

Adult Learners' Cultural Conditions and Practices in Virtual Education Spaces

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ABSTRACT

This exploratory study systematically examined the learning experiences of graduate students in virtual education spaces (VES), with the aim to understand how the research participants' cultural conditions affect their learning. Twelve graduate research participants/students enrolled in a Master's program offered by a Canadian university represented a variety of backgrounds in terms of age, gender, profession, ethnicity, native language, location of residence, previous educational backgrounds and life experiences. Data were collected by online survey, observation, email interview, and telephone or in-person interview. The adult learners' cultural conditions and practices identified include: physical location, time, flexibility and control, convenience, personal and social interests, previous educational experiences, and English language proficiency.

Keywords: *virtual education spaces, online learning environments, adult learner, cultural conditions*

INTRODUCTION

In Canada, and globally, distributed learning is widely used for various formal and informal educational purposes. Advocates say information and

communication technologies (ICT) are flexible and accessible (Bates, 2004; Koper & Tattersall, 2004), offering virtual education spaces (VES) where meaning(s) can be made, identified, and negotiated among learners (Galloway, Boland & Benesova, 2002). Morse (2003) argues that online learning environments, especially when they are used for course delivery through a course/learning management system (C/LMS) and for a distance education program, have their own benefits, such as participatory (quantity/quality), communicative (openness/access), and evaluative (review/access) references. All learning environments, no matter if they are defined by a physical location or through a wired or wireless "network", afford the users opportunities and potential to access and use virtual education spaces, based on particular and unequal social, cultural and political conditions. For example, Biesenbach-Lucas (2003:36) observes that while non-native and less verbal students tend to keep silent in face-to-face classes, they "felt more comfortable participating more fully in electronic discussions". On the other hand, some educational researchers question the political dimensions of global accessibility of online learning environments based on the ICT disenfranchisement of some economically disadvantaged people.

In this article we begin by presenting a brief literature review followed by a description of the methods used to identify, collect and analyze data. Next, we present our findings and discuss the research results. In conclusion, we suggest that this research generally indicates that virtual education spaces are a contested landscape. Because virtual education spaces are connected to real life social, cultural, and political conditions of enrolled course members, it is important that instructors consider how and why these conditions and practices impact students' everyday lives in

order to enhance the meaning and relevance of learning in virtual education spaces.

LITERATURE REVIEW

We began our study of cultural conditions and practices within VES by taking a closer look at past research on adult educational experiences as mediated through ICT. We found that there is insufficient research concerning how adult learners' diverse cultural conditions impact their online learning and communication practices. We also found many similar definitions of online learning environments, virtual learning environments, virtual spaces and so on. We decided to create a working definition of virtual education spaces for our research. Below we discuss VES, and several other key ideas including: culture, group identification, and social category systems, active learning, and constructivist theories.

Virtual Education Spaces

Before the emergence of institutionalized education, learning occurred in locations within and outside of buildings designated for such purposes. The introduction of correspondence based distance education through mail/phone/other provided educators and learners the opportunity to re-imagine the location and time for instruction and learning. Through the use of ICT, people can occupy physical locations that are very different from the educational settings of the past. Geographic boundaries and topological features physically restrict one's location. Particular cultural and experiential conditions strongly influence how people interpret aspects of these physical environments. For this paper, we conceive of virtual education spaces as delineated by particular cultural conditions. Lippard (1998) wrote that a space is where culture is lived. Virtual education

spaces encompass both the physical embodied presence of the learner and teacher within the contexts of a material location along with their multi-modal digitally mediated cyber-presence facilitated through ICT.

Virtual education spaces encompass face-to-face, hybrid/blended, online distributive learning, along with distance education based on correspondence.

1. VES include both digital and analogue technologies.
2. VES are complex and ambiguous.
3. VES are contradictory and dynamic.
4. VES include control privacy, security, and access to information and communication.
5. VES are socially and culturally constructed locations where people share meanings and values.
6. VES can become "places" for learning.

Virtual education spaces encompass face-to-face, hybrid/blended, online distributive learning, along with distance education based on correspondence. The dimensions of virtual education also intersect with both in school (formal) and out-of-school (informal) learning experiences and settings. The advancement of wireless technologies has reshaped the terrain on which people can easily communicate, interact and participate in mobile pedagogical practices. Virtual education spaces are emergent, physically and/or conceptually constructed locations where an individual or group of people can engage in learning.

VES include both digital and analogue technologies. Books and video tapes are still used in many face-to-face settings. Advances in digital

technologies (hardware and software), systems, networks, procedures, and documentation are facilitating learning experiences through ICT. Various technologies are used within VES to provide both students and teachers a consistent and easy-to-use interface through which to interact and communicate with other people in these environments.

VES are complex and ambiguous. Our literature review indicates that VES can be both beneficial and restrictive simultaneously. Cultural conditions affect one's perception and formation of certain characteristics of self- and social-identity (i.e., social category systems: gender, ethnicity, race, social status, sexuality, etc) and social relations among people. In VES it is almost impossible to determine whether the user is young or old, female or male, Asian or European, rich or poor, gay or straight. In this article, we discuss strategies for considering the socially constructed representation of identity of online learning through VES that might satisfactorily serve diverse groups of adult learners.

VES are contradictory and dynamic landscapes. While some people dislike experiences of learning online, others find it provides room for creating more intimate relations among learners (Bird, 2004). Some researchers suggest that VES also promote opportunities for enhanced inquiry that can lead to higher achievement and more satisfaction in collaborative learning (Alavi, 1994). Because VES continue to change as new technologies are introduced to support educational experiences, continual research will be necessary to study the changing characteristics of virtual education spaces. Ideas of learning anywhere and anytime have not adequately addressed the social and cultural contextual conditions of these particular spatial and temporal dimensions of education.

VES include control of privacy, security, and access to information and communication. Educators use course management systems that allow for the administrative security of course information and the control and protection of access. For example, within CMS (Course Management Systems) both synchronous communication (i.e., chats, text messaging, video conferencing, etc.) and asynchronous communication (i.e., email, threaded discussion forums, etc.) systems allow teachers and learners flexibility and control to log-on in real time, to access these VES from different geographic locations, and opportunities to reflect before responding to a classmate's or the instructor's posting (Everhart, 2000). But CMS can also adversely affect course participants so that they feel that they are being left behind, isolated, or that they experience information overload. Some research suggests that chats "may be a dead end for learning" (Polichar & Bagwell, 2000: 53) as chat topics can vary widely and can deviate easily away from related course materials. These sessions also have the potential to reinforce misunderstandings of course material (Polichar & Bagwell, 2000). However, both of these problems can also be characteristic of face-to-face instruction.

VES are socially and culturally constructed locations where people share meanings and values. Some researchers suggest that ICT can enhance collaborative learning. Palloff & Pratt (1999) have shown that learning improves when there is a sense of belonging established through participation and collaboration. Lave & Wenger (1991) researched how communities of practice support new members who join a group and when they have access to existing members they learn from them as they work. Through processes of discussion and shared work on specific group projects, meaning can be negotiated among learners. With the advent of

social networking software, online environments are linking technological infrastructure and human experiences associated with communication and learning. But can VES become a community of practice or a “place” for learning?

VES can become places for learning. We believe any concept of place must include how people understand themselves within the contexts of particular physical and conceptual locations. A place is an articulation among the physical, spiritual, historical, and social diversity of human identity and experiences with a particular geographic region. But cyber locations include decentralized networks distributed through wired and wireless networks. The interaction among individuals through VES may assist learners in developing a “meaningful and strong sense of identity” (Postmes, Spears, & Lea, 2000) and social relations. In this article, we will explore how and why course members’ perceptions of their own self- and social identities and cultural conditions influence their participation within particular virtual education spaces.

Culture, Group Identification, and Social Categories

Drawing from the research by du Gay et al. (1997), Hall (1997), Mobley and Wilson (1998), Murphie and Potts (2003), and Reushle and McDonald (2000), on relationships between culture and learning, we were able to establish how a learner’s cultural conditions limit and/or extend one’s participation in an VES as studied through a course management system (WebCT) during a distance education course. This study involved only twelve participants who represented an imbalanced number in terms of gender (3 males and 9 females). Therefore, we have been cautious not to over-generalize the results. The descriptions and interpretations of the

participants’ cultural conditions are offered here to guide perceptions, rather than formally forecasting future affairs, to provide additional information of these issues beyond that in the existing literature. The expectation is that future research will develop further these findings into the interactions among cultural conditions, social category systems, and online learning practices.

Before looking specifically at our research, we want to offer a working definition from the numerous and somewhat ambiguous readings of culture. In our study, we drew from Hall’s (1981) research on culture as the specificity of people’s multiple ways of living. We agree with Bullivant (1993) that culture should not be used to over-generalize about a group of people based on macro-cultural views of nationality, such as Canadians, Chinese, British, Africans, etc. The cultural practices and specificity of living require us to consider a group’s program for survival in and adaptation to its environment. Culture consists of knowledge, concepts, and values shared by group members through experiences, interactions, communication, and mediation. In this research, culture was understood as the philosophies, traditions, values, perceptions, and agency of individuals and groups. Change is a constant that conditions these cultural and social dimensions of human agency.

Banks and Banks (1993: 8) point out that “Most social scientists today view culture as consisting primarily of symbolic, ideational, and intangible aspects of human societies”. They argue that people hold multiple group memberships at any one time. Socially-constructed categories have also been used to articulate human attributes of ability, age, gender, ethnicity, race, religion, nationality, sexuality, and social status to mention a few. But

in this research we agreed with Banks and Banks (1993: 14) who noted that, “Although membership in a gender, racial, ethnic, social-class or religious group can provide us with important clues about individuals’ behaviour, it cannot enable us to predict behaviour”. As researchers we were cautious not to isolate social categories systems. Instead we considered how certain social systems intersected with cultural conditions and interacted to influence individual and group communications and practices. Culture can be examined as the specificity of shared beliefs, practices, values, and symbol systems associated with human affiliations, and we looked some specific cultural ways of living (i.e., English language proficiency, country of birth, age, gender, geographic location, previous educational background, online educational life experiences, physical setting, influence of family life, work, etc.) of the research participants across the research context.

Active Learning and Constructivist Theories

In a VES, class members interact within a virtual space through communication practices. Student - teacher interactions are mediated through language. Language proficiency can enable and restrict online communication which in-turn influences if and how students play an active role when learning online. Self-direction and efficacy are required for online learners to communicate socially and to stay engaged with course content. Social constructivist theories generally emphasize that processes of knowing involves “the agency of other people and mediated by community and culture” (Boudourides, 2003: 12). Just like other modes of communication, VES are socially constructed virtual spaces that can provide for interaction and learning to occur (Mesher, 1999).

We wanted to know more about constructivist theories emphasis on the active role of the learner in creating knowledge as opposed to teachers or instructors imparting information (Hedberg & Harper, 1997). Researchers suggest that as a learner interacts within situations, he/she constructs an understanding of the relationships between the features characterizing those situations. The learner, therefore, constructs his/her own conceptualizations and solutions to problems. Hence learning is affected not only by online communication within virtual spaces but also by the social and cultural contexts of the situation and the beliefs and attitudes of the learner. Learning requires online learners to be active participants in multiple learning processes and situations.

RESEARCH METHODS

Research Objective and Design

This exploratory study systematically examined how each research participant’s cultural conditions limit or extend his or her participation in an online distance education course. In order to cross-check the findings (Patton, 1990) and data clustering, we used multiple methods of data collection and data were analyzed for the emergence of conceptual relationships (i.e., spaces, time, flexibility, etc.). Data collection involved four methods: an online survey, monitoring virtual spaces, email interviews, and telephone or face-to-face interviews. An online survey was used to collect demographic data such as age, access to the Internet, educational background, English proficiency, gender, life experience in North America (USA and Canada), etc. Communications on the course website such as discussion postings, chat sessions were recorded and analyzed to find out how the participants communicated with other class members and the instructors. Email interview questions were generated on

the basis of the survey results and observations and then sent to participants individually asking about their cultural conditions of learning and any modifications of those conditions they made for the VES learning. Semi-structured interviews were conducted by telephone or in person to obtain an in-depth understanding of the participants' perspectives of online learning and how their cultural conditions impacted their online learning practice. Participants were recruited from the fifty-five students enrolled in an online graduate course on a voluntary basis. The course was offered in summer of 2005 and it was co-taught by two instructors.

Participants

Participants included twelve graduate students: Agnes, Cathy, Jerry, Karen, Masahiro, Mitra, Nancy, Paree, Ping, Sali, Steve and Wendy, who volunteered to participate in the study after an invitation letter was posted in the course web space. WebCT was the CMS for the online course delivery. Participants' ages ranged between twenty and fifty and there were nine females and three males. Most (eight out of twelve) of the participants were located in western Canada while four were outside of Canada: two in Japan, one in China, and one in the United States.

Data Analysis

Through research analysis, we interwove empirical data with conceptual and theoretical ideas discussed in the literature review as a way to examine the contexts of these data within the broader scope of selected research. More specifically, the research data were analyzed to identify how the participants' cultural conditions affected their participation in learning processes. Data coding included "open coding" to mark each participant's postings with regard to the: 1) kinds of questions they raised , 2) how

often and when they participated online, 3) if and how they articulated arguments , 4) how they responded to peer messages , and 5) their perspectives and interpretations of different aspects of the course; and "holistic coding" to analyze the interview transcripts, looking at the most frequently used key words and key terms (e.g., challenge, frustration, language, background knowledge, etc.).

To begin we used the participant demographic information to cluster data (Merriam, 1988) using seven social conditions associated with the participants' broader cultural ways of living (i.e., English language proficiency, country of birth, age, gender, geographic location, previous educational background, and online educational life experiences). We measured the rate and frequency of their postings in the discussion forum and examined how they articulated and responded to each other and the instructors as they participated in chat sessions and threaded discussions. A spreadsheet was used to record the rate and frequency of postings in different discussion threads for each participant.

We realize that this data analysis was only based on a partial snapshot of the research participants' cultural conditions and their learning practices and that a complete picture of these life experiences was not possible. However, our systematic identification of themes was supported by an examination of previous research and grounded in the empirical data associated with the research participants' engagement in a VES, and how they modified their everyday living conditions to optimize their learning. In this way we were able to identify strategies research participants employed to accept, resist, and oppose particular course demands.

We also analyzed these data to identify communication patterns employed by research participants by coding the transcripts of discussion postings, email interviews, telephone interviews, and face-to-face interviews (Gunawardena, et al., 2002). The discussion postings were examined to identify the number and frequency of postings from participants to find out if there was a significant difference between native and non-native speakers of English. Then the content of the postings were analyzed to identify and examine inquiry strategies research participants used in their online participation. These inquiry strategies included: 1) how they modified their life experiences to complete course assignments, 2) how they modified their course assignments because of certain life experiences, 3) how they articulated arguments, 4) how they responded to peer messages, 5) the level of formality in their language use, and 6) what their perspectives and interpretations were of the course design.

The analysis of the interview data was used to check and elaborate upon themes that emerged from the analysis of online postings more specifically and also brought a deeper understanding of the issues related to the learners' cultural conditions, which affected their learning practices. The email interview data explored the participants' learning conditions including physical setting, amount of and use of time, influence of family life, work, or other aspects of their social encounters and interactions, how these cultural conditions enhanced or restricted their ability to learn, and the ways that they modified their ways of living to enhance their preferred learning practices in an online environment.

FINDINGS

We analyzed and interpreted the data by clustering or organizing them

around issues of time, space, change, convenience, flexibility and support, and control that emerged from the investigation of the participants' learning practices and cultural conditions. Our aim was to learn how a learner's cultural conditions limit or extend his or her participation in a VES.

Use of Virtual Spaces

The participants' cultural conditions affected their own learning and subsequently the learning of their peers. Time and workload were the two major issues mentioned by several participants that challenged and frustrated them in their use of the VES.

The online graduate course suggested eight to twelve hours per week on course-related activities, but half of the participants professed to spend considerably more time. As non-traditional graduate students, nine of them also had full-time jobs and family commitments. Time management was an issue that could either limit or extend a participant's learning as he/she struggled to learn using virtual spaces.

Karen concentrated best in her office at work. She decided to study regularly in her office and on weekends to complete course assignments. Even though she needed to work away from home, the virtual space provided Karen a means to study course content when she made the time. Her ability to control this particular cultural condition of her life (when, where, and how) was an important attribute of the way she preferred to learn at this time.

In VES, communication took place via virtual spaces among the

instructors and course members and among course members themselves. With asynchronous discussions, participants usually waited for a response to their postings. For some non-native English speakers, these communication delays produced nervousness, adding to their sense of apprehension in their own ability to contribute in a meaningful way to the course. Some assumed that if their posting did not get a response, then it might mean they did not express themselves clearly or the message was interpreted as offensive (Paree, Telephone interview). There was a sense of anxiety associated with using a virtual space for non-English language speakers. The challenge of using a virtual space meant that all participants had “to understand the diversity in the student populations and be prepared for unfamiliar social practices such as netiquette and online lingo” (Nancy, Email interview).

In virtual spaces, participants do not occupy a physical location with other course members. Subsequently, some participants said that they experienced a feeling of being alone and a sense of frustration as a result of this disembodied experience. Mitra felt isolated when she first joined the class. When using the virtual spaces, it was apparent that most of her peers had taken other courses together prior to this one. She found it difficult to engage in communication because she had not identified someone or a group with whom to establish a social relationship or bond.

Both the hardware and software technical infrastructure played a role in how participants used the virtual spaces as a part of the larger course management system (i.e., WebCT). The course management system had different layers of administration and content areas within the online course and learning environment. Navigating these spaces was challenging

for some participants to not only locate course materials, but to download files onto their computer through their local area Internet service provider. Wendy had access to only a phone line dial-up connection to the Internet that made downloading files time consuming.

Physical Location

In this study, most (nine out of twelve) participants chose to study at home, although Steve was able to complete his online learning tasks anywhere by accessing the Internet. A few studied at work because that was where they had access to the Internet, or the time and space they could use to concentrate. For example, Karen did most of her online learning tasks at work because she had to devote time to her son and husband while at home. She had an office where she could concentrate and where her work schedule allowed her to study for a certain number of hours. Steve also studied at work because he thought the post-graduate studies were related to his teaching job. Masahiro had a very busy work schedule, so he decided to study at home, when the rest of the family was asleep. All of the participants selected locations where they could concentrate on their learning tasks. In order to balance their studies with family, employment, and social responsibilities, research participants arranged to find the time and location that best fit their own social living situations.

Time

Time is integrally connected with people’s rhythms of everyday life. It is a dynamic multidimensional condition that intersects culture, learning, and virtual spaces. However, participants interpreted concepts of time in many different ways. Menzies (2005: 23) writes,

The standardization of time didn’t just happen as a deterministic

consequence of invention. Rather, being on time - standardized clock time, that is - took hold because it fit with the general constellation of developments that came to be known as modernity. These ranged from ideas, techniques and technologies associated with modern science to the ideals of efficiency and rationality. These, in turn, harmonized with and jelled into a philosophy of progress as expansion, speed and material wealth, not just for nation states but for nations defined as aggregates of individuals free to maximize their upward mobility year after year. Physicist Isaac Newton's notions of time, as both separate from space and a measure of motion or duration, lent legitimacy and even privileged authority to the clock. Similarly, the clock helped to advance new sciences such as it offered a medium for managing abstract laws like supply and demand through production and delivery plans.

The research participants held different conceptions of how time limited or provided opportunities for them to manage their course studies in a graduate program. To various extents, participants sought ways to manage time by adjusting their cultural conditions so as to optimize their learning. Some employed specific strategies to reduce challenges or overcome difficulties. There have been arguments that online virtual spaces were learning environments that provided equal opportunities for all course members to share their ideas. But in practice, a participant's cultural conditions influenced how, where, and when he/she could use virtual spaces. For example, those who did not have fluent English language proficiency struggled to read the assignments and make sense of the learning tasks. In the discussion forums, they also struggled to compose

their written contributions, read peer contributions, and respond to peers and the instructors. Their participation and communication were also more often perceived as less valuable, and more often than not their postings were ignored or received very few responses. For most people, we assume, time is an obvious condition of culture, learning, and virtual spaces. But its importance should not be minimized in this context since it is so "harmonized with and jelled into a philosophy of progress as expansion, speed and material wealth" (Menzies, 2005: 23). Harvey (1996: 298) argues that, with the compression of time and space, "The central value system . . . is dematerialized and shifting, time horizons are collapsing, and it is hard to tell exactly what space we are in when it comes to assessing causes and effects, meanings or values."

The production and use of online digital technologies in education generally have produced a compression of time and space. In other words, the pace of life sometimes seems to collapse inwards upon itself, because these information and communication technologies appear to make it so easy to overcome tremendous geographic spatial barriers (Harvey, 1996). For example, those who lived in Canada enjoyed the presence of other people while using the synchronous virtual chat and felt it offered a feeling of community. But Masahiro, who resided in Japan, saw the seventeen-hour time zone difference as a major obstacle that excluded him completely from attending chat sessions. Yet the general perception of the research participants was that the virtual space provided an equalizing learning environment for all course members. We cannot help but agree with Menzies (2005: 1-2) when she stated, "With e-mail, cellphones and the Internet, staying in touch, staying involved, dropping in to check something out, to make new deals, is suddenly so conveniently at one's

fingertips. Yet all this contact can quickly be fragmented, becoming mere moments of connection, bits of involvement here, there, and everywhere, leaving us with only a vague sense of coherence.” An important future research objective will be how the compression of time and space influences one’s preferred learning practices and conditions of culture within virtual spaces.

Flexibility and Control

While virtual spaces provided research participants the flexibility to adjust their family, work, and social schedules in order to meet academic and professional interests and values, most (eight out of twelve) of the research participants indicated that they wanted more control over when, where and how they participated in an online course in order to manage their changing cultural conditions and in relationship to the ways that they preferred to learn. Agnes stated, “The biggest challenge is just finding the time to study. There’s always a time issue with a family.” Pree pointed out, “Working full-time and taking two courses each term have been really challenging and I just want to finish the program as soon as possible.” Participants wanted flexibility and control over their learning situation primarily to maintain their family and social relationships. These were some of the most frequently cited conditions during interviews that affected participants’ online learning. Their commitment to earning a graduate degree took a lot of time away from their family obligations and responsibilities. These commitments extend beyond some participants’ immediate children or spouses to parents and even grandparents. Receiving the understanding and support of family members provided some participants with the much-needed support for them to focus on their learning. Some research participants did not only receive support from

their families, but they also involved their children in their online learning process. Wendy believed her studies could also be mutually beneficial academically and emotionally for both herself and her children.

Convenience

Some participants chose certain ways to learn because it was more convenient or efficient given their living situations. They also selected communication methods (i.e., chat, discussion forum) and certain people to talk with about assignments based on the ease of learning something new or being able to access them at a particular time. Some participants chose to print the course materials rather than read them on the computer screen. This provided them a means to read the text anywhere and anytime rather than having to be connected to the Internet. Some participants believed they studied more efficiently in the morning, while others chose to work late at night. A few participants found it difficult to schedule any quiet time while their families were awake. Although it was not their preferred time, these people studied late at night, which was the only time available.

Personal and Social Interests

Some participants’ preferred learning practices were related to their personal and social interests. There were those who called themselves “experiential learners” who enjoyed solving problems (e.g., using software package they had never used before) by themselves before they communicated with peers or before asking for help. One participant called herself a “morning person”. She completed her online learning tasks in the early morning when she was better able to concentrate. This individual did not have family obligations or commitments (i.e., taking care of small

children) so she was able to go to bed or rise early or late if she preferred.

For this research, the male and female sample size was too small to be significant in relationship to gender. However, it is interesting to note that some male participants suggested that more formats of multimedia should be used for the course content delivery, and there should be more virtual spaces available for student-to-student communications, while some female participants stated that they were overwhelmed with too many virtual spaces employed in the course. Cathy expressed that one of the biggest challenges for her was that there were too many forms of communication used in the course.

Previous Educational Experiences

Previous educational experiences often influenced how participants engaged in certain preferred learning practices. Those who had positive experiences in socializing online tended to be more interested in using virtual spaces than those who had not used them much or had not found them useful for their learning. Both Ping and Masahiro had negative attitudes toward using the socializing/mingling communication area because it was not closely related to the course content they wanted to learn, but their perspectives of the importance of such a space differed. Ping had studied for her first Master's degree in a face-to-face setting, and she felt a closer relationship to peers in that venue. She was not accustomed to socializing online and thought that a learning space was not a social space. Masahiro said the socializing space was important even though he did not make much use of it. He preferred to use anonymous postings because he was afraid that his postings might sound "stupid". Masahiro lacked confidence and did not feel comfortable sharing his

personal life with his peers. Both Masahiro and Ping also stated that in their previous educational experiences if they agreed with a peer's opinion they were not motivated to respond. Both were also reluctant to argue with peers in a public forum if they did not agree with somebody's opinion. Biesenbach-Lucas (2003: 37) observed that "non-native speakers, particularly students from Asian countries, consider it far less appropriate to challenge and criticize ideas, and in addition, they may not know how to express disagreement appropriately in English." This research supports Biesenbach-Lucas' assertion.

English Language Proficiency

English language proficiency was one of the most important cultural conditions related to the participants' learning practices. Those who were not very confident of their English proficiency preferred to read others' postings first, instead of initiating a message about the assigned readings. Some would have somebody proofread their drafts before they were posted on the bulletin board. For example, as Masahiro believed he was a slow reader and usually read short postings in the discussion forum to save time. But in order to communicate, one of the strategies he used was to write a long response to one or more postings from others and ask someone (wife or colleague) to proofread the draft before he posted it. While some research participants would skip or postpone the reading of poorly-written posts, those who had experiences living or working with non-native English speakers were more understanding or flexible. Synchronous chat sessions provided opportunities for participants to share their opinions in real time. But some non-native English speakers expressed their preference for using the asynchronous discussion forums as it gave them more time to think about the discussion topics or to figure

out the meaning of others' postings. This virtual space was preferred because of the convenience it provided to the participants and the control to manage their represented identity. The fact that non-native English speakers were less active in synchronous and asynchronous virtual spaces suggests that language proficiency affected their participation and communication in course discussions. Language limited opportunities for them to fully engage in the VES. If virtual spaces use only the language of the host institution then these learning environments will remain unequal for all participants. The democratic dimensions of virtual spaces, learning, and culture will be an objective of future research.

Guided by social constructivist learning theories, this online course included collaborative assignments that required participants to work in small groups of three or four and engage in discussions on more than one project. Although participants acknowledged the importance of collaborative learning during the research interviews, some participants, especially non-native English speakers, did not participate in topic discussions as actively as their native English-speaking peers. We believe that the formers' communication and learning practices were conditioned by their previous educational experiences and English language proficiency. Personal interests might be an explanation for some participants' passive participation, but for non-native English speakers the degree of their activity was based on their language proficiency and ability to control their communication practices in the VES.

Research participants with different cultural conditions perceived collaborative learning differently. The participants who had limited North American educational experiences tended to think that other course

member were more knowledgeable. This belief inhibited their confidence to freely express their thoughts. There was a tendency that these participants were unwilling to engage in virtual spaces and negotiate course issues with other group members.

CONCLUSION

Participation and communication in this online graduate course was affected by participants' cultural conditions. In regard of using the virtual spaces, time and workload were among the most commonly mentioned cultural attributes that challenged the research participants' daily living situations, because the time needed to participate and communicate was much heavier than they expected.

Online virtual spaces incorporated various kinds of multimedia, but more choices were also restricting when the course participants were trying to manage their studies in the context of very busy life obligations and responsibilities. Synchronous communication was not very useful for participants in different time zones. They generally perceived their chat session experiences as being of low value for learning. The bandwidth demanding multimedia also put those who had a slow Internet connection at a disadvantage position. The development and distribution of media did not address both broadband and narrowband connections. On the other hand, providing course members with the choice of studying in their native language would be a welcome change.

In order to strengthen the social interactions among the course members, the VES need to be monitored by the instructors to ensure that all participants have an equal opportunity for learning. Course members

should be informed as to the purpose of particular communication practices in order to strengthen their participation and respect their interest in learning.

This research generally indicated that the VES were contested educational landscapes. Virtual spaces are connected to real life cultural conditions of the enrolled course members. Some research participants were reluctant to engage in course discussions because they were not sure what they could contribute. They were not from North America and lacked certain background knowledge. They understood that their online communications partially represented and misrepresented who they were. One research participant in particular was afraid that his peers and the instructors would perceive him as “stupid” based on his English language proficiency. The course members with strong English language proficiencies tended to dominate the discussion forums. Knowing that an online course can enroll members from different parts of the world with different educational life experiences, course designers and instructors have a responsibility to develop course content and mediate virtual spaces to accommodate the cultural conditions of these diverse populations.

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- ⁱ These are pseudonyms used to protect the research participants' identity.