to compare means across cultures researchers must be confident that the participants of each culture involved will interpret the rating scale utilized in a similar way. The problem lies in the tendency of people from different cultures "to respond in different but consistent ways to questionnaire and rating scale response formats independently of the nature of the items" (Watkins, 1999, p. 18). The validity and reliability of the SPQ has been tested for many cultures (Biggs, 1999; Richardson, 1994; Watkins, 1999), therefore, the researcher believed that there was a high probability that the participants of the different cultures represented would interpret the scale in a similar way.

CHAPTER FOUR: FINDINGS

Study Process Questionnaire

Results

Table 8 presents the summary statistics for the findings associated with the SPQ. The means, standard deviations, and ranges are provided. This summary gives an overview of the quantitative data gathered in this research project.

The group of Asian participants obtained mean scale scores of 44.0 (surface approach), 53.7 (deep approach), and 47.5 (achieving approach). The Canadian participants obtained mean scale scores of 33.3 (surface approach), 55.3 (deep approach) and 39.8 (achieving approach). The Asian sample is much higher on surface and achieving approach and almost equal to the Canadian sample on deep approach. A similar pattern is apparent in the mean subscale scores. The Asian sample obtained higher mean scores on surface motive and strategy and achieving motive and strategy. Deep motive and deep strategy scores are almost equivalent for the two samples.

Figures 1 and 2 compare in graphical form the mean scale and subscale scores obtained for the two samples.

In determining statistical significance of the observed differences, SPSS was used to perform the Mann Whitney test. This is a non-parametric equivalent to the t test (Howell, 1999). It tests whether two independent samples are from the same population using the ranks of the cases. The sum of the ranks in the smaller group is used as the test

statistic. The test statistic is evaluated by comparing it to the value given in the Mann-Whitney Test for Two Independent Samples Table for the specific level at which the difference between two groups is considered to be significant.

In this case, the Canadian group is the smaller sample so its sum of ranks is used as the test statistic. The test statistics for each scale and sub-scale of the SPQ are shown in Table 7. Test statistics lower than 81, indicate that the difference is significant at the .05 level. The differences between the Asian and Canadian samples for surface approach, achieving approach, and surface strategy are therefore considered significant.

Table 7: Test Statistics

Scale	Sum of Ranks (n=11)
Surface Approach	67.50
Deep Approach	119.50
Achieving Approach	81.00
Deep-Achieving Approach	95.50
Surface Motive	83.00
Surface Strategy	67.00
Deep Motive	121.50
Deep Strategy	111.00
Achieving Motive	88.00
Achieving Strategy	82.00

Table 8: Summary Statistics

Scale/Sub-scale	Statistics	Asian Sample	Canadian Sample
Surface Approach	Mean	44	33.30
	Std. Deviation	6.05	10.59
	Range	36-57	21-60
Surface Motive	Mean	20.59	17.20
	Std. Deviation	7.33	4.42
	Range	2-29	12-26
Surface Strategy	Mean	21.64	16.10
	Std. Deviation	3.11	6.81
	Range	18-28	8-34
Deep Approach	Mean	53.73	55.30
	Std. Deviation	6.75	5.68
	Range	42-62	48-65
Deep Motive	Mean	26	27.40
	Std. Deviation	3.79	3.31
	Range	20-32	23-32
Deep Strategy	Mean	27.73	27.90
	Std. Deviation	3.88	2.96
	Range	22-34	23-33
Achieving Approach	Mean	47.45	39.80
	Std. Deviation	7.31	11.08
	Range	37-60	28-65
Achieving Motive	Mean	21.45	18.50
	Std. Deviation	3.24	6.60
	Range	17-27	9-32
Achieving Strategy	Mean	26.00	21.30
	Std. Deviation	4.43	6.45
	Range	20-34	13-33
Deep-achieving Approach	Mean	101.18	95.10
	Std. Deviation	12.62	15.91
	Range	85-121	77-128

Figure 1: SPQ Scale Means

Figure 2: SPQ Sub-scale Means
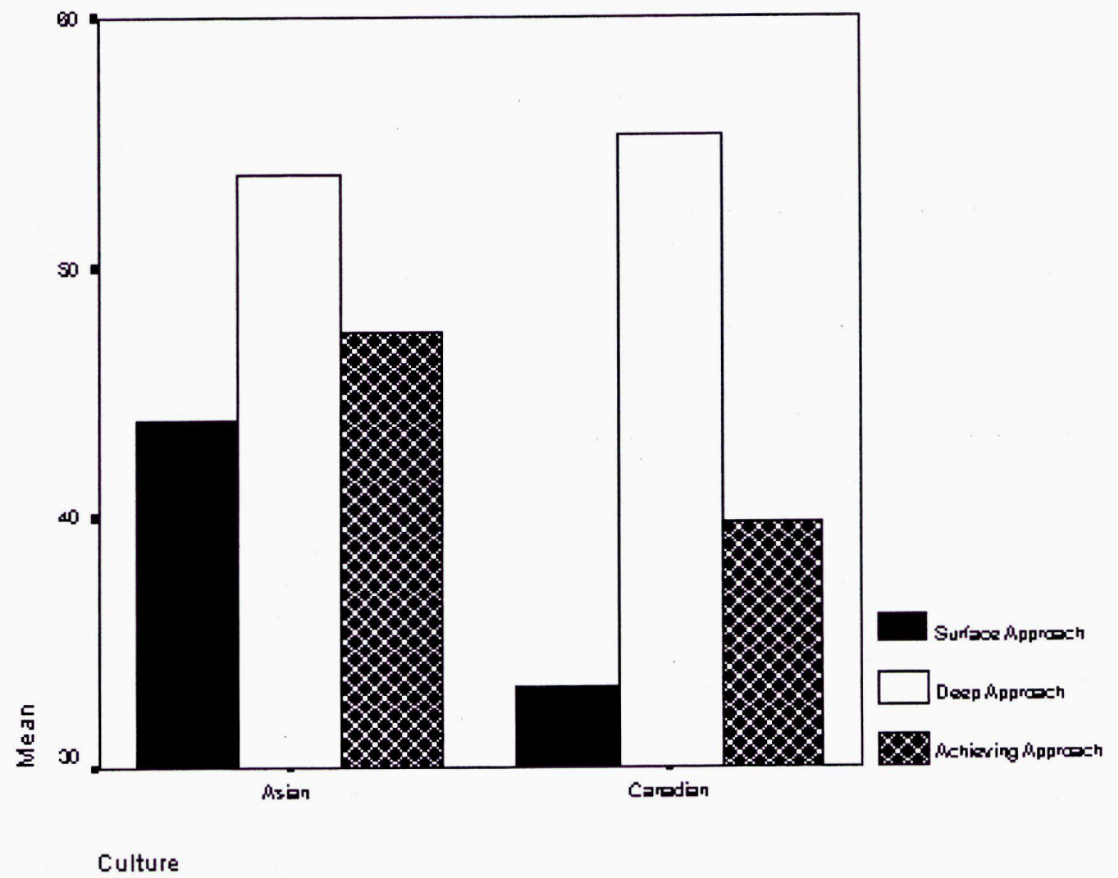
Figure 2: SPQ Sub-scale Means
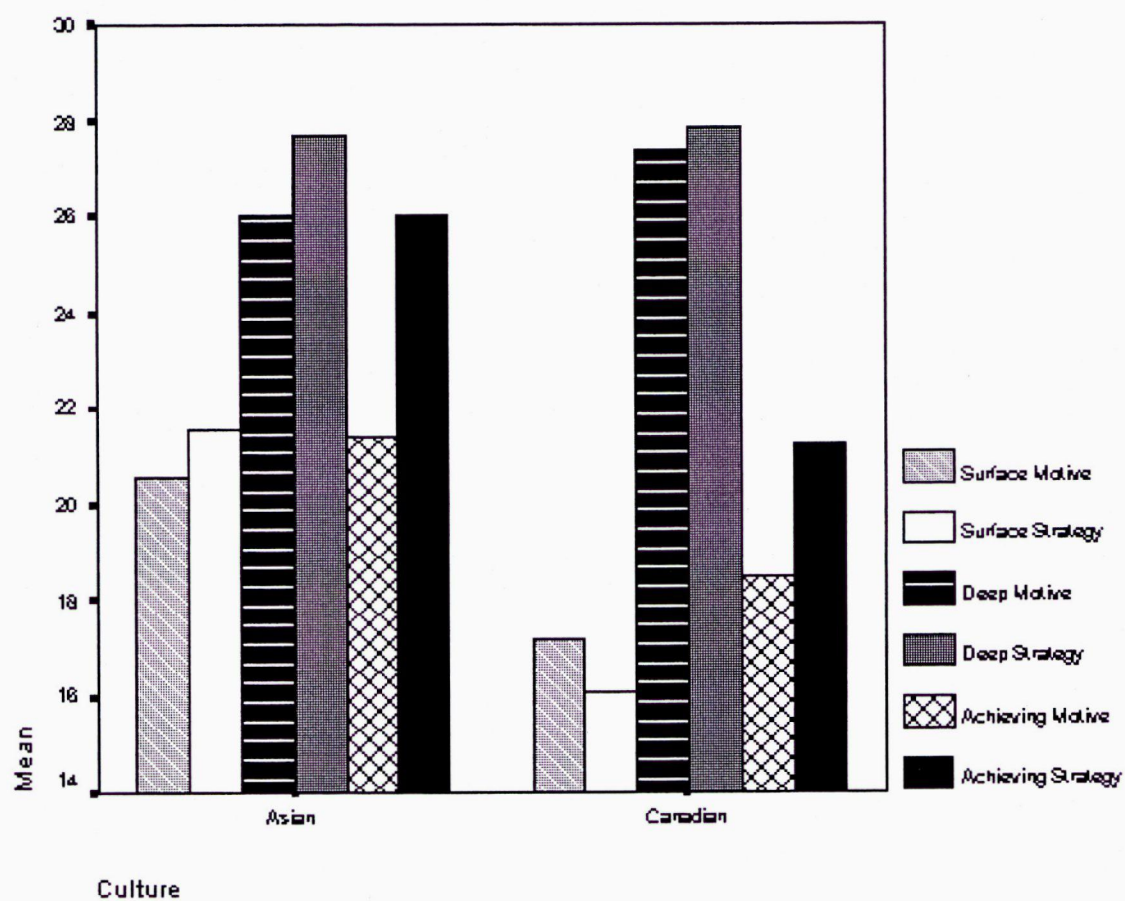
Discussion

Looking at the SPQ results obtained for the Asian adult learners in comparison to those of the Canadians it is clear that there are both similarities and differences among the two cultural groups. The similarities are evident in the extent to which deep approaches are used. The differences rest in the extent to which the Asian adult learners adopt surface and achieving approaches.

The findings suggest that both Asian and Canadian adult learners in online education are likely to hold deep motives and apply deep strategies. The deep motive is defined in terms of intrinsic motivation and interest in the subject matter of the course. It is generally excepted that because adults enter continuing education on their free will, they are very likely to enrol in programs in which they have a genuine personal or professional interest. It is therefore not surprising that deep motives predominate in the approaches to learning of the adult learners who make up both cultural groups.

Deep strategy is based on a search for meaning in course materials. It involves reading widely and inter-relating new insights with previous relevant knowledge. In online education based on adult learning principles, application of knowledge in practical circumstances is highly valued and reflected in the teaching and learning strategies utilized. It is possible that the context of adult online education fosters the use of deep strategies.

Another factor in the extent to which students adopt a deep approach is age. There is evidence that age is positively correlated with the deep approach (Calder & Wijeratne, 1999; Kember & Harper, 1987; Richardson et al, 1999). In this study age may be a significant factor in the high level of deep approach taken by the participants from both cultural groups.

The differences in the extent to which the two cultural groups use the surface and achieving approaches are a little more difficult to explain. Literature regarding the role of memorization in deep learning in Asian culture, the approach fostered in Asian cultural contexts, and the impact of language fluency issues on approaches to learning is helpful in understanding the different surface and achieving approach findings obtained for the two samples.

Biggs (1987a) theory and instrument are based on the idea that the surface approach is comprised of the surface motive to meet requirements minimally and surface strategies which encompass limiting learning targets to the bare essentials and reproducing learning materials by means of rote learning. In Western contexts memorization is usually understood to be equivalent to rote learning. This perspective on memorization fits with the definition of the construct measured by the surface strategy sub-scale in the SPQ, however, researchers have suggested that there may be cultural differences in conceptions of the role memorization plays in learning. For Asian students memorization may be more closely related to meaningful learning, as in the deep

approach, as opposed to reproduction oriented learning without understanding, as in Biggs' formulation of the surface approach.

Kember and Gow (1990) report that Asian students appear to use what they called a "narrow approach" characterized by a process of "understand, memorize, understand". The students in their study who used this approach achieved high quality outcomes, which are uncharacteristic of the surface approach. Marton, Dall'Alba and Kun (1999) also found that Chinese educators' conceptions of the learning process distinguish within memorization rather than between memorization and understanding. That is, there is memorization that involves repetition and mechanical rote learning and memorization that is used to deepen understanding. It is probable that Asian adult online learners adopt the conception that memorization is part of the process of deep understanding and use memorization in combination with the intention to understand, thus achieving scores similar to their Western counterparts on deep approaches yet higher on surface approaches.

The approaches to learning theoretical framework posits that both stable personal characteristics and contextual factors influence the approaches to learning one will adopt. Some educational contexts appear to foster deep approaches while others encourage surface level approaches through heavy workloads and forms of assessment that reward reproductive answers (Entwistle & Ramsden, 1983). Robinson (1999) describes the Asian educational context as teacher-centered, firmly based in knowledge transmission, and requiring coverage of large volumes of content. She explains that teaching and learning

strategies that advocate information recall and memorization through repetition are common. Based on their prior experiences in Asian educational environments Asian adult learners may think that they are supposed to be memorizing the learning materials. Higher surface and achieving strategy scores obtained by Asian as compared to Canadian adult learners may be reflective of the different demands associated with the educational contexts of Asia and Canada.

A final explanation for the approaches to learning differences identified relates to the challenges students face when the language of instruction is not their native language. Bigg's (1987) explains that in courses conducted in English, students for whom English is a second language (ESL) may obtain higher deep and achieving scores than native English speakers given the necessity for ESL students to be very well organized and continuously monitor the meaning of course materials. However, these approaches do not always translate into superior outcomes for ESL students. It has also been suggested that students who are not confident in the language of instruction tend to resort to surface approaches to learning to get by (Watkins, Biggs & Regmi, 1991, cited in Biggs & Watkins, 1999). Yu and Atkinson (1988, cited in Kirby, Woodhouse & Ma, 1999) found that students resort to rote learning when the do not have the vocabulary or fluency to support self expression while Yee (1989, cited in Kirby, Woodhouse & Ma, 1999) suggests that the stress associated with striving for high levels of achievement in an English language environment might push Asian students toward adopting memorization techniques in lieu of a more critical, questioning approach. It appears that language

fluency issues are important determinants in approaches to learning when the language of instruction is not the students' native language.

Open-ended Questions

Results

Table 9 represents the qualitative analysis of the responses to the open-ended questions. The table is divided into five sections each representing a different element of the whole lived experience of adult learning online. The sections are as follows (a) expectations and discoveries; (b) helpful and hindering aspects of the online learning milieu; (c) experiences with and reactions to self-direction, critical inquiry, and online dialogue; (d) impact of personal characteristics and life experiences; (e) recommendations for more effective and enjoyable online learning. The researcher discerned themes from the participants "natural meaning units" or actual verbal/textual responses then arranged the "natural meaning units" into categories by theme. In some cases, different themes and categories emerged from the two cultural groups.

Table 9: Qualitative Analysis of Responses to the Open-ended Questions

A: Expectations and Discoveries

Asian Group	Canadian Group
Aspirations/Outlook - I wanted to learn the technology used in an online course since there are not many online courses offered in Thailand. - It was so exciting when I was going to start my online course. - My expectation was to try to pursue a higher education degree using online as I don't have opportunity to pursue regular course but I have a lot of confusion about online course. It opened the window of my thought and raised real expectation that I can pursue a master course online. I gained a lot of confidence. - I was very comfortable with the actual experience and my expectation.	Aspirations/Outlook - My expectations were not well defined because I didn't know anyone who had done this before. - Eager for insights into online education that would help me in my work as an educator. - Expected that everyone wanted to be there. - Being involved in something new was important to me. - I knew I could do it and just sort of jumped into it with my eyes closed. - In essence I was totally open to whatever the experience offered. - It would be a great way to connect with and learn from a variety of people from across the country.

	- Really excited to be working in a format that was leading edge.
Technology/Course Format - That somehow it would facilitate things between the group I was working with but it did not. Most of the time it was failing us and we had to resort to other means to connect/communicate. - It was expected that each day everyone has the access to the online facilities. The accessibility to the online was not the same for all of the participants. - Some of the participants did not have much experience and skills in handling the online system in the proper way which resulted in some problem with making smooth communication. - I thought we're gonna do some on the discussions online as if we were in a classroom where everyone is logged on (similar to chat mode). It's different	Technology/Course Format - Thought there would be some video conferencing. - Expected more synchronous interaction. - That the university would use a variety of technical tools to deliver the course material. The primary delivery method was chat room/discussion boards, there were only one or two online courses that used other technologies to deliver course content. - Thought classes would be small and we'd all be online at the same time – real time dialogue. The environment is mostly asynchronous. - Expected a lot of independent study.

because everyone is given a time (a week) to work on assignment and submit before due date.	
Flexibility - That I would be able to study on my own time and did not have to come to class. - It was helpful to people working because they have time to work on their assignment at their own convenience. - The professor was so considerate, like if you can't submit it on time due to work, you just have to tell him.	**Flexibility** - Delighted to not have to drive to the university in sub-zero temperatures. - I chose online delivery because I needed flexibility in my schedule and because it was the delivery choice of the program. - I was there to learn stuff and this made it easier – saved the 3 hour drive to classes. - Since I was taking online courses part time while working full time, I like the fact that I was going to be able to participate when it was convenient for me.
Transition from F2F to Online - Hard sometimes to communicate with others due to lack of readiness of this	**Transition from F2F to Online** - Difficult for me initially. - I had to learn how to learn online.

new way of learning. - My actual experience is different from my expectation. - I still prefer the tradition face-to-face class. - I missed the interaction that happened in the classroom. - It's a little bit difficult working online if you're used to face-to-face training programs. · - I had to get myself acquainted with the situation.	- After the first term online I was very comfortable. - Missed out loud processing. - Missed the face-to-face. - Really upset half way through my first online course; learning experience felt two-dimensional, craved hearing voices. - I adapted quite well. - Biggest surprise: online learning conflicted with my preferred learning style. Had to adjust my learning style.
Facilitation - I expected more attention to the individual level; sometimes I felt neglected; when I think about this course I feel frustrated.	Facilitation - Expected instructors would have previous experience with teaching in an online environment and truly understand the differences between · face-to-face and online learning. Some of the professors had no prior experience teaching online and they were overwhelmed with the workload.

	This had a negative impact on my learning because they were not fully aware of the most effective teaching methods for online courses and they had trouble responding to my questions.
Learning Process - It took longer time to organize and coordinate online students to work together. - Expected regular involvement in the online discussion and receive regular feedback from the other students; because of my workload I was not able to accomplish what was expected from me. - I felt that it is more difficult to work with other students online than face-to-face. - Expectation was to communicate with others – due to several reasons like time	Learning Process - Expected the opportunity to test new learning or ideas against one's own experience and environment. The challenging of one's own assumptions and those of others. A synthesis of the various courses over time. Found most courses failed to reach or sustain the critical level, and found this disappointing. - Disappointed with the depth of learning. I wanted more in-depth critique rather than an overview. - Interaction with others expanded my awareness and understanding but did

of different countries, machine problem, pre-occupied assignment of group member, my expectation was partially achieved. - Every discussion and lecture took place in a way that everyone could understand/internalize and participate in the discussion.	not develop the depth of knowledge I had anticipated. - Deep questioning and search for underlying meaning – doing this online proved much harder than f2f. - Typing skills, time lines, time zones, and lack of immediacy of feedback really hinder meaningful discourse. - Didn't always understand the content. - Discovered a very inter-dependent environment between colleagues and far less direction from the professors.

B: Helpful & Hindering Aspects of the Online Learning Milieu

Asian Group	Canadian Group
Facilitator's Attitude/Approach - Teacher's facilitating skills and guidance are keys to motivate my learning. - Teacher was not serious about our learning (hindrance). - Teacher and TA are good at providing feedback to my work and respond to my email. - The instructor's prompt response to posted messages as well as commitment to answering or giving feedback was very helpful. - Instructions given by the teacher were very comprehensive. - Online coaches were very helpful – they were there to encourage us and prod us to move on. - The instructors always gave feedback	Facilitator's Attitude/Approach - Teachers very compassionate and understanding. - Teachers' behaviour (inclusive, supportive, and available) helped the most. - Prof touched base with each student by phone – this was fabulous! It was relief to have a normal conversation and let it flow especially with the prof who, let's be honest, still holds power. - There seemed to be two styles of teaching; the controlling and the facilitating. The controlling would direct and coordinate interaction, establish strict protocol and deadlines, sort of orchestrate the content and all the key players to come together into the work that they had scripted. The

either when we had synchronous sessions or whenever we had questions. - Feedback was provided right after submitting each assignment. - Our teacher was very much helpful. - Since we had to work with our online coaches/teachers for 22 face-to-face days, a very good relationship and understanding was developed.	facilitating would throw out an idea, or perhaps a challenge, and watch what evolved. Facilitator would guide rather than conduct. The former approach made learning work, while the latter made it interesting. - One facilitator was very active and you could actually feel her presence and commitment, in contrast, the other was going through the motions; the more active involved facilitator created a very supportive environment – this helps a lot. - Critical that the professor still engages in the content with the class and invokes his/her subject matter expertise into discussions. - Professors who respond to student emails quickly (within the day) is critical.
The Learning Environment	The Learning Environment

- Compared to face-to-face students, online students have only communicated about the class work and homework – not much personal stuff. - Everyone was encouraging everyone to continue. - The touchy discussion environment and the behaviour of other students and teachers certainly helped me in achieving the learning. - The flexibility of the faculty and students helped me a lot. - The online classroom environment was not very comfortable (hindrance). - The learning completely depends on the whole environment and the process and procedure of the teaching.	- It is very important for students and teachers to acknowledge everyone and to be respectful of everyone. - A strong spirit of inquiry (helps). - Takes more effort to engage others in the online environment. - Some courses had very cold classroom environment.
Spirit of Collaboration - Other students' response and attitude might influence my involvement. - The online discussion encourages	**Spirit of Collaboration** - The incredibly rich and varied dialogue throughout the course work is motivating.

exchanging of ideas.	- Hearing about how other students related the learning to their real world was very helpful.
- I enjoy reading other students' responses – each student gave different perspective or interpretation.	
- It's so frustrating to know that not everybody participated during the online learning – after the face-to-face mode some did not make it to the online mode.	- Helps when people respond to the postings with passion.
	- It feels better when you know someone has read your response – this is key.
- At first, the participants were prompt and regular in giving discussion feedback but I think the workload of some hindered them from effective participation in the online component of the course.	- Reading and reacting to my postings – especially liked when my contribution led to deeper thought, new insights.
	- It was usually a small core of about five people who actually held a conversation through online postings, the rest were observers which was unfortunate because we missed their perspectives.
- I learned a lot from my group members.	
- We shared and exchanged experiences on the subject and I found that I learned from team members more than I read from reading materials.	- Those who were too soon to answer questions without exploring the possibilities (hindrance).
- Team members helped me to clarify the	- Modelling of conversation by moderators and other participants

issue that I was not clear when we had group discussion. - Not only instructors or facilitators, in my opinion, but also team members motivated me in online learning.	(helps). - Getting timely feedback is crucial to my learning – feedback from co-learners and the professor. - Diversity of backgrounds, careers, philosophical beliefs and interests of other students added to the richness and breadth of learning.
Face-to-Face Meetings - The course design which consisted of both face-to-face and online components helped me in understanding the concepts clearly and directly first from personal interaction with the resource persons as well as from the participants. - The program provided a face-to-face period prior to the actual online phase, it enabled us to gel as a group enough to tide us through our online phase. - The course was well designed because	**Face-to-Face Meetings** - Knowing most other students prior through f2f institute helped. - F2F work was the biggest catalyst to learning – I had context to make meaning of individual contributions, more comfortable, could be more forthright. - Our cohort really seemed to click during our first summer institute, making the ensuing courses much more personal than might typically be the case; even in electives where only a

of face-to-face meeting opportunity at beginning as well as at the completion of assignments. - We had face-to-face meeting with the online teachers/coach for 22 days; they taught all the participants how to use different methods of online learning such as chatting, conferencing, instant messenger, materials posting in the blackboard.	few of the cohort were involved, this camaraderie seemed to spread or manifested itself within others. - Face-to-face social events help.
Structure – Access, Language, Technology - At the time Bangladesh was affected by a devastating flood, I was assigned for working in a big relief center as Manager for one month, I missed the whole month of activities. - Online course interface is easy to understand and navigate. - Technical support is good...always have someone to help me. - Software was very user friendly.	**Structure - Course Format** - I like two week intervals, rather than a new topic each week. - Encouragement for students to communicate verbally through the phone is important. - I would limit the class size to no more than 20 students. - I enjoyed having weekly required readings because it forced me to keep up with course material.

- A diskette containing all possible programs to communicate was provided. - The administrator was not well on hand to assist us in our problems, we were not prepared during the face-to-face phase on how to do some simple troubleshooting. - Language is the biggest challenge for me. I am not always confident that my posting won't be misunderstood by others. Sometimes I gave up posting something that I would have shared in a f2f class.	- Rotating discussion leaders amongst the students worked well. - Being able to see who had read my posting was helpful. - Some courses were heavier than others. - Conference calls helped. - Audio-conferencing was a disaster - Playing the role of student, facilitator and instructor in a one week turn around module was very time consuming and draining. - Organization which required the students to be involved (helped). - Group work where those in close met and those far away had less participation was a problem. - I struggle with group work online – challenging to coordinate time to collaboratively work on group projects.

C. Experiences with and Reactions to Self-Direction, Critical Inquiry, and Online
Dialogue

Asian Group	Canadian Group
General Comfort with Self Direction, Critical Thinking, Online Discussion - Yes, sometimes good, sometimes bad. - I enjoyed the whole process. - I felt very comfortable to participate in such type of learning. - Very much relaxed course.	General Comfort with Self Direction, Critical Thinking, Online Discussion - Very comfortable with all of the above. - Yes, I very much like this approach. - I'm enjoying the informal learning that is taking place. - Enjoyed taking part in all aspects of online learning. - Most important aspects of the learning. - This type of process worked well for me.
Self-Direction - Yes, I was expecting to manage my learning process and professors and students will be helping me like a facilitator. I am very comfortable to pursue my learning process. - Yes, I was expected to complete on my	Self-Direction - Some courses were more self-directed. - I think I was expected to manage my own learning. - You get as much out of it as you put in. - Learning online is very much my responsibility.

own, the lectures, readings, and homework that include online discussion, group and individual papers. - Because objectives and expectations were set earlier, everybody participated in the learning process most of the time. - I was expected to manage my own learning and it was the easiest way to critically analyze the experts and ideas of others.	- Some people think norms are important and should be stated explicitly…I believe that people want to learn and therefore they will participate accordingly.
Facilitator's Role - The professors/designers did not assess needs individually. - I liked the comments made by the professor to my assignments. - We got opportunity to set mutual expectation with the teacher.	**Facilitator's Role** - I didn't like it when the prof was not there for support and to facilitate discussion. - Really liked the fact that students took the facilitation role, and the prof's role was to structure the course – respects the fact that we are adult learners - My biggest beef is that I do want

	answers from the profs – I want to know their theories, I want them to direct the conversation. I have often felt some essential fundamental work is downloaded to the students themselves. I miss constructive feedback on my writing, I miss the summary of lessons from the professors.
Critical Reflection/Analysis - In China, traditionally, it's not common to critically analyze professors' (or experts) ideas. Authorities are highly respected. - Several assignments were to review and critique other students' statements – it promoted class interaction. - Yes, all of us were expected to do so even our peers, the experience was I think for me beneficial as it allowed me to view my work from various perspectives, cultures, etc.	Critical Reflection/Analysis - We had to be careful to critically analyze the professor's ideas. - I felt that doing this online was far less threatening and intimidating than in a f2f classroom situation. - Critical analysis was initially a struggle for me; it felt disrespectful to criticize anyone; at first I had to re-write everything I wrote to refocus on critical thinking; critical thinking was never part of my workplace or personal life; the critical thinking aspect was a real

- Online discussion is one of the best ways to analyze the expertise and emerging ideas of others. - Result of critical analysis and thinking process comes from the core of the mind. - It is the usable ways of learning process for professionals.	evolution for me. - Critical thinking would be richer in f2f where I can feel another person's passion, engage more fully with points of view and get excited by the energy in the room. - There was a lack of critical analysis throughout almost all of the courses; the courses focussed mainly on understanding and applying the various theories or methods rather than assessing their merits; the majority of online discussion centered upon explaining personal context rather than critiquing approach.
Online Dialogue - We were expected to comment on each other's opinion. - I was expected to manage my own learning as well as be involved in the online discussion about other's ideas.	**Online Dialogue** - We were expected to be online for discussion. - Even given marks in one course for participation. - Enjoyed the collaborative learning.

These processes were acceptable to me and gave me much freedom to think and consider the best options and give necessary reactions. - I needed to spend more time reading and doing assignments than American students; Sometimes I felt like I was left behind when the discussion in class was too much related to American context like example about American companies which I am not familiar with. I can participate in the discussion when the issue related to my experience. - Tried to achieve task and communicate with group members and teacher. - Their feedback was helpful to me. - Helped me apply what I learned.	- There was a lot of online discussion and sharing of views. - Sometimes I was very engaged: topic of personal relevance, two week modules, supportive group members, lively discussion; sometimes it was very draining, depending on how big the class was, all the reading could be overwhelming. - Greatest feature of online learning is that there is time to reflect before responding and there is a permanent record of my response and others' to re-read at a later time.

D. Impact of Personal Characteristics and Life Experiences

Asian Group	Canadian Group
Open-mindedness	Critically Reflective Approach to Life
- Helped me to keep an open attitude to everything.	- I have never been one to accept things, but rather one to test things; to evaluate them, judge them and accept them for the value that I see in them. The what is important to know but so is the why, the why not, the when, the when not, and most importantly the what else. Satisfying this was difficult online but was mediated by the relationships that the cohort had built.
- My interest to new things and the idea that this mode is possible source of learning.	
- Exposure to new things.	
- It was exciting to me since online education was first time for me.	
	- Passion for exploring deeper.
	- Tendency to see the world differently and to question perceived wisdom.
	- An ability to observe, reflect and comments on interesting anomalies without getting tied up in an emotional response.
	- I enjoyed the flexibility in that I could

	read my colleagues postings and then go away and ponder what my response was going to be.
Self-discipline - Time management and self-discipline are important for online learning. - My patience, my value for the work that I do, the need to do my best, to hang-on probably were the values that played during this phase. - Self direction makes it easy for them to manage their learning. - I had to manage my time and manage myself to concentrate on the study. - My willforce and seriousness helped me to successfully continue online learning.	Learning Style/Personality Type - When I decide to do something I let nothing stand in my way - Our personalities tend to effect our experience – I tend to be extroverted in the classroom, rather silenced online. - I am absolutely convinced that this medium is perfect for my learning style and lifestyle. - A high frustration index probably helped when the computer had problems. - I have little patience with tangents or discussing a topic to death – the benefit with the written approach (online) is that I can skip the author's comments if I want to. - I was able to express my emotions

	more readily online.
Risk Taking/Embracing New Technology - Easily embrace new technology. - Not afraid to try new things really helped me to cope with online technologies.	Risk taking/Embracing New Technology - I tend to be less cautious than a lot of people. - Love to jump right into things. - I like to challenge myself with things I have no experience with. - I was completely, or at least almost computer illiterate before beginning this program – I am unafraid to tackle new and different things. - Openness to new experiences and little need for perfection probably helped. - An engagement in whatever is new. - Having a strong technology background allowed me to focus solely on the course content.
Love of Learning - I don't mind to spend a lot of time on computer and Internet.	Love of Learning - Highly motivated by learning. - Great desire to enhance my adult learning skill set.

	- I enjoy reflecting and writing. - Liking to read and write is necessary for success online.
Altruistic Orientation - Gave me a better understanding with others' behaviours. - I think my roles were to motivate myself to learn and to initiate in encouraging others to do the same. - I had chance to share my experience and help others. - I got many new things from my group members. - Self-interest of learning, commitment and friendliness are the basic requirement for online learning. - I have lots of professional experience especially on training and management; I have shared my long experience with others through online process and got critical analysis and positive criticism	**Social Interaction Orientation** - I was able to establish a better relationship surprisingly online with members who I had never met. - Have grown to enjoy online learning because it can be interactive and collaborative. - Others had a similar learning style and were similar in age.

which helped me rectify and improve my learning, as well my experience helped others to make linkage with their experience with a view to produce better learning. - My personal characteristics and the experience encouraged others to bring them forward to expose their ideas and expertise and share with others.	
Life Stage - The cooperation of my wife and taking her extra family roles also helped me to pursue the course.	Life Stage - Whatever stage our life is at also effects the experience.

E. Participants Recommendations to Make Online Learning More Effective and Enjoyable

Asian Group	Canadian Group
Facilitation	Facilitation - Supportive
- Facilitators are skillful to create an easy community to involve students.	- Facilitators need to be there to support the students when needed.
- Professors should give more time and attention to each and every student.	- Facilitators need a sense of humour.
- Should be more structural and constructive.	- Facilitators need to be available online to learners – if it takes more than 48 hours for a response, anxiety levels of learners rise sharply.
- Understand online students – most are adults who work full time, they are self-directed learners, have experiences that will greatly contribute to learning, like to have freedom to manage their own learning, relate their learning back to their experience, give the practical view of the topic or issue.	- Frequent, short postings by the prof to guide critical reflection.
	- Encourage participants to be creative to create some balance between left brain and right brain activities.
	- Do whatever it takes to get a meaningful dialogue going about the meaning and value of what is being addressed.
- The instructor should take into account of the time (it takes longer to work in online team) and the policy to deal with	- Make the topic personal to the student,

free riders; it is easy to avoid working in online environment.	impassion them, challenge them, stir-up feeling as well as intellect.
- Quality and timely feedback from instructor and TA are important – this is the only individual or personal support online students get. When the instructor provides good and timely feedback, online students feel more connected to their class and appreciate learning.	- Bring in controversy, that is present contradictory views and encourage debate.
	- Active presence and involvement are important.
	- Pacing is important.
	- I don't think facilitators need to do anything special except to be organized.
- There should be a good balance between self-learning activities as well as resource person's inputs.	- Model critical thinking and dialogue, ask questions that engage thinking.
- Facilitators should be active in monitoring students' progress.	- Keep the process simple – computer and pedagogical – let the ideas explored be the complexity.
- Facilitators should encourage students' participation through constant follow-up.	**Facilitation – Non-Directive**
- Facilitators should be able to identify issues which will motivate participation provide encouragement to the	- Let the students control their own learning. It is so important for the online instructor not to attempt to steer the learners learning. I realize that course objectives must be met. Balance

participants. - Make the learning chunks "chewable" enough for the participant to digest. - Learning should be need based in individual level.	must be delicately met so as not to destroy learners at different places. - Don't over prescribe and over-control. - Encourage freedom of application and exploration of the topic at hand. Set the stage and the example of taking risk. Facilitation - Directive - People need to feel there is a voice at the end of a line behind a computer; don't say "I am not here to give answers", quite frankly I want to know that an instructor has an answer or a philosophy on something, I want that to be part of the thought processing - I want an instructor to create a baseline from which we can create our own opinions on something.
Building A Learning Community - Develop good relationship among teachers and participants. - Keep in mind the time differences and	Building A Learning Community - There is a need to focus on strategies to help students stay engaged and connected while they are in-between

other relevant issues of the overseas student. - Promote/support student interaction – instructor should have assignments or activities that allow students to work in a group and get to know other students in more personal level-not just names on a webpage.	courses but still a part of an online degree program. - I would recommend that each cohort is assigned a year long facilitator to pose questions throughout the year outside of class to keep our reflective skills going. - Truly facilitate the development of the collaborative learning environment – the work done up front will create effective communication among learners. - Find alternate ways to foster human connection – online bios okay, pictures help, phoning is essential. - Establish agreements about how group wants to work together (e.g. length of posting).
Preparation - Ensure sufficient orientation about participants, teachers, learning process,	**Preparation** - People need to realize that it takes lots of time.

methods and content.	
Face-to-Face Meetings - Combinations of online and face-to-face study group should be considered.	**Face-to-Face Meetings** - Begin, if possible, with f2f interaction. - It is important that people meet their classmates somehow.
Course Material, Structure, Technology - Technical support – technology is good as long as it works. When online students have technology problem they want it fixed as soon as they can. - Technical support will facilitate learning of technologies and help the students to focus only on the course content. - Use webcam while having discussion at the same time – it's like a virtual classroom, but each one is stationed in their own respective countries. - Courseware should be user friendly and not much required plug-ins - Courseware should be accessible	**Course Material, Structure, Technology** - Most of the readings need to be available online. - User friendly applications/software. - Give students the ability to delete old messages. - Make it so you can check your attachment before you send it.

through a website so that it can be accessible anywhere.	
- Main learning materials should have a format which is easily readable.	
- Reference materials should also be provided in the courseware.	
- Make the program as visually appealing but likewise ensuring that access time is short.	
- Consider standard machine (computer) facilities, easy access, timing, troubleshooting etc.	
- The designer and facilitators need to determine the online service is accessible to all of those students who would be supposed to use the online system or the facilitators should select those students who have access to this system.	
- I suggest to discontinue the audio-conference and introduce online chat.	

- Well prepared course content. - Used instant messenger for chatting, saved discussion and submitted to instructor – instructor gave immediate feedback on the issue and how we organized our chat – another interesting way instead of writing a paper as an assignment every week. - It would be nice that guest speakers are invited from time to time. - Students should have the opportunity to call in and participate in the lecture with the instructor, not only typing in chat room.	
Evaluation - There should be clear description reason why the student receive this much/less rating for an assignment in order to guide him/her accordingly. - Ensure effective evaluation/test system	Evaluation - I wish that they would put into effect deadlines for assignments and credit those who hand in assignments on time - Provide feedback on writing and content of a report.

Discussion

Differences in the qualitative responses of the Asian group in comparison to the Canadian group center on the following themes:

(1) Access to the online discussion - The Asian participants talk more about technological problems and access issues.

(2) Depth of critical analysis – The Canadian participants appear to expect a deeper level of critical analysis than they discovered in their online courses.

(3) Facilitator's approach – There appears to be some difference within the Canadian group and between the Asian and Canadian groups with regard to the desired type of facilitation approach. The Asian adult learners say that they appreciate instructor involvement, support, and feedback. The Canadian adult learners also emphasize their desire for instructor involvement and support; some in the format of a non-directive approach and others in the format of a more directive approach.

(4) Personal Characteristics and Life Experiences – The Asian participants emphasize the value of open-mindedness, self-discipline and an altruistic orientation while the Canadian participants focus on holding a critically reflective approach to life, their learning styles and personality types, and an orientation toward social interaction.

(5) Recommendations – The Asian participants' recommendations are very focussed on technology and course design whereas the Canadian participants emphasize the processes associated with facilitation and community building.

The two cultural groups appear to be quite similar in terms of: aspirations and outlook; desire for flexibility; level of difficulty with transition from face-to-face to online education; collaborative spirit; value ascribed to face-to-face meetings; comfort with self-direction, critical reflection/analysis and online dialogue; and importance of risk taking/embracing new technology, love of learning and life stage.

The differences related to access to technology are not entirely surprising given the wide disparities in personal computer ownership and Internet service between the Asian countries included in this study and Canada. Although access to communication technology in less developed parts of Asia is improving (Gunawardena, 1998; Robinson, 1999) it appears that access issues still have a critical impact on the availability and effectiveness of online education in the parts of Asia represented in this study.

A number of comments supplied by Canadian participants suggest a desire for more in-depth analysis of course content and co-learners ideas, opinions and assumptions. Although the Asian adult learners appear to like critical thinking, a sense of wanting more is not discerned from their responses. The following quotes suggest that language difficulties and content relevance issues may interfere with the extent to which Asian students can be expected to engage in critical inquiry in courses where the predominate language is English and the cultural-context is Western:

> Language is the biggest challenge for me. I'm not always confident that my posting won't be misunderstood by others. Sometimes I gave up posting something that I would have shared in a face-to-face class. (Asian participant)

> I needed to spend more time reading and doing assignments than American students. Sometimes I felt like I was left behind when the discussion in class was too much related to American companies which I am not familiar with. I can participate in the discussion when the issue is related to my experience. (Asian participant)

The difference regarding expectations of the role of the facilitator is somewhat unexpected given the literature pertaining to the cultural and educational contexts of Asia and Canada. Hofstede's (1997) research on the dimensions of culture suggests that Asian adult learners would be more comfortable with an authoritative approach while Canadian adult learners would be comfortable with a facilitative approach. In the current study it appears that the Asian students perceive the role of the instructor to be in line with the facilitative approach whereas the Canadian adult learners form two camps; one accepts the facilitation role while the other desires more direction from the instructor:

> Let the students control their own learning. It is so important for the online instructor not to attempt to steer the learners learning. (Canadian participant)

> My biggest beef is that I do want answers from the profs – I want to know their theories, I want them to direct the conversation. (Canadian participant)

A possible explanation for the unexpected Canadian perspective is that teachers in Canadian schools and institutions of higher learning are not necessarily all facilitative as opposed to authoritative or transmission oriented. The students requesting more direct instructor involvement may be experiencing some dissonance associated with discrepancies between their past experiences and the demands and strategies associated with the new environment of online learning.

An explanation for the differences in themes that emerged from the responses to the question, "What roles do you think your personal characteristics and or life experiences played in the uniqueness of your online learning experience?" can be drawn from Hofstede's (1997) research on the dimensions of culture and On's (1999) inquiry into the role of Confucianism in Asian societies. The Asian responses related to altruism are fitting with collectivism while open-mindedness and self-discipline could be related to the influence of Confucianism throughout many parts of Asia. The Canadian emphasis on a critically reflective approach to life possibly stems from Canada's positions on the power-distance and individualist-collectivist dimensions. Relatively equal distribution of power amongst individuals and a conception of self that is focused on the individual characterize Canadian culture. Individuals are encouraged to analyze information and state their resulting opinions in the spirit of democracy. The Canadian interest in personality and learning styles also likely stems from the individualistic nature of Canadian culture and the related appeal of psychological explanations of social behaviour.

The differences in the types of suggestions the Canadian and Asian participants propose may be related to the technological difficulties the Asian adult learners report. Perhaps the situation is such that once technology issues are resolved the focus shifts to the human aspects of using technology such as facilitating deep learning and building community online.

The similarities in positive aspirations and outlook, love of learning and desire for flexibility are fitting with the characteristics of adult learners described by Knowles (1990). In general adult learners tend to be highly motivated to continue to develop through learning as long as barriers such as inaccessibility to learning opportunities and lack of respect for their unique needs as adults do not get in the way. The commonality in risk taking behaviour, difficulty associated with transitioning to online learning, as well the high value placed on starting a program with a face-to-face component are probably related to the fact that online learning is a relatively new phenomenon and is not yet commonplace even in developed countries. The majority of both Asian and Canadian students appear to be novice online learners who are excited about this new medium of learning, willing to take the risk, and feel most comfortable if specific strategies to help them adjust to this new learning environment are in place.

The similarities in level of comfort with self-direction, critical thinking and online dialogue expressed by participants in both groups are a little surprising given the literature on cross-cultural education that suggests that Asian learners may desire a high level of structure, find critical analysis of others' opinions, especially instructors, to be culturally inappropriate, and may not be familiar with formal group discussion processes in educational contexts. Perhaps the similarities in comfort with the particular teaching and learning methods are due to the familiarity both cultural groups have gained with these processes through their experiences in online education.

CHAPTER 5: SUMMARY, CONCLUSIONS & RECOMMENDATIONS

Summary

This paper began with an outline of the observations reported by facilitators of international online education that raise awareness of some of the complexities associated with cross-cultural use of e-learning models developed in the West. The observations documented suggest that adult learners of non-Western cultural backgrounds may experience a level of difficulty or discomfort with online teaching and learning methods that require self-direction, critical analysis, and collaborative learning through discussion of personal opinions and ideas in a text-based computer-mediated conferencing environment. There appears to be a logical fit between these observations and the literature in the areas of cross-cultural communication and education, however, there is very little research that has formally investigated cultural factors in online distance education environments.

In an effort to enhance awareness and understanding of the nature of some of the cultural factors of influence in international e-learning this study explored both the similarities and differences among adult learners from two different geo-political regions, Asia (Bangladesh, China, the Philippines and Thailand) and Canada. All of the participants in this study had gained prior practical experience as online learners in collaborative computer-mediated conferencing environments. Of specific interest were their approaches to learning and personal experiences with online education.

Both quantitative and qualitative methods were used in a cross-cultural comparative design. Approaches to learning were measured by Biggs' (1987c) Study Process Questionnaire (SPQ). Qualitative information was gathered using survey methods and open-ended questioning in the format of a semi-structured online interview. The study was conducted entirely online.

Analysis of the data obtained via both methods of data collection indicates that there are similarities as well as differences among the cultural groups compared. The conclusions drawn from these findings are outlined below.

Conclusions

Based on the findings the following major conclusions are discerned:

- Asian and Canadian adult learners are similar in the extent which they use deep approaches to learning. This means that both cultural groups are likely to be intrinsically motivated to learn and apply strategies aimed at achieving a deep level of understanding.

- Asian adult learners use surface and achieving approaches to a greater extent than Canadian adult learners do. The main attribute of the surface approach is memorization and that of the achieving approach is a high level of organization. The difference between the cultural groups involved in this study is likely due to cultural differences in conceptions of memorization and differences in the demands associated with the educational contexts of Asia and Canada. The finding that the Asian adult learners appear to be using the surface and achieving approaches in combination with

the deep approach suggests that these students may be experiencing difficulty with the language of instruction or have not yet adjusted to the expectations of the Western style online graduate level education environment.

- Both Asian and Canadian adult learners indicate that they are comfortable with self-direction, critical thinking, and online discussion in the context of text-based computer-mediated conferencing. It appears that technology access, English language fluency issues, and discussion content irrelevancies are the major barriers to participation in the above mentioned types of learning activities.

Recommendations

While it is the differences that challenge us, the many similarities provide a strong foundation on which to build a paradigm for online learning that facilitates effective and satisfying educational experiences for culturally diverse adult learners. Recommendations that could lend to the development of this paradigm are outlined below.

1. Begin with a face-to-face institute whenever possible. This provides opportunities for participants to form relationships that mediate communication challenges in the online environment, learn about the technology, and gain familiarity with novel teaching methods and learning approaches.

2. Ensure that the course design and the technology used to support it are compatible with each other and the resources of the students. As one of the Asian participants put it "technology is good as long as it works". This research demonstrates that there are still many technological disparities that exist among international online learners.

It is recommended that technology factors be addressed "from the student perspective in the design phase, so as not to build a set of requirements into the system that will disadvantage, rather than advantage, students" (Leask, 2000, p. 7).

3. Carefully monitor language fluency issues. A high level of fluency in the language of instruction is a prerequisite to expressing thoughts and ideas that present as critically reflective. To assist ESL students in coping with language related challenges in courses where English is the language of instruction, Kirby et al recommend reducing the cognitive load for students thereby freeing up their resources for higher-order activities. Providing guidance in recognizing the structure of academic text and instruction in skills such as summarizing can help in this regard. Direct instruction regarding the format of a "posting" to an online discussion is also valuable. As per the recommendation of one of the Asian participants, it is helpful to vary the learning activities so as to avoid requiring participants to write essays on a weekly basis. An alternative to the asynchronous discussion is a synchronous chat in which ideas flow freely and spelling and grammar inaccuracies are ignored.

4. Implement a curriculum that is relevant to the needs and interests of the international student, as content relevance appears to be a prerequisite to the deep approach and higher-order learning. This is not easy in international online education as in essence all learners in globally delivered online programs are international students (Leask, 2000). According to Leask (2000) an international curriculum embodies a wide range of teaching and learning strategies and a broad scope of subject matter that contains

international content and resources. Internationally renowned guest speakers, case study examples and research/theoretical articles that present a diversity of cultural perspectives are some alternatives.

5. Create a method for evaluating critical inquiry in online learning environments. If the central goal of higher education is to facilitate higher-order learning through a process of critical inquiry then a means of evaluating the extent to which this goal is achieved is absolutely essential. Students' self-reports and facilitators' general impressions of online discussion transcripts are helpful to a certain extent, however, they do not directly measure actual levels of critical inquiry engaged in by online learners. Garrison et al (2000) and Gunawardena (1998) suggest that content analysis of the transcripts of online discussions can serve this purpose but raise caution that this is an area in which further research is needed to improve the efficiency of this evaluation method.

It appears that this exploratory study is one of the first cross-cultural comparative projects conducted from the perspective of approaches to learning to involve adult learners who have gained actual experience in online distance education. As this study involved a very small, non-random sample it is recommended that caution is used in generalizing the results to larger populations of culturally diverse online learners. Additional quantitative and qualitative research involving larger sample sizes is necessary. Other research designs may also prove valuable. Gow, Kember & McKay (1999) recommend action research which "involves lecturers in attempting to improve

their own teaching through cycles of planning, acting, observing and reflecting. Educational practices are regarded as social practices to be changed through collaborative action" (p. 246).

Future research must also address the unique issues inherent in conducting research in international online learning communities. Research designs and data collection tools appropriate to the cultural diversity and technology associated with this environment are necessary.

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APPENDIX A

Letter of Introduction

Research Project Title: An Exploration of Learner Similarities and Differences in International Online Education

Investigator: Jacqueline Reynolds, MA Student, University of Calgary

Dear Prospective Participant,

I am completing a Master's of Arts degree in Continuing Education at the University of Calgary. In partial fulfillment of the thesis requirement, I will be conducting an exploratory study of the similarities and differences between the characteristics of Asian and Canadian adult learners who have experience with online education in the field of workplace learning. Learning styles, approaches to learning and personal experiences with online learning will be explored. Particularly, I'm interested in the relationships between culture and learners' comfort with engaging in self-directed learning, critical thinking, and online dialogue.

Subjects who meet the following criteria are asked to consider participating in this study:

- were born in Asia or Canada
- received the majority of their education in their country of origin
- have experience with online learning through computer-mediated conferencing, preferably as an adult learner in a higher education course in the field of workplace learning
- are willing and able to discuss online education experiences
- are comfortable communicating in written English
- have an email address

If you choose to participate in the study, you will be asked to complete four tasks:

1. An online survey accessed on a web site has been designed to collect information regarding demographics, computer access and skills, educational background, and performance and satisfaction with online learning. It will take about 10 minutes to complete.
2. An online version of the Learning Style Inventory will be made accessible to you. Upon completion, you will immediately receive your results and information about your individual learning style.

3. An online version of the Study Process Questionnaire will also be administered to you via email.
4. You will also be asked to respond via email to a series of open-ended questions about your personal experiences with online learning.

At the end of the research project you will receive a summary of the results and conclusions of the study.

By participating in this study you will be helping to further the research in the area of online learning and you will be contributing to enhancements in the design and facilitation of globally delivered courses. You will also learn more about yourself as a learner.

If you have further questions concerning matters related to this research, please contact: Ms. Jacqueline Reynolds, Master's of Arts Student and Principle Investigator at (403) 289-7727 or jackie@ezpost.com or Dr. Thomas P. Keenan, Dean, Faculty of Continuing Education and Graduate Student Supervisor at (403) 220-5429 or keenan@ucalgary.ca.

If you are interested in participating, please send an email message stating your interest to: jackie@ezpost.com. A consent form will then be forwarded to you.

Thank you in for taking the time to consider participating in this study.

Sincerely,
Jacqueline Reynolds

APPENDIX B

Consent Form

Research Project Title: An Exploration of Learner Similarities and Differences in International Online Education

Investigator: Jacqueline Reynolds, MA Student, University of Calgary

This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this study is to gain an understanding of the similarities and differences between Asian and Canadian adult learners involved in international online education in the field of workplace learning. The relationships between culture and learner's comfort with engaging in self-directed learning, critical reflection, and online dialogue will be explored through an analysis of participants' learning styles, their approaches to learning, and their personal experiences with online learning. Subjects have been chosen for participation in this study because of their cultural heritage and online education experiences.

A dialectical approach involving a combination of quantitative and qualitative data collection and analysis methods will be used. Participants will be asked to complete four tasks:

1. An online survey accessed on a web site has been designed to collect information regarding demographics, computer access and skills, educational background, and performance and satisfaction with online learning. It will take about 10 minutes to complete.
2. An online version of the Learning Style Inventory will be made accessible to you. It will also take about 10 minutes to complete. Upon completion, you will receive immediate feedback regarding your individual learning style.
3. The Study Process Questionnaire (SPQ) will be sent to you via email. You will be asked to respond to it in a reply message to the researcher's private email box. It will take about ten minutes to complete. The publisher of the SPQ has requested that you agree to refrain from reproducing this instrument or using it outside the bounds of this study.
4. You will also be asked to respond via email to a series of open-ended questions about your personal experiences with online learning.

At the end of the research project you will receive a description of your learning style and approach as well as a summary of the results and conclusions of the study.

The risks involved in partaking in this study are no greater than those experienced in everyday life. If you choose not to participate in this study, it will have no bearing on your academic standing or your relationships with individuals associated with the University of Calgary or the organization through which you were recruited for this study.

All data will be kept in a secure place inaccessible to others. Data will be disposed of three years after completion of the project. Precautions will be taken to limit the probability that the information collected can be linked to you. Confidentiality will be assured by assigning a number to each participant. All data will be analyzed and discussed only in reference to this number rather than your name. Complete anonymity can not be guaranteed as it is limited by how well the participants know each other and are able to recognize the words of one another in the final report.

By participating in this study you will be helping to further the research in the area of online learning and you will be contributing to enhancements in the design and facilitation of globally delivered courses. You will also learn more about yourself as a learner.

If you are interested in participating, please send a reply email message stating your intent. Your reply indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. If you have further questions concerning matters related to this research, please contact:

Ms. Jacqueline Reynolds, Master's of Arts Student and Principle Investigator at (403) 289-7727 or jackie@ezpost.com or Dr. Thomas P. Keenan, Dean, Faculty of Continuing Education and Graduate Student Supervisor at (403) 220-5429 or keenan@ucalgary.ca.

If you have any questions or issues concerning this project that are not related to the specifics of the research, you may also contact the Research Services Office at (403) 220-3782 and ask for Mrs. Patricia Evans.

Thank you in for taking the time to consider participating in this study.

Sincerely,
Jacqueline Reynolds