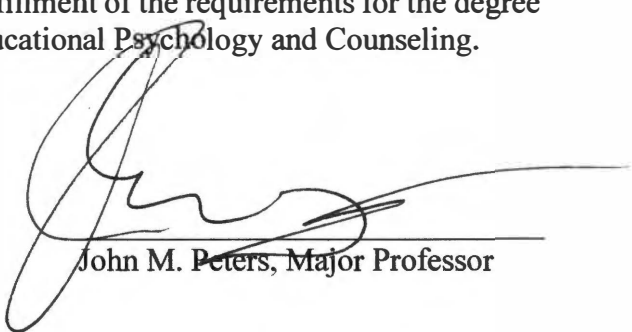


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I am submitting herewith a dissertation written by Gina Phipps Roberts entitled "The Experience of Participants in an Online Collaborative Learning Environment." I have examined the final paper copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Psychology and Counseling.



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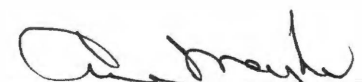
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THE EXPERIENCE OF PARTICIPANTS IN AN ONLINE COLLABORATIVE
LEARNING ENVIRONMENT

A Dissertation
Presented for the
Doctor of Education Degree

The University of Tennessee

Gina Phipps Roberts
May 2005

Thesis
2005b
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DEDICATION

This dissertation is dedicated to my parents, Eddie and Delores Phipps, whose unconditional love and unwavering support has always made me feel as if anything is possible!

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This has been a very long, yet extremely rewarding journey. I am most grateful to those who supported me along the way.

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ABSTRACT

This study explored the experience of participants in an online collaborative learning environment, including the experience of the technical facilitator. The study was conducted from an action research perspective using Peters' (1997, 2002) DATA-DATA model and a qualitative case study methodology.

Data were collected through participant interviews, document analysis, and participant observation. The inductive analysis model of Hatch (2002) was employed to reveal five themes that describe participants' experience of the online collaborative learning environment: establishing a comfortable environment, perceptions of other participants, participating in collaborative learning, making sense of the experience, and learning outcomes.

The experience of the participants and the facilitator, along with related literature in the areas of collaborative learning and online learning, were informative with respect to how the elements of collaborative learning are experienced online and ways in which the facilitation of online collaborative learning may be improved to enhance the collaborative learning process.

PREFACE

In the pages that follow I present the results of an action research study that I conducted in order to improve my practice as an instructional technologist. The study focused on my role as a participant in and technical facilitator of a blended face-to-face/online course in which participants engaged in collaborative learning in order to construct knowledge about collaborative learning. Using qualitative methodology, I explored what the experience of online collaborative learning was like for participants, including my own role as participant-facilitator. I also sought to describe and understand how collaborative learning occurs in an online environment.

I conducted my study using Peters' (1997, 2002) DATA-DATA model of action research. The DATA-DATA model consists of one or more cycles of the following: **Describe, Analyze, Theorize, Act - Design, Analyze, Theorize, Act**. The eight phases of DATA-DATA are described below:

1. **Describe:** The researcher describes an area of practice that needs improvement – or an area in which she wants to try something new - and the situation in which the practice occurs.
2. **Analyze:** The researcher identifies and examines her assumptions that have contributed to the present area of concern or interest and the reason for the concern or interest.
3. **Theorize:** The researcher constructs a practical theory about how to make a change in practice in the area of interest or concern.
4. **Act:** The researcher decides how to put her practical theory into action.

5. **Design:** The researcher identifies what she wishes to know about the implementation of her practical theory and selects and enacts the procedures for collecting and analyzing data.
6. **Analyze:** The researcher analyzes and reflects on the data collected.
7. **Theorize:** The researcher interprets the findings in terms of her practical theory as well as relevant research of others.
8. **Act:** The researcher modifies her practice based on what is learned and decides whether or not to cycle through DATA-DATA again (Peters, 2002).

I also used the model as a framework to present the results of my study. In Chapter One I describe the process that I followed in order to generate a practical theory about how I might assist with the facilitation of collaborative learning in an online environment. This chapter corresponds to the first three phases of DATA-DATA – Describe, Analyze, and Theorize. Chapter Two includes a description of my practical theory in action and corresponds to the fourth phase of DATA-DATA - Act. Chapter Three contains a description of my research methodology I used to study my practical theory in action and corresponds to the fifth phase of DATA –DATA- Design. In Chapter Four I describe the findings of my study in terms of themes and sub-themes in the data I collected. Chapter Four corresponds to the sixth phase of DATA –DATA- Analyze. In Chapter Five I continue with the sixth phase of DATA –DATA- Analyze as I discuss each theme and link the themes to related literature. In Chapter Six I reflect on the results of my study in terms of my practical theory and reflect on my research process. This chapter corresponds to the last two phases of DATA-DATA – Theorize and Act.

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION TO THE STUDY	1
DATA-DATA: DESCRIBE.....	1
My Practice	1
Collaborative Learning.....	3
A New Area of Interest in My Practice – Online Collaborative Learning.....	6
Our Online Collaborative Learning Course	6
DATA-DATA: ANALYZE.....	8
Assumptions about Facilitating Online Collaborative Learning.....	9
Reflections on the Elements of Collaborative Learning	11
DATA-DATA: THEORIZE.....	12
Sense of Place.....	13
Dialogical Space.....	15
 CHAPTER TWO: PARTICIPATING IN ONLINE COLLABORATIVE LEARNING: A PARTICIPANT FACILITATOR’S EXPERIENCE	 18
DATA-DATA: ACT.....	18
Course Planning	18
Course Implementation	19
 CHAPTER THREE: DESIGN OF THE STUDY	 28
DATA-DATA: DESIGN	28
Purpose.....	28
Method	28
Participants.....	30
Data Collection.....	30
Data Analysis	34
A Note about Study Participants	42
 CHAPTER FOUR: PRESENTATION OF FINDINGS.....	 43
DATA-DATA: ANALYZE.....	43
Theme One: Establishing a Comfortable Environment	43
Theme Two: Perceptions of Other Participants	51
Theme Three: Participating in Collaborative Learning.....	56
Theme Four: Making Sense of the Experience	66
Theme Five: Learning Outcomes.....	75
 CHAPTER FIVE: DISCUSSION OF FINDINGS.....	 82
DATA-DATA: ANALYZE (continued)	82
Summary of Findings.....	82
Related Research in Online Learning.....	83
Related Research in Collaborative Learning.....	95
Reflections on Findings.....	100

CHAPTER SIX: REFLECTIONS AND RECOMMENDATIONS	107
DATA-DATA: THEORIZE.....	108
Reflections on My Practical Theory.....	108
Reflections on the Remaining Elements of Collaborative Learning.....	112
Reflections on the Three Types of Teaching and Learning	115
Reflections on Research Methodology	116
DATA-DATA: ACT.....	117
Future Implementation of My Revised Practical Theory.....	117
Recommendations for Future Research	123
Closing Reflection.....	123
REFERENCES.....	125
APPENDICES	135
Appendix A: UT Course Syllabus.....	136
Appendix B: RMIT Course Syllabus.....	140
Appendix C: Images of the Course Site	143
Appendix D: Participant Handouts	145
Appendix E: Participant Consent Form	149
Appendix F: UT Participant Interview Guide	151
VITA.....	154

LIST OF TABLES

3.1 Study Participants.....	31
3.2 Spradley's Semantic Relationships	36
3.3 Domain Example.....	37
5.1 Connection of Dimensions of Social Presence to Factors that Affected Participants' Comfort Level in Our Online Learning Environment	94
6.1 Relationship of Inherently Higher Social Presence Features to Cost and Technical Sophistication of Communication Tools for Online Dialogue.....	119

CHAPTER ONE

INTRODUCTION TO THE STUDY

DATA-DATA: DESCRIBE

In this section I describe my practice and the area of interest in my practice that I chose to explore.

My Practice

“Instructional Technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning” (Seels & Richey, 1994, p. 1). Learning resources include people and materials such as books, audio-visual materials, telecommunications devices, and computers. Although the instructional technology process has been applied to teaching and learning for several decades, the increasing availability and ease of use of computing and Internet resources since the mid to late 1980s has led to a greater focus on application of these two technologies to teaching and learning.

Even though those of us who call ourselves instructional technologists are often thought of as the technical experts in educational settings, we are first and foremost concerned with teaching and learning. Although we may design learning experiences that use technology for the delivery of instruction and/or consist of technology-based learning materials, the technology is not the first consideration. The emphasis is on understanding learners and their needs and incorporating technology into teaching and learning in ways that meet those needs.

For over ten years I have worked as an instructional technologist with faculty members in higher education settings. In addition to consulting with faculty members on the instructional design process, my responsibilities have included conducting workshops on educational uses of hardware and software, planning technology-enhanced classrooms, managing faculty multimedia development centers, and administering specialized software for Web-enhanced courses and online courses.

In my work with faculty, I often refer to two publications that I consider foundational with respect to integrating technology into their teaching practice. One of these is Kozma and Johnston's (1991) discussion of ways in which technology can support learning. The other is Chickering and Erhmann's (1994) work on using technology in ways that are consistent with what Chickering and Gamson (1987) call the Seven Principles for Good Practice in Undergraduate Education. Each work emphasizes the importance of using technology in ways that support communication and collaboration among students and faculty members.

Several years ago the faculty with whom I worked began showing interest in how asynchronous communication tools such as email, listservs, and discussion boards and synchronous communication tools such as chat systems and shared whiteboards might augment face-to-face communication. They were beginning to realize that Internet-based communication tools might enable them to extend classroom time, as well as enable students who rarely participated in class discussion to engage with other students. What stood out for me is that such expressions of interest in technology came from faculty members who did not usually embrace the use of technology. Faculty who previously

seemed to have no interest in instructional applications of technology were using Internet-based communication tools to connect with students and to enable students to connect with one another. There seemed to be something significant for them in terms of the relational aspect of using these tools. This suggested a conceptual tie to collaborative learning, a process where relationship among participants plays a key role (McNamee & Gergen, 1999). Spurred by this interest on the part of the faculty with whom I worked, I also became interested in collaborative learning and my interest led to my enrollment in the doctoral program in Collaborative Learning at the University of Tennessee.

Collaborative Learning

Through my studies in the program I came to understand collaborative learning as a relational process that involves all participants, teachers and students, in meaning-making and knowledge creation (Peters & Armstrong, 1998). This represents a change in how the relationship between teacher and student is generally understood. Traditionally a teacher is viewed as the one who possesses special knowledge and is expected to transmit knowledge to students. In collaborative learning the teacher and students alike are respected for their knowledge and experience that they bring into a learning situation. The teacher takes on the role of facilitator and co-learner. Collaborative learning also requires a change in the role of students, who move from being passive listeners to active participants in the learning process and often share the role of facilitator with the teacher and other students.

Dialogue is the primary mode of discourse in collaborative learning. When engaged in dialogue, learners focus on making a space for all to participate in which they seek to understand one another (Peters & Armstrong, 1998). According to Isaacs (1999), the “intention of dialogue is to reach new understanding and, in doing so, to form a totally new basis from which to think and act” (p. 19). It is this intention and the process that accompanies it that helps makes collaborative learning possible.

In addition to practicing dialogue, collaborative learners focus not only on what they are learning, or co-creating, but on how they are learning. As Peters and Armstrong (1998) point out, it is essential that “we learn how we are learning, and that in turn helps shape our relationships, and the relationships shape what we are learning” (p. 26).

In order to contrast collaborative learning with other forms of teaching and learning it is useful to place it within the context of three types of teaching and learning as outlined by Peters and Armstrong (1998). The three types of teaching and learning can be differentiated by the nature of the relationships between teachers and learners in each type. Type I teaching and learning is “teaching by transmission, learning by reception” (Peters & Armstrong, 1998). In a Type I setting the teacher determines what learners will learn and how they will learn. Communication is typically from teacher to learner and lecturing is a typical mode of information transmission.

Peters and Armstrong (1998) define Type II teaching and learning as “teaching by transmission, learning by sharing” (p. 79). In a Type II environment the teacher still determines what learners will learn, but learners are, in some cases, able to learn together. Communication is typically from teacher to learner and among learners. One of the most

common modes of teaching and learning in Type II is lecture followed by discussion.

Type Three teaching and learning is collaborative learning, in which the teacher becomes a co-learner with students. After some initial direction from the teacher all learners, including the teacher, jointly determine what is to be learned and how. Communication is from “learner to learner, learner to group, and group to learner” (Peters & Armstrong, 1998, p. 79). While the focus in Type I and Type II teaching and learning is on individual learning, the focus in Type III is on individual and group learning.

Even though my initial interest focused on the technical perspective, I quickly began to embrace the teaching and learning perspective of collaborative learning. Over the course of my studies, I developed an immense appreciation for the potential of teachers and students coming together as co-learners to construct something that cannot be produced individually. My experience reshaped my ideas about teaching and learning, the nature of knowledge, and the process of knowledge creation. I saw the role of teacher as that of a facilitator whose responsibility it was to foster learning environments in which learners and the teacher could construct their own individual and group knowledge. I saw kinds of knowledge and ways of knowing in ways other than strictly *knowledge about*, i.e. knowledge about facts, concepts, and theories. I understood the importance that reflection plays in learning and being in the world and that what we accept as knowledge is socially constructed in our dialogic relationships with one another. I recognized the importance of relationship among learners and favored

cultivating those relationships to bring about knowledge and ways of knowing that are practical for learners in their professional and personal lives.

A New Area of Interest in My Practice – Online Collaborative Learning

Collaborative learning as described above, and as I had experienced it, was typically practiced in a face-to-face environment. However, based on my experiences with faculty, I knew there were those who were interested in using Internet-based communication tools to extend the reach of collaborative learning from a classroom setting into an online learning environment. This would enable learners who meet in a classroom to continue to learn together and allow learners who do not meet face-to-face to be able to learn together. I assumed that as I learned more about online collaborative learning I would be better equipped to support the faculty who were offering totally online courses as well as those who were supplementing face-to-face courses with the use of Internet-based communication tools. In order to learn more about facilitating online collaborative learning, however, I needed an opportunity in which to practice online collaborative learning.

Our Online Collaborative Learning Course

In the summer of 2000 the coordinator of the University of Tennessee Collaborative Learning program decided to conduct a blended online/face-to-face course as a way to enable students in the program to interact with national and international scholars of social construction who would not have been able to come to campus for an

extended period of time. The course, *Social Construction and Applied Phenomenology*, (See **Appendix A** for a copy of the UT course syllabus) was funded by a grant from the University of Tennessee's Council for Intellectual and Cultural Expression (ICE) during fall 2000 and scheduled for spring 2001. The grant funding provided stipends for each of four Virtual Visiting Scholars. The plan was for each Visiting Scholar to participate in dialogue with the rest of the participants for one week of the course. The dialogue would begin with participant responses to readings that the Visiting Scholars recommended in advance.

Approximately twenty UT participants, most of whom were doctoral students in the Collaborative Learning program, would be enrolled in the course. In order to expand the boundaries of the program, the coordinator invited twenty-one faculty members and students from the Royal Melbourne Institute of Technology in Australia to participate as well. Most of the RMIT participants were to be enrolled in a for-credit course, *Advanced Research Methods*, at the RMIT campus (See **Appendix B** for a copy of the RMIT course syllabus). Also invited were twenty-two guest faculty from the UT Educational Psychology Department, other departments within the College of Education, other Colleges on the UT campus, and higher education institutions around the nation.

A Web-based and password-protected course management system, Blackboard CourseInfo (now Blackboard Learning System), was chosen as the online learning environment that would house readings provided by the Virtual Visiting Scholars as well as a discussion board where dialogue among all participants would take place.

CourseInfo was free for use by those participating in UT courses and was administrated by UT's Innovative Technology Center (ITC) as part of the Online@UT initiative.

I was not involved in the initial course planning, but because of my interest in facilitating online collaborative learning, in December 2000 I approached the course coordinator about participating in the course. At that time he shared with me the goal of the course and the planning that had taken place thus far. I enrolled in the course as a student and assumed the role of principal technical facilitator of the online portions of the course.

Because the Virtual Visiting Scholars were going to be joining us for the online portions of the course to present and discuss their theories related to social construction, I knew that Type I and Type II teaching and learning would be taking place online. I also knew that because this course was part of the Collaborative Learning program and the majority of the UT participants were collaborative learning scholars that there would be a focus on moving into Type III, collaborative learning, where all participants were able to jointly construct knowledge. In my role as technical facilitator I would be supporting all three types of teaching and learning.

DATA-DATA: ANALYZE

In this section I examine my assumptions about facilitating online collaborative learning.

Assumptions about Facilitating Online Collaborative Learning

Based on my previous experience with online learning, I felt competent to assist with the technical facilitation of type I and II teaching and learning in the online portions of our collaborative learning course. I was unsure however about how to assist with the facilitation of type III, collaborative learning. I assumed that our course coordinator would take the lead in facilitating collaborative learning in terms of the four, interconnected elements of collaborative learning developed by Peters (2002b): dialogical space, multiple ways of knowing, cycles of action and reflection, and focus on construction. I decided to consider how I could contribute in terms of these elements, which I outline below.

A *Dialogical Space* is an environment in which learners understand one another's meanings. As the essential mode of discourse employed by participants in a collaborative learning experience, use of dialogue is the means by which each participant seeks a rich description of the other participants' meanings, and, on the basis of these descriptions, they seek understanding of the actions and reflections of others. In addition to understanding one another, a dialogical space is also an environment in which participants show respect for one another and develop trust in each other. In a collaborative learning setting dialogical space is established and maintained using approaches such as open-ended questions, writing and sharing critical incidents and biographies.

The element *Multiple Ways of Knowing* recognizes that there is more the one way of knowing involved in most learning experiences. However, in collaborative learning

participants make multiple ways of knowing a part of their focus. There are several ways of characterizing the ways in which people know. For example, Shotter (1993) identified three ways: (1) *Knowing that*, or formal knowledge such as theory and facts; (2) *Knowing how*, or practical knowledge such as having skill; and (3) *Knowing from within*, or a “way of being that a group creates for itself and one that individual members act into and from as they develop ways to go on together” (J.M. Peters, personal communication, February 22, 2005).

Reason and Heron (2000) cite four ways of knowing: (1) Propositional Knowing “is knowing in conceptual terms; knowledge by description of some energy, entity, person, place, process or thing” (p. 183). Propositional Knowing is analogous to Shotter’s *knowing that*. Knowing about the theory of social construction is an example of propositional knowing. Reason and Heron describe (2) Practical Knowing as “knowing how to do something, demonstrated in a skill or competence” (p. 183). Practical Knowing is analogous to Shotter’s *knowing how*. Knowing how to post a message to an online discussion board is an example of practical knowing. Additionally, Reason and Heron describe (3) Experiential Knowing as a face-to-face encounter that involves “feeling and imaging the presence of some energy, entity, person, place, process or thing” (p. 183) and (4) Presentational Knowing as grounded in experiential knowing; “it clothes our encounter with the world in the metaphors and analogies of aesthetic creation” (p. 183). Because Experiential and Presentational Knowing are based on experience these two ways of knowing are similar to Shotter’s *knowing from within*. However, in *knowing from within*, experience is related more specifically to the experience of persons in

relationship with one another. The way participants construct together and interact with one another in an online collaborative learning environment is an example of *knowing from within*.

Cycles of Action and Reflection occur when learners act by participating in dialogue and reflect on their actions and the actions of others. In collaborative learning, what people say about their own actions and the actions of other participants serves as a basis for their joint action and meaning making (Peters & Armstrong, 1998). These actions may be prior to the collaborative learning experience, or they may be a part of the collaborative learning experience itself. A facilitator can encourage reflection in a collaborative learning environment by pausing the learning process from time to time to check with participants about what the process is like for them at present.

A Focus on Construction means that learners are intentionally seeking to co-construct new knowledge. This co-construction is something other than and more than individual learners can create on their own (Peters & Armstrong, 1998). In a collaborative learning environment, participants attempt to focus on what they are constructing and how they are constructing it.

Reflections on the Elements of Collaborative Learning

As I considered the elements of collaborative learning, I realized that a dialogical space needed to be established in order to enable participants to more fully engage in multiple ways of knowing and cycles of action and reflection, even as they maintain a focus on construction. There is a sense of safety in a dialogical space that enables

participants to reflect on their actions, to share those reflections with others, and to focus on what the group is constructing as well as on their individual constructions. I wondered if contributing to the formation and maintenance of dialogical space in our online learning environment should be my goal as technical facilitator. I considered how I might go about assisting with the facilitation of such a dialogical space.

DATA-DATA: THEORIZE

In this section I describe the practical theory I developed for dealing with my need to help facilitate online collaborative learning.

As I developed my practical theory of facilitating dialogical space I consulted related reports of research and descriptions of practice in collaborative learning. For example, in her research on dialogue in a family business, Tisue (1999) cited two purposes of facilitation. One is creating a safe environment from a physical perspective and the other is creating a safe environment from an emotional perspective. This finding was later corroborated by Osborne (2003) in her study of collaborative learning in a community development context. Creating a safe environment from a physical perspective usually means choosing and setting up a place to learn which is comfortable and private. Fazio's (2003) and Muth's (2004) similar findings show that facilitation of collaborative learning involves creating a collaborative place. Creating a safe environment from an emotional perspective entails modeling behaviors for a group such as treating participants with respect, listening, asking questions, soliciting and considering everyone's thoughts, sharing information with all involved (Osborne, 2003;

Naujock, 2002), and focusing on the needs of the group (Brickey, 2001). Creating a safe environment from an emotional perspective is similar to what I described earlier as establishing a dialogical space. Since creating a safe environment from a physical perspective or a collaborative place has been found to be significant in collaborative learning settings I decided to focus on this aspect of collaborative learning as well and refer to it as sense of place. Below I outline the two components of my practical theory: sense of place and dialogical space.

Sense of Place

In face-to-face collaborative learning settings, learners attempt to meet in a location and interact in ways that help them to feel at ease. For example, this may mean sitting in a circle and sharing a meal (Fazio, 2003). It can also mean meeting in a setting that is conveniently located, comfortable, and quiet. It is the physical configuration of the setting along with the interaction of learners within the setting which help enable the creation of a sense of place. A meeting location becomes more than a physical place as learners attach meaning to their experience of the location (Tuan, 1977). Such a sense of place can represent acceptance, safety, and comfort (Fazio, 2003).

When considering how a sense of place might be facilitated online I first considered what sense of place might be like for learners. I assumed that a place would be private (password protected), and that learners who committed to being a part of the group would be able to easily access and navigate within the place and communicate with one another. I envisioned it as a place that learners would look forward to visiting and

that simply the act of seeing the name of another learner and knowing that the learner was also *in* the place would engender a feeling of comfort.

Based on my understanding of place, I believed that our sense of place would also be formed based on the interplay of factors related to the technical configuration of the online learning environment itself and our relationships within the environment. In order to facilitate establishment of a sense of place as technical facilitator, I saw my role as helping participants feel at ease with the technical aspects of our online learning environment. I determine that it was important for me to configure the environment in such a way that it was easy for participants to access the environment, navigate within it, and use available communication tools (the discussion board in particular). I also decided that it would be necessary for me to provide support for participants by showing them how to make their way in the environment and being available to them throughout the online portions of our collaborative learning course if they encountered difficulties.

The reason I approached place in this manner was based on my belief that if participants were comfortable with the online learning environment that we used and knew that support was available if they had difficulties that they would be more likely to see our online collaborative learning environment as welcoming and friendly. I also believed that this would enable participants to focus their energies on building relationships with one another as opposed to seeing interacting with one another via technology as a chore. If participants could focus on relationships instead of technology they would more likely be able to see our online learning environment as a comfortable

place. I assumed that once participants experienced a sense of place that they would be more ready and willing to move into a dialogical space.

Dialogical Space

A dialogical space is similar to Isaacs' (1999) description of a container which holds four phases (or fields) of dialogue: In Field I (instability of the field) there is politeness in the container as participants interact based on the rules they have always followed; in Field II (instability in the field) there is a breakdown in the container as participants begin to say what they think; in Field III (inquiry in the field) reflective dialogue occurs as participants explore their assumptions and begin to make connections; and in Field IV (creativity in the field) generative dialogue occurs as participants experience a collective flow and are "participating in this pool of common meaning which is capable of constant development and change" (Bohm as quoted by Isaacs, 1999, p. 285). By the time they reach the fourth phase (or field) of generative dialogue participants are able to create something new together. I interpreted reaching Isaac's fourth phase of generative dialogue as somewhat analogous to the formation of a dialogical space in collaborative learning.

The process of creating a dialogical space requires a significant time commitment on the part of participants as they move through each of the dialogical fields. Recent studies of face-to-face collaborative learning (Alderton, 2000; Armstrong, 1999; Crosse, 2000; Naujock, 2002; Tisue, 1999) speak to the importance of time and the significant

amount of time it takes to establish an environment conducive to the creation of a dialogical space.

A dialogical space is an environment that fosters a kind of sensitivity on the part of participants. Over time, participants increasingly express openness to others, lack of defensiveness, and a willingness to explore possible new constructions. There seems to be less consciousness of self and the words spoken by participants tend to be more about connecting with one another than promoting their individual points of view. This connectedness is indicated not only by the words that participants use but by visual and verbal cues such as tone of voice, eye contact, and body posture.

In an online environment, where physical cues are absent, the way in which learners use words becomes all the more important. While in a face-to-face environment learners can communicate without words, in an online environment words are necessary and their use or lack of use may cause misunderstanding. Because communication is restricted to use of words it might take even more time than in a face-to-face environment for learners to form relationships conducive to developing a dialogical space.

While providing a location and time for online dialogue around course concepts is necessary it is not sufficient. As facilitator, I also need to provide participants with opportunities to get to know one another prior to and during the official course dialogues. I would also need to focus on helping participants to find ways to understand one another using a text-only means of communication. For example, as a participant in the online dialogues and as technical facilitator, I could be one of the first participants

communicating with others in our online learning environment. I would then need to be particularly mindful of my use of words, and to pay close attention to others' talk.

By focusing my technical facilitation efforts on the development of a sense of place and a dialogical space, I speculated that I could assist our course coordinator with the facilitation of a dialogical space, along with the other elements of collaborative learning. I anticipated that this would lead to an online collaborative learning environment in which participants would be able to participate in joint construction of individual and group knowledge.

In this chapter I described the process that I employed in order to generate a practical theory of facilitating of a sense of place and a dialogical space in our online collaborative learning environment. In Chapter Two I summarize how I put my practical theory into action.

CHAPTER TWO

PARTICIPATING IN ONLINE COLLABORATIVE LEARNING: A PARTICIPANT/FACILITATOR'S PERSPECTIVE

DATA-DATA: ACT

This section describes the process of putting my practical theory into action.

With my practical theory in mind, I participated in the planning and implementation phases of the online portions of our collaborative learning course as technical facilitator. I also participated in dialogue as a student in both online and face-to-face activities.

Course Planning

My approach to planning was similar to the way I helped plan other courses in which I had played a technical facilitator role. The course coordinator worked directly with the Virtual Visiting Scholars and the lead faculty member at RMIT to confirm dates and content related details while I configured each area within the CourseInfo learning environment. I ensured that the tools we would use in the *Communication* area such as the student roster, student home pages, email, and the discussion board were properly enabled. The course coordinator's graduate assistant and I posted general course information in the *Course Information* area and uploaded copies of the Virtual Visiting Scholars' papers into the *Course Documents* area. We also worked with the staff of UT's Innovative Technology Center to acquire usernames and passwords for non-UT participants so that they could gain access to the CourseInfo system. During this time I

developed written instructions for accessing the online learning environment and working with the discussion board tool. Finally I created a graphical banner that contained photos of the Virtual Visiting Scholars and the course coordinator. I uploaded the banner in the *Announcements* area of the course site, the first area participants encountered when logging on to the online learning environment (see **Appendix C** for two images of the course site).

Course Implementation

Getting Started with UT Participants

During the first meeting of the face-to-face course in January, I led a session on how to access the CourseInfo system, how to navigate within the environment, and how to post to the discussion board. I explained that the discussion board would consist of several forums and that within each forum participants would be able to start a new conversation by creating a thread and posting an initial message or participate in an existing conversation by posting a reply within an existing thread. I gave the UT participants handouts with directions for accessing the online learning environment (see **Appendix D** for copies of participant handouts used throughout the online portions of the course). I also posted directions in the *Course Information* area of the environment. At the conclusion of the first course meeting I set up a forum within the discussion board, called *The Cyber Café*, for the UT participants to use for dialogue outside of class.

Early Attempts to Build Community

From the start we set up the online learning environment in a way that attempted to portray all participants as co-learners and give them opportunities to get to know each other. Even though our initial course banner contained pictures of the Virtual Visiting Scholars, they were not singled out as faculty when course participants were listed in the course roster. All participants, regardless of their part in the course, were listed together as students. As a way to get to know each other, participants were encouraged to create their own simple introductory Web pages, including photos, with the tools that were available within CourseInfo.

In the weeks leading up to the start of online dialogue with the Virtual Visiting Scholars the rest of the participants joined the UT participants in the course one group at a time. The four Scholars were enrolled first, then the twenty-two guest faculty, and finally the twenty-one RMIT participants. Each participant received an email message from our graduate assistant or me that contained instructions for navigating within the online learning environment, posting to the discussion board, and creating her or his personal Web site. This was followed by an email message from UT's Innovative Technology Center that consisted of a hyperlink to the course site and the participant's CourseInfo username and password.

Also, during this time the course coordinator and I worked to divide all participants into teams so that participants could form closer relationships with one another. The small four to five member teams consisted of an equal number of UT and RMIT participants. It was expected that the teams would engage in dialogue, the outcome

of which would be carried back to the larger group. The Virtual Visiting Scholars and the guest faculty who were not expected to participate on a regular basis were not included in the teams. The team configurations were shared with the lead faculty member at RMIT, who made a few adjustments to the composition of the team members from RMIT. I created a forum for each team.

Four days before online dialogue with the Virtual Visiting Scholars began I created a forum called *Getting to Know Each Other*. All participants were encouraged by email and by announcement in the online learning environment to post an introduction and expectations in this forum. From this point on, all communications from me related to the course were sent to the participants via email and posted in the *Announcements* area of the online learning environment. I also archived the UT group's forum and renamed it *The "Old" Cyber Cafe* so that all participants would be starting in the new forums together. The process of archiving a forum closed this forum to new postings, but it remained available so that participants could read past postings.

A couple of days before online dialogue with the Virtual Visiting Scholars began, the course coordinator requested that a few participants from the face-to-face UT group post reactions to the readings which the first Scholar had provided in the *Cyber Cafe* named for him. These reactions would be the starting point for our online dialogue with each Scholar. Reactions were posted throughout the day before the Scholar began interacting with the group.

The online learning environment was made up of twelve forums in the discussion board, *Getting to Know Each Other*, the first *Cyber Café*, and ten forums for team dialogue. Sixty-five participants were listed in the CourseInfo class roster.

Technical Facilitation

My technical facilitation of the course focused on responding to participant questions and occasional pleas for technical help. I also read postings and reacted with a technical solution to what participants said about their technical experience of the course. As an example, early in the course I noticed that UT participants in particular were trying to figure out the local time in Melbourne, Australia. I posted a link in the *Announcements* section of the online learning environment to an International Clock so that participants could quickly check to see the time in other parts of the world. Other participants provided resources to help one another bridge the distance as well. For instance, an RMIT participant posted a link to an Australian slang Web site so that we Americans could interpret the meaning of words our Australian counterparts were using.

Participants also helped each other with technological issues. One RMIT participant posted a message with simple instructions on how to do HTML (hypertext markup language) coding so that others could make words bold and underlined within their postings. The same RMIT participant downloaded, re-scanned, and created an easy to share and read PDF (portable document format) version of one of the Virtual Visiting Scholar's readings that was of poor visual quality. The participant sent the improved PDF to me so that I could upload it back to the course site for all participants to access. One of

the other UT participants was called on to help a Virtual Visiting Scholar who was having difficulty accessing the course site.

As way to continue to get to know each other, the UT participants took digital pictures of each other during one of our class meetings to share with RMIT participants, guest faculty, and Virtual Visiting Scholars. I posted these in the Announcements area of the online course environment along with the photos of the Virtual Visiting Scholars and included a link to a page that contained larger versions of the photos along with names of those in the pictures.

During our first week of online dialogue it quickly became evident that the large number of postings, 109 to be exact, was adversely affecting participants' ability to load the page for the first *Cyber Café* and to see a list of all postings. To alleviate this problem, the course coordinator and I decided that it would be best to archive some of the older threads in the forum. A thread might consist of as little as one posting and as many as 10 or 15 postings. This removed the older threads from the main forum screen so that newer threads might display more quickly. Participants could go into the archive for a forum and read what was there, but they could not post to any of the threads within the archive. This action brought about a negative reaction from some of the participants because they wanted the option of going back and posting to older threads, but seemed to be a necessary trade off in order for current and new threads to be accessible. When deciding what to archive, I selected threads that were not active for at least a week in order to interrupt dialogue as little as possible. I added new forums for each Virtual

Visiting Scholar and continued the process of archiving old threads to make room for new threads.

The course coordinator participated in the online dialogues by posting original messages in the discussion forums and by responding to the postings of others. Toward the end of each Virtual Visiting Scholar's time online, the course coordinator started a new thread requesting that all participants *stop the music* and reflect on the content and process of our conversations during that session. Participants continued to post in the threads in which they were engaging in dialogue, while posting in the *stop the music* thread as well.

Participating in Dialogue

One of the first things that stood out to me during the course was the large volume of postings in the online dialogues. This not only made it difficult for me to access the threads but also to find the time to read all the postings. I logged on to our online learning environment every day, but the only way I was able to keep up was to log on and spend several hours per day. This activity helped me to keep up with the reading, but not necessarily with posting my own comments.

The large volume of postings sometimes made it difficult for me to decide where to focus my attention. I assumed that others were experiencing this as well. I watched as some postings, including my own, did not generate a response from anyone, while other posting sparked a multitude of responses. As I had come to appreciate in my face-to-face experiences, I realized that process is just as important as content in collaborative

learning. I realized that our process of construction would be more important than any one idea that was pushed to the wayside.

I tended to listen more than I talked, or in this case read more than I posted. This is similar to my participation style in face-to-face collaborative learning groups. When I posted I tried to do so in such a way that I contributed to the formation of a dialogical space. I used people's names, sometimes three or four of them, if my posting was in response to a thread involved several people. I attempted to connect what I was posting to previous comments while adding ideas of my own. I always ended postings with a request for response by others.

I felt very connected to the group when I was able to keep up with others' postings and respond and felt very distant from the group when I was not able to keep up with what was going on. Even during the times I felt like a part of the group I wondered if it seemed that way to others. Since I was not participating by posting, did it seem to them as if I did not care about the online dialogues? This was a major part of the experience that stood out for me as indicated in my bracketing interview that I describe in the next chapter.

Participation Patterns

Even though sixty-five participants were listed in the course roster when the online portion of the course began, only half of that number participated in the online dialogues beyond an initial introductory message. Participation patterns are outlined below.

RMIT Participants - By the second week of online dialogues it became evident that we were not going to have as many participants from RMIT as we anticipated. As it turned out, only five RMIT participants posted and only two of those posted on a regular basis. This situation led to many of the team forums becoming completely inactive. Out of ten team forums only two forums had more than an introductory message or two. Only one of the forums had consistent activity. Many of the participants who had been assigned to other team forums found themselves visiting this forum instead.

Guest Faculty - Out of the twenty-two guest faculty who expressed an interest in the course and were enrolled in the online learning environment, only three participated in the online dialogues. Two of the guest faculty also participated in the face-to-face sessions that met weekly.

Virtual Visiting Scholars - Each of the four Virtual Visiting Scholars began participating in the forum dedicated to online dialogue with them on a Monday and contributed to the discussion through the following Friday or Saturday. All Visiting Scholars also returned for the wrap up that I describe below.

UT Participants - All twenty of the face-to-face participants from the UT group participated in the online dialogues. The rate of participation varied from participant to participant.

Wrapping It Up

After the online dialogue with our last Virtual Visiting Scholar ended, I created *The Reflecting Café* as a place for all participants to post their final reflections on their experience with the course. Most participants, including the Virtual Visiting Scholars,

participated by reflecting on their experience. Even though the online portions of the course officially ended a week later, a small group of UT and RMIT participants continued to post in one of the team forums. They expressed sadness that the online learning environment would soon be inaccessible. These participants conversed with one another through the end of the following month.

In this chapter I recounted my experience with the online portions of the collaborative learning course. I described how I acted as technical facilitator, reported what I did as a participant in the online dialogues, and noted what stood out for me during the process. In Chapter Three I describe the research project that I designed in order to study this implementation of my practical theory.

CHAPTER THREE

DESIGN OF THE STUDY

DATA-DATA: DESIGN

In this section I describe the process of formulating my research objective and choosing methods of collecting and analyzing data that would help me achieve the objective.

Purpose

Although my practical theory related to specific aspects of collaborative learning upon which I could have some influence, I decided to learn about participants' experience with the four elements of collaborative learning since the elements of collaborative learning are so closely related. Therefore, I determined that the purpose of my study would be to identify and describe the experiences of participants in an online/face to face collaborative learning course, including my own experience as technical facilitator of the course. I assumed that understanding participants' experience would provide valuable information to me that I could use to revise my practical theory and improve this area of my practice. I also assumed that what I discovered might be useful to other instructional technologists and faculty members as they incorporate collaborative learning into online/face-to-face environments.

Method

I approached this study from an action research perspective. Action research is any form of inquiry into one's practice with the intent of improving it. Action research is

cyclical in nature and can consist of one or more overlapping cycles of planning, acting, observing, and reflecting (Kemmis & McTaggart, 1988). Several aspects of the action research process differentiate it from other research paradigms, including its focus on the practitioner as researcher, reflection as an integral component, and the cyclical nature of the process. Conducting action research gave me the opportunity to reflect upon, theorize about, and formally study an aspect of my professional practice. I designed and conducted my action research project using Peters' (1997, 2002) DATA-DATA model described in the Preface. I completed one cycle of DATA-DATA in the course of this study.

My particular approach to action research involved a qualitative case study methodology. The characteristics of a qualitative study matched well with the purpose of my study. These characteristics include:

- seeking to understand the phenomenon of interest from the participant's perspectives,
- relying on the researcher as the primary instrument for data collection and analysis,
- conducting fieldwork,
- employing a inductive research strategy, and
- developing a product that is richly descriptive (Merriam, 1998).

Since the focus of my study was on the experience of participants in one course that took place for a set amount of time it was also well-suited for a case study approach (Miles & Huberman, 1994; Smith, 1978).

Participants

I asked UT participants, RMIT participants, Virtual Visiting Scholars, and guest faculty who posted at least one time on the online discussion board beyond an initial introductory posting to participate in my study. Thirty-one participants met this criterion and twenty participants agreed to participate (see **Appendix E** for a copy of the Participant Consent Form). Fourteen participants were from UT, four were from RMIT, one was a Virtual Visiting Scholar, and one was a guest faculty member. Within the UT group twelve were students in the Collaborative Learning program. Six of the twelve had been involved in the program for three to four years. The other six were in their second semester in the program. One UT participant was a student in the doctoral program in Adult Education who had taken a course in Reflective Practice that was a requirement for the Collaborative Learning course. The final UT participant was the coordinator of the course and the Collaborative Learning program. Table 3.1 contains a profile of the study participants.

Data Collection

The data collection techniques I used were participant interviews, document analysis, and participant observation. Even though both face-to-face and online components were included in the course, I collected data primarily on the online learning environment activities. I based this decision on my primary area of interest and because some participants only contributed online.

Table 3.1: Study Participants

Overall Participation		UT Participation		Collaborative Learning Program Student Participation	
UT	14	Collaborative Learning Program Students	12	3 – 4 years in Program	6
				2 nd semester in Program	6
		Adult Education Program Student	1		
		Collaborative Learning Program/Course Coordinator	1		
RMIT	4				
Virtual Visiting Scholars	1				
Guest Faculty	1				

Participant Interviews

Prior to beginning interviews with course participants I participated in a bracketing interview with Professor Sandra Thomas. A bracketing interview enables a researcher to get a feel for what it is like to be interviewed about a phenomenon and to generate a description of his or her experience of the phenomenon (Pollio, Henley, & Thompson, 1997; Thomas & Pollio, 2002). The bracketing interview also enabled me to reveal my assumptions about the experience of the online portions of the course and therefore better hold them in check as I conducted the study. I share some of the results of my bracketing interview in the *Participating in Dialogue* section of Chapter Two.

I conducted face-to-face interviews with the fourteen UT participants at a location of each interviewee's choosing. All interviews were audio taped. Given the limitations of geographic distance, I conducted interviews with the four RMIT participants, one guest faculty member, and one Virtual Visiting Scholar via email. Participants were encouraged to respond informally via email and to respond to the virtual interview in a manner similar to what would be expected in a face-to-face interview.

The interviews with UT participants consisted of two parts (see **Appendix F** for a copy of the UT Participant Interview Guide). The first part of the interview process began with the following phenomenological question:

- What stood out for you as a participant in the online portion of our collaborative learning course?

I asked additional probing questions in order to gain a rich description of the interviewee's experience. In the second part of the interview I asked each participant

semi-structured questions related to the specific features of the course, including both content and process components. After sharing a brief description of each, I also asked participants about their experience with the elements of collaborative learning that are described in Chapter One of this dissertation. I asked follow-up questions based on what stood out for me about participant's interview responses. The face-to-face interviews lasted from forty-five minutes to two hours each.

Because they were conducted via email, interviews with the Virtual Visiting Scholars, guest faculty, and RMIT participants consisted of the following phenomenological question only:

- What stood out for you as a participant in the online portion of our collaborative learning course?

I asked additional probing questions in order to gain a rich description of the interviewee's experience. The email interviews consisted of two to three email exchanges with each interviewee.

Participant interviews served as the primary source of data. Data from course emails, transcripts of online course dialogues, and my notes served to supplement and verify participant interview data.

Document Analysis

I collected documentation in the form of course emails and transcripts of online dialogues. Some of the course emails were made up of conversations between me, the course coordinator, and our graduate assistant about the initial and ongoing configuration of the online learning environment. Other emails contained conversations between me

and other course participants about technical difficulties they encountered with their accounts and/or with posting to the discussion board. I also converted the text of each forum into an Adobe Acrobat (PDF) document. The complete transcript of the online dialogues contained 545 pages of text.

Participant Observation

Throughout the course I made notes about the technical aspects of the course. I also recorded brief reflections about what stood out for me at the time about our process of online collaborative learning.

Data Analysis

I decided to focus my analysis on the experience of the UT participants. I limited my analysis to this group because the participant interview pool consisted mainly of UT participants (fourteen out of twenty) and because I was able to conduct more in-depth interviews with those participants.

After the face-to-face interviews were complete, I transcribed the audiotapes using Microsoft Word software. I imported the digital transcripts into the program NUD*IST (Qualitative Solutions & Research Pty. Ltd., 1997) to store, sort, and retrieve the data.

I analyzed the interview data using the inductive analysis model of Hatch (2002), which draws heavily on Spradley's (1979, 1980) method of conducting domain analysis. Once I was familiar with the data, the first step I took was to determine my frame of analysis. Choosing a frame of analysis is the process of breaking data into analyzable

parts (Hatch, 2002). This is similar to what Tesch (as cited in Hatch, 2002) describes as identifying smaller parts of data that can stand alone for analysis. I decided to focus on *statements participants made about their experience with the online portions of the collaborative learning course* as my frame of analysis. Because each of my interview questions sought to find out about participants' experience with the online portions of the course in general, or with specific components of the course, the answer to each interview question served as a suitable frame of analysis.

After determining my frame of analysis, I began the domain analysis process to develop categories of meaning, or domains, based on the relationships found in the data (Hatch, 2002; Spradley, 1979, 1980). A domain consists of a cover term, included terms, and the semantic relationship that links the cover term and the included terms. Spradley (1979) identified nine semantic relationships that are useful in discovering relationships among data. These are: *strict inclusion, spatial, cause-effect, rationale, location for action, function, means-end, sequence, and attribution*. Table 3.2 lists Spradley's semantic relationships along with examples, when present, from my data analysis. Table 3.3 displays a more detailed example of a rationale domain from my data analysis that includes a cover term, the included terms, and the semantic relationship that links the two.

I followed Hatch's recommendation to read through the data and search for one type of semantic relationship at a time. I did this for each interview question. I looked through the response to the first interview question, "What stood out for you as a participant in the online portions of our collaborative learning course?" in each interview

Table 3.2: Spradley's Semantic Relationships

Semantic Relationship	Expressed As	Example From Initial Data Analysis
Strict Inclusion	X is a kind of Y	Being overwhelmed is a kind of reaction to the online experience
Spatial	X is a place in Y	No example from my data
Cause-effect	X is a result of doing Y	Being concerned about overloading the system is a result of having a technical background
Rationale	X is a reason for doing Y	Feeling obligated to respond is a reason for participating in a conversation
Location for action	X is a place for doing Y	The face-to-face classroom is a place for talking about what is happening online
Function	X is used for Y	No example from my data
Means-end	X is a way to do Y	Holding back is a way to deal with a tense situation
Sequence	X is a step in Y	No example from my data
Attribution	X is a characteristic of Y	Not taking responsibility in a conversation is a characteristic of some of the UT participants

Table 3.3: Domain Example

Domain		
Included Terms	Semantic Relationship	Cover Term
Finding something interesting Having something to say Knowing it is expected	Is a reason for	Participating in a conversation

before moving on to the response to the second question in each interview. I began by reading all participants' responses to the first interview question nine times – once for each semantic relationship. As I became more comfortable looking for semantic relationships this process became less tedious and I was able, as Hatch predicted, to look for more than one semantic relationship at a time.

As I discovered a domain, I created a node in NUD*IST that represented the cover term for the domain. Each time I discovered an included term for a particular domain, I created a sub-node that nested inside the node for that domain. I named the cover terms and included terms, and therefore nodes and sub-nodes, using the language of participants. Figure 3.1 provides a graphic depiction of nodes and sub-nodes within NUD*IST. The example is taken from my initial domain analysis. Since *Reasons for participating in a conversation* is the cover term for a domain, I created a corresponding Node in NUD*IST. *You felt comfortable* became an included term within the *Reasons for participating in a conversation* domain so I created a sub-node within the node.

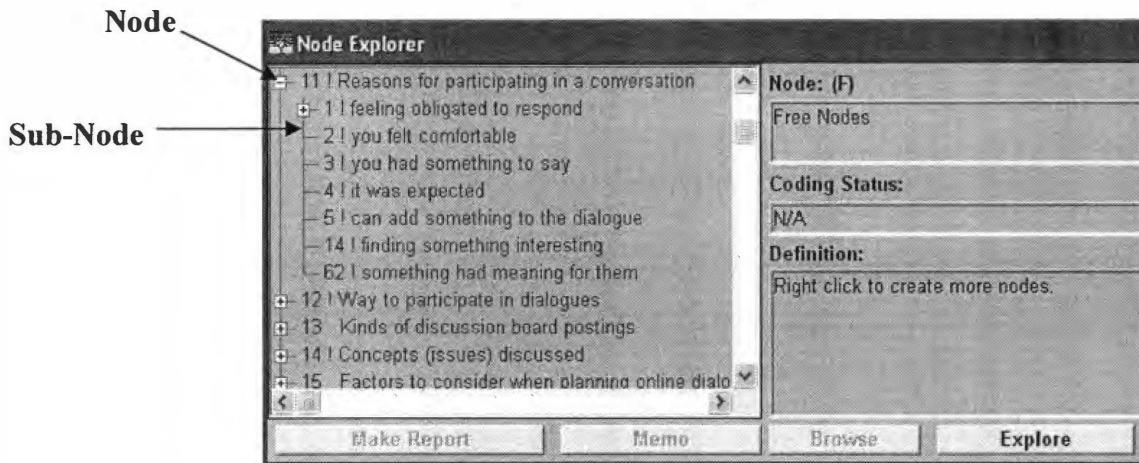


Figure 3.1. List of Nodes in NUD*IST

Using NUD*IST I was able to code data from the interviews to each sub-node. I could “browse” a sub-node to read any and all relevant quotes from participants. This is depicted in Figure 3.2.

To improve the accuracy of my interpretation of the data, about halfway through the initial analysis process I met with a five-member research group. All participants were members of the Collaborative Learning program and were familiar with my research. They had been given a brief explanation of the domain analysis procedure at an earlier date by another member of the research group who was using the same procedure. The research group members and I read one interview aloud and together analyzed the interview based on what stood out to us about what the participant said about her or his experience of the online portions of the collaborative learning course. The analysis of the group was very similar to my own and confirmed that my initial domain analysis thus far was on track.

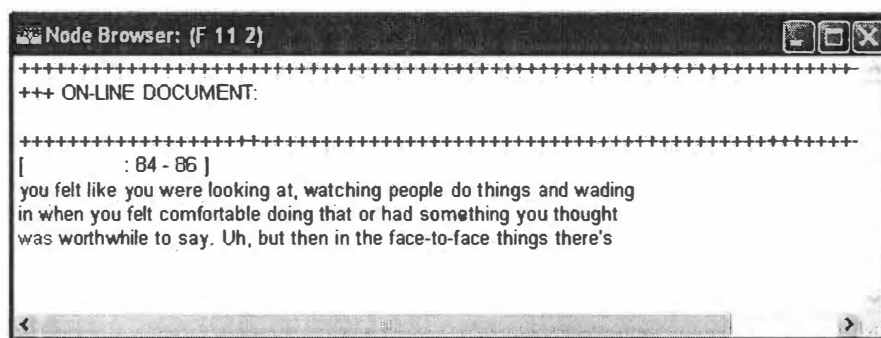


Figure 3.2. Browsing a Sub-Node in NUD*IST

After meeting with the research group, I completed the initial domain analysis and identified 98 domains. Most were strict-inclusion domains, but other types of domains included: rationale, sequence, and attribution. I reviewed this initial analysis to identify salient domains (Hatch, 2002), which is similar to Miles and Huberman's (1994) process of "data reduction" (p. 10). Domains that consisted of a small number of included terms were deleted or merged with other domains. This process resulted in reducing the number of domains from 98 to 86. I re-read each interview with the 86 domains in mind to confirm that the data fit within those 86 domains, to see if I had left anything out, and to make sure that none of the data needed to go into a new domain. No domains were deleted, but a few interview comments that I had initially left out were coded.

I proceeded with the next step of conducting a *within* domain analysis by reviewing the included terms in each domain and looking for connections among terms. When I found connections I created sub-domains within those particular domains. Within NUD*IST this activity resulted in some Nodes having Sub-Nodes which in turn had their own Sub-Nodes as depicted in Figure 3.3. As a result of this process I moved some included terms

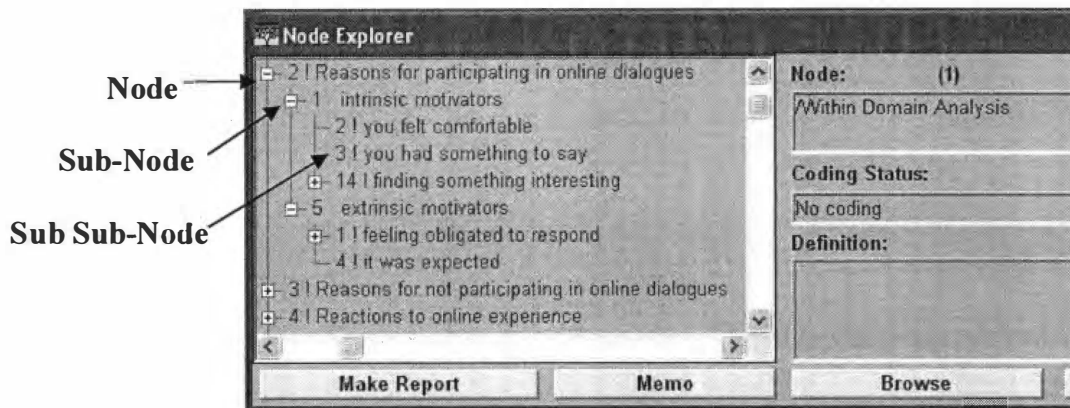


Figure 3.3. List of Nodes in NUD*IST After Within Domain Analysis

to other domains and I deleted three domains. The process of within domain analysis resulted in 83 domains.

Next I conducted an analysis *across* domains. This is the point in analysis where I was looking for how all the domains fit together. Hatch (2002) characterizes this step as the “search for themes.” He recommends asking questions at this point such as: “What does all this mean? How does all this fit together? How are the pieces related to the whole?” (p. 173-174). With these questions in mind I looked for relationships between domains by drawing diagrams and creating outlines to help me visualize the connections. I kept returning to three themes which arose early on in the process. I knew the data that did not fit in those three themes was important, but I was having difficulty organizing the rest of the data in a meaningful way. I shared my domains, tentative themes, and concerns with a colleague from the Collaborative Learning program who is experienced with the domain analysis method. She helped me to organize the data into five themes:

establishing a comfortable environment, perceptions of other participants,

participating in collaborative learning, making sense of the experience, and learning outcomes. At this point, there were still ten domains that did not fit into the five themes. This was not surprising since I placed every interviewee statement into a domain whether or not the domain was actually related to the participants' experience of the online portions of our collaborative learning course. Left-over domains typically related to participants' experience of the face-to-face sessions and included topics such as *advantages of small groups in class* and *characteristics of face-to-face dialogue*. Although interesting, I decided that those ten domains were not salient to my study and put them aside for possible consideration at another time.

Lastly, I analyzed the data from the transcripts of online course dialogues and course email. I used the same frame of analysis, *statements participants made about their experience with the online portions of the collaborative learning course*, which I used when analyzing the participant interviews. I hand-coded the data based on the five themes that arose during participant interviews. All the new data confirmed what I had discovered by analyzing the participant interviews and fit within the existing themes.

I shared the five themes, along with sub-themes from each with the participants via email. I offered to share interview transcripts with participants as well and to answer their questions in person or via email. Ten of the fourteen participants responded and confirmed that my analysis accurately reflected their experience. The other four participants did not respond to my request to review the themes.

A Note about Study Participants

While I set out to study the experiences of all participants in the online portions of our collaborative learning course in actuality my study turned out to be about the experiences of the UT participants only. One reason for this is because more UT participants posted in the online dialogues which resulted in a larger participant pool from which to draw. Since I conducted the UT participant interviews face-to-face, I was able to spend more time with these participants and ask probing questions and acquire a more in-depth description of their experience than I was able to do during the email interviews with RMIT, Virtual Visiting Scholar, and guest faculty participants. Therefore, in the remainder of this document when I mention study participants I am referring to UT participants.

In this chapter I described the research project that I designed in order to study the implementation of my practical theory. In Chapter Four I report the results of my data analysis in terms of the themes and sub-themes.

CHAPTER FOUR

PRESENTATION OF FINDINGS

DATA-DATA: ANALYZE

In this section I describe the results of my data analysis.

The five themes that describe the participants' experience of collaborative learning in our online learning environment are: (1) **establishing a comfortable environment**, (2) **perceptions of other participants**, (3) **participating in collaborative learning**, (4) **making sense of the experience**, and (5) **learning outcomes**. Almost every participant described their experience in terms of each theme. At least two sub-themes surfaced in each of the themes.

Theme One: Establishing a Comfortable Environment

When I asked the first phenomenological interview question: "What stood out for you as a participant in the online portion of our collaborative learning course?" many participants spoke about their level of comfort in our online learning environment. Their experience of establishing a comfortable environment is presented in terms of the sub-themes: *feeling uncomfortable*, *overcoming discomfort*, and *feeling comfortable* in the environment.

Feeling Uncomfortable

The participants who recalled feeling uncomfortable in our online learning environment talked about the sources of their discomfort. They described feelings of

frustration due to their experience with technology, course content, and/or relationships with other participants. They also described feelings of distress with time in the context of recalling frustration with technology and content.

Some described a lack of comfort with technology in general as illustrated by the following two excerpts:

... I've never been the kind of person that really enjoys the computer. So for me, especially with all the other things I had to do, you get on the computer and it's kind of a nuisance.

I've never felt very comfortable around technology. I was a person who insisted upon a typewriter when I graduated from high school because there was no way I was doing papers on computer. And, I did not start doing papers on the computer until my senior year and I still can't compose on a computer.

Other participants described specific technology challenges they faced such as printing problems, slow modem connections, typing in and then losing text, and a lack of typing skill. Still others expressed frustration about the way the technology affected their ability to participate in conversations. For example, one participant said:

Later on I began to experience some frustration with how the threads worked. Because I would be seeing something over here in this thread and seeing it over in this thread and I wanted to pull them together and there wasn't really a good way to do that.

Some participants attributed their discomfort to their experience with content of the course – social construction. One participant's discomfort was ascribed to a lack of in-depth knowledge of the content:

And, in knowledge of the subject matter I think if you feel more knowledgeable you are going to be led to post more. A familiarity of the subject matter makes – from my perspective, the more I know about something the more readily I'm going to be, to contribute to the conversation. And, if I don't know as much about it I'm going to be less likely to contribute. So, that fact that they (other participants) had the more extensive background made it easier – were I in their

shoes it would have made it easier for me to have spoken out and expressed more opinions and conversely having less background made me less eager to just jump right in there.

Another participant expressed feeling uncomfortable about the content of some of the online dialogue:

And, there were a couple of real jarring moments too. I wondered at the time how we were going to deal with it - because it involves one of my cohort members who found the reading very difficult personally because it conflicted with personal beliefs and there were some fairly confrontational emails challenging and, and I was trying to figure out how do we do this.

Some participants described feeling uncomfortable in the online environment in terms of their relationships with others. For example, one participant expressed discomfort about not fitting in with the group and/or not wanting to interrupt the flow of conversation:

I don't know. I guess it's almost like whether you're fitting in with a social clique online. It's like certain people were talking to each other very well and you didn't want to interrupt their conversation or didn't feel like you were included in that conversation like you were sort of on the periphery of things.

Some participants also expressed feeling uncomfortable about how they would be perceived by others with whom they were conversing online as evidenced by the following quote:

I think my initial reactions were very trepidatious because, um, I think I was real conscious of what I was saying because - not so much the Aussies - but, because Ed Roark¹ was our first Virtual Visiting Scholar. And, here I am engaging in dialogue with someone who has written things I'm reading. . . . So, there was that element. There was also the element of, I'm actually putting this out there and it's being read not only by Ed Roark and I'd rather not come across as an ignorant bumpkin. But, there's also these people in Australia and there's also my classmates and so I felt some concern initially.

¹ In data excerpts that contain references to other course participants aliases are used instead of actual participant names.

A few participants described the discomfort they felt about their postings being read by others who had access to the online learning environment but were not participating in the dialogues. One participant recounted her experience of walking into an academic department office on the UT campus and noticing a person that she did not recognize reading the dialogues in our online learning environment:

... that was a very strange feeling to have watched her do that. And, knowing that there were so many out there and so many who had expressed an interest that they probably were doing exactly what this woman was doing and getting online and reading and then walking away from it without either acknowledging that we may or may not have affected them or that we were a bunch of raving lunatics. ... I felt violated. "Who are you and what are you doing? What gives you the right?"

Some participants talked about time, or lack of time, in the context of feeling uncomfortable with content and technology. They cited taking a long time to compose messages and the amount of time it took to read the assigned readings as well as the online postings of others. They also talked about how time they spent away from access to a computer made it difficult to keep up with messages.

Most participants who expressed discomfort of one kind or another recollected this feeling in the context of describing their ways of participating in the online dialogues. They described their ways of participating in terms of choosing to message postings and "lurking."

Several participants characterized choosing to post as a matter of finding a place to enter an ongoing conversation. This is illustrated by the following:

... so it was like a pendulum swinging back and forth. Do you just jump in or do you wait.

I sort of got into the thread later on down, you know, in the middle instead of jumping right into it.

Another described it as finding something of interest to respond to:

In the online portions, let's see I think what stood out for me mainly is the difficulty in kind of jumping around and trying to find something I could attach onto. Cause other things were much more interesting to me than other things.

However, some who chose not to post because the conversation had moved elsewhere by the time they got a chance to compose a post:

You know, take care of this business or that business and then go back and respond to it then, you know occasionally someone will have responded before you did and then it's like, "well do you need to go along that line or do you stick with what you were thinking and sort of split off that thought or just let it go and be lazy and put that lower down on your list of priorities to do that day?"

Others found that it took them so long to compose posts that the conversation had changed by time they were ready to submit the post.

When talking about their approach to posting, those who felt some discomfort with the online environment described their process of editing posts due to self-consciousness as illustrated below:

Probably through the Ed cycle I think I was real self conscious about what I was writing and I was editing and I'd go back and I'd click down there and I'd go back and I would edit and make certain I'd spelled everything right before I submitted it. Submit was kind of a scary thing.

Some participants chose not to post very often, but instead to lurk - or focus on reading the postings of others:

I guess for me, I spent a lot of time reading the different threads without getting in there and putting in a lot of my thoughts and comments. I did a lot of what I called lurking around just sort of reading the things and, um, I don't know why I didn't wander in there.

Overcoming Discomfort

Some participants described their ways of overcoming discomfort and how their ways of participating changed as a result. For example, one participant described how he dealt with the technology problem of long download times for course documents:

... but it's seems as though there were some occasions when I was trying to download some course documents - that's what I experienced horrible wait times on - where it was just ridiculous and usually what I would do was get up really early in the morning when I sensed that few were trying to access the system and download course documents when I thought others would not be trying to use the system.

The same participant also described his process for making sense of course content:

What I tried to do - and I think I did do successfully at least from my vantage point - was to say I don't know what do to with this, but let me kind of process it for a while. So, what I tried to do was to go back to some things I was familiar with - I remember going back on several instances to some of Piaget's stuff and saying, "Oh I think there's a connection here. I think I can make some meaning of that."

Some of the participants who spoke of discomfort at the beginning of the course attributed becoming more comfortable to the progression of time and the opportunity that it gave them to feel more at ease in the environment. For example, one participant described how the environment started to feel more intimate over time:

I think at the beginning of the experience emails felt to me like they were being sent out into cyberspace, but as we gained some experience with the forum it began to feel more intimate. It began to feel more like the electronic equivalent of a circle.

The same participant, who became more comfortable as the course progressed, described how she stopped noticing the technology:

Hmm. Let's see if I can put words to this. I found it (the technology) cumbersome in the beginning. But, it was like learning my way through a maze and very shortly I knew the way and I didn't pay attention to it anymore. It

almost ceased to be a noticed element very quickly - unless there were problems with it.

Some of the participants who overcame their discomfort described how their ways of composing posts changed as a result:

...And I think lastly what occurred to me was that it was important to use a voice and be as spontaneous as one possibly could be without trying to get hung up in spell checking every word and making sure everything is grammatically correct or it's a scholarly type of entry rather than something more spontaneous.

So, over the course of the semester I got a little more, um, comfortable at just saying what it was that I was doing as I might in a face-to-face conversation and did less censoring and editing.

Feeling Comfortable

The participants who immediately or very early in the process felt comfortable in the online learning environment talked about their sources of comfort. They attributed this high level of comfort to making connections with others online and to appreciating the asynchronous nature of the online learning environment. Several participants described the freedom they felt in the online environment as illustrated in the following quote:

And, actually that online aspect of it really did free me to talk more openly cause basically, you know, I'm a shy person and I don't like to - I don't participate as fully as some other people in our group and, um, as far as out loud participation. And, so I'm, um, the online portion freed me to get away from that shyness and throw craziness out there and see what I got back and it was wonderful.

Others talked about being able to connect on a deeper level than they could during face-to-face sessions with fellow UT participants, as well as with those who were only available online such as the Virtual Visiting Scholars and members of the RMIT group

from Australia. One participant described her reaction when a Virtual Visiting Scholar shared a very personal story:

I thought, "Wow!" You know, the very idea of this person who's considered to be expert and that triggers another thought that the expert, um, really caring enough to get on there and interact with us on a very personal level and I thought that's, this is what it ought to be about, what collaborative learning should be.

Another participant spoke of her experience with a participant from Australia:

Ella just seemed to call out to people, to, she just had a way of, of, of um, touching me somewhere.

Another characterized some of the Australian participants as “real characters” and added:

You know, you could really get some, a feel of their character, personality, the cultural differences.

One of the participants found that she got to know others better with whom she already had a relationship:

And, I learned a lot more about - for example - Barbara than I had being in class with her face-to-face, because I think she was more self-revealing. Barbara was one of the people for whom being online seemed to be a comfortable way to talk. And she - I saw her as really blossoming in the online conversation. That was much different because I had not seen that kind of interaction from her in a circle face-to-face.

Participants who expressed feeling comfortable early on in the process did not talk about choosing to post or ways of composing posts. They did not talk about technology except to say that it was *clever and wonderful* or that *it was wonderful, because I could do it and that amazes me*. They were also more likely to characterize the process as “fun” as in the example below:

I guess for me a requirement in this case was an excuse and not a burden. It was an excuse to do it when I was glad to be able to do it. But, since it was a requirement for the class, it's like you can section out time to do it and it's like,

um, work instead of play. It's not like you're indulging yourself to stay on the computer all day. It's like, "This is part of my class, so I get to, you know this is something I have to do. It's a requirement." It's like I got to do the fun thing and it's a requirement, so that was good.

Theme Two: Perceptions of Other Participants

As they described their experience of the online portions of our collaborative learning course, participants talked about their perception of other participants in terms of the following sub-themes: *known and unknown*, *participants and non-participants*, *co-learners and teachers*, *experts and novices*, and *acceptors and strugglers*.

Known and Unknown

One of the ways some of the participants described their experience of others was in terms of known and unknown others. Most felt that if they had not met one another face-to-face it was as if they had not met at all.

For example, one participant talked about how not having met the Virtual Visiting Scholars affected her experience of collaborative learning:

So, it didn't feel like collaborative learning in that respect because I could not sense the physical presence of the other people, especially when I was reading the words of people that I did not meet in class. Not knowing them or even knowing physically what it would be like to have them in the room...

Another participant shared how meeting the Virtual Visiting Scholars on a previous occasion affected his experience.

My experience I guess was different from other people's, because we (the Virtual Visiting Scholars and I) met and think that was valuable. I have to wonder what the difference would be for some of those others who came at the persona of this typed thing on their screen or printed out and would we have read the same thing. It was easier for me to accept what they were saying I think because we had met and talked and what they were saying made sense to me in light of who they were and what they were doing.

Still another participant wondered, when a Virtual Visiting Scholar did not respond to his posting, if scholars were choosing to converse with participants they had met before:

And, so I thought, what's going on here? Did the person run out of time? Did they know some of the other people, because in this case I think every one of the Visiting Scholars had been here (UT) at one time or another and so I'm sure that there are some names remembered and I thought well maybe they're just responding to those that they met at one time or another.

Some participants wondered what the experience would be like if they had met one another before face-to-face and expressed a desire to meet:

Um. I thought they had some interesting things to say. I wish I could meet them. That was really Ella and was it Mickey (RMIT participants) who were the only two who really stood out as far as saying anything. I can't remember anybody else. It's like them carrying the ball entirely. They sound like real interesting folks. I would like the opportunity to meet them some time.

Um, there were some people who seemed to be real characters out there. And, I won't remember their names I don't think, um, they were people that I would really like to meet sometime.

Participants and Non-Participants

Some participants talked about others in terms of their participation in the online dialogues. They noticed who participated and how often. One participant commented about the lack of participation by guest faculty:

I would like to have seen more participate from time to time. I mean I know it was an extra effort – something extra to make time for, but I think there are some others that could have really benefited from that experience too.

Others expressed regret about not getting to dialogue with more of the RMIT participants as illustrated by the following two quotes:

I think there was a - because we kind of started out with there are going to be these people and then there weren't these people - I think that was kind of a negative thing initially.

And, usually I entered into the whole thing with great excitement. So, I was disappointed when it didn't prove to be as exciting for others. You know what I mean? Because some didn't ever bother to fill out their little autobiographical things, you know and our Aussie group didn't come back to us and talk about or get online. It was like, "well, ok, this is a major let down here." But, I mean, our, what we did was good, but there were those it was obvious that didn't buy in with the same level of enthusiasm.

Participants speculated about the reasons for the lack of contribution by some of their fellow participants. One participant wondered if the UT and RMIT groups were at different places with their experiences and interests:

I was also wondering - it seemed as though the other students in this case primarily solely from Australia were in a different place with their experience. Like we're in one arena and they're another and I don't think I want to say one group is better than another or - you know just things were going apart and so the dialogue was quickly falling off. I think it was probably because, probably because there was no other interaction other than the online to bring things together like say for instance it was an ideal environment where you had a day or two together as a group before the course started and then somewhere down the road a day or two together - some face to face interaction - maybe that would have made it all together different or maybe not - I don't know. But it just seemed like the groups were going in different places.

Another participant wondered if others weren't comfortable, interested, or able to dedicate the time required:

I think - probably, there were people who didn't participate very much. I noticed that and I wondered what was going on and of course I can't speak for them, but I wondered if it was - that they weren't comfortable with it -whether they felt like they didn't have time or if they didn't value it.

Still another participant wondered if participants who weren't posting were reading what others' posted instead:

I wondered, the ones (RMIT participants) who didn't participate with us if they were keeping up with the online dialogue. If they were sort of being in a silent observer's kind of position. That would be interesting to find out.

In general participants were very eager to interact with those who actively participated. They were excited about and appreciative of the contributions of others as indicated by the following:

I thought Nora and Becky (guest faculty) both brought a great deal to the group. They seemed to be very thoughtful participants and seemed to show a genuine care and interest in all the things that were going on...

The contributions they (RMIT participants) made were very valuable, because they were so different. They gave us a perspective that we just don't have here. The "Oh I didn't think about it that way" because they don't exist in the same culture.

We were indeed interacting with these people (Virtual Visiting Scholars) and what stood out within that was how absolutely involved these scholars were. How open they were to us and how free they were with sharing their ideas and how excited they seemed to be in doing so and how just purely informative they were.

Co-learners and Teachers

Participants described how they perceived the teaching and learning roles of others. In particular they spoke of the roles of the Virtual Visiting Scholars and the guest faculty. Some participants described seeing the Virtual Visiting Scholars as co-learners:

And think he was one initially who had difficulty with the emails and getting on the server and those kinds of things, but he seemed to take to it and struggled with the rest of us - which is good to know that even those folks whose names are on the books have to struggle for something as well.

For the most part, most of them became a part of the learning community. They did not present themselves as experts.

Some participants also described seeing the guest faculty as co-learners:

It did not feel like they were faculty members. They did not take a more knowledgeable person position - which was very pleasant. They even asked questions and appeared to be learning from us.

On the other hand, others saw the Virtual Visiting Scholars as Type I teachers (see

Chapter One):

I guess I still - throughout the whole thing - I saw it as they had the knowledge and we were just their students who were allowed to comment on whatever they were bringing to the table and I don't know if that was just my own perception of them because they were so well known or if that's just my perception of the student/professor relationship, but because they were unknown in any other setting I think that probably helped me think along those lines.

... the scholars were more Type I in their approach to us and especially Norm for example. Not so much Ed, but Carl and Norm and to some degree Ellen were mostly informers, they told us their ideas and they were less likely to ask us for ours and we were less likely to demand that.

Experts and Novices

In general, participants who had not been in the Collaborative Learning program for very long described their experience with others in terms of differences in familiarity with course content. One participant referred to such differences between the two Collaborative Learning cohorts who made up most of the participants in the course:

I think that there was a definite division in - or I felt that there was a definite division among those who had been in the program, in the collaborative learning program, longer than those of us who were only in our second semester. I know there were several members of C2 that seemed to have a very extensive background in the particular course readings or the writings of the particular authors - virtual faculty members that we had. So, they had more background material on which to draw for their comments.

Another participant who had been taking courses in the Collaborative Learning program for several years prior to joining a cohort expressed concern for the members of her cohort who lacked experience with the background material of the course:

And, so they were at a disadvantage and several of them had expressed during that time and since that they were pretty well lost... So, I was concerned for them, that they were getting pretty bogged down for a couple of members particularly.

Acceptors and Strugglers

Finally, participants perceived one another in terms of acceptance of the ideas proposed by the Virtual Visiting Scholars which made up the course content. Those who agreed with the ideas put forth by the Scholars were described as acceptors, while those who did not agree with these ideas were described as strugglers. One participant described his perception of the two groups:

I think it was broken down into those of us who were ok with everything that was going on and those who were struggling with somebody who wasn't quite on line with it and people that I felt like who were really with it and others who - I can't think of how to put this so that it makes sense - were just paying lip service to the whole thing.

Some participants expressed regret about not engaging with another participant who was struggling with content as illustrated in the quotes below:

...one thing that I do have some regrets about is one of cohort three who really was struggling, I think, with what we were talking about, um, from a personal and a religious standpoint and I feel bad that I did not make more of an effort to include that person or to understand or, or (pause) and I, you know, I just, when I think of the class sometimes I think, "Why in a collaborative learning situation like that did I not take the initiative to find out what was behind all the fear?"

But, I thought we all missed a lot and I think she missed a lot, because of her - the kind of protection she put around herself and that was the one part that, that I couldn't, I didn't know what to do with. And, I suspect that comes up in almost any group.

Theme Three: Participating in Collaborative Learning

The theme of participating in collaborative learning is described in terms of the following two sub themes: *elements of collaborative learning* and *facilitation*.

Elements of Collaborative Learning

When I asked about their experience of the four elements of collaborative learning in the online learning environment, participants typically described their experience of each element in terms of location, time, or presence and the effect one or more of the factors had on their experience of the elements.

Several participants experienced one or more of the elements of collaborative learning in terms of location. Some focused on the location aspect of dialogical space. One participant described it as a physical container that held a permanent record of what the group said as in the example below:

One of the things I guess is that it did work. Every time you did post something it actually did show up. It didn't get lost. We kind of take that for granted, but that's pretty near... I haven't heard of anybody who threw something out there that no one ever saw. And, it is like a permanent record too. You can always go back and see what someone said. You can always retrace a conversation.

Some participants saw multiple physical containers - one dedicated to each Virtual Visiting Scholar, one for each team, etc. Others depicted the dialogical space as an emotional container that held – or did not hold – safety and trust as described below:

Well there's both safety in that you can sit back and you've got your computer between you and everybody else. So, there is that issue of safety. I think in a dialogic space there's the container that Isaacs speaks of. There are always issues of safety. Trust. I don't know. There's so much room for paranoia. You throw something out there and I guess you can project what you're doing is what everyone else is doing which is picking out the things you want to read.

Other participants focused on the location aspect of cycles of action and reflection. They experienced the online learning environment as a location for action and the face-to-face environment as a location for reflection on the action that took place online as illustrated below:

Because we would actually engage in online dialogue and then we would talk about what that was like for us in the face-to-face. So those became kind of - you'd practice - you'd have this online dialogical practice and then you'd reflect on it in the face-to-face once a week.

One participant gave a specific example about reflecting about the process of online dialogue in the face-to-face environment:

And, there definitely was I think a sense that we knew we were all experimenting with a medium - the CourseInfo particularly that we hadn't used before, so it seemed like there was a case of paying a little more attention to the medium...online it was, "These strings are getting unwieldy." Or "These threads are getting unwieldy, so what can we do." "Ok. We can cut them off." So there was a reflection on "what can we do?"

Still other participants described their experience with focus on construction in terms of location. They spoke of the online environment as a location in which constructions were visible. For example, one participant recounted being able to follow the paths of what had been constructed:

... I don't remember specifics but I know there were lots of time where there was a long thread, um, that there were maybe four or five people involved in and if you followed the thread from beginning to end you'd say, "Wow. We really came up with something in this."

Some participants described their experience with one or more of the elements of collaborative learning in terms of time. One participant experienced time as constant (24/7) access to the dialogical space:

The other thing about the dialogical space that's interesting is that you could - although you might not engage someone at that moment you could - whenever you thought of something go into email at whatever hour it was and so in some ways the accessibility factor - it's real different. It lacks the personal immediacy, but it far exceeds the availability of face-to-face. So, I think that's a real important distinction there. That you could - anytime during the week go online, check your email, and email somebody if something struck you which you - you could do in just email, but I think you're less likely to do it in email. You certainly couldn't call up your cohort members at 2:00 in the morning and

say, "Shazam! I just thought of this." You just don't do that. (Laughing) You could do that in the online dialogue.

Another experienced time as dedicated to each Virtual Visiting scholar:

I liked they way that we had forums and that was nice to be able to, you know, you had a certain time period with a forum, um, and I probably would not have liked that as much had we had all four on the whole time - had all of the scholars on at one time.

Finally another participant experienced time as time to compose postings:

So, you've got, um, you've got the freedom to think, to spend more time on your answers, um, or whatever you want to throw out there...

Participants experienced time in the context of action and reflection as individuals having time to reflect before or as they are posting. One participant expressed her view of time as related to action and reflection online:

And, I think online there's more of a tendency to act, to post the information and then think. Or, to look at the response somebody gives you and then reflect about that and then post. And you also have the opportunity, and I think Crystal was the one that mentioned this too, to go back and change what you posted before you hit that Send button. To read it and think "Is this really what I want to say? How is it going to be received by the rest of the group?" and maybe to go back and alter it before you post it...

Others described their experience with extended time to reflect and the effect it had on what they posted as shown in the two quotes below:

There were many nights that I was ready to make a response and didn't for whatever reason and then just 24 hours before I didn't respond and I had that much time to think something through again or over and maybe change my mind – or not - I think there were probably a lot of things that weren't said that probably would have been said in the (face-to-face) group.

It's like there are more topics on the table than there is in a live situation, so, more choice in acting and more choice in what to reflect on, how much time to reflect. And a decision when you're ready to respond - not when someone asks you or when you feel compelled to fill in the silence or whatever, you just, you do it when you have reflected enough to formulate a good response.

Participants also experienced focus on construction in terms of time. One participant experienced it as the process of construction being slowed down:

It (being online) just slows it down - slows the process down. Kind of almost puts it in slow motion, because if you're sitting there and you're face- to-face and you're talking and you're constructing knowledge or constructing ideas right there you are building layer by layer from what you have. So, in essence if you're doing it online you are still building from the original premise it's just it's like in slow motion. So, I think the process is still there it's just the speed in which you get to it.

Another participant acknowledged that the focus on construction was different because everyone had more time to reflect before posting:

I don't know. Was it (focus on construction) different online? I would say it probably was different. It felt different online for me because people did have time to a, to reflect on what they said. I think we did a lot of co-constructing. I think a lot of our - the online portion of it - a lot of our (pause) co-construction I think in that case was, we reflected on it more because we had time.

Finally, some participants experienced dialogical space and multiple ways of knowing in terms of presence. A participant, who sensed presence in our online dialogical space, described it in terms of everyone talking at once.

I would use the analogy of when all this is entered it's like all the voices speaking at once and seeing - everybody talking at once and no one voice stands out to where now you've got - you're taking all this in, into a social environment where everyone is uttering at one time.

One participant spoke of presence in terms of postings being directed to one person instead of the group, even though everyone in the group was reading postings:

And, I think it's - uh the space is kind of odd because you're responding directly to someone rather than to the group, but you know the whole group is reading it and you're hoping someone is going to jump in there, either echo what you say or support you in some way.

Other participants talked about the experience of presence in the online dialogical space in terms of the lack of a sense of presence. Several participants noted that the lack of physical presence inhibited the process of “asking back” as illustrated below:

It was almost like the body language invites that (asking back) more or the body language causes us to ask. Or, if we can't see the body language if we only see the words then there's the feeling ok this person has said everything they have to say or they would have kept on writing. Sitting across from somebody watching them and they're in the position of thinking or you know that they have something else they have to say simply by their body language or the tone of voice that they're using when they're talking. They can say more or you can ask them to say more and you feel like there's more for them to say because you sense it. Where online you - there doesn't seem to be that unless there's a question mark or unless they leave it open enough in the words they use. It seems to be harder to create that space.

One participant described how the lack of physical presence made her feel like her comments were being ignored due to lack of response.

There was also that almost feeling of having the door shut when nobody responded to you. And, this was mentioned. It was Crystal, I guess, who mentioned this too. That anticipation. You know, you posted something did anybody respond? If they didn't, then it was like that particular thread was closed. And, you couldn't see that they didn't respond because they were thinking about it cause you couldn't see them sitting there with their head in their hand - you know - or the expression on their face that would tell you that it wasn't that they wanted to close the door on that topic, but they weren't sure how to respond or that they were thinking about what you said before they responded. That was harder online.

Some participants experienced multiple ways of knowing online in terms of presence. The lack of physical presence limited some participants' experience of *knowing from within* as illustrated in the two quotes below:

I guess one thing, I think there's kind of an intuitive - there's a lot of intuitive that we all almost don't even know we have and body language is something that's missing totally online - going back to that question almost. Um, you can have the other, you can have the facts and figures and you could have...but the kind of watching somebody's eyes and I think pupils dilate or frowns comes or

something that you don't even know you're seeing or people like put their arms across their chest and you just know that somebody's uncomfortable or somebody's distancing themselves for some reason. Or something you've said has hurt their feelings or they don't agree with you, you know, so you need to back up and start over. And the online keeps that from happening.

The feeling of a group is I think, a lot differently electronically than it is face-to-face. And, so I think a lot of those ways of knowing are limited. It doesn't mean it's not possible it's just - it's limited. I can get that feeling with maybe with some of the groups and some of the individuals, but with a lot of them I couldn't and yet I could feel that with just about everyone when we were in the (face-to-face) group - that knowing from within. I didn't get the feeling very much at all, um, there were some times I think when _____ came in and would stop the music early on and we would try to look at what we were talking about, but it still was not the same as when you're in the group - again I think it's because of the visual - not being able to see a person.

Participants shared that the online environment either minimized the differences between ways of knowing or heightened their awareness of *knowing that* and *knowing how*:

I think the online portion minimized any differences in the way that we were knowing. I mean we - the um, mindfulness or the relational responsibility we talked about in the face-to-face group, is more obvious. You're in this group and you want to include everybody, you want to hear, hear everybody's voice. Then on the online, um, it's minimized, it's more of a, who will participate and, uh, it's just wider open.

I think that it (the online environment) heightened attention to ways of knowing that and how - about subject matter and about engaging with others - because you had to know how to get online and do what you wanted to do and negotiate the discussion board. You had to know about, something about the subject matter to be able to respond to it and build off of it.

Not all participants experienced all of the elements of collaborative learning.

Some participants, for instance did not experience a dialogical space. For them, a dialogical space was not present, as illustrated in the two quotes below:

Oh, I didn't think there was any of it (dialogic space) there really. For me there wasn't any dialogic space available on the online. And, I really don't know how to describe that. I mean honestly. It just felt - dialogic space to me is warm. Right? Online is cold or was cold.

I felt like very rarely, if ever, did it get there. I guess I'm adding something to your dialogic space - the safe container, that you trust everyone enough to share and that they will share back, and that you're not out to hurt people's feelings or anything like that kind of thing. So I guess I didn't feel it happening. I felt like we talked around stuff. We talked to each other, but I didn't think it got to dialogue.

Facilitation

Participants described their experience with facilitation in terms of what the processes of facilitation entailed and who was responsible. One participant described course planning as an element of facilitation:

Um, I know that a tremendous amount of behind the scenes work had to go into to make this possible and to that extent I think it was very well done to best of UT's ability and all the different paperwork and bureaucratic hurdles that have to go into it and as well as the different offices that put the site together...

Others experienced facilitation as setting up and managing the technology components of the online environment, for example:

It was um, you know I hadn't worked with Blackboard, but it was easy enough to understand and I didn't think you had to have a whole lot of technical background to get in there, to just jump in and start doing it and so, yeah, you made that look easy and I know it took tons of work, but um, the materials you sent us in email and stuff - no problem getting on and participating, so as far as your part in facilitating that.

Those who focused on the technology aspect of facilitation also mentioned that helping participants to function in the online environment was part of facilitation, for example:

Also, troubleshooting (postings) when people had problems - some additional posts that were intended to make the process become even more seamless - stay in the background. So we weren't concentrating on how we did this we were concentrating on learning with each other.

Others experienced facilitation as starting and ending each session with the Virtual

Visiting Scholars as illustrated below:

I mean that the only times that it (facilitation) happened was when Dave would get - he was the one who did it - would get each separate section started as a new Visiting Scholar came in. Dave seemed to appear at the beginning to say we'll start posting on this date and would ask a couple of us to ask a question and then at the end of that particular scholar's visit would start closing it down and getting us ready for the next scholar and specifying a date and having a couple of people post messages. That was the most obvious facilitation that went on.

For some participants facilitation did not seem to occur in the online environment or did not stand out at all as depicted in the two quotes below:

...The facilitation of the course? Just that there wasn't any (laugh). It wasn't real obvious. I'm sure there had to have been because somebody had to put it together and make it work. But, it was so much in the background that it just wasn't there.

I can't think of anything either significantly negative or significantly good, um, that needs to be said at this time. I would say - knowing that it was a - not the first time the course has been offered, but the first time it's been facilitated - the contents being what it was...I sure can't think of anything that stands out either - right now I can't think of anything.

Some of the participants sensed that the course coordinator was always responsible for facilitation, for example:

This may be a personal interpretation or perspective, but I felt that Dave was definitely always the "Big F", the facilitator at all times. I sensed that at times he was not wishing to keep that role, but it continued to be - in my memory - his role, like it or not. Because I think he was the one that had the grand design for it. And, knew kind of how he wanted things to progress and what he wanted to accomplish with the class. So, therefore I think he did take the initiative to facilitate the process to achieve the goals for which he had planned the class.

Others saw our graduate assistant and me as course facilitators from a technical standpoint. This was indicated in statements that participants made about technical aspects of the online environment when asked about their experience of facilitation online, as illustrated by the two quotes below:

It's, I was really impressed how easy the system was - I guess I was, cause I got on there, I got on there several times a day just to see who put something in or what was going on - it was almost like you were literally taking a break and just wondering down, sort of sitting in the room seeing what's going on. It had that feel about it. And, um, I, so it was that easy and I thought that was good. And, I guess that's a facilitation thing.

One thing I was totally - I thought, um, you and Alesia - I could not believe and I had this almost wide eyed whatever of the time it must have taken to set it all up and um, and also the knowledge, though I'm computer literate so that's not like intimidating. I think I could figure stuff out, but I just had this sense that it must have taken this incredible amount of time. Just the involvement of it I thought was amazing. And, that it all worked. It all came together.

Still others experienced each Virtual Visiting Scholar as the facilitator of their individual forums as in the two quotes below:

So, about facilitation - different people have different styles. Like Hughes's style for example was different than Orren's style was different from Wright and Cox was different from Roark's and they all have their merit. And, it didn't take long to figure out what was going on.

But, the rest of the facilitation, again when you talk about the Visiting Scholars, they were all unique, they had their own personality, that's the way the facilitation was.

Finally, others pointed out that all participants were responsible for facilitation. One participant described it as taking responsibility within the context of a conversation:

And, I, I think most everybody took responsibility for their part. I think people, um, assumed responsibility except a couple that didn't do much in class either. But, I think people assumed a responsibility to respond and to include others. No, I, whatever it was and that may have started from the responsibility within the group itself when we met together, but I, I did feel people really talked, they possessed the process I think. If that's what you mean by course facilitation. I think people acted like adults. Like they were - social responsibility. I think people were responsible to each other and to the whole concept of the process.

Another described facilitation as participants helping each other to overcome technical difficulties:

Some of it happened - and I was very honored to have been contacted by Dave at one point to help one of the Visiting Scholars who was having trouble getting in. So, when the situation called for it there was no hesitation to contact those of us who were really course participants and even put us in the position of "Big F" when the need arose.

Theme Four: Making Sense of the Experience

The theme of making sense of the experience is presented in terms of two sub themes: *relating to face-to-face collaborative learning* and *relating to life in general*.

Relating to Face-to-Face Collaborative Learning

When describing their experience in the online collaborative learning environment, participants often mentioned their experience with collaborative learning during face-to-face class sessions of this course, as well as during other face-to-face collaborative learning experiences. Participants compared, contrasted, and connected the online and face-to-face collaborative learning environments.

Several participants compared participation in the online and face-to-face environments. One participant described the general level of participation:

Some participants chose to participate a lot less in terms number of messages and depth of messages than did others. So, in that regard it was much like a regular course. Some people participate more than others. And, some people say more than others when they're moved to speak...

Another described reluctance to participate in both environments:

Like Elizabeth, I have approached the opportunity for on-line dialogue with concerns, fears and intimidation. And what I've come to realize is that I have approached the face-to-face dialogue in much the same manner. It's been a revelation to me...I am a "people-person" who welcomes the opportunity to wade into a crowd of strangers to make friends, so why have I been so reticent in this setting?

Another talked about the phenomenon of only a few participants being involved in a particular dialogue:

Even in class - in class it wasn't much different than online. Online it depended on the scholar who was writing back. For Norm, and some others, it was a directed response to one question - not directed to the rest of us - which is fine. That's ok. That's the way some people teach. That's alright. Somebody asks you a question, you answer them. That seems fairly normal to me. But, when one or two people get involved with that, then that's a dialogue between those people and the scholar and not - at least for me - not. That didn't include me. That was just like reading another reading to me. Same way in class, I mean there's no difference in class.

Still another participant described trying to find a place to jump into a conversation in both environments:

There were times that I felt that, in terms of facilitating the group process, I would kind of be looking for those moments to jump in. Sometimes I felt like I was looking for the moments to jump in face-to-face in class just like I was looking for the moments to jump in online.

Participants also compared the face-to-face and online environments in terms of the conversations or dialogues that took place. One participant talked about lack of response to comments:

Sometimes if I didn't get a response it was like, "well I guess that didn't hit anybody's funny bone or whatever, you know spur anybody's interest." Like, sometimes something would go out there and it would just go thud! But it even does that in a conversation sometimes. You know - somebody - it's just not - it may have kind of tweaked your imagination, but it doesn't tweak anybody else's.

Another participant recounted this as well when talking about the phenomenon of loose threads, developing themes that are left unattended or incomplete in some way, in our online dialogue:

The appearance of "loose threads" may be yet another interesting finding in our experiment with on line discourse...I think something akin to loose threads actually occurring in our face-to-face dialogue as well.

Two participants described the experience of conversations going elsewhere before they had a chance to respond:

The other thing was the time. Because it's asynchronous you would have a posting and you thought well I'll respond to that, but right now I've got to like do laundry or cooking or something. And, then by the time I got back to it there were six more in between and there was a whole different - gone off in a different - but that happens in actual face-to-face too.

There were a few times when I read all of the posts and decided I would respond after a meeting or class. When I returned to the thread, the discussion had taken a different turn. I know I have the option to "go back" as we do FTF (face-to-face) and I was surprised at the consideration I gave to "going back" or going with the new momentum...considering the "flow" and sometimes feeling I'd missed the flow because I didn't respond immediately.

Still another participant talked about tempering what he said in both face-to-face and online conversations:

I'm not real good at about just this spontaneous thing cause I have a tendency to say stuff that people take the wrong way or maybe they take it the right way and just don't like it (laughing). I say stupid things sometimes. Let's put it that way. So, it's best to kind of put yourself in a headlock and say, "Nah, don't just react emotionally to something and send off something you'll regret later." Settle down a bit. But then you know you temper that in conversations you have anyway, that's - you don't say, "that's the stupidest thing I've ever heard of." As much you'd like to or, "you psychotic." (laughing) It's tempting, "get therapy, because you're not right." I'm glad I didn't put that in writing for sure.

Finally, a participant recalled being influenced by conversations after they were concluded in both face-to-face and online environments:

I often think about and am constructed/influenced by messages to which I don't personally respond far after the post date...Very much like I have done before in a FTF conversation...thinking about what was said after class...

Participants also compared face-to-face and online environments in terms of the process of collaborative learning. One participant compared the two in terms of moving between Type I, Type II, and Type III learning:

I didn't see a lot of collaborative learning - where the conversation carried it's own - just flew out of people - that was completely spontaneous and reactive and we got this image of something that was being created between the group. There were instances of that, but they were very short lived. But, then that's the nature of normal conversation too. We don't have these long periods of just being carried away by this and being totally in tune with everyone in the room. It flashed now and again.

Another compared focus on construction in online and face-to-face settings:

Um, I remember early on it (focus on construction) wasn't there, but it rarely is in our, in any groups that we start - come together - it takes a while for that to even rear it's head, you know, um, so I don't think it's anything in the online that kept it from happening...

Finally, one participant compared the awkwardness of *stopping the music* in both environments:

I think in both cases for me it is awkward. In both cases when you stop to look at the process, you stop the process. And, that happens in the online as well as the face-to-face, but I think it's more shocking in the face-to-face than it is in the online. Because everybody's there and everybody's really in a particular topic - very much engaged - and then it's almost like you come across the stop signs at the railroad track. They are down and the lights are flashing. It's almost kind of a jolt that you have to come out of the moment and think about the process. It's not quite that bad online because it becomes another message that you receive when you open your email. So, the shock value of the stopping the process is not as intrusive - I guess is the word - when you're online as it is face-to-face.

Several participants contrasted their online and face-to-face experiences in terms of relationships. One participant described how the online environment felt like a more intimate setting for working with the Virtual Visiting Scholars:

Um, it (the online environment) did seem a little bit more intimate than a face-to-face classroom discussion might have been. And, I think that's because of the fact that - well my feeling of it was because of the fact that they (Virtual Visiting Scholars) were not face-to-face so they really were reading every word to see "how can I respond to..."

Another recounted how the online environment served to diminish the difference in power between participants:

I liked the, the quote-virtual faculty and I liked the, the fact that they weren't in the room when you talked to them sometimes, because it, it gave you the same power they had. I don't know, maybe power isn't the word, but it gave you the chance to run through your own thinking in a different way than you would if there were an expert sitting in the room. (pause)...because if somebody is an expert and somebody is well known, you listen in a different way than you do when it's just the words on a screen. So, it's easier to think. It was one of the positive things about the screen, the words on the screen, cause the, the um, an expert in a room - you watch an expert walk into a room and everybody sort of turns toward them. But, if you're on the screen that's a little, it's a little different thing.

One participant talked about how the online environment was a more comfortable place for her to converse with others:

I don't know, I guess there's, it gave those of us who have trouble participating in a live setting a chance to really get involved, to really put our two cents in, and to give information back. Um, and so, I guess, I guess what I'm thinking there is the correlation between folks who talked more and folks who wrote more. And, since then, I've talked with Elizabeth O'Gorman about it and she said that we were the opposites. That she felt freer to talk in the group than to write stuff down and so just the, I guess the contrast between what happens in a live group and what happened in our online group was pretty interesting. The difference that, that it made. Some people, some people felt more restricted cause it is preserved and people can go back and say, "Uh, huh. You said so and so." Um, where others of us just blurted in out - wherever. So, I guess that's just the contrast.

Another talked about how it was easier to talk online because the face-to-face class was big and it was hard to take a turn:

The class was big though so it - I guess it was a little more comfortable to talk online than it was in class - a little easier to take a turn so to speak.

Participants also contrasted their online and face-to-face experiences in terms of the lack of physical presence online and how that affected conversations with others. One participant spoke about the difficulty of having only written word responses:

You can't really respond to the written word as easy as you can to the verbal, you know, face-to-face thing because there's lot more going there other than just the words and that may be as much of, and that may be part of the technology thing - is that you don't get that part of it. And, I think we talked about it online - is that you don't have humor, you don't get people laughing, you can't see the smile, and you can't, you can't get the feel of the person.

Another participant described not feeling like anyone was attending to him in an online environment:

And, that's hard one to describe because I, I do feel that a lot of times and I know a lot of times some others - Lori Beth - would probably see me forcing myself to not say anything when I wanted to cause I didn't want to break up some discourse that was going on and Lori Beth or someone in the group would say, "Tom what do you think about that?" And, that doesn't happen when you're online. So that's, that's different and you know, when I come away from that (face-to-face) experience I feel like, I would think, "I know that Lori Beth was actually watching me. She was actually attending to me." Whereas online - nobody knows.

Finally, participants contrasted their experience of time in face-to-face and online environments. Several participants mentioned being able to post as much as they wanted online without interrupting others as illustrated by the following two quotes:

The difference (pause) here's a case where I think that maybe the online for me has a little bit of an advantage, cause when I'm in a group I wait for my opportunity to step in, whereas in the electronic portion I watch the communication going on between, the discourse between whoever and maybe stay back a little bit there, but I feel a little bit, I'm not trying to, I'm not trying to worrying about interrupting somebody as much online.

... what made it different is that more of us could talk at once online than in a face-to-face setting so there was more of an opportunity to say your five, ten things, your one thing and not feel like you're stepping on someone's toes or taking up too much time. I didn't see that. That's something - in a face-to-face

situation I particularly have been, I think, very cautious about taking, monopolizing the time in the discussion and giving everyone a chance to speak.

One participant talked about time in terms of spontaneity in online and face-to-face environments:

I think - of course online you don't have that spontaneous reaction to someone and that can be based on your body posture or some of those other things. When you plan on what you're going to say before you say it, you want to nail them with this comment, you want to get this point so well said that it will sum up everything as opposed to just, "You know I'm not real sure what I'm talking about here. Help me with this. Does this make sense? Would someone help me clarify or get this into words that make sense to all of us?" That kind of thing. There was some of that, but not nearly what face to face was.

Some participants described the face-to-face collaborative learning environment and the online collaborative learning environment as two separate entities, for example:

It seemed as though many times it was almost as if they (face-to-face and online) were two different arenas - that the online dialogue stood on its own merits and went in its own directions and the face to face class, traditional dialogue, went in its own directions and almost stood on its own merits to where to a certain degree...it seems to me as I think about it for a moment that the two could have almost been freestanding. There could have been a class - two separate classes...

Others described the face-to-face and online environment as two parts of one thing as illustrated in the quote below:

Well, I think they (face-to-face and online) sort of built on each other because you would have conversation one place or the other and you'd pick up what was said on the Web and then on the Web you'd pick up something that was said in the group, so I think they, they built on each other. It would be pretty hard to separate them.

Participants who experienced the face-to-face and online environments as one thing went on to describe the connection. One participant talked about how the experience in the

online environment brought the Virtual Visiting Scholars into the face-to-face environment:

...I also saw the online experience as being the primary one that would make possible the interaction with these four scholars anyhow and they were therefore very much a part of the face-to-face. We talked about what they said, when they said it, as they said it, and so forth.

Another participant described feeling that all online participants were also a part of the face-to-face sessions that occurred once per week during the same time period as the online sessions:

I regret that everyone that has participated on-line cannot also come to the 12th floor with us. Though, in a big way, you have been there every Thursday.

Some described our face-to-face meetings as a place to talk about the process of online dialogue as indicated by the following participant:

In the face-to-face we tended to talk about things like, well where are the other faculty that were supposed to participate or where are the people from Australia and you know we talked about process instead of actually talking about or continuing what was happening online and it was almost like those people that were participating online didn't exist when we were in the classroom.

Another participant saw it as a place to clarify content that had been discussed online:

There were just times in class when we were following up on what we had already done online and when I had read it online it had made sense, "Yeah, sure." I could see where people were coming from, I could understand what they were bringing to that discussion and where they were going with it, but being in the face-to-face group suddenly it made meaning - suddenly it had relevance for me. It's like, "Oh, yeah, that's like when this happens. That's it! I see it now!"

The same participant saw our face-to-face meetings as a way to conclude our online dialogue for the week:

For me personally after a week of reading online stuff, class was kind of a cathartic experience. We'd go through, this had all built up, we talked about it

and there was a sigh of relief and we started again the next day. And, it didn't - not very often did I feel like those Thursday night sessions were then carried into the next week's online.

Relating to Life in General

Some participants made sense of our online collaborative learning experience by relating it to other life experiences. Participants usually did so by using metaphor to describe their experience overall or to depict their experience of reading and posting to the online dialogues. Some participants shared new metaphors as part of our interview, while others recalled metaphors that the group constructed during the course of the online dialogues as illustrated below:

You know, it's (the online experience) sort of like riding a roller coaster and there are times that you go, "Oh my God am I going to live through this!" So it had some of that, um, roller coaster kind of feel to it, but my whole general impression when I got through was, "Boy that was wonderful. What an experience!"

Borrowing a well worn cliché, I feel like I've been on a carnival ride. You wait your turn, you step into the ride, you buckle up, you wonder what will happen next, you start slowly and gain momentum, you feel the rush of being one with the ride, you think you need to get off this thing because it's going too fast, you lose your fear and throw caution to the wind, you unbuckle and relax, you just ride, you try to memorize the feeling, you feel the ride begin to slow, you know it's ending, and you leave the ride feeling alive, fresh, brave, and somehow enhanced for having done it. That's how it feels to be ending this online experience.

And, I'll also use the term to go back to this thing of spontaneity. One of the things I think I did when I was dialoguing with Cox - I'm pretty sure it was her - I came back to one of her things, one of her online reflections and said something like this, "That spontaneity to me is diving into water headfirst and not being afraid of the rocks that you might hit your head on that are in the water."

One participant described the threads of online dialogue as “beads on a string”:

... and in fact I noticed this as I was going back and printing these out and looking at them. Ok. What we've got here looks like beads on a string, so I guess I'm going back to use that thread metaphor. You've got this and this and this and this and you could actually move those beads around because some of those beads - a bead down here actually needs to go up to this one because of the asynchrony of it.

Another referred to the online dialogue as a “tree”:

So, you know, with the online stuff there were lots of things going on and usually by the time I read through all the responses there was something that I was interested in or someplace that I felt like I could just click on "Respond" and jump in - you know - to be in the tree or whatever.

Theme Five: Learning Outcomes

Participants described their experience with learning outcomes in terms of the sub themes of *content* and *process* outcomes.

Content

Participants described learning about the social construction of knowledge and gave examples of what was constructed during the course. Most of the participants who described learning more about social construction did so in the context of being able to better understand the ideas of the Virtual Visiting Scholars. This is illustrated by the two quotes below:

I don't say that I learned a great deal more information as I got a great deal more clarification. A lot of things were clarified for the first time. That is when I compared what they (the Visiting Scholars) wrote and published to what they said online.

...when I went back and read some of the things that Roark had said, um, his um, well this is all of them, they're very consistent. Their (online) discussions are very consistent with their writing, which is what you'd expect, but to have that be in conversation instead of reading a book was, um, was interesting and

a lot of things I heard came clearer about their approach to social construction and where they're coming from.

Others described the recognition that social construction is everywhere; for example:

Social construction is almost everywhere in my life...Everything I read now I put a little SC by it. I'm reading this stuff about resolving public conflict - "oh, that's social construction." In that respect that course influenced me a whole lot in everything that's happened since.

This experience has helped me put social construction back into the world where it really belongs. I am seeing it play out in my practice in work with organizational creation. I am living the "theory from practice" idea. Wow.

One participant gave an example of what we constructed as a group as a result of dialogue around the experience of childhood:

So it really was kind of a building, you, I think we got sort of a sense of childhood and a sense of how that childhood could be a part of what we're doing in our life - not just- not wanting to completely lose that - that freedom that you have as a child. So, I think we did build something with that. And, I'm sure there are others. That, the, um, what's the social construction idea and thinking a lot more about how we are or how we become who we are and what things influence us.

For another participant the discussions on caring stood out as a social construction:

A lot of the discussions I think that probably Ella and Margaret and, um, (pause) and there were some others, probably Karen, were talking about caring. And I think that really came out as a piece of social construction.

Process

Participants also experienced learning outcomes in terms of process. They described how they learned about collaborative learning, how they learned about themselves as learners, about how technology might best be used within a collaborative learning environment, and how they learned about building relationships.

Some participants described the experience as learning about collaborative learning. For example:

So, lots of learning about what collaborative learning is...and so it was, um, it was just, um, almost um, learning by doing - the old Adult Ed principle. We're going to learn collaborative learning by doing this. We're going to make our own understanding of it.

As a result of this fascinating experience, I believe that I am enlightened and empowered to "go on" to new understandings and practices. I've had to struggle to let go of the need to "give the right answer"; I've learned that it's OK just to "blurt"!!! I've learned that "experts" are people, too, who can be open to sharing and creating new thoughts—just because their name is on the cover of a book doesn't mean that their ideas are sacrosanct.

Another participant shared what he learned about facilitating collaborative learning in face-to-face and online environments:

... that's one of the things I really got out of that class - be careful how many people are in your group. And, being able to watch people that aren't contributing because they may be off somewhere else.

Several participants recounted what they learned about themselves as learners.

One participant spoke about the transformative nature of the online experience:

It really was a transformative thing. I learned a lot about, um, me in a group setting, um, from the online and that just seems ironic. But, um, you know, I learned a lot about the things that make me comfortable enough to say things and to write things and so it was not only a good warm, fuzzy positive thing, but it was a learning thing too.

Another talked about how the online experience reaffirmed her need for face-to-face interaction:

But, then as we got into it, it kind of turned into some frustration kind of around the things we talked about - that you know, people weren't asking back, that there wasn't a real engaging of everybody in what we posted online and that's when I kind of came to appreciate the face-to-face - the value of face-to-face communication.

Several participants talked about learning outcomes in terms of technology. They spoke about their overall experience with the technology and reflected on ways to conduct a similar course in the future. One participant described the online experience in terms of seeing the promise of technology:

So, I think this is where the promise of online learning, online collaboration and so forth is best represented. This is where we can make more of what we started with last spring. The online technology in my view is almost tailor made for that sort of thing, so the promise of that sort of interaction is made possible by online technology or Internet technology more broadly. So what stands out is the promise of it all. I mean we just tasted it; we just began to take a look at. I think it will all get a lot better than that still.

Another described the excitement of being part of a new technology venture:

It was good to be able to just realize that I was a part of something that was a new venture. I liked that. I don't like always doing everything the same old way. And, I'm aware enough of the impact that technology is making in the world to know that it's important to be able to change, it's important to be able to incorporate the new technology into learning and into my ways of knowing, so it was a good experience at practicing in terms of implementing technology in my life and in my studies.

Participants gave specific suggestions for ways to improve the technology for use in future courses. One participant spoke of the need for a “real touch”:

So, I, I just keep thinking that if some of this virtual business is going to happen it's so important to have some kind of real touch in addition to the virtual.

Another made a suggestion for how we might make possible that “real touch”:

I think it was probably because, probably because there was no other interaction other than the online to bring things together - like say for instance it was an ideal environment where you had a day or two together as a group before the course started and then somewhere down the road a day or two together - some face to face interaction - maybe that would have made it all together different or maybe not - I don't know.

One participant suggested holding some real-time online sessions:

I would like for there to have been some way to do at least some sessions simultaneously so you could get immediate response. Say, "Ok. We're all going to be online and we're actually going to talk to each other." That would be nice - having real-time, some segments. It would be nice.

Another participant described how we might make real-time interaction possible:

I think maybe some more - it would be interesting to try some more real-time interaction. That would be kind of neat and I think more helpful and I think you could build that into class time. There's lots of computer labs on campus... I think you could do that. I even think a couple of people could sit around one computer or two. You can fit four people in there and they can look at two screens and they'd have enough room to work. And, maybe some of us that are faster typists could help the ones of us that are slower typists.

Other technology suggestions included ways to improve the CourseInfo course site

interface. One participant wanted to find a different way to structure dialogue within the discussion board area:

And, some way to structure the dialogues - I don't know how to do this - some way to structure it so you don't have all those threads going off in different directions.

Finally, participants described learning outcomes in terms of the process of forming and nurturing relationships. One participant talked about the process of constructing learning communities as illustrated below:

I think if I would say that we've constructed anything, we constructed a community of learners...we did not have to do this (take the course) at this time. So, we made a conscious choice that this is what we'd do. And that brought us community. So, that created this community of learners in this place at this time.

Another talked about building relationships in general, for example:

When I look back over that experience I see that more as building relationship than I do about building meaning.

Other participants described building and nurturing relationships with the Virtual Visiting Scholars, RMIT participants, and fellow UT participants in particular as illustrated below:

The fact that we even had the opportunity to have that kind of interaction with people (the Virtual Visiting Scholars) of that caliber in the field, I almost still have to go back and look at the site just to believe it really happened. There was something very special about that - to be able to do that. They took the time to do it, that it was even possible that they would consider it and then that they would interact with us as if we were on the same level.

I liked the guys in Australia too and I never met them and guys and women - both - the people in Australia too. I liked talking to them and never met them. I was going to say it was kind of nice to have faces to go with email responses, but that's not necessarily true cause I enjoyed - I guess I wondered you know maybe what they looked like. It would have been fun to be able to see them, but it wasn't necessary. Their personality was there for me online. So, it was nice. It was a good experience for me.

I got to know people in the class. Like sometimes there were people that were quiet in class or quieter in class that I got to know online better - like Tom. Um, maybe Barbara said more online than in class. Some of the - like my cohort I knew better already so it wasn't such a surprise or a pleasant surprise - serendipity to sort of see them online. Um, but for some of the ones, like I didn't know Tom at all. I had already met Karen. And, I had already met and knew her fairly well. Um, Jason I had met and Crystal and so, but the others were new and it was almost, because the (face-to-face) class was so big, you know, what they had to say online, was... It gave them more time to kind of be them, maybe. I don't know, but it was fun to kind of get to know them online.

One participant spoke of relationships with guest faculty continuing after the course ended, while another recounted asking a guest faculty member to be on her dissertation committee.

In this chapter I presented the findings of my study in terms of themes that emerged from data analysis. The five themes that describe the participants' experience of collaborative learning in our online learning environment are: **establishing a**

comfortable environment, perceptions of other participants, participating in collaborative learning, making sense of the experience, and learning outcomes. In Chapter Five I discuss the five themes as I connect them to related literature.

CHAPTER FIVE

DISCUSSION OF FINDINGS

DATA-DATA: ANALYZE (continued)

In this section I discuss my findings and connect them to related research and practice.

With the themes that described participants' experience of our online collaborative learning environment in mind I searched the literature for reports of research and descriptions of practice that focused on learners' experiences with online learning and collaborative learning. I located a significant amount of research in the area of online learning, much of which addresses collaborative learning. The definitions of collaborative learning in these studies vary widely and none of the literature defines collaborative learning the way it is defined in my study. There are however online learning studies which relate to my themes and face-to-face collaborative learning studies that define collaborative learning the same as it is defined in my study. I restricted my review of literature to these studies. In this chapter I relate my findings to relevant research and practice and reflect on the implications my findings.

Summary of Findings

Participants in my study described their experience of our online collaborative learning environment in terms of five closely related themes. The theme of **establishing a comfortable environment** includes participants' feelings of discomfort and comfort and the transition (or not) from feeling uncomfortable to feeling comfortable in the

environment. Participants spoke about their comfort level in our online learning environment in terms of technology, content, relationships, and time (related to technology and content). They also described their ways of participating (posting messages) in terms of different levels of comfort. The theme **perceptions of other participants** describes how participants perceived one another in terms of known and unknown, participants and non-participants, co-learners and teachers, experts and novices, and acceptors and strugglers. The theme of **participating in collaborative learning** describes participants' experience with the elements of collaborative learning: dialogical space, multiple ways of knowing, cycles of action and reflection, and focus on construction in terms of location, time, and/or presence. This theme also describes participants' experience with facilitation in terms of what facilitation involved and who was responsible for facilitation. The theme of **making sense of the experience** outlines how participants came to understand their experience in our online collaborative learning environment by comparing, contrasting, and connecting it to their experience in face-to-face collaborative learning environments and by relating the online collaborative learning experience to life in general. The theme **learning outcomes** describes the individual and group knowledge that participants constructed in terms of process and content outcomes.

Related Research in Online Learning

Reviewing reports of research and practice in the area of online learning helped me to better understand the experience of participants in my study in the areas of

establishing a comfortable environment, perceptions of other participants, and participating in collaborative learning.

Establishing a Comfortable Environment

Just as the process of establishing a comfortable environment stood out for participants in my study, other researchers of online learning have found that comfortable environments are important to learners. Researchers typically approach the idea in terms of building a community of learners. This seems to be based on the general consensus that designing environments where learners are able to establish relationships, develop a sense of community, and work collaboratively leads to a more successful course experience for all involved (Brown, 2001; Moller, 1998; Palloff & Pratt, 1999; Rovai, 2000, 2001).

Feeling Uncomfortable

Several recent studies speak to learners' levels of discomfort with technology, content, relationships, and time in online learning environments (Hara & Kling, 2000; O'Regan, 2003; Wang, 2001; Wegerif, 1998; Yilmaz and Tuzun, 2001). Some of these studies were conducted in the context of learning more about community building and collaborative learning online, while others were concerned with participant experience in online learning environments in general.

Related to discomfort with technology, Wegerif (1998) found that individual success or failure in a particular online course depended on the extent to which students were able to cross a threshold from feeling like outsiders to feeling like insiders. His study revealed several factors that affected students' ability to cross this threshold

including discomfort with communicating by writing as opposed to communicating by speaking (which was required by the type of technology used) and the level of access to technology. In a study of students' distress in a Web-based distance education course Hara and Kling (2000) found that students reported confusion, frustration, and anxiety related to difficulty with the technology. In her study of the perceptions of and experiences in knowledge construction and group collaboration of participants in an online computer supported collaborative learning (CSCL) class Wang (2001) found that the participants experienced uncertainty, stress, frustration, and alienation throughout the course. Their feelings of frustration were expressed in the context of navigating the online environment used for the course and having enough access to technology. In their study of experiences of both instructors and students who participated in at least one Web-based course, Yilmaz and Tuzun (2001) found that students experienced difficulties with learning new tools. In the context of their online learning experiences, the students that participated in O'Regan's (2003) study of emotion and elearning experienced many emotions including frustration and shame/embarrassment. Technology was one of the reasons her students cited for their frustration. They experienced shame and embarrassment when they felt incompetent at tasks they felt they should be able to complete, such as sharing their work with others via the use of technology.

The findings described above support my findings and indicate that participants in my study are not alone with respect to finding themselves having to deal with discomfort related to technology in online environments. As Wegerif (1998) found, working through

difficulties with technology seems to be one way in which participants are able to become a part of a group and feel successful in an online course.

In addition to discomfort with technology, researchers have found that students in online learning environments also experience discomfort with content. For instance, Hara and Kling (2000) and O'Regan (2003) found that students' confusion, frustration, and anxiety in online learning settings was related to difficulty with course content. This is consistent with the experience of some of the participants in my study who cited course content as one of their reasons for feeling uncomfortable.

Researchers have also found that students are at times uncomfortable with relationships in online learning environments. For example, Wegerif (1998) found that when students felt daunted by the quality and quantity of submissions by others they experienced difficulty in transitioning from feeling like an outsider to feeling like an insider. This is somewhat similar to participants in my study who described discomfort with relationships in terms of not fitting in with the group or of being self conscious about how they were coming across to others. Participants in my study also described discomfort with other participants who were only reading online dialogues and not posting actively. Rovai (2000) warns that the presence of lurkers in an online course can threaten a sense of community since active members of the community may mistrust those who do not participate.

Myer's (2003) study looked at the experiences of a group of students who participated in face-to-face discussions and online threaded discussions. Similar to my participants' experience of discomfort with time as it related to content, participants in

Myer's study commented on the amount of time it took to read others' postings and compose their own postings online. While many considered it a drain on their time they also recognized that this investment of time enabled them to get more out of the online discussion and therefore to focus more intently on the learning objectives. In contrast, participants in my study who felt uncomfortable did not say that extra time spent dealing with technology or content necessarily helped them to get more out of our online collaborative learning course. The experience of participants in my study and Meyer's (2003) study is similar to phenomenological studies of time in which participants experienced "doing in time" as a series of limits and choices (Pollio, Henley, & Thompson, 1997). When it comes to how limited amounts of time are spent some may experience time on a task as well spent while others experience it as wasted time.

Overcoming Discomfort

Researchers of online learning have found that learners are able to overcome discomfort in online learning environments, particularly as it relates to technology, with the passage of time (Brown, 2001; Chou, 2001). Brown found that students who were new to the technology had to spend more time on that aspect of their courses and therefore had less time to dedicate to community building. Students who were experienced with the technology were able to spend less time with technology and more on community building. Chou examined interaction patterns at both interpersonal (learner-learner) and system (learner-interface) levels in a learner-centered distance collaborative learning environment. She found that time played an important role in student adoption of new technology. It typically took students in the class two to three

weeks before they were able to ignore some of the obstacles related to technology and focus on the task at hand.

Similarly, some of the participants in my study who described becoming more comfortable in our online learning environment attributed this increasing comfort to the passage of time. This suggests that the more time that participants have to get acquainted with the technology used in an online learning environment, the more comfortable they may become. It might also suggest that participants might not get as much out of a course early on because they are focused instead on learning how to navigate the technology-based environment.

Feeling Comfortable

Participants in my study who felt comfortable in our online learning environment early on in the process made no references to content and very few references to the technology we used except to express excitement about what they could do with technology. Participants who were comfortable focused on the relationships with one another that technology enabled. This is similar to the experience of some of O'Regan's (2003) students who expressed enthusiasm and excitement about learning in a new way and using new technologies. O'Regan's students also expressed feeling a sense of pride partly based on their successful negotiation of the online learning environment.

Perceptions of Other Participants

Participants talked about relationships with other participants in terms of their comfort level in our online learning environment. One way participants' in my study described each other was in terms of known and unknown. Wang (2001) and O'Regan

(2003) found that a lack of a prior face-to-face relationship can also contribute to discomfort in online learning environments. For instance, Wang found that lack of face-to-face contact with fellow participants was one of the reasons participants in her study experienced uncertainty, stress, frustration, and alienation. Additionally, O'Regan found that the emotions of fear, anxiety, and apprehension that her students felt were mainly related to the public and relatively permanent nature of the online communication. Her students felt like they were being exposed to an unknown audience.

Another way participants in my study described each other was as experts and novices. This category was related to course content. Those who were more familiar with course content were described as experts while those who less familiar were described as novices. As Wegerif (1998) found, this may have had an effect on participants' comfort level in our online learning environment if they considered themselves to be novices.

Participating in Collaborative Learning

Participants in my study described their experience of participating in collaborative learning with the four elements of collaborative learning in terms of location, time, or presence. The findings of online learning research are similar to the experience of participants in my study with respect to their experience of time and presence.

Elements of Collaborative Learning & Time

One way that Meyer's (2003) participants experienced time was in terms of the amount of time available. Meyer's students found that discussions were no longer limited to face-to-face class time because online discussions expanded the time in which

discussions could take place. Similarly, participants in my study experienced the dialogical space as always open due to the 24/7 availability of the online learning environment. Participants in Meyer's study also experienced time in both the online and face-to-face environments in terms of speed. Face-to-face discussions were experienced as being fast while online discussions were experienced as being slow because reading took more time and sometimes technology problems slowed down the discussions. This is similar to participants in my study who described the process of construction as moving in slow motion.

The experience of participants in both my study and Meyer's (2003) study illustrates two interesting facets of time. Time was experienced as endless in terms of the amount of time available for dialogue, which is similar to the phenomenological studies of time described by Pollio, Henley, and Thompson (1997) as a limits and choices experience of time. While time seemed limitless in the online environment participants had a limited amount of time to dedicate to dialogue and they were required to make choices about how to spend their time. Time was also experienced as moving more slowly as compared with time in a face-to-face environment. This is also line with phenomenological studies of time in which study participants experience time temporally as moving fast or slow (Pollio, et al., 1997)

Elements of Collaborative Learning & Presence

That some participants in my study described their experience with dialogical space and multiple ways of knowing in terms of presence suggests a connection to the concept of social presence. Social presence has been an emerging focus over the past few

years among those who study online learning environments. Communication theorists Short, Williams, and Christie (1976) coined the term social presence and defined it as “the salience of the other in a mediated communication and the consequent salience of their interpersonal interaction” (p. 65). Lombard and Ditton (1997) define presence as the illusion of nonmediation.

An "illusion of nonmediation" occurs when a person fails to perceive or acknowledge the existence of a medium in his/her communication environment and responds as he/she would if the medium were not there. Furthermore, because it is a perception, presence can and does vary from individual to individual. It can also be situational and vary across time for the same individual, making it a complex subject for research. (Picciano, p. 24, 2002)

Gunawardena and Zittle (1997) found social presence to be a strong predictor of student satisfaction in a computer-mediated communication environment. Similarly, Swan and Richardson (2003) found that students who perceived a high level of social presence in an online course also perceived that they learned more from the course and were more satisfied with their instructor. In a study of the relationship between interaction, presence, and performance in an online course Picciano (2002) found that there was a strong positive relationship between student perceptions of their interaction in the course and their perceptions of the quality and quantity of their learning. Additionally, Picciano found a positive, statistically significant correlation between student perception of social presence and actual performance on a written assignment (which resulted from student interactions with one another), whereas the correlation between student perception of social presence and performance on an examination (taken alone) was negative and not statistically significant.

These connections between social presence, student satisfaction, and quality and quantity of learning suggests the possibility that participants in my study who did not sense social presence may have been less satisfied and/or learned less than those participants who indicated being able to sense the presence of others. However, my study was not designed to explore this aspect of online learning.

Establishing a Comfortable Environment & Presence

Research by Tu & McIsaac (2002) also points to a connection between the theme of establishing a comfortable environment and social presence. Tu & McIsaac found that the three dimensions of social presence proposed by Tu (2000, 2001): social context, online communication, and interactivity were important to establishing social presence. Social context includes factors such as task orientation, topics, relationships, and social processes. Online communication refers to “attributes of the language used online and the applications of online language” (Tu & McIsaac, 2002, p. 134). Interactivity “includes the activities in which CMC [computer mediated communication] users engage and the communication styles they use” (p. 134).

Each of the three dimensions includes several variables that affect the establishment of social presence. Within the dimension of social context Tu & McIsaac’s (2002) study indicated that the following items may have a positive influence on social presence: familiarity with recipients, informal relationships, better trust relationships, personally informative relationships, positive psychological attitude toward technology, and more private locations. Tu & McIsaac found that keyboarding skills, use of emoticons and paralanguage, characteristics of real-time discussion, characteristics of

discussion boards, and language skills are dimensions of online communication that also have an effect on social presence. Lastly, Tu & McIsaac found that several dimensions of interactivity: timely response to messages; use of stylistic communication styles; casual conversations and communication strategies; appropriate message length; planning, creativity, intellectual, decision-making, and social tasks; and appropriate communication group size each have a positive influence on social presence.

There are similarities between Tu & McIsaac's (2002) variables of the dimensions of social presence and the experience of participants in my study with respect to establishing a comfortable environment in terms of technology, content, and relationships. Table 5.1 illustrates these similarities.

Tu and McIsaac's (2002) social context variables of participants' psychological attitude toward technology, participants' familiarity with each other, the formality/informality of relationships, and privacy were mentioned by participants in my study as technology and relationship factors that contributed to discomfort. Similarly, Tu and McIsaac's online communication variables of characteristics of discussion boards and keyboarding and accuracy skills were noted as technology factors that contributed to the discomfort of participants in my study. Finally, participants in my study indicated discomfort with content similar to Tu and McIsaac's interactivity variable of participants' level of familiarity with the topic of discussion.

These connections indicate that social presence is important not only when it comes to participating in collaborative learning, but also when it comes to establishing a comfortable environment in general. The work of Tu and McIsaac (2002) also highlights

Table 5.1: Connection of Dimensions of Social Presence to Factors that Affected Participants' Comfort Level in Our Online Learning Environment

Dimensions of Social Presence Tu & Melsaac (2002)	Factors that Affected Participants' Comfort Level in Roberts' Online Collaborative Learning Environment Study		
	Technology	Content	Relationships
Social Context	Participants psychological attitude toward technology		- Participants familiarity with each other - Formality/informality of relationships - Privacy
Online Communication	- Characteristics of discussion boards - Keyboarding and accuracy skills		
Interactivity		Participants level of familiarity with the topic of discussion	

other variables of the three dimensions of social presence that may be important to be aware when facilitating online collaborative learning.

Related Research in Collaborative Learning

Reviewing reports of research and related literature in the area of collaborative learning as defined by Peters & Armstrong (1998), typically in face-to-face environments, also helped me to better understand the experience of participants in my study in the areas of establishing a comfortable environment, participating in collaborative learning, and making sense of the experience.

Establishing a Comfortable Environment

Just as it stood out to participants in my study, researchers have found in recent studies of face-to-face collaborative learning that it was important for participants to get to know one another in order to be able to engage in joint construction of knowledge (Naujock, 2002; Merrill, 2003; Osborne, 2003). Merrill (2003) found in her study of collaborative learning in an information technology course that creating a comfortable environment for one another was an important aspect of relationship building among collaborators.

Feeling Uncomfortable

In terms of discomfort, one collaborative learning study highlights content as a reason for discomfort among participants. Alderton (2000), in a case study of a face-to-face course on dialogue, found that participants' negative perceptions about their abilities and experiences in regard to the content of the course resulted in their lack of

involvement in dialogue. Alderton's findings are similar to the experiences of participants in my study who shared that they were less likely to participate in the online dialogues if they were uncomfortable with content.

Overcoming Discomfort

Studies of collaborative learning in face-to-face environments (Alderton, 2000; Armstrong, 1999; Crosse, 2000; Naujock, 2002; Tisue, 1999) also speak to the importance of time and the amount of time it takes to establish an environment conducive to collaborative learning. Interestingly, Naujock (2002) found that the use of email communication enabled her and her colleagues in a high technology start-up business to establish a comfortable environment more quickly because technology enabled them to communicate at times when face-to-face meetings were not feasible. As with the research on online learning, this is similar to the experience of participants in my study who found that they were able to overcome feelings of discomfort in our online learning environment with the passage of time.

Feeling Comfortable

Recent studies of face-to-face collaborative learning report that as participants felt more comfortable in the environment they were more likely to express themselves in terms of the relationships they were able to establish and nurture with one another (Alderton, 2000; Brickey, 2001; Merrill, 2003; Naujock, 2002; Osborne, 2003). This is consistent with the participants in my study who felt comfortable in the online environment and therefore were able to focus on relationships with one another. Because

the relationship among co-learners is vital to collaborative learning, this further highlights the important of participants establishing a comfortable environment.

Participating in Collaborative Learning

There are similarities between the experiences of participants in my study and the experiences of participants in other collaborative learning studies with regard to facilitation. For example, participants who were aware of facilitation in our online learning environment typically experienced it as course planning, as well as involving setting up and managing the technology components of the course, and/or starting and ending each session with the Virtual Visiting Scholars. This is similar to what Osborne (2003) and Tisue (1999) refer to in their research on face-to-face collaborative learning as creating a safe environment from a physical perspective. In face-to-face settings this usually means choosing and setting up a place to learn which is comfortable and private. In the present study, I also attempted to set up an environment that was comfortable and private. I did this by choosing and configuring an easy to use online learning environment (CourseInfo) that required usernames and passwords to ensure that others outside of the course could not gain access.

In terms of who was perceived by participants as responsible for course facilitation, a couple of the participants in my study had the sense that the course coordinator was ultimately always the facilitator no matter who else engaged in facilitation activities. In his case study of dialogue in a face-to-face class, Alderton (2000) also found that some of the participants in his study had the sense that the instructor was always in charge, whether or not he wanted to be. This view of the

instructor as always in charge may come from participants' years of experience with Type I teaching and learning in which the teacher is always responsible for teaching and learning. Peters & Armstrong (1998) stress such experience may account for learners' difficulty with moving from Type I and Type II to Type III teaching and learning. Bruffee (1999) states that, "traditional dependence on a teacher's authority exerts a powerful undertow on students and teachers alike" (p. 41).

Positioning theory may shed some light on this as well. Positioning theory holds that instead of taking on fixed roles persons in interaction can dynamically position themselves or others depending on the situation (Davies & Harre, 1990). Even though our online collaborative learning environment was part of a university course that consisted of a course coordinator, Virtual Visiting Scholars, guest faculty, and students, each of us could position ourselves as co-learners or remain in our traditional roles. In her study, Merrill (2002) and her students found that they each had to step out of their teacher and student roles and position themselves as co-learners in order for the process of collaborative learning to be successful.

Making Sense of the Experience

When contrasting their experience of collaborative learning in our online learning environment with collaborative learning in our face-to-face environment, some participants experienced a difference in relationships. They found that they were able to establish more satisfying relationships with other participants in our online learning environment. Others contrasted the two environments in terms of presence. They found that they were only able to sense the presence of others in our face-to-face collaborative

learning environment and therefore were better able to establish relationships face-to-face. This may suggest the importance of participants being able to sense the presence of other participants in an online environment before they are able to establish relationships.

Naujock's (2002) study on the role of collaborative learning in a high technology start-up business further illustrates this connection between presence and relationships. Naujock found that she and her partners were able to use virtual communication via fax, phone, and email to build and sustain relationships among business partners. E-mail in particular provided a way for the group to build relationships with each other more quickly than if the group had relied on face-to-face meetings alone. However, one participant in Naujock's study pointed out that initial face-to-face interaction helped the group be able to head off potential misunderstandings that may arise when electronic communications are used. He shared his feeling that, after meeting in person, group members are able to see one another's faces and hear one another's voices when reading what group members write via email. Based on this participant's experience, it seems as if Naujock's participants/business partners were able to sense the presence of one another via technology after they spent time together face-to-face.

Another way participants in my study made sense of their experience in our online learning environment was to connect our online and face-to-face environments. Some participants saw our online and face-to-face environments as two parts of one experience while others experienced the two environments as separate entities. Just as some of the participants in my study experienced our online and face-to-face environments as separate, Portwood (1999), in her study of a face-to-face class that used

an online discussion forum, found that when describing characteristics of the discussion forum that many of her participants felt the discussion forum was “completely divorced” from the classroom experience. They did not express that one type of conversation was necessarily better than the other but stated that discussion forum conversations were “just different.”

Reflections on Findings

Based on my review of relevant literature and careful consideration of findings, I offer the following reflections on each theme.

Establishing a Comfortable Environment

This theme is informative not only because it illuminates the reasons why some participants were uncomfortable in our online learning environment, but also because it highlights how discomfort in online learning environments and collaborative learning environments can be overcome with the passage of time. What stands out the most for me however, is the interplay of the factors involved in participants’ comfort level, i.e., technology, content, relationships, or time and the way the participants engaged in online dialogues. Those who were uncomfortable with one or more of these factors seemed to have more difficulty participating in the online dialogues. It is as if they were somewhat disconnected from the whole learning process, which led to a lack of participation along with self-censoring and editing of their postings when they did participate. On the other hand, those who were comfortable seemed to be more able to connect with others and were able to participate without thinking about issues related to technology, content,

relationships, and time. This suggests that those who were not comfortable in the online learning environment were probably not as engaged in collaborative learning.

Additionally, the connections between the social presence research of Tu & McIsaac (2003) and the experience of participants in my study with respect to establishing a comfortable environment suggests that participant comfort with factors such as technology, content, and relationships can lead to social presence. A greater sense of social presence might also contribute to participants being more engaged in and satisfied with collaborative learning.

Perceptions of Other Participants

Knowing the various ways that participants perceived one another in terms of known and unknown, participants and non-participants, co-learners and teachers, experts and novices, and acceptors and strugglers is helpful with respect to understanding relationships in both online and face-to-face collaborative learning environments. Since some participants referred to one another as known or unknown it seems that a face-to-face encounter can be an important precursor to establishing an online relationship. Also, since there were those who referred to each other as participants or non-participants this suggests that in an online environment in which verbal and non verbal cues are missing that it is especially important to participate not only by reading and individually reflecting, but also by actively posting within a discussion forum. Finally, the fact that some participants perceived others in terms of novices or experts with course content, suggests that there may be a connection between this perception and discomfort with

content which may have effected how participants participated (posted messages) in online dialogues.

In terms of categorizing one another as co-learners or teachers it is interesting to note that any of the Virtual Visiting Scholars might have been perceived by some participants as co-learners and by other participants as teachers. This may have been a function of previous relationships that participants had with Scholars. Also, because there were many threads of dialogue going on at any one time, how participants interpreted the teaching and learning roles of Virtual Visiting Scholars may be related to particular dialogues in which they participated and whether or not the Scholars responded to directly to their postings.

Participating in Collaborative Learning

Participants' experience of participating in collaborative learning not only sheds light on how the face-to-face collaborative learning process relates to an online learning environment, but it also contributes to my understanding of the participants' experience of collaborative learning in general.

One interesting aspect of this theme is that some participants in our online collaborative learning environment did not notice or experience one or more of the elements of collaborative learning. For example, a few of the participants stated that they did not think about collaborative learning in terms of multiple ways of knowing. In the case of dialogical space, a few of the participants noted that they did not experience dialogical space. Because some participants did experience all of the elements of collaborative learning, the difference may be related to participants' own understanding

of elements, per se. Even though I defined the elements of collaborative learning for participants during the interviews, several of the participants re-defined them as they described their experience with the elements. Perhaps they did not experience the elements in our online collaborative learning environment in the way that I defined them. Another reason that some participants did not experience the elements of collaborative learning may be due to the fact that the elements were in the early stages of conceptual development when our online collaborative learning course took place.

For the participants who noticed one or more of the elements of collaborative learning, each element stood out in terms of one or more of other factors: location, time, or presence. With respect to location and time, the experience of participants showed that they had a multitude of choices to make. For those who saw dialogical space in terms of location, they could choose where to participate in terms of which dialogical space to visit. Within each dialogical space they could choose from one of several threads (or focuses of construction) in which to participate. They also had a choice of when they participated online. They could participate at times most convenient to them and/or whenever they came up with an idea that they wanted to share. Participants also had time to reflect on the postings of others as well as on their own postings. They could reflect within the online collaborative learning environment, during the face-to-face sessions, and on their own between class sessions. The expansion of time and location for participation and reflection, along with who chose to participate in which location had an effect on what was constructed in the online learning environment. The outcome cannot be categorized as positive or negative. It simply makes the outcome different, just as the

outcome of every collaborative learning session is different. Location and time are just two of many factors that have an effect on what is constructed in a collaborative learning environment.

In terms of presence, there seems to be a connection between sensing social presence and experiencing a dialogical space. Since I assume that it is necessary to develop a dialogical space in order to construct group knowledge, this leads me to suspect that some participants were unable to fully participate in group knowledge construction. This raises a couple of questions. Were some participants comfortable with technology, content, and relationships yet still not be able to experience group construction of knowledge because they did not sense the presence of others? Or is a sense of presence permanently linked to feeling comfortable, particularly in terms of relationships?

As with participants' experience of the elements of collaborative learning, one of the most interesting aspects of participants' experience with facilitation was the multitude of ways they experienced both the *what* and the *who* of facilitation. Even to the extent that some participants did not notice facilitation at all. This is a reminder that individuals experience a phenomenon in different ways depending on their own assumptions, past experiences, etc.

Making Sense of the Experience

Participants saw similarities in participation patterns, conversations, and the process of collaborative learning in the online and face-to-face environments. Even though participants noticed that our online learning environment was different in many

ways, they also realized that some of the challenges encountered online are similar to difficulties encountered in face-to-face collaborative learning settings. This underscores that the collaborative learning process is complex whether practiced face-to-face or online.

Participants noted differences in both environments in terms of their experiences of relationships, presence, and time. Some participants were more comfortable online in terms of relationship with other participants. Others noted that lack of presence led them to feel as if no one was attending to them in our online learning environment. This in turn led them to be less comfortable with relationships online. This leads me to believe that sensing the presence of others may be foundational with respect to being able to forming relationships online.

Some participants made connections between the face-to-face and online learning environments and others did not. This suggests that there may be a link between the particular threads of dialogue in which the participants were active and their sense of connection between online and face-to-face dialogues. Participants were able to pick and choose from multiple dialogical spaces and multiple threads (or focuses of construction) in each dialogical space. They probably would have been less likely to connect the two environments if a particular dialogue in which they were participating was not discussed further or reflected upon in the face-to-face collaborative learning environment. This adds another dimension to my earlier reflections on the themes of *perceptions of other participants* and *participating in collaborative learning* in terms of the differences between participants who are experiencing what appears to be the same phenomenon.

Learning Outcomes

Both content and process outcomes stood out for participants. This finding may be related to the prior experience that most participants had with studying collaborative learning. Nearly all of the participants in the face-to-face part of the course had studied Reflective Practice, a course in which emphasis is placed on the interaction of content and process in teaching and learning experiences. The experience of the participants also confirms that group learning as well as individual learning took place. This was indicated as participants described what the group constructed. A focus on both individual and group learning is a defining feature of Type III teaching and learning, or collaborative learning (Peters & Armstrong, 1998). Even though some participants were never quite comfortable in the online learning environment, all participants recounted learning something from the experience either from a process or content perspective or both.

In this chapter I discussed the findings of my study in terms of the themes of establishing a comfortable environment, perceptions of other participants, participating in collaborative learning, making sense of the experience, and learning outcomes. I also reflected on themes and connected them, where applicable, to related research and practice. In Chapter Six I revisit my practical theory (from Chapter One) in view of my findings and reflect on the outcomes and process of my research.

CHAPTER SIX

REFLECTIONS AND RECOMMENDATIONS

I embarked on this study because I wanted to improve my practice as an instructional technologist, specifically the area of my practice in which I assist faculty members with the facilitation of online collaborative learning. I developed a practical theory about how I might assist a faculty member with the facilitation of online collaborative learning and put my theory into action by participating in and acting as technical facilitator of the online portion of a blended face-to-face/online course on collaborative learning. I decided to study my actions in order to make informed changes to my practical theory. The purpose of my study was **to identify and describe the experiences of participants in an online/face to face collaborative learning course, including my own experience as technical facilitator of the course.** I recorded my reflections on the experience of planning and implementation of the collaborative learning course which I share in Chapter Two. I collected and analyzed data gathered from participants about their experiences which resulted in five themes: **establishing a comfortable environment, perceptions of other participants, participating in collaborative learning, making sense of the experience, and learning outcomes.** Finally, as I discussed the themes I connected them to related literature in the areas of online learning and collaborative learning.

In this chapter I revisit and reflect on the implications of my findings for my practical theory. I also reflect on the four elements of collaborative learning, three types of teaching and learning, and the research methodology I used to study my practice.

Finally, I outline ideas for future implementation of my revised practical theory and suggest areas for future research.

DATA-DATA: THEORIZE

In the section I discuss what my findings mean in terms of my practice.

Reflections on My Practical Theory

Prior to designing and implementing my study I developed a practical theory about how I might assist with the technical facilitation of online collaborative learning by focusing on the formation of a sense of place and a dialogical space in the online environment. I considered facilitating a sense of place as similar to facilitating the physical environment (Osborne, 2003; Tisue, 1999) or a collaborative place (Fazio, 2003; Muth, 2004) during face-to-face collaborative learning and facilitating the formation of a dialogical space as similar to facilitating the emotional environment (Osborne, 2003; Tisue, 1999), also during face-to face collaborative learning. The data from my study indicate that participants noticed the facilitation of both the physical and the emotional environment. In addition to this general recognition of two types of environments that need to be facilitated, participants' experiences were informative with respect to enhancing the establishment of both sense of place and dialogical space in online collaborative learning environments.

Sense of Place

The participants' experience of establishing a comfortable environment seems to relate to sense of place, particularly in terms of revealing factors such as technology, content, relationships, and time that influence participants' ability to be able to experience a location as a place. Even though I considered technology and relationships to a certain extent in my original practical theory, the experience of participants with the technology that I facilitated points that I should also consider the role that content and time play in how such an environment is developed and facilitated.

The participants' perceptions of one another in our online collaborative learning environment seem to be related to the formation of a sense of place as well, to the extent that participants' perceptions of one another affected their relationships. The finding that participants viewed one another as known and unknown, participants and non-participants, novices and experts, co-learners and teachers, and acceptors and strugglers suggests terms in which I can help participants to be more comfortable with one another.

The process that participants used to make sense of their experience may link to the sense of place component of my practical theory. If comparing and contrasting certain aspects of the online collaborative learning environment with face-to-face collaborative learning environments helped participants to become comfortable with the online learning environment, then it may have helped them form a sense of place.

When I developed my practical theory I assumed that once participants experienced a sense of place that they would be more ready and willing to move into a dialogical space. The connections I discussed in Chapter Five between the factors that

affected participants' comfort levels and the dimensions of social presence from Tu and McIsaac's (2002) work adds support for the importance of the connection between a sense of place and a dialogical space. For instance, if participants are more comfortable with technology, then they may be more likely to sense presence, a factor that is important in a dialogical space. I discuss this idea in the following section.

Dialogical Space

The findings that most directly relate to the dialogical space component of my practical theory are participants' descriptions of their experience with the elements of collaborative learning. While describing their experience with the elements of collaborative learning in our online learning environment, participants' talked about dialogical space in terms of location, time, and presence.

In my original practical theory I considered it important to provide participants with locations for dialogue around course concepts as well as locations to get to know one another. The experience of some participants, in particular with respect to dialogue around course concepts, highlighted that locations or containers for dialogue were indeed necessary for creating a dialogical space. Just as with face-to-face dialogue it helps to have a physical, or in our case virtual, location to act as an emotional container. The experience of participants also suggested that multiple dialogical spaces may exist in an online learning environment. Also, because of the asynchronous nature of the dialogue, participants may participate in more than one dialogical space at a time.

I also considered the factor of time in my original practical theory and the importance of providing ample time for participants to dialogue around course concepts

and to get to know one another. Participants experienced time in terms of having the opportunity to dialogue about course concepts with Virtual Visiting Scholars, but they also pointed out other dimensions of time such as experiencing time in terms of constant access to the online dialogical spaces. They also saw time in terms of being able to compose their postings. They compared the longer period of time available online to the in-the-moment experience many participants had in their face-to-face environment.

Although I did not use the term presence in my original practical theory, I was mindful that the sense of connectedness in a dialogical space is based not only on words participants use, but also on tone of voice, eye contact, body posture, etc. These might be considered ways that participants in a face-to-face dialogical space establish presence. Lack of these factors in an online environment suggests that other means must be used to establish presence. Also, because some participants were able to sense the presence of other participants while others were not, it may be, as Picciano (2002) described, that sense of presence is different for every participant. The way participants described their experience of one another suggests that presence may have been established by the way in which some participants used language. Others seemed to be able to sense the presence of one another because they knew other participants from a previous face-to-face relationship and therefore their presence in terms of tone of voice, facial expressions, and so forth were carried over into the online environment. Interestingly, those participants who recalled sensing the presence of others also recalled being comfortable and sometimes preferring the online collaborative learning environment. This may be a function of the text-based feature of the online environment, as it enabled more time to

read and reflect before posting and promoted more equality among participants. This suggests that if they are able to establish a sense of place and a dialogical space, then an online collaborative learning environment might be more appealing to more participants.

When I developed my practical theory I speculated that, once established, a dialogical space could contribute to the other elements of collaborative learning and therefore lead to an environment in which participants would jointly construct individual and group knowledge. The way in which my findings relate to each of the remaining elements of collaborative learning is discussed below.

Reflections on the Remaining Elements of Collaborative Learning

In my practical theory I focused on helping the course coordinator to establish sense of place and dialogical space based on the expectation that this would support the other three elements of collaborative learning: multiple ways of knowing, cycles of action and reflection, and focus on construction. Below I reflect on my findings as they relate to the remaining three elements.

As some participants did while recalling their experience with dialogical space, there were those who talked about their experience with multiple ways of knowing by focusing on the lack of presence in our online collaborative learning environment and by describing how this affected their ability to *know from within*. Participants said that in our online collaborative learning environment they either were not able to experience *knowing from within* or that other ways of knowing such as *knowing that* and *knowing how* were the dominant ways of knowing in their experience. This suggests even more

strongly the importance of being able to sense the presence of others when participating in collaborative learning, particularly if a group wants to be able to focus on not just one or two but on several different ways of knowing. This finding also highlights the relationship between dialogical space and multiple ways of knowing. If participants had been able to sense of presence of others and establish a dialogical space, perhaps they would have been able to recognize and express other ways of knowing, such as *knowing from within*.

Participants described their experience with cycles of action and reflection in terms of location and time. What seemed to stand out for them the most was the many locations in which they were able to reflect and the amount of time they had available to reflect. Because participants' previous experience with collaborative learning was primarily in face-to-face environments, it might be assumed that location and time stood out to them because it was quite different than in a face-to-face environment where dialogue is often contained within one location for a specified time period. While participants did not explicitly describe how multiple locations for reflection might have affected their actions or subsequent reflections, they did talk about extended time for reflection and how it might have affected what they posted and/or even prevented them from posting at all. Therefore, on the surface, more time for reflection might be a good thing, in particular for those who need more time to think about messages they would post. However, extended time for reflection, writing a post, and/or editing a post, might negatively impact what is said or the knowledge that is constructed if extended time for

reflection moves participants away from a focus on what they were responding to in the first place.

Participants also described their experience with focus on construction in terms of location and time. An interesting aspect of this is that because dialogue was text-based and housed in a permanent location participants cited being able to follow the paths of their constructions. It has been my experience with face-to-face collaborative learning that at times it is sometimes difficult to keep up with who says what when a group is engaged in dialogue. Use of an online environment for collaborative learning alleviates this problem to a certain extent. From the participants' perspective, the focus on construction was slowed by the online experience.

Interestingly, while participants' experience of dialogical space and multiple ways of knowing had a relational component as indicated by participants being able to sense the presence of one another (or not), participants' experience of cycles of action and reflection and focus on construction seemed to be based only on the mechanics of the setting related to location and time. There is very little that is relational in participants' descriptions of their experience with cycles of action and reflection and focus on construction. This suggests that participants were not reflecting as deeply on their actions and the actions of others, or focusing as intently on what the group was constructing. If this was the case, this adds strength to my notion that a dialogical space needs to present in order to contribute to the other elements of collaborative learning; in particular since several participants' in my study stated that they did not experience a dialogical space in our online learning environment.

As mentioned in my reflections on the themes in Chapter Five, it is important to take into account that the conceptual aspects of the elements of collaborative learning were relatively new to most participants. Some participants also chose not to address my questions about their experience of the elements of collaborative learning because they did not view the elements the way in which I defined them. Some participants redefined the elements in their own words, and the way some participants described their experience of the elements of collaborative learning was undoubtedly influenced by differences in the way the elements were defined.

Reflections on the Three Types of Teaching and Learning

All three of Peters and Armstrong's (1998) types of teaching and learning occurred during the online portions of our collaborative learning course. However, there was concern on the part of some of the participants that the Virtual Visiting Scholars mainly presented themselves as Type I teachers and that our course coordinator was always in charge. These participants tended to position the Virtual Visiting Scholars and our course coordinator as teachers. This may be due to a certain extent to individual differences in participants and the difficulty that students with years of experience in Type I and II teaching and learning situations may have with moving into a Type III setting. Also, because the Virtual Visiting Scholars were invited to dialogue with us about their work it might have been difficult for them to relinquish their role as expert and position themselves as co-learner with other participants.

From the perspective of the way the course was structured, we as facilitators might have done some things that positioned the Virtual Visiting Scholars as experts, such as referring to them as “Virtual Visiting Scholars” and naming each Cyber Café with the name of each Scholar. The experience of study participants suggests that it is important to strike a balance in our recognition of the experience and expertise of Visiting Scholars and teachers while creating an environment that helps them to position themselves and be positioned as co-learners.

Reflections on Research Methodology

Approaching this study from an action research perspective gave me the opportunity to formally study an everyday aspect of my practice. Although the structure may not be as formal in the future, simply the act of conducting an action research project has changed my view of my practice in general towards one that assumes a more reflective stance. As a result of this experience I am more aware of the everyday practical theories that guide my practice and will be more likely to examine my assumptions about my practice and use the results of my examination to make changes.

Throughout the process, I struggled with using Peters’ (1997, 2002) DATA-DATA model as a method for developing my practical theory and conducting my study. I think that part of my difficulty is related to the reflective nature of the process. Instead of reflecting only at certain phases of the model, reflection is actually called for in all phases of the model. In my case this resulted in constant reconsideration of each and every part

of the study. Now that my study is complete, I see that using DATA-DATA helped me to develop a more meaningful study.

Hatch's (2002) method of inductive data analysis was extremely time-consuming. I thought that it was time well spent throughout the domain analysis process, but struggled for almost a month with the final step of the search for themes. Because this is my first major study I do not have experience with other methods of data analysis that I can use for comparison. I would like to try other inductive analysis methods in the future.

I feel confident about my ability to conduct studies designed to improve my practice in the future and believe that I will be able to conduct them more efficiently.

DATA-DATA: ACT

In the section I decide what will be my next action.

Future Implementation of My Revised Practical Theory

Based on the findings of my study and my reflections on how the findings relate to my practical theory, I outline below the factors that I should consider as a technical facilitator when assisting a faculty member in the future with implementing collaborative learning in an online learning environment. Although my study focused on the experience of a relatively small number of participants who practiced collaborative learning as defined in this study, I hope other instructional technologists and faculty members will find the lessons I learned useful when planning and facilitating their own online collaborative learning environments.

I will consider factors that stood out to participants that relate to establishing a sense of place: technology, content, relationships, and time. I will also consider factors that stood out to participants in terms of their experience of participating in collaborative learning and seem to relate to establishing a dialogical space: location, time, and in particular, presence, as I plan and implement future online collaborative learning environments.

Course Planning

In terms of choosing technology tools to use for future online collaborative learning courses it may be necessary to recommend a tool, at least for a short time, that has an inherently higher level of social presence. To a certain extent this will depend on participant and technology factors since, for the most part, tools that have an inherently higher level of social presence are not only more expensive to purchase and support, but also require more technology access and sophistication on the part of the user. This is depicted in Table 6.1.

While tools such as asynchronous discussion boards, listservs, and email are typically less expensive to purchase and support and require less technical sophistication on the part of the user, they also have less social presence inherent in the tools themselves because text is the only means of communication and communication takes place asynchronously. Synchronous text chat systems and asynchronous voice board systems provide a higher level of social presence but are more costly to purchase and support and require more technical sophistication on the part of the user. At the top of the list are synchronous audio/video conferencing tools which may be the next best thing to

Table 6.1: Relationship of Inherently Higher Social Presence Features to Cost and Technical Sophistication of Communication Tools for Online Dialogue

Communication Tool Options for Online Dialogue	Cost To Purchase & Support	Technology Skills & Access Required of Users	Level of Inherent Social Presence
Synchronous Desktop Video Conferencing (audio/video)	More Expensive 	More Sophisticated 	Higher
Asynchronous Voice Board Systems (audio)			
Synchronous Text Chat Systems (text)			
Asynchronous Discussion Boards Listservs, Email (text)	Less Expensive	Less Sophisticated	Lower

being in the same room with someone else, but these types of tools are even more costly to purchase and support and require even more technical sophistication on the part of the user.

If I recommend using a tool with an inherently higher level of social presence such as a synchronous tool or an asynchronous tool that provides more than text alone (i.e. voice) for at least one or two sessions I will need to be prepared for the technical challenges that come along with using more than one tool, using tools that require additional hardware and software, and so forth.

Participants' previous relationships may play into choosing a communication tool as well. If participants know one another I may be less likely to choose a tool with an inherently higher level of social presence. If participants do not know one another I will

be more likely to recommend scheduling at least one face-to-face session or using a tool, at least once or twice, that has an inherently higher level of social presence.

In most cases an asynchronous text-based tool will still be the primary location for dialogue. This is because participants can access them at any time and because they are easier to use technically. Since I expect this to be the case, I will search for tools that enable participants to more easily see the connections between their postings and postings of others. A tool that enables participants to more easily see what is being constructed may also aid in the establishment of a sense of presence. I will also look for tools that contain built-in functions to assist users with management of their time, such as tools that send email messages to participants when another participant has responded to their posting and/or when a posting is made to a forum in which participants are particularly interested.

When it comes to configuring online learning environments for collaborative learning, I will need to participate in activities such as uploading materials, preparing the communication tool or tools used for dialogue, and helping participants to build and nurture relationships. I will also need to work with the course instructor to make configuration decisions related to location and presence.

How I configure the environment in terms of location will be based on decisions made in conjunction with the faculty member. Assuming that most of the current tools allow for the creation of multiple discussion forums or chat rooms within one course site, the decision that will need to be made is related to how many locations for dialogue are preferable.

Although I did not realize it at the time, my configuration of our online learning environment during the original implementation of my practical theory consisted of activities that can contribute to a sense of social presence. This included creating one space where participants can upload photographs of themselves and provide information about their families, interests, and work and creating another space where participants can converse with one another about subjects other than the current course topic(s). The results of my study have shown that activities like these are even more important than I initially realized since they can contribute to a sense of presence among participants.

I will still need to develop training materials for accessing the online learning environment, navigating within the environment, and using the communication tools. Based on the experience of participants in my study, if tools used in the future are the same or similar, I will be able to give participants more detailed recommendations before the course begins as to what to expect from the technology along with tips for dealing with potential difficulties.

I can also include training materials designed to help participants realize ways that they can bring their personality into text-only communication and therefore contribute to a sense of presence. For instance, I can share a list of emoticons, which are keystrokes that are used to make facial expressions, i.e. a wink ;-). I can also provide a list of simple HTML tags so that participants can emphasize (bold, italicize, underline) words or phrases. Use of emoticons and HTML tags will enable participants to simulate tone of voice and facial expression in the spite of the text only mode of communication. In collaboration with the faculty member before the course begins or with all participants at

the beginning of the course, we can develop guidelines for posting to the discussion board such as a suggested style of writing, length of messages, timeliness of replies and/or simply acknowledgement of postings. As Tu & McIsaac (2002) found, an informal writing style leads to sense of presence. Writing shorter message may help participants to feel more comfortable with technology as it relates to managing the amount of time they spend composing their own messages and reading the postings of others. Involving participants in the development of guidelines for posting may also help them to own the process and feel more like co-learners instead of students (Beiesenbach-Lucas, 2004; Jetton, 2003-2004).

Course Implementation

Once a course is underway I will need to provide support to participants if problems arise and act in ways that help them feel comfortable in the environment. In terms of supporting the formation of a sense of place and a dialogical space and therefore the process of collaborative learning as a facilitator I will need to stress to participants the importance of participating in activities specifically designed to help them to get to know one another. I also need to emphasize the importance of posting in the online dialogues using the guidelines they developed related to use of emoticons, acknowledgement of one another, and so on. If I am also a participant, I need to take the lead by modeling these activities for other participants.

Recommendations for Future Research

The findings of my study and the connections to related research in online and collaborative learning suggest areas for more in-depth exploration. Some interesting topics that practitioner-researchers might investigate include:

1. The relationship between participants levels of comfort in online learning environments and their engagement in collaborative learning.
2. The concept of participant positioning in collaborative learning settings.
3. Participants experiences of time in online collaborative learning environments.
4. The relationship between the concept of social presence and the formation of a dialogical space in online collaborative learning environments.
5. Further exploration of the concept of a sense of place and its relationship to dialogical space in collaborative learning environments.
6. Ways to enhance social presence in text-only online environments.
7. The usefulness of a variety of asynchronous and synchronous communication tools in online collaborative learning environments.
8. The relationship among the four elements of collaborative learning.

Closing Reflection

At the beginning of this study I set out to describe and understand how collaborative learning occurs in an online environment so that I might improve my practice as an instructional technologist. Not only do I believe that I succeeded in that endeavor, but I also believe that my understanding of collaborative learning in general

and of facilitating collaborative learning in online and face-to-face environments has deepened tremendously.

Even though my study focused exclusively on my practice, in some small way I sense that I will be able to contribute to the overall improvement of the teaching and learning process. By adapting my practical theory to other settings in my practice and sharing it with others so that they may adapt it to their practices I hope to be able to advance the knowledge in the fields of collaborative learning, online learning, and instructional technology.

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APPENDICES

**Appendix A:
UT Course Syllabus**

EP 673: COLLABORATIVE LEARNING

(TENATIVE SYLLABUS)

Thursdays, 5:45-8:35

John M. Peters
A519 Claxton Complex
jpeters@utk.edu

Overview

The course will focus on social construction of knowledge and applied phenomenology. We will seek to understand social constructionist thought as it promises to advance our knowledge of collaborative learning. We will explore alternative ways of knowing and inquiry, including promising new applications of various research methodologies consistent with a social constructionist viewpoint. We will locate all of this within our practices and develop new ways of articulating our practice of collaborative learning and inquiry.

Approach

Weekly class meetings will involve dialogue about selected readings. We will also engage in online dialogue with students and faculty located at the Royal Melbourne Institute of Technology (RMIT) and with guest faculty located at UT and other universities in the U.S. and abroad.

Four "Virtual Visiting Scholars" will join us online and they will lead our dialogue about selected topics. Each scholar will put up two or more papers related to his or her topics, and we will base our dialogue on their papers.

All of us (students and core faculty) will participate in all class sessions and engage in online dialogue. We will develop guidelines for our online participation, so as to ensure that all participants are fully involved and have access to each other's contributions to our dialogue.

At the end of the course, we will reflect on our experience and jointly construct the meaning it has for our lives. Each of us (including core faculty) will develop a paper that expresses our interpretation of social construction, its relationship to our concept of collaborative learning, and implications for our practice. We will share our papers with other participants at the end of the spring semester.

Our class meetings (Thursdays, 5:45-8:35) will take place from January 11 to May 3, and our online work from February 26 to May 1, 2001. We will engage online with the aid of "CourseInfo", an instructional management system. Papers, schedules, announcements, student and faculty information, and our discussion thread will all be accessible on the course site. Participants will be given guidelines for utilizing CourseInfo.

Course Materials

Two texts are required. These are available at the University Bookstore.

- An Invitation to Social Construction by Kenneth J. Gergen
- Relational Responsibility: Resources for Sustainable Dialogue by Sheila McNamee (Editor) and Kenneth J. Gergen (Editor)

Topics and Readings

This is a tentative list of topics and readings. A final list will be posted on our CourseInfo site by January 25. Both lists will show the name of the Virtual Visiting Scholar associated with topics.

- I. Identity, Self and Relationship from Constructionist Perspective
- II. The Nature and Meaning of Conversation and Dialogue in Social Change
- III. Alternative Qualitative Procedures for Practice and Research
- IV. Relational Theory and Practice

Dialogue about the above topics will be led by Kenneth Gergen, Morton Professor of Psychology, Swarthmore College. Ken recommends the following readings:

- A. MacNamee, S. and Gergen, K., Relational Responsibility, Sage, 1999.
- B. Gergen, K., An Invitation to Social Constructionism, Sage, 1999.
- C. Gergen, K., (and Taos Colleagues), "Transformative Dialogue"*
- D. Gergen, K., and Gergen, M., "Issues and Future of Qualitative Inquiry" *

This online dialogue will take place on February 26-March 3.

- V. The Discursive Turn
- VI. Positioning

This dialogue will be led by Professor Rom Harré, Head of the sub-department of Philosophy, Oxford University. He recommends the following readings:

- A. Harré, Rom. "The Social Construction of Persons"*
- B. Harré, Rom. "Encouraging the Other Through Grammar"*

This online dialogue will take place on March 5-16.

- VII. The Poetics of Practice
- VIII. Creating Resourceful Communities
- IX. Methods of participative Inquiry

Arlene Katz, Instructor of Social Medicine, Harvard University, will lead this dialogue. She recommends the following readings:

- A. Katz, A., Siegel, B.S., and Rappo, P. "Reflections From A Collaborative Pediatric Mentorship Program: Building A community of Resources"*
- B. Katz, A., Connant, L., Baron, D. and Bor, D. "A Council of Elders: Creating a Community of Care"*
- C. Katz, A., and Shotter, J. "Social Poetics as a Relational Practice: Creating Resourceful Communities"*

This dialogue will take place on March 26 - March 30.

- X. Social Poetics, Being and Knowing
- XI. Social Poetics as a Relational Practice

Both Arlene and John will facilitate this dialogue. Recommended readings are as follows:

- A. Shotter, J. and Katz, A., "Articulating A Practice From Within the Practice itself: Establishing Formative Dialogues By the Use of a 'Social Poetics': Concepts and Transformations"*
- B. Katz, A. and Shotter, J. "Resonances from within the practice: social poetics in a mentorship program"*
- C. Katz, A. and Shotter, J. "Social Poetics As A Relational Practice: Creating Resourceful Communities"*

This dialogue will take place on April 2-6.

XII. The Poetics of Being, Knowing and Doing

XIII. Putting A New Dialogical Practice in our Practices

John Shotter will lead this dialogue. Recommended readings include:

A. Shotter, J. "At the Boundaries of Being: Re-figuring our Intellectual Lives Together"*

B. Shotter, J. "Constructing 'Resourceful or Mutually Enabling' Communities"*

This dialogue will take place on April 9-13.

*Papers posted online

APPENDIX B: RMIT Course Syllabus

RESEARCH ON LINE

Semester 1, 2001

From February to May 2001 RMIT Doctor of Education program will be involved in a new educational endeavour with the University of Tennessee initiated by Prof. John Peters. The on line will be part of the compulsory unit FM989 Advanced Research Methods. Students and faculty will engage in online interactions related to papers posted by international scholars. The UT students will be focussing on the social construction of knowledge and applied phenomenology as it informs collaborative learning and action research. At RMIT we will be focussing on research ideas and methodologies. While the two cohorts will be working in different ways in non online contact, we will interact through our readings of, and writings on the virtual visiting scholars. The regular face to face sessions for FM989 will begin in April, although we will schedule some informal discussions as required in the interim.

Features of the Program:

- It is grounded in existing areas of scholarly excellence.
- The program will involve active participation and collaboration by faculty and students.
- There will direct participation by world class scholars.
- National and international links will be utilised.
- The program will involve creative use of technology for course delivery and scholarly discourse.
- The program will involve adult students who are actively engaged in their professional practices.

Texts:

While the essential reading for the program will be put online as we proceed, background reading on social constructivism provides invaluable reading.

McNamee, S., & Gergen, K., (1999) Relational responsibilities. Sage.

Gergen, K. (1999). An Invitation to Social Constructionism. Sage.

Set Text:

Scott, D., & Usher, R. (1996). *Understanding educational research*. London: Routledge.

A full reading list for FM989 will be provided in the subject guide.

Expectations:

All students enrolled in FM989 Advanced Research Methods within the Doctor of Education program at RMIT University for semester 1, 2001 are expected to participate in the online interaction with John Peter's doctoral students and other colleagues from Tennessee and beyond. Participation is part of the assessment for FM989. Although participation will not be graded it is compulsory, it will inform the negotiated written task that students undertake. Students might negotiate their written assessed task (negotiated task equivalent to 7000 words) to focus solely on central issues from the online dialogue, and might choose to construct a paper and post it on line. Others might negotiate to write a paper that forms the basis of a research proposal or methodological paper while showing clearly how the online interactions have informed such a task. Negotiations in terms of assessment must relate to parameters outlined in the subject guide and must be submitted in writing to the program co-ordinator by the end of April.

On line participation will involve:

Weekly: minimum one post
 minimum one reaction

As only 50 people can be on line at any one time, there are advantages of forming teams of students and faculty. Each team can interact in terms of the readings and other interests, and teams can be paired to form other discussion groups. This is in addition to a general forum that will be going day and night for the duration of the program.

One way of working:

A team of 3 people could post their thinking online and others can read their thoughts. Having teams means that people can interact as they wish without necessarily negotiating the entire forum of messages.

Timeline:

Program begins:

26 February 2001 On line dialogues with participants
 Getting to know you
 Posting biographies

First Contributor: Kenneth Gergen, Mustin Professor of Psychology, Swathmore College

Other Contributors:

John Shotter, Professor and Head, Interpersonal Communications, University of New Hampshire

Arlene Katz, Instructor in Social Medicine, Harvard University Medical School

Rom Harre, Professor and Head of the subdepartment of Philosophy at Oxford

John Bowden, Professor and Principal Advisor to the Vice Chancellor, RMIT University

Guidelines for Online Interaction:

Frequency: While some online discussions reduce the number of responses per week, this will not be put in place unless there is some systemic problem.

Minimum: one response per week

Teams: team responses are actively encouraged.

Responses should be considered but the opportunity to play with ideas, to pose questions, to recommend relevant readings, to connect the unfamiliar to the familiar, to move beyond the comfort zone ... should be seized.

APPENDIX C: Images of the Course Site

Announcements Area

http://online.utk.edu/courses/36239/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://online.utk.edu/courses/36239/

Gina P. Roberts 36239: EP 673: Collaborative Learning

Announcements

Course Information

Course Documents

Communication

External Links

Student Tools

Resources

Course Map

My Blackboard

Search **Logout**

Powered By
Bb
Blackboard

EP 673: Collaborative Learning



Ron Harre, Arlene Katz, John Shotter



John Peters, Howard Pollio, Ken Gergen

Announcements

Posted Today

Subject: Welcome! Posted by Gina Roberts on Feb 6, 2001

Welcome to the online learning space for our Collaborative Learning course!

The University of Tennessee face-to-face course sessions take place on Thursdays from 5:45~8:35 in McClung Tower Room 1201. We meet from January 11 to May 3.

Our online sessions will run from February 26 to May 1.

We will engage online with the aid of "CourseInfo", an instructional management system. Papers, schedules, announcements, student and faculty information, and our discussion thread will all be accessible on this course site.

You'll find general information in the **Course Information** area. As readings become available, they'll be posted in the **Course Documents** area. Once we get rolling, we'll probably spend most of our time in the **Communication** area using the **Discussion Board**.

Young Ju Lee at ylee2@utk.edu and Gina Roberts at grobert1@utk.edu will be happy to assist with technical questions. Please don't hesitate to contact us with any questions or concerns.

John Peters, Course Coordinator, can be reached at jpeters@utk.edu.

Done Internet

Discussion Board Area

Welcome to 36239 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Copy Paste

Address <http://online.utk.edu/courses/36239/> Go Links

Google Search Web DAP Options Software

Gina Roberts 36239: EP 673: Collaborative Learning

Discussion Board

Forum: The Reflecting Cafe

VIEW UNREAD MESSAGES ☐ EXPAND ALL ☐ COLLAPSE ALL ☐ SEARCH

Show Options

☐ Mesmerizing	Merrill, Martha J.	17-Apr-2001
☐ Re: Mesmerizing	Jolley, Anna	17-Apr-2001
☐ Re: Mesmerizing	Harre, Rom	18-Apr-2001
☐ Re: Mesmerizing	Stulberg, Dorothy B.	17-Apr-2001
☐ Re: Mesmerizing	Harre, Rom	18-Apr-2001
☐ Re: Mesmerizing	Ragland, Betty B.	18-Apr-2001
☐ Re: Mesmerizing	Harre, Rom	18-Apr-2001
☐ Re: Mesmerizing	Naujock, Kimberly J.	18-Apr-2001
☐ Re: Mesmerizing	Gergen, Ken	18-Apr-2001
☐ Re: Mesmerizing	Stulberg, Dorothy B.	18-Apr-2001
☐ not ready	Stulberg, Dorothy B.	17-Apr-2001
☐ Re: not ready	Henry, Jane B.	17-Apr-2001
☐ Re: not ready	Naujock, Kimberly J.	18-Apr-2001
☐ Re: not ready	Pruitt, James H.	18-Apr-2001
☐ Re: not ready	Harre, Rom	18-Apr-2001
☐ Re: not ready	Harre, Rom	18-Apr-2001
☐ Serendipity	Cotter, Mark S.	18-Apr-2001
☐ Re: Serendipity	Ragland, Betty B.	18-Apr-2001
☐ Re: Serendipity	Harre, Rom	18-Apr-2001
☐ Attending to Presence	Muth, Allyson B.	18-Apr-2001
☐ Re: Attending to Presence	Harre, Rom	18-Apr-2001
☐ Re: Attending to Presence	Stulberg, Dorothy B.	18-Apr-2001
☐ Re: Attending to Presence	Stulberg, Dorothy B.	18-Apr-2001

Powered By **Bb** Blackboard

http://online.utk.edu/bin/common/discussion_board_forum.pl?k=36239&g=36239&l=49012&close=1 Internet

APPENDIX D: Participant Handouts

Course Site Overview

The online dialogue sessions will take place in a password protected course Web site. The Web site was created with a popular online course management system (CMS), Blackboard CourseInfo. If you're not familiar with course management systems this document may be of interest - http://online.utk.edu/help/newwhatis_ci.pdf.

You've probably already received a username and password for the site from ITC. You'll use your username and password to log on to the course site at:
<http://online.utk.edu/courses/36239>.

In order to have everyone's name appear at the same places in the course, we have to set up all accounts with student status. That's why you'll see your name in the "Student" roster and you'll be able to edit your "Student" Homepage.

After logging into the site, you'll notice a main menu area on the left and a content area on the right. A good way to get acquainted with the site is to click on all the menu buttons on the left to see where they lead!

Here are some areas you'll want to visit:

Course Information

Contains a course description, readings, and requirements for the UT Collaborative Learning course group.

Course Documents

This is where the readings that the Virtual Visiting Scholars recommended will be posted. We are in the process of completing this section. Some readings will display as Web pages and others will be in Adobe PDF format. Directions for reading PDF documents are on the site.

Communication/Discussion Board

This is where online dialogue is taking place. Currently there are two forums in the discussion board area. The first – "The Bulletin Board" is mainly for posting announcements and getting acquainted with how the discussion board works. The second forum - "The Cyber Cafe" is being used by the Tennessee group as a precursor to and extension of classroom dialogue. You are encouraged to read and post in either or both forums. As our "official" online dialogue sessions begin, we will create forums for those.

Communication/Student Roster

This area lists all participants.

Communication/Student Pages

This area houses simple introductory Web pages that everyone who participates is encouraged to develop. Click on a person's name to see their Web page.

External Links

This is an area where we can share Web sites of interest to the group. If you have a site that you would like to add to the list please send it my way.

Student Tools/Edit Your Homepage

This is the area where you can create your own homepage. Just fill in the blanks and press the "Update Homepage" button at the bottom of the screen. You can also upload a digital picture in this area. If you need help with that just let us know.

Student Tools/Student Manual

This is an easy to use manual that covers the basics of using CourseInfo.

Participants in the online course site include: the UT students in the Collaborative Learning course, the Virtual Visiting Scholars, participants from the Royal Melbourne Institute of Technology, and other special guests.

The folks in the collaborative learning course are glad you can join us and are very excited about learning with you this semester!!!!

Please don't hesitate to contact me at grobert1@utk.edu or Young Ju at ylee2@utk.edu if you have questions.

Accessing the Course Site

A few of you have shared with me that occasionally you have difficulties accessing the site and/or using your username and password to gain access to all areas of the site.

The online course site is located at <http://online.utk.edu/courses/36239>. When you type the address in to your Web browser you should then be prompted for a username and password.

If instead you get an error message such as "page cannot be found" or "HTTP 404" there are a couple of things to try.

The tips below are provided by the University of Tennessee webmaster.

1. Always check what you've typed for errors. The most common errors are caused by typos. And don't forget the subclause to this rule: always check that the case of the letters in a URL is correct. Unix knows the difference between uppercase and lowercase letters, and it doesn't translate between the two.
2. Try again. Temporary delays and errors go with the territory. Sometimes just hitting the Reload button is all it takes. Other times waiting an hour and hitting the Reload button does the trick.

When you are prompted for your username and password, check carefully to make sure that you type the information in as given to you. Usernames and passwords are case sensitive. Occasionally a username and password doesn't work the first time. If you try again, you should be able to get right in.

You are welcome to change your password anytime you like. To change your password, log on to the course site as usual. Go to the "Student Tools" area and click on "Change Your Information." On the Change Your Information screen you can change several pieces of information including your password. To complete the process click on the "Update User Information" button after you've made the changes.

Please notify me if you have any problems no matter how small they seem. Chances are someone else may be having the same difficulty. Also, include as much information as you can about the problem including, error messages, time of day, etc.

I can be reached at grobert1@utk.edu.

Using the Discussion Board

With only the UT group participating in the discussion forum we are finding it difficult to manage all the postings. These difficulties are likely to increase when we all begin participating in the next few days. Below you'll find tips for managing discussion forum messages. The UT group has found the following helpful as we've learned to how to use the discussion board.

The discussion board is one of several communication tools within our online course site. Since the discussion board is an asynchronous way of communicating it enables us to dialogue without having to be online at the same time. Within the discussion board we can have one or more forums. A course site administrator must create a forum. Within the forums we can post multiple threads and as many responses to threads as we like. Anyone can start a new thread or respond to an existing thread. We each have the capability to edit or remove our own postings within threads.

Within each forum there are several tools available to help you manage messages:

Expand All/Collapse All

When a message has a + to its left, that means that someone has posted a response. You can click on the + to see the title of the response. You can view a list of all postings in a forum by clicking on the Expand All + button in the top right corner of the forum screen. This may create a long list of messages, but it also makes it easier to see the flow of the postings.

If you would rather see a collapsed view that only shows thread names, click on the Collapse All – button in the top right corner of the screen.

Search

Click on the Search button in the upper-right corner of the forum screen to activate the search feature. You can use this tool to search by author and/or keyword(s). You can also choose how to sort your searches.

Show Options/Hide Options

Click on the Show Options tab in the upper-right corner of the screen to reveal several more tools. In addition to the tools listed below, you'll notice that every message has an empty box to its left. You can click in the box to select messages one by one or use the tools below.

Select All – Selects all messages in preparation for another action

Unselect All – Deselects all messages

Invert – Inverts the selection, i.e. if a message is selected, pressing the Invert button will deselect it.

Mark Read – Marks selected messages as Read

Mark Unread – Mark selected messages as Unread

Collect – Collects selected messages on one screen for easier reading and printing.

If you don't want to show the options listed above, click on the Hide Options tab in the upper-right corner of the screen.

Appendix E: Participant Consent Form

The Experience of Participants in an Online Collaborative Learning Environment

I understand that the purpose of this study is to describe and examine the experience of participants in an online collaborative learning environment. I also understand that by signing this consent form I give the principal investigator permission to utilize course related email and online course site discussion board postings that were originated during spring semester 2001 in EP 673: Collaborative Learning. I also give the principal investigator permission to use field notes that she collected while a participant observer in EP 673 for the purpose of this study. Additionally, I agree to be interviewed by the principal investigator regarding my experience in the online collaborative learning environment. I understand that this interview will be audiotaped if conducted face-to-face or digitally archived if conducted via email.

I understand the information I provide the principal investigator through email, discussion board postings, interviews, and observational notes will be held in the strictest confidence. I have also been informed that all audio tapes and paper-based data collected in this study will be kept in the Principal Investigator's office in a locked filing cabinet and upon completion of the study all transcriptions and notes will be shredded and disposed of along with the audio tapes. Additionally, I understand that electronic data will be stored in a password-protected area on the Principal Investigator's computer and upon completion of the study that the data will be deleted. I also understand that confidentiality of network based electronic data, i.e. email and discussion board postings cannot be absolutely guaranteed but that the Principal Investigator will take every

precaution to ensure confidentiality. The only person having access to the data will be the Principal Investigator. Additionally, I understand that this consent form will be stored for three years past the completion of the study at a UT location.

I understand that participation in this study is completely voluntary and I may terminate my participation at any time without penalty. I know that I will incur no risks by participating in this study and I may benefit by reflecting on the findings of this study.

I have also been informed that I may contact the Principal Investigator at any time if I have further questions or concern about the study or my participation, and that I will receive a copy of this consent form. **MY SIGNATURE ALSO INDICATES THAT I HAVE READ THE INFORMATION OUTLINED ABOVE AND AGREE TO PARTICIPATE IN THIS STUDY.**

Signature: _____

Date: _____

Name (print): _____

Principal Investigator

Gina Roberts
Educational Psychology
University of Tennessee
Dept. # 865-974-8145
grobert1@utk.edu

Co-Principal Investigator

Dr. John M. Peters
Educational Psychology
University of Tennessee
Dept. # 865-974-8145
jpeters@utk.edu

Appendix F: UT Participant Interview Guide

Purpose of the Study:

To identify and describe the experiences of participants in an online/face to face collaborative learning course, including my own experience as technical facilitator of the course.

Interview Questions:

1. What stood out for you as a participant in the online portion of our collaborative learning course?
2. Focusing now on specific features of the online portions of the course:
 - a. Describe your experience with the **content** of the course – social construction and applied phenomenology.
 - b. Moving now to the **process** of the course:
 - i. Describe your experience with other **participant** groups:
 1. What was is like learning with the *Virtual Visiting Scholars*?
 2. What was is like learning with the *RMIT participants*?
 3. What was it like learning with the *guest faculty*?
 4. What was it like learning with the *UT participants*?
 - ii. Describe your experience with course **facilitation**.
 - iii. Describe your experience with the **technology** used.

- iv. As it relates to the online portion of the course, describe your experience with the **face-to-face** sessions of the course that met on Thursday evenings.
3. Focusing now on the four features of collaborative learning as defined by Peters (2002b):
- a. A **dialogical space** is defined as a space in which learners understand each other. This space is established and maintained using tools such as asking questions, asking back for clarification, sharing critical incidents or biographies, and so forth. What was your experience with dialogical space in the online portions of the course?
 - b. **Multiple ways of knowing** is an approach to learning that recognizes that there are many ways of knowing. One of the ways of categorizing ways of knowing is distinguishing three types that include: knowing that, knowing how, and knowing from within a situation, i.e. a culture. What was your experience with multiple ways of knowing in the online portions of the course?
 - c. **Cycles of action and reflection** occur when learners engage in reflective practice. This may be done by pausing the learning process from time to time to check with learners about what the process is like for them at present. What was your experience with cycles of action and reflection in the online portions of the course?

- d. A **focus on construction** means that learners are intentionally seeking to co-construct new knowledge. What was your experience with the focus on construction in the online portions of the course?
4. Are there other experiences that you would like to share?

VITA

Gina Roberts earned a B.S. in Mass Communication with a concentration in Broadcasting from East Tennessee State University in 1989. She produced satellite-based one-way video, two-way audio distance learning courses at East Tennessee State University and the University of Virginia from 1990 - 1994. It was the positive experience early in her career with using technology for the delivery of instruction and supporting faculty users of technology that led her to pursue a career in instructional technology.

After completing an M.Ed. in Instructional Technology from the University of Virginia in 1994, Gina worked as an instructional technologist in support of faculty at Middle Tennessee State University and the University of Tennessee from 1994 – 2000. From 2000 – 2002 Gina served as the Director of Instructional Technology at Maryville College.

Gina is currently serving as an adjunct instructor of instructional technology in Lesley University's off-campus Master's Program and in Grand Canyon University's Online Master's Program. She also teaches instructional technology courses as needed at the University of Tennessee and Maryville College. In addition to her teaching practice, Gina consults on a contract basis with higher education faculty to assist them with the integration of technology into teaching and learning.

Gina will complete the requirements for an Ed.D in Education in May of 2005. She looks forward to continuing to integrate collaborative learning into her own face-to-face and online courses and to assisting faculty members who wish to do the same.