Cross-cultural Online Learning in Technical Communication Courses: Aiming for Intercultural Competence

by

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Teaching online in cross-cultural contexts is still a fairly new phenomenon. My research explores the impact of culture on the learners and instructors in four technical communication online courses. My study uses a comparative analysis to study how four instructors and their learners navigate their respective online courses. The instructors in this study come from two different countries, and all four of them teach graduate level technical communication online courses that are open to international learners. The learners in the courses come from several countries in Europe, Asia, and North America, representing an even wider range of cultural backgrounds than those of their instructors. Using a framework based on the theories of Clifford Geertz and Edward T. Hall, I analyze participants' culturally grounded communication patterns to understand how culture impacts instructors' practices and learners' expectations and experiences in their online courses. Hall theorizes that when individuals from different cultures communicate, they must have intercultural competence; they must be able to transition between low and high context communication to understand each other. The findings reveal the complex nature of culture: although national culture affects the online learning experience, other levels including institutional culture, disciplinary culture, and digital culture are also influential and may shape the cultural context of the online course even more powerfully than national culture

alone. The study ends with considerations regarding tools and strategies online instructors can implement to help participants of diverse cultural backgrounds reach intercultural competence as they interact with the course and with each other.

Cross-cultural Online Learning in Technical Communication Courses: Aiming for Intercultural Competence

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To: Risdon and Robynne, Larry Lowe, Teresa Pennell, and The Pennell Family

In memoriam Erei John Arzu and Robert Kenneth Pennell Sr.

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Preface

In the fall of 2008, I made a whirlwind move from Punta Gorda, Toledo, Belize, to pursue graduate studies at East Carolina University (ECU) in Greenville, North Carolina. The move had been planned perhaps ten years prior, right after I had completed my undergraduate degree at the University of Belize. But, the transition was only realized ten years after I completed that degree. I had successfully secured two years paid leave, an assistantship in the English Department at ECU, a visa for my daughter and me (after a serious wrangle with the American embassy), an apartment, and a seriously beat-up used car. That is, after preparing for, and successfully passing the GRE, putting together and subsequently losing a portion of my application package, and having had serious doubts about what some called my "wild plans." After all, I was a single mother of two young children (4 and 8 years old at the time); I had a secure job that paid well, as well as a home—why did I need to move?

Moving to North Carolina, and embarking upon graduate studies, was not easy either. In my first semester, I registered for traditional onsite courses that, for three days a week, from six to nine in the evening, took me away from my home and my children. My schedule changed by the spring semester when I switched my concentration. Once I heard Dr. Sherry Southard speak at the orientation about another concentration offered in the English department, Technical and Professional Communication (TPC), I changed my concentration. (I was at ECU registered for the Multicultural and Transnational Literature concentration in the English Department.) Dr. Southard caught my attention when she described the concentration as one that was writing focused, audience focused, and one within which learners would be "learning about writing for specific purposes." I felt that these focuses spoke specifically to those I practiced and intended within my teaching career. In addition, the technical communication concentration was offered strictly online. It was as if fate had finally lined up for me. If I had only known about a technical

communication program, of course there was no way I could have possibly known, even if I heard the title it would not have meant anything to me. Technical communication was not only what I had been teaching (somewhat), but could have been the focus of study that could have spared me all the trouble, anxieties, and expenses of moving, I thought.

The problem is that online learning has not reached its full potential. My colleagues had negative attitudes towards online courses. The program seemed hesitant to offer its courses nationally, or internationally, with the exorbitant costs to distance education (DE) students (at least in comparison to what was charged to on campus students). These were problematic to me since it contrasted greatly with who needed online education. An additional cost for the DE program, I thought, would certainly discourage enrollment, nationally and internationally.

Once officially enrolled in the TPC program, I was unprepared for an entirely online experience. The work was demanding, feedback was impersonal, teaching strategies among the 3 instructors I had that first semester varied immensely, and I did not know what to make of my peers, as I was unable to "read" them in the online environment. Before the middle of the semester, I realized I was not the only individual who felt the challenge of the digital environment. But, by the end of the semester, I had become a great fan of taking classes in an online environment. I signed up for courses two summers in a row, in addition to those I took during the fall and spring semesters, and I traveled while completing courses. The research, and work with new technologies, was refreshing. Most importantly I had more time with my two children. An important benefit to online learning was that it allowed me to work while they were in school or asleep. Online learning was the answer to many of my problems.

Consequently, online learning pedagogy became my research focus. Not only did online learning intrigue me as an educational platform, but I saw it as an important tool to help

individuals, like me, who juggled the responsibilities of family and work while simultaneously completing their education. Having two years' paid leave, as I had, was a privilege many others were not afforded, and opportunities to learn online could allow individuals without the privilege of paid leave to both work and pursue an education at the same time.

Another very important aspect of online learning aligned with my own background (an international background), and the flexibility inherent in providing online learning to a cross-cultural audience intrigued me especially. Coming from a developing country, a shortage of program options is often the case (a technical communication graduate program was not available in my own country); therefore, individuals from developing nations frequently pursue graduate programs offered by universities in countries other than their own. Technical communication is a program of study that is relatively new (less than fifty years old), even in the United States, and it is not offered by many American universities let alone universities outside of the United States. Because of this, taking online courses is an ideal solution for learners of various international backgrounds who want to study technical communication.

Several barriers exist to fully realizing online education as the foremost platform for the achievement of education for non-traditional and international learners. Continued research is the key to understanding how to overcome these barriers. The research focus I introduce here is intended to be a part of data needed to achieve effective cross-cultural online learning theory and practice.

Chapter 1: Online Learning: Practices, Experiences, and Culture

With increased interest in the study of technical communication (TC), and increased global Internet access, TC programs are opening up to broader cross-sections of audiences. Technical communication programs are increasingly enrolling learners from a variety of nations and cultures into their online programs. St. Amant (2007) explains that online programs in many countries have blossomed, and, as a result, so has students' interest in studying technical communication. St. Amant (2007) also notes that the U.S. holds one of the largest markets offering formal training in technical communication (p. 17). A number of countries outside of the U.S. have begun offering technical communication online courses that have expanded from a few courses into full-fledged programs. Tekom, for example, one of the largest associations for technical communication in Europe, notes 700 members including companies and universities that help in their objectives for "improving the training and employability of workers" (Tekom Europe, 2017). The audience of these technical communication online programs increasingly includes international individuals, students from various workplace settings, and students crossing institutional borders by taking courses at more than one university.

With the fast pace of change, and the shifts in audience for technical communication courses, institutions offering technical communication online programs, and the instructors offering courses in these programs, are increasingly attending to methods to plan for teaching students from a variety of countries and cultures. Within this dissertation, I offer some insight into these methods through an examination of online instructors and learners affected by factors related to culture within the digital online environment.

This research considers the following questions:

- What are some of the considerations, strategies, and practices instructors use at different points (i.e., before, during, and after the course) when planning for and teaching technical communication online courses that include students from a variety of countries?
- What are the experiences of learners enrolled in online technical communication courses that may include students with various backgrounds?
- How do the practices of instructors and the experiences of learners compare across instructors, institutions, and cultures?

For clarity, the research does not focus on new ways to design courses for cross-cultural audiences even though such concepts are foundational to online learning. This study acknowledges well known frameworks like the Universal Design for Learning (see CAST, 2015 and National Center on Universal Design for Learning, 2012) and Communities of Inquiry (see Swan, Garrison, & Richardson, 2009 and the Community of Inquiry at Athabasca University, 2016) that have been widely discussed in the field of technical communication, but that are beyond the scope of this research. Rather, this research focuses on culture in its various manifestations in teaching and learning: how the cultures of the various stakeholders in cross-cultural contexts affect the learning environment, how to use cultural differences as an educational advantage, and how to foster cultural difference and cultural learning resources in online learning environments. This study will highlight cultural factors instructors can consider as they design their online courses.

The focus on culture in this study makes it imperative to define the term. Technical communication often borrows definitions of culture from other disciplines whose focus is on culture (for example, anthropology, history, geography, and cultural studies), and these

disciplines have varying definitions of culture. For example, Huatong Sun (2012), who admits that culture is a "heavily contested term" (p. 5), uses a definition of culture borrowed from anthropologist Clifford Geertz (1973). According to this definition, culture is "the meanings, behaviors, and practices that groups of people develop and share over time as well as the tangible manifestations of a way of life, such as artifacts, values and states of consciousness" (Sun, 2012, p. 5). This definition reveals the products of culture. If a culture exists, then the individuals that make up this culture will tend to share "meanings," "behaviors," "practices," "artifacts," "values," and "states of consciousness" (Sun, 2012, p.5). The above definition can help us to consider culture as a practice, as well as to consider what culture produces.

An additional definition of culture more succinctly articulates what individuals are capable of as members of a particular culture. Anthropologist Michael Kim Zapf (1991) explains that

> A culture [is] a network of shared meanings that are taken for granted as reality by those interacting within the network. This view of culture proposes that a community of people tend to construct a common model or map of the world derived from their shared experiences and then use these pre-determined categories as a background or setting against which incoming experiences are interpreted. Without such a model or map, people would experience the world as totally chaotic and unpredictable. (pp. 105-106)

Zapf's definition complements Sun's (2012) and Geertz's assertion that culture produces very specific outputs. Zapf's definition shows what individuals of a culture can achieve with the products they derive from being in their group, and then (much like the chicken and egg conundrum) how, being in their group, they are able to create the products of culture. For my study, Zapf's definition accounts for why it is important for instructors to acknowledge and

understand the cultural backgrounds of their online students: since culture is what individuals depend upon to make sense of the world, an instructor's imposition of his or her culture upon students from other cultural backgrounds could immensely disrupt meaning-making for online participants. Far from taking the course environment out of culture, online course delivery may increase the likelihood that the instructor's and students' cultural backgrounds and resources differ. Zapf's (1991) definition helps us to understand why it is important to know learners' cultural backgrounds; such knowledge can help instructors anticipate or understand the best communicative strategies in the intercultural online learning environment.

Zapf's (1991) and Sun's (2012) definitions intersect along the common theme that culture is rooted in communities. Communities develop not only based on national cultures but also on where groups congregate and form their "map of the world" (Zapf, 1991, p. 105). These communities can be rooted in professional or other groups that an individual participates in.

This embeddedness in communities is particularly the case with communication—especially speech communication: a person is usually marked by their culture through their manner of speaking (such as accents, idioms, and lexicon). The complication in identifying culture's influence on instructors' practices and learners' experiences is best explained by Speech Code Theory. Speech Code Theory explains that belonging to different cultures complicates communication, because individuals belong to many different sub-cultures within their broader culture. These sub-cultures include one's culture at work, at school, and at home. Philipsen (2008) explains that speech codes are "historically situated and socially constructed systems of symbols, meanings, premises, and rules about communicative conduct" (par. 1). This concept of speech codes is as complicated as the notion of culture; it focuses on communication and offers specific markers for individuals who belong to the group sharing the same speech

code. Furthermore, even within a single cultural group, multiple speech codes exist, and these "codes have a shaping power in communicative conduct to the extent that people use codes to support their evaluations—praise, criticism, and their appeals to others pertaining to what is acceptable and desirable communicative conduct" (Philipsen, 2008, par. 11). Any one individual, then, can embody a number of cultures and can draw upon a number of cultural norms and resources in her or his life.

Philipsen's (2008) Speech Code Theory gives evidence of the existence of an online subculture. In the online learning environment, community is encouraged, and characteristic "meanings, behaviors, and practices" (as cited in Sun, 2008, p. 5) develop and are "shared over time." In addition, online instructors and learners find themselves facing the task of "construct[ing] a common model or map" (Zapf, 1991, p. 105) by which the community abides and through which it makes meaning. Speech Code Theory suggests that the other cultures and cultural resources that individuals bring to bear upon this challenge will affect the online culture that forms. Driven by this insight, I consider what the online sub-culture might look like in the context of online technical communication courses, as well as some of the many different factors that mold it.

A major factor that affects online learning is the immense challenge posed by the digital environments in which much of online learning takes place. Walter J. Ong, in Orality and Literacy: The Technologizing of the Word (1982), documents how society moved from an oral culture to a literate one. Knowledge was dispersed via word of mouth and then gradually began to be dispersed through writing and later print. Ong (1982) explains the various means used to make this transition, which completely changed society's consciousness. Such a totalizing effect produced extraordinary tensions, manifested by a rejection of literacy (in certain quarters) and a

refusal to change at various times during the hundreds of years in which this transformation took place. Ong (1982) ends his work by alluding to a new type of transition facing contemporary society: the new "technologizing" of knowledge. The transition into technologizing of knowledge involves moving from written, print literacy to that of hypertext and digital technology. It is this new transition, and its accompanying tensions, that the online instructor has to face.

Bringing learners into the digital environment causes them some anxieties because the digital environment requires a fairly new type of literacy. Consider that the traditional (that is, face-to-face) classroom is the learning environment most learners have been familiar with for most if not their entire educational experience. New online learners have to learn to navigate the digital environment; more seasoned online learners have to learn to adjust their "maps" (Zapf, 1991) depending on the specific course and the subject of study. The anxiety often produced by this transition works against the online instructor. The online instructor has to overcome many of the same, regular instructional challenges as the face-to-face instructor, but she or he also faces the additional challenges of developing and guiding learners in a new, possibly disorienting, online course environment. I will discuss some of these challenges further in this study.

To be successful in knowledge-making, online participants (both instructors and learners) have to develop their own map (Zapf, 1991), or culture, within this new environment, in order to navigate and make meaning in the digital learning course. Consider the range of different cultures that learners bring and must navigate in this forum: their national cultures, the culture of the discipline they're being initiated into, the culture of the institution responsible for offering this education, and then the online culture that forms around learning within a digital environment. All of these cultural contexts, and possibly others, as well, tremendously affect

teaching and learning for a student participating in them —perhaps for the first time. But, although many of these aspects of culture have been discussed separately, in various corners of the research literature, our scholarship hasn't paid sufficient attention to how learning occurs in situations that bring together many (or all) of these dimensions at once.

In this dissertation, I look closely at what online education for intercultural audiences looks like, focusing on how some (or all) of these aspects of culture may come together in the online technical communication course experience. How do instructors plan for, carry out, and conclude online courses? How does "culture" (and its various manifestations) impact such courses? In order to probe these questions, I consider a sampling of learners' responses and reactions to online learning in general—and to their online courses in particular.

Background of The Study

My study focused on graduate technical communication courses offered completely online. Since I was also interested in examining how institutional and instructor cultural identifications shaped the learning environments of these courses, I also sought to include participants from both U.S. and non-U.S. institutions. Many of the programs I contacted were open to international students, but not all necessarily had international students enrolled in a given course or term, and, in fact, the faculty members I contacted typically developed their courses before enrollments were completed. Though that factor is interesting from the standpoint of culturally informed course design (I discuss this later), from a research design standpoint, it meant that I could not know, ahead of time, whether the selected courses would actually enroll students from diverse national cultures.

Four faculty members from universities in two different countries agreed to participate in the study: two were from the United States, and two were from Ireland. All four instructors are

technical communication faculty members who teach online, and whose courses are open to international students. The two U.S. faculty members teach at a doctoral research university on the east coast of the country. Their university offers a technical communication concentration housed in the English Department; its Master of Arts in English, Technical Communication concentration, is instructed completely online. Both U.S. faculty reported that no international students were enrolled in their courses during the period of this study, but the courses were open to international learners.

The two Irish institution faculty members teach at a university that offers postgraduate (doctoral equivalent) programs with a dedicated technical communication program. The university is located in mid-west Ireland, and it maintains a graduate-level online technical communication program. This program also offers a parallel course taught traditionally (on site) by the same faculty members. Both of the Irish online courses included in this study are open to international students, and it had enrolled students from India, the U.S., and Europe. Except for the Indian student, and a couple of European students, the remainder of its students resided in Ireland during the time they were taking the course.

The learners chosen for this study were the students enrolled in the online graduate courses in technical communication that the four participating instructors were teaching in the fall of 2015. The students were mostly non-traditional learners; that is, they were enrolled part-time and maintained full-time jobs. For a number of the learners, this course was their first online course, especially for the students in the Irish courses. Others were more seasoned online learners, some of whom had taken five or more online courses. Of a possible sixty-four learners invited to participate in the study, twenty-four participated by responding to a questionnaire.

Research Challenges

Since (as discussed above) culture is a loaded term, and it can encompass a great many dimensions, any research examining culture requires focus and attention to the researcher's situatedness. Like the study participants, I am immersed in culture and hardly able to identify how cultural factors affect my decisions, since manifestations of culture are often tacit. In this study, I used a contrastive approach. I collected data that looks at how instructors from different cultures plan, carry out, and close out (complete) their online courses, and then I considered their learners' survey responses and reactions to those courses. The factors that emerged from this study allowed me to discover more clearly what variables impact the intercultural online learning environment. Using a cultural framework based on Hall (1990, 1995) and Geertz (1973), I analyzed how the identified factors affected the online environment, and then I considered how these factors could be adjusted to develop and teach courses that are better suited to learners in cross-cultural contexts.

Research like the project discussed here comes with certain challenges. One significant challenge was gathering participants for the study and keeping the study parallel. A study requiring international cooperation must consider that various countries will have differing academic calendars, including start dates and term lengths. Instructors, especially at the graduate level, are also busy professionals, and providing access to a researcher is an added responsibility on a very long list.

Another, more conceptual challenge is that the term "online learning" is used in a variety of ways at a number of institutions and within a variety of programs. The term embraces examples of curricula that have different purposes or functions (for example, online learning is used in support of distance education, but it is also used as a supplement to traditional education

where traditional resources are lacking), and it can take different forms (for example, hybrid learning—fully online for a portion of the course and face-to-face for the rest of the course—or fully online for a portion of the course, with learners divided up and meeting elsewhere for the rest of the course). Any study that wants to use a controlled approach would need to be able to control for some of these delivery variables (as well as others) that simply cannot be controlled without artificially altering the very diversity the research is attempting to capture.

The type of online learning that is the focus of this study is one where the course content and activities are completed asynchronously. The course is also completed via Internet media that instructors provide on independent websites or else, on an institution's learning management system, such as Blackboard, Moodle, or Sakai. In an effort to control for course platform(s), in this study, I only looked at online asynchronous courses that used an online learning management system. That choice made the process of comparing courses more feasible, though the trade-off is that it excludes a possibly vast diversity of other approaches to intercultural online learning.

Less difficult, but still noteworthy, was the challenge in finding instructors from different countries who taught technical communication courses or else equivalent courses. Technical communication, which Carliner (1996) defines as the "transfer of knowledge from those who know to those who need to know" (p. 266), has as much to do with accommodating technology to users (Dobrin 2004) as it has to do with communicating this information. From culture to culture, technical communication is approached in a variety of differing ways, and it even means different things. Even within the U.S., technical communication courses range broadly in their focus (including medical communication, legal writing, user experience, content management, and developing training courses). As St. Amant (2007) notes, technical communication is still a

fairly new study in most countries, and it is used for various purposes. In countries such as Italy and China, for example, technical communication can focus on translation studies. And, since technical communication is a fairly new field of study, it was difficult finding institutions that offered a technical communication program at the graduate level.

I overcame these challenges by identifying parallel programs and courses, and then I recruited faculty members from two different institutions spanning two continents as study participants. Another problem that arose, however, was recruiting learners as participants. Online learners form a community within their courses, and in order to understand that community, I needed to ask individual students to share their insights about their course experiences. Online learners are often non-traditional students (they are working full time), and even when learners are traditional students (enrolled on a full-time basis), they frequently have very little time, outside of academia, to assist in answering inquiries. The responses collected from learners in the online courses studied were useful, but they were less substantial than was expected.

Because culture influences us within every facet of our daily lives, we often overlook the numerous ways it influences our practices. For example, instructors' professional roles within an institution significantly affect their respective practices. As technical communication scholars, we are deeply steeped in the norms associated with our discipline, and because of that, a certain sub-culture organically forms that we are expected to share with our students. The digital environment also requires a certain form of behavior (often taught as "netiquette"), and this includes certain specific ways of communicating within an online course environment. These examples of tacit cultural influence are difficult to detect within our routine experience(s); yet, they exert a significant force upon what we think and how we behave—and, thus, the ways we teach. Most students (even in traditional learning environments) won't share all of our cultural

associations. But, if our students share almost none of them (as is more likely to be the case when we're teaching students living outside the U.S.), and if those students are also newly learning ways to participate in one or more of the cultural frames that their coursework places them in, the learning experience is bound to be significantly challenging for students and instructors alike.

These various forms of culture are built into our tacit knowledge. Online instructors must remember their learners are not always enculturated into our various cultures before they take our courses. This awareness of having tacit knowledge and how to share "what we don't actually know we know," in addition to planning how best to share course content in the online environment, is part of the challenge technical communication online instructors typically face. We develop content we determine will help our learners understand our course material—both readings and various other activities. But what is often overlooked is that, in traditional forms of education (where the learners and instructor come from very similar backgrounds and are equally, or at some level possessed of implicit, tacit information shared through culture), some parts of this knowledge does not need to be explicitly taught or spoken—it is already shared. In the increasingly multicultural contexts instructors find in our current higher education environment, this is not always the case, even in more traditional campus-based instruction. Yet, it is especially unlikely to be the case within international DE contexts.

Specifically inferred from the study, instructors, in planning for, and teaching, intercultural online courses, must approach these courses as distinct cultural contexts in and of themselves. Often, we (instructors) are working with students who have never before taken an online course, or those whose experiences within online learning communities are at least less familiar to them than are other aspects of their educational experiences. Instructors must guide

learners through the online environment, introducing the layers of content using strategies to implement what Hall calls "low context" cultural communication. The following section describes the framework used to examine the cultural factors that emerged from the study.

Hall's "Context" for Intercultural Communication

Of the number of cultural theorists whose works could add perspective to the data presented, Edward T. Hall's cultural theory is most pertinent for two reasons:

1. Hall's work focuses on the communication aspects of culture, and
2. Hall's research focuses on intercultural communication—the ability to communicate across cultures.

Hall (1990) points out that culture could not operate without communication; online learning depends almost solely upon written communication. Even though some of Hall's methods have been discredited (see Kittler, Rygl, & MacKinnon, 2011), his core concept of "**context"** remains very important in intercultural communication research (Kittler, Rygl, & MacKinnon, 2011). Hall explains the concept of "context" as what is needed by individuals from different cultures to make meaning. According to Hall and Hall (1995), context is "the process of filling in background data" (p. 201), and it is necessary in order for individuals to make meaning when they share messages. Hall (1990) points out, however, that from culture to culture, the kinds of information stored within the environment (considered tacit knowledge) varies, and therefore the amount of contextual information an individual shares differs from culture to culture. Cultures that share very little tacit knowledge share the bulk of their meaning within the expressed message, whereas cultures with a lot of tacit knowledge share comparatively little meaning within their direct messages. Hall's hallmark concept, then, is that individuals from different cultures communicate on a spectrum from low to high context:

> In high context communication, most of the information is stored in the memory of the individuals so that very little is transmitted. In contrast, low context communications are those in which virtually nothing can be taken for granted and in which most of the information is in the transmitted message. (Hall, 1990, p. 25)

Hall's principle of high and low context communication can help speakers from different cultures reflect on their own form of communication; even if Hall's specific country-to-context communication style may have been discredited, the concept that individuals manifest culturally informed, preferred communication styles is relevant to the online environment. In particular, Hall's concept helps us understand how we may need to shift our communicative behaviors to accommodate others in the learning environment who may not share our cultural backgrounds. This shift, Hall also theorizes, is intercultural competence. It goes beyond intercultural understanding, since we don't just understand difference; instead, we are in constant communication with individuals from other cultures. It is important for the instructor in online courses, with students enrolled come from a range of cultures and communicative patterns, to acquire intercultural competence. In the online environment, instructors also need to help learners achieve intercultural competence. Strategies in attaining intercultural competence are discussed later in this study.

Geertz's Aspects of Culture

Geertz (1973), in his "Thick Interpretation," defines his method and emphasizes his refusal to oversimplify or reduce culture to a generalized definition. He explains that a researcher's observation, and subsequent interpretation of the observation, introduces double bias. To counter this double bias, Geertz recommends that a researcher should present thick interpretation: description of the events as he or she observed them, coupled with an account of

his or her interpretation of these events. Sun (2012) interprets Geertz's many observations of culture as that of individuals in a cultural group who share "meanings, behaviors, [and] practices" and also share "tangible manifestations" of this shared culture, which includes "artifacts, values, [and] states of consciousness" (p. 5). Geertz's overall observation of what makes a culture, therefore, includes both tacit concepts and tangible concepts.

This study uses Geertz's insights in two specific ways. Initially, I used Geertz's (1973) concept of culture to identify cultural concepts in the factors that emerged while contrasting the practices and experiences of instructors and learners in the study. I then drew upon Geertz in my recommendations for instructors building online courses, particularly by including cultural concepts to help all learners in their cross-cultural online courses. That is, I suggest that instructors should consider the following key cultural concepts in reference to their courses:

- Artifacts: the documents of the course (created by the instructor as well as the learners) and the software applications used to create documents in the course
- Values: the expected behaviors of stakeholders and why they are important
- States of consciousness: the cultural perspectives stakeholders come from and their awareness of these perspectives
- Behaviors: the actions and activities completed by the learner based on the rules of communicating with each other
- Practices: the activities completed by instructors and learners for specific purposes, using the available digital software and other tools
- Meanings: understanding what stakeholders perceive concepts to be; these influence their responses (behaviors) and preservation strategies (practices) (adapted from Geertz, 1972 for this study).

Framework for Application

A combination of the frameworks adopted from Geertz (1973) provides instructors key characteristics to address in their course designs, and Hall's (1990, 1995) "context" gives both instructors and learners strategies for communicating within the online environment. This framework allows me to provide online instructors a basis upon which they can build their online cultures within their courses, moving course communication between high and low context communication as needed. The low context communication strategies can be used to introduce new ideas--that is, detailed instructions on how to complete a task, for example. Then, once learners have understood the behaviors required, and the artifacts needed, participants can transition into high context communication to build on the task by making it relevant to the individual learners' situations. Once new ideas are re-introduced, low context communication strategies can be re-initiated in an iterative cycle. This way, learners are participating in building a meaningful online environment, tailored to their needs, and moving between different communication contexts acquiring intercultural competence.

Overview of Chapters

In chapter two, I review the research literature in international online learning in general, and then I consider the trajectory that technical communication global online learning is taking. In both areas, scholars highlight the need for more research that takes a multi-pronged approach to the study of culture. The study also reveals a shortage of discussion on certain factors of culture that significantly influence communicative practices in the online environment. In chapter three, I describe my research methods, highlighting my use of a layered approach to study culture to answer the research questions. The approach includes looking at the practices of instructors from different cultures, with responses from learners, and comparing their practices

and responses. In chapter four, I share the observations from the study by responding to two of the three research questions. The first question references instructors' practices, and the second, learners' responses. I share the observations made to the final question in chapter five. In this chapter, I also compare the responses received between the cultures analyzed.

The results of the study help to explain some of the issues that recurred. By using cultural theory, including theory of organizational culture, I shed some light on factors that impact both online instruction and the emerging online learning culture. In the final chapter, chapter six, I share implications for technical communication online learning using the Hall/Geertz framework. I articulate a number of steps online instructors can take when designing courses for cross-cultural purposes, helping students to reach intercultural understanding, and, subsequently, intercultural competence, and finally, I consider avenues for future study of these questions.

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Chapter 2: Review of Literature on Culture and Technical Communication

Communication with individuals coming from different cultural backgrounds requires not only that the individuals involved are able to speak the same language, but it requires an understanding of the communication patterns inherent within each culture. The awareness of the complexity of communication has been exemplified through the works of Hofstede (1980, 2000), Trompenaars (1993), and Hall (1976), whose works are familiar to the field of technical communication, even though these researchers are anthropologists focusing on cultural communication, and they are not technical communication researchers themselves.

Hall's work highlights reasons why communication between cultures can break down; his study on high context and low context communication is widely known. In *Unstated Features of Cultural Context of Learning*, Hall (1990) explains that the environment in which communication takes place can be either helpful or detrimental to the way individuals share information.

According to Hall (1990), meaning can be derived by individuals from different cultures directly from words that build on/upon each other to make the message (low context), and it can also be derived specifically from the environment or the culture itself (high context). Communication between people from cultures that are (to varying degrees) at the opposite ends of this spectrum can easily break down if the interlocutors do not understand the differences in communicative patterns. Hall (1990) explains that individuals who use low context strategies to communicate operate under the expectation that "the amount of stored knowledge on the part of one's interlocutor is minimal" (p. 25). These individuals therefore "tell everybody everything in great detail (this applies particularly to instructions)" (Hall, 1990, p. 25).

In contrast, individuals from high context cultures "inhabit a sea of information" that is made up of "parts [that] interrelate to make the environment meaningful" (Hall 1990, p. 27). These individuals do not construct meaning as much as they "extract it" (Hall, 1990, p. 27). Both forms of the communicative patterns (high and low context) are used by individuals in most cultures, at some point, but one is used more often than the other on a daily basis. Hall (1990) observed that individuals from a low context culture who try to communicate with those from a high context culture explain everything as if the listener knows nothing, often making individuals from high context cultures feel "put down" (p. 26). In contrast, individuals from a high context culture will often explain little, and expect that the listener understand what is meant, which can leave individuals from low context cultures perplexed.

While Hall does not offer any concrete measures to negotiate communication between cultures, he does offer that

> the ability to translate from high to low context and vice versa, and the ability to move from a sea of information approach to a building block approach, will in most relevant situations constitute a major advance in mental health, peace, and intercultural understanding. (Hall, 1990, p. 31)

Hall's theory advancing that communicating information across cultures improves "mental health, peace" shows how understanding the difference in communicative pattern can improve affective relationships. The last point, advancing "intercultural understanding," is most pertinent for online learning in cross-cultural contexts. Not only is it important in the online course to understand the differences in communicative pattern, but it is also important to know how to use the different communicative patterns in order to effectively share information. For online participants, the knowledge that individuals from different cultures communicate, using different

levels of contexts, is a step towards intercultural understanding. Helping learners translate between low and high context communication, and vice versa, moves them towards intercultural competence.

Hall's (1990) work has immense implications for online programs that open their enrollment to an international audience. Working with an intercultural audience complicates teaching and learning perhaps even more than teaching a multicultural American audience, though both scenarios are examples of teaching in cross-cultural contexts. Problematically, however, research in how to approach teaching and learning in the cross-cultural academic setting is relatively new, and the cultural approach researchers focus on is primarily the national culture. As recently as 2007, Beth Hewett and Christa Ehmann Powers, in their guest editor introduction in *Technical Communication Quarterly*, noted the need to refine pedagogical theory and practice for technical communication online learning. The authors pointed out that, in the academy, there is a "problematic assumption that teaching and learning online involves skills that are transparently or automatically tranferred from traditional settings" (Hewett & Ehmann Powers, 2007, p. 4).

Hewett and Ehmann Powers not only revealed the lack of research in online instructional approaches, but also in learning skills. This last point about learning skills is important, since, as they noted, teaching strategies from traditional contexts do not automatically apply to online contexts, nor do learning strategies. Learners have to make significant adjustments to the text-rich digital environment. This digital environment lacks physical cues and, because the space allows for anytime, anywhere learning, it physically removes students from peers and instructors therefore making certain communications natural to the face to face environment not possible

within the online learning environment . As a result, the digital learning environment can become isolating. Learners therefore need to acquire and apply new strategies in online learning contexts.

Online Education Studies

Researchers Carol Ashong and Nannette Commander (2012), who focus on educational psychology and higher education, note the problematic lack of research on learners' perspectives. The authors completed important work in their research focusing on learners' perceptions of online learning. Ashong and Commander (2012) note that when instructors and designers understand learners' perceptions of online learning, they can better "foster learner engagement and motivation" (p. 13). The authors shared various barriers online learners experienced, including:

- Lack of affective support: communications from instructors to learners that relay the learners are important and valued individuals
- Motivation: learners feeling engaged with course work and having drive to complete assigned work
- Social interaction: learners communicating and collaborating with both peers and instructor. (Ashong & Commander, 2012, p. 2)

Such barriers in the online learning environment prevent learners from successfully completing their courses. Knowing about these barriers can help online instructors to develop courses to mitigate the barriers noted, and to improve online pedagogy.

Other research focusing on online learners includes Yeh's (2010) study in determining roles online learners assume in active learning contexts. Another study completed by Chao, Hwu, and Chang (2011) looks at developing online environments that promote interaction among learners. And Ware's (2004) study in English as a Second Language (ESL) focused on student

behavior in an online course. The foci of these last three studies (Yeh, 2010; Chao, Hwu, & Chang, 2011; and Ware, 2004) significantly influenced the design of my study, specifically my focus on identifying and understanding learners' experiences in the online environment.

Technical Communication Online Learning Research

A number of researchers responded to Hewett and Ehmann Powers' (2007) call for more research in techncial communication online education. Kelli Cargile Cook and Keith Grant-Davie (2013), for example, followed up their 2005 edited collection looking at online learning with their 2013 collection. Both of their edited collections provide research on online learning for "faculty, course, and program" (Cargile Cook & Grant-Davie, 2013, p. 3). The increase in technical communication programs expanding their courses to international learners also gave rise to St. Amant and Sapienza's (2011) edited collection. Numerous technical communication-focused journals also have published articles discussing various aspects of online learning since Hewett and Ehmann Powers' call. These articles range from addressing problems in online courses offered to international students (Thrush & Popham, 2013) to intercultural problems (Shimmura & Clark, 2009) and assessment (Yu, 2013).

Research in intercultural technical communication online learning has also expanded. The intercultural online learning referred to here is based on fully online courses situated in the U.S. and offered to learners from other countries/cultures. The edited collection by St. Amant and Sapienza (2011) provides general information about globalization and technical communication, with some focus on online learning. Shimmura and Clark (2009) offer a case study in cross-cultural learning between Japanese and American learners, as do Sorenson, Hammer, and Maylath (2015) in their discussion of the Trans-Atlantic and Pacific Project, which involves translation between Italian and American learners. The number of programs offering

technical communication online courses in an intercultural context has increased, as pointed out by Thrush and Popham (2013), who explain the need for more discussion of instructional approaches to online learning in intercultural contexts.

Among other notable findings, the literature reveals that planning for, and teaching, intercultural courses demands some flexibility on the part of instructors. The literature highlights that teaching and culture cannot be viewed as unidirectional—only from the instructor to the learners. Teaching in intercultural contexts, rather, is multidirectional, with connections among instructors, learners, and course designers; these connections include planning for the technology, accepting feedback, planning for the language differences, accepting feedback, planning activities to stimulate learners from different cultures, and accepting feedback. Online education for an intercultural audience is a complicated enterprise that includes considering factors that affect the learning environment, that affect negotiating in digital contexts, and that affect thinking through culture for both the instructor and learners.

The Three-pronged Nature of Online Learning in the Literature

As noted earlier, one of the most important activities in technical communication, and education in general, is communication. And, as noted by Hall (1990), our culture immensely affects how we communicate, whether our communication takes written, verbal or visual form. Even though culture is an abstract concept, with broad implications, within the research, culture is narrowed down to some tangible elements. These elements emerged as a three-pronged approach to culture in online learning in intercultural contexts.

- The first prong reveals how culture affects learners (how their societal background can influence learners' ability to successfully complete online programs/courses)
- The second prong reveals how culture affects the instructors' practice

- The third prong considers how culture affects community building within the digital environment by making all parties—learners and instructors—aware of cultural differences and being sensitive of such in order to avoid miscommunication.

Gibson and Martinez (2013) reflect this first prong, for example, in their exploration of how Blacks, Latinx, and members of economically disadvantaged groups are increasingly marginalized because of the technological requirements of online courses. The authors underscore that instructors must become more cognizant of technologies used by marginalized groups. Gibson and Martinez (2013) note that online programs allowed thousands the ability to earn an education, but that the technology that some online courses require of their learners can create barriers to this access. In examining such issues, the authors raise awareness of the technological difficulties in a multicultural dynamic (different cultures within the U.S.). Clearly, disadvantages faced by learners within the U.S. reveal that whether online courses are offered internationally or nationally, instructors must consider resources available to certain groups and their own privileges as beneficiaries of the resources afforded through academia.

Moving beyond teaching a national, albeit multicultural, audience, St. Amant (2007) highlights some issues instructors should consider in developing online courses for an international or intercultural audience. The author's work reflects the first prong, in that his study offers factors instructors should consider to avoid marginalizing international learners, noting how their societal backgrounds impact their ability to successfully complete online courses. In "Online Education in an Age of Globalization: Foundational Perspectives and Practices for Technical Communicaton Instructors and Trainers," St. Amant (2007) shares how, in intercultural settings, instructors need to be aware of the many factors in designing and teaching online courses. The author focuses on four such factors: access, design, scheduling,

and language. Access (or Internet access), St. Amant (2007) notes, can be very complicated in an international setting. He explains that there are a variety of ways individuals can access the Internet (fiber optics, broadband, etc.), the speed, reliability, and cost varies worldwide, and online learners can be marginalized when they are unable to meet course requirements because of poor, inconsistent, or costly access.

In discussing factors of design, scheduling, and language, St. Amant (2007) addresses notions of culture/cultural expectations. Design considerations must reflect and respect the cultural values of learners. Scheduling refers to time zones and considerations about scheduling within the course. With regard to language, St. Amant (2007) explains how a limited command of English affects learners in an online course where writing and a strong command of English are often expected. St. Amant's (2007) discussion of these four factors further reveals culture's broad impact on planning and teaching online courses in intercultural settings.

Another study that reflects how culture affects learners in intercultural settings is a study completed by Mousten, Vandepitte, and Maylath (2008). More than being able "technologically" to provide online learning to a global audience, online programs must be aware that the courses they offer respect the backgrounds of the learners. This point is underscored by Mousten, Vandepitte, and Maylath (2008) from the Trans-Atlantic Translation Project, who point out that "the age of schism between culture and language as well as between disempowerment and empowerment can be dealt with only if there is a basic will to understand and mediate across cultures" (p. 142). For technical communication instructors considering global online learning, marginalization/marginalizing behaviors can only be overcome if individuals are invested in understanding the cultures of the various participants: learners and instructors.

While research acknowledges various external cultural factors that can affect learners completing online courses, some research has also considered how culture affects instructors' practice. The second prong in the nature of culture's impact on online learning, then, moves from a focus on how learners are affected by culture to how a shift in audience can affect instructors' practice. Thrush and Popham (2013), for example, present a case study in which a shift in their pedagogy became necessary. The authors bring to the fore the issue of the growing rate of local online courses being made available to international learners. Thrush and Popham's (2013) online course, developed for American students, became open to the enrolment of international learners by their administration. In discussing their experiences in teaching the course, Thrush and Popham (2013) explore how learners' cultural backgrounds affected their learning as well as instructors' practice. The authors aimed to initiate conversations about how online learning for intercultural audiences has shifted instructor practices.

Thrush and Popham (2013), in their discussion of language, note that "it's a mistaken concept to assume that because our students 'know English,' that they will all know the same English" (p. 123). English varies from American to British English, and a variety of Englishes spoken as second languages in general, as well as a second language to English-speaking countries. The authors point to the challenges of contextualizing course content for their international students, thinking through the use of genres that may have no relevance to certain cultures, and the importance of oral over written communication in certain cultures.

Moving beyond courses developed in the U.S., and open to international students, some programs in technical communication develop courses solely for international learners. Strother (2011), in "Cultural Adaptations of Cybereducation," looks at technical communication training of East Asian learners. The author's focus is on the increasing shift instructors face with an

intercultural learning body in online courses. Strother (2011) explains how pedagogy drove her hybrid learning course, but emphasized that an understanding of culture was imperative for this international course. The author concludes that

> We know it is impossible to design one online training product that will be ideal for all learners or groups of learners; however . . . we should first identify the pedagogical patterns preferred in that part of the world and the learner preferences that tend to be the characteristics in East Asian cultures. (Strother, 2011, p. 222)

Strother, here, references how decisions made in the online course were influenced by the instructor's culture and how this affected learners, and the importance of instructors' awareness of learners' cultural backgrounds in order to effectively develop international courses. Strother's (2011) focus on culture's effect on instructor practice (of design) is an echo of Herrington's (2008) earlier work.

Herrington (2008) presented how teaching an international/intercultural audience of learners can shift instructors' practice. Herrington (2008), however, also explicates why instructors' practices must change. In "The Global Classroom Project," the author describes a project between her institution (Georgia Tech) and her counterparts in Russia. Herrington (2008) explains that a cross-cultural program should not simply be a repackaging of programs for a global/intercultural audience. She explains what that "repackaging" practice looks like:

> [It] shares the common basis of belief that Internet technology should be used to allow "more advanced" nations to package course knowledge in easily portable digital frameworks that could be opened by recipients who would mimic their contents and thus become enlightened to the ways of "superior" nations. (Herrington, 2008, p. 42)

This type of online program can be aptly described as colonizing education. The culture with more power and tools can change the culture that might not have the same power and tools. The type of global learning that Herrington calls for, rather, is one where the participants are partners in the development and execution of the course. Herrington (2008) reflects on the choices made in developing and carrying out her course where, as the instructor, she made decisions with her Russian counterpart about language, technology, and content, after close scrutiny, before they were realized within the course.

In examining the issue of technology, Herrington (2008) stresses that global partnerships in education should not use technology for technology's sake; instead, partners should plan to "minimize the effects [of] partners' different levels of access to technology" (p.40). Herrington further suggests that online education providers consider the compatibility of applications that transmit information in small chunks to accommodate slower Internet access and older technology.

While Herrington's article establishes that culture affects instructors' practices, and so falls under the second prong of culture in online learning, it also reveals some ways to enhance community building within the digital environment—the third prong of culture's effects on online learning. Teaching learners who come from international/intercultural backgrounds requires instructors to use strategies that raise students' awareness of differences, especially in communication. Starke-Meyerring and Wilson (2008), in theorizing the implications of cross-cultural education, offer that "simply reproducing and repackaging traditional classroom-confined courses for online delivery will not suffice to realize the potential of globally networked learning environments" (p. 14). The authors' work complicates online learning offerings in cross-cultural settings because their focus is not merely online learning in which a

course is offered to a global audience. Rather, Starke-Meyerring and Wilson (2008) focus on developing a global network where all stakeholders (members of countries/cultures involved) provide, create, and share knowledge. Globally networked learning environments (GNLE) allow all parties to contribute content equally rather than one culture having an unfair advantage by possessing an unequal amount of control over the course. Such a practice would build a community that would be both aware of cultural differences and come to agree on the type of communication allowed in that community.

A caveat about the educational projects described by Herrington (2008) and Starke-Meyerring and Wilson (2008) is that the type of partnerships highlighted by GNLE's is built between institutions and administrations, and they are costly, not only financially but also in terms of the time spent on them. The political, social, and administrative obstacles that emerge from such partnerships, and the technological and also financial costs, would prevent many insitutions without such wherewithal from achieving the ideal partnerships described in GNLE's even if they are seeking the same outcomes.

Outside of GNLE's, however, researchers have addressed how culture can affect community building within the digital environment in intercultural contexts. Klein and Lalla (2011), for example, reveal this third prong—how culture affects community building—by showing the importance of adopting digital technologies for intercultural audiences. Technology, especially the choice of a learning management system (LMS), influences learners' interaction in the online environments. Klein and Lalla (2011) highlight that technology is not neutral and that learning management systems manifest cultural values—for example, the color schemes used and the symbols that represent the applications available. The authors discuss how the LMS can be adapted to suit learners' cultural preferences. The authors

use Hall, Hofstede, and Turner and Trompenaars' culture-based studies to determine how online learning instructors can modify activities and assignments to make the LMS learning environment conducive to all forms of culture-based interactions and learning styles. Klein and Lalla (2011) raise awareness about the cultural values evident in LMS's, and about adapting them to improve intercultural interaction within courses.

Technology may significantly affect community building in online learning environments, but it is not the only factor that does so. In their international case study (between Japan and the U.S.), Shimmura and Clark (2009) reveal how factors including language, culture, and technology affect the online environment. The authors underscore the importance of understanding students' cultures when developing a course for an intercultural audience. Similar to Klein and Lalla (2011), the authors noted the need to adopt their LMS to foster improved interactions for their international students. Even with a streamlined LMS, the authors revealed that as learners interacted, the instructors had to sensitize learners about cultural differences, and not taking phrases and idioms literally, to avoid miscommunication. Through their monitoring of learners' interaction, the instructors learned how to help individuals communicate across culture, since learners use language in dynamic ways.

Shimmura and Clark (2009) noted that they were able to improve course success once they became aware of how learners met and overcame cultural and linguistic barriers. In relation to technology, the authors noted the need to adopt their ANGEL Learning Management System (LMS) to foster improved interactions among their students from different cultures. While Shimmura and Clark's (2009) study was based on informal objectives, where two acknowledged cultures interacted with the specific goal of interacting, the authors note that "it would be much less useful where more structured outcomes are desired" (Shimmura & Clark,

2009, p. 6). Their study reveals the many aspects of culture that need to be heeded in an intercultural setting.

Applying the Three-pronged Approach to Culture to the Study

While this review of literature is not comprehensive, it reflects key approaches in recent disciplinary research on culture in online learning. The three-pronged approach introduced above reveals the complicated manner in which culture affects online learning in intercultural contexts. This approach reveals the layers I could examine in my study of online learning in a cross-cultural setting. The approach allows me to look for context in instructors' activities and to ask for context (when not clear or provided) when analyzing events. It is this context that provides the data revealing the cultural influence involved in the activities to be observed in the research, since culture is tacit, and individuals are not always able to articulate how culture affects their practice.

Quite a few gaps arose in my review of the existing literature. The first is a focus on learners and learning strategies in technical communication online learning. While, in my research, learners are not the sole focus, the work does involve learners through the use of the questionnaire. The data that emerges from such a study should be layered enough to afford a more complete perspective on culture's influence in online learning environments. This additional focus on learners, as well as instructors, allows me an additional context in which to view instructor activities, and it should also uncover themes that future studies can investigate.

Another gap that became apparent is that the existing research had a strong focus on the national culture of stakeholders and the ways this national culture affected the online learning community and teaching practices. Although national culture is an important factor for instructors to consider in designing and teaching online courses, I argue, in this study, that it is

not the only cultural factor significantly impacting online environments. A few researchers hint at other cultural impacts—for instance, Gibson and Martinez (2013) consider institutional resources, and Thrush and Popham (2013) consider disciplinary cultural requirements and their relevance for international learners. However, the limited discussion of how these other kinds of cultures and subcultures affect our communication and expectations in the online environment represents a gap, and this study attempts to initiate a discussion of this gap.

The methods that I share in the following chapter describe the data collected for this study, my data collection methods, and my data analysis, which uses a layered approach in order to achieve the contextualization needed to understand the intersecting cultural influences operating in the online environment. It must be noted that the focus of culture and the imbalance of power vested in different cultures is a theme that manifests in much technical communication research. I consider this theme further in my discussion of the study findings and implications.

Chapter 3: Methods: Syllabi, Questionnaire, and Analysis

This chapter describes the pilot study that I carried out to investigate how culture manifests in the online learning environment. It begins with a description of the data collection method and includes the analytical tools used to determine factors influencing instructors' actions in the online learning environment. The methods reveal how to best go about answering the following overarching research questions:

- What are some of the considerations, strategies, and practices instructors use at different points (i.e., before, during, after the course) when planning for and teaching technical communication online courses in different countries?
- What are the experiences of learners in these online technical communication courses?
- How do the practices of instructors and the experiences of learners compare across instructors, institutions, and cultures?

The study examines the activities completed by four instructors from two different institutions, two in the United States, and two in Ireland. The participants will be referenced here as Irish institution Participant 1 and 2, and U.S. institution Participant 1 and 2. The study includes responses by their learners, who come from different countries. The learners are referenced as "respondents" and as respondents to the specific instructor participant. For example, a learner from the U.S. institution Participant 1's course will be referred to as "respondent from U.S. Participant 1."

The instructors all teach graduate courses at their institution, and it is specifically their online courses that will be the focus of the study. While the study aims to determine instructors' practices in planning and designing a course for intercultural learners, the study ultimately focuses on how culture influences those practices. Understanding the activities that contribute to

practices allows researchers to isolate specific activities in the overall online teaching and learning environment, especially in cross-cultural contexts.

Data Sources

The data for this study came from three different sources:

- Course documents: collection and review of the syllabus for each of the courses studied. This document is shared with learners prior to, or at the initiation of, the course (sharing the objectives and description of the course). It also acts as a foundational document that establishes the nature and tenor of the course as well as lays out the roles and responsibilities of the involved parties—the instructors and the students. In U.S. contexts, the syllabus is expected to explicitly establish
    - Activities like assignments, projects, and discussion to be completed by the learners. The activities establish what the content of the course (at that level of study) entails.
    - Ethics and values promoted in the course are usually found in the course policies that establish tone and tenor of the course (i.e., what are acceptable behaviors by learners and what are not).
    - Learning objectives of the course are usually placed at the beginning of the document to establish expectations set for learners that they should complete by the end of the course.
    - Aims of the course combines the policies promoted, the objectives of the course, and the activities developed to achieve the expectations to establish the overall concept of the course.

- Instructor: Interviews with the instructors of the courses to elaborate on the information gathered from the course documents. The interviews consisted of twenty-four questions (see appendix 2). The questions inquired about the instructors' general backgrounds, their online teaching experience, training factors, interaction with administration, and their specific activities completed in planning, carrying out, and concluding their technical communication online courses.
- Learners: Learners completed a questionnaire that asked about their experiences, focusing on their interactions with content, instructor, peers, and technology in the online learning platform.

Methods

The methods used to collect these materials included the following:

- Email: Email is one of the most effective ways to contact instructors whose email addresses are usually searchable from their institutional webpages. After initial contact, and instructors agreed to participate, syllabi were collected as an email attachment provided as .PDF and MSWord documents.
- Skype/Camtasia/Camcorder: Skype online call tool was used to contact and record the interviews of the international instructors. Since Skype and other interview type audio-visual applications do not usually have a recording feature for later analysis, I used Camtasia to record interviews. Camtasia is a screen capture tool that records audio-visual elements from the computer. While face-to-face interviews were recorded using a camcorder, only the U.S. faculty could be interviewed using this format. Strategic questions were asked to give context to activities described in the course and activities completed by the instructor. In both cases, the interviews were recorded.

- Qualtrics: The questionnaire was created using Qualtrics Survey Software®. Questions were developed, and the questionnaire was distributed via a link shared with respondents, which allowed for the greater anonymity sought in this research project. Because four instructors were participating in the study, to better track the progress of the respondents across each participating class, four different links were created (one for each of the participating classes). The questionnaire itself consisted of twenty-one questions, and it was organized as follows:
    - 6 questions asking about learners' background (these were short open- and closed-ended questions including name of institution, course pursuing, degree level, etc.)
    - 3 questions asking about learners' interaction with peers to determine the types of activities and learners' responses to the interaction
    - 2 questions asking about learners' interaction with content to determine the types of activities and learners' responses to the interaction
    - 2 questions asking about learners' interaction with content and technology to determine the types of tools used to access or complete content and activities and learners' responses to this type of interaction
    - 1 question asking about learners' interaction with the instructor
    - 6 questions asking about learners' overall experience in the course. Each interaction (peer, content, instructor, and overall interaction) was rated, and then open-ended questions were shared to seek learners' responses about the courses' strengths and weaknesses

- 1 question seeking learners' consent (see Appendix 3 for a copy of the questionnaire).

This method offered valuable resources to answer the overarching research questions.

Data Analysis

To gather each aspect of data for analysis, this research was completed in three phases. These phases included:

1. Contacting and collecting data from all instructors (4 total) at both participating universities, from January to August 2015
2. Collecting data from the learners enrolled in online technical communication courses taught by these instructors (4 classes total) from October 29 to November 27, 2015
3. Analysis of the data collected via the afore-described processes

The following sections explain the institutions chosen for the study, types of data ultimately collected, and ways the data was analyzed.

Phase One: Collecting Data from Instructors

Phase one of the research included contacting, collecting the syllabus from, and arranging an interview with, the instructors, to answer the following research question:

> *What are some of the considerations, strategies, and practices instructors use at different points (i.e., before, during, after the course) when planning for and teaching technical communication online courses in different countries?*

It is through the instructors that I was able to connect with the learners to collect data for the second phase of the research.

The materials collected for analysis included:

- Syllabi[1] as the course document for the technical communication graduate courses taught at different institutions
- Interview content from the instructors of the technical communication graduate courses

The four technical communication instructors who participated were contacted via email in August 2015 (see appendix 4 for a copy of the letter) and asked for digital copies of their syllabus. The instructors sent their syllabus as email attachments.

The four syllabi I collected and analyzed were from the following courses:

- Research Methods in Technical and Professional Communication: introduces students to research in technical and professional communication in specific contexts; the American institution
- Grant Writing: scaffolds students from planning to submitting a full grant proposal to a real organization; the American institution
- Technical Communication Theory: introduces students to technical communication theory and research methodologies; Irish institution
- Instructional Design: scaffolds students on the ideas of instructional design from a brief history of instructional design to the systematic design of instruction; Irish institution

All four were graduate-level courses taught online and taught during the fall 2015 semester. The Irish institution Participant 1 had 23 students, and 4 responded. The Irish institution Participant 2 had 17 students, and 12 responded. The U.S. institution Participant 1 had 11

[1] Syllabus as referenced here is a document shared with learners to help understand the basis of the course: its title, description, aims, assessment, assignments, and other course activities. The course syllabus, a North American term, is such a document that provides this information. In other countries, this document varies, e.g., in Ireland, it is called a module syllabus.

students, and 5 responded. The U.S. institution Participant 2 had 13 students, and 3 responded. Twenty-four students responded out of 64 with a 38% response rate.

The syllabi for these four courses were analyzed for the following themes used as codes:

- Activities assigned (e.g., assignments)
- Ethics and values promoted in the course (e.g., plagiarism policy)
- Learning objectives of the course (e.g., what skills or abilities learners should be able to demonstrate after taking the course)
- Aims for learners in the course (e.g., ideas specific to learners in the course description)

I selected these four particular areas for coding because these are often the items included in a syllabus. While having these items are a North American concept and practice, the analysis of the syllabi not only looked at what was present, but also what was not, and then it took a comparative analytical stance. This author's North American bias is evident, but my experience with other types of syllabi also made me aware that there are other ways of formatting the content of a syllabus.

After the syllabi were all collected, I conducted a cursory analysis to mid-September 2015. I then sent the four participating instructors links to the online questionnaires (in October) along with a request the faculty distribute this link to the students in their online classes and also provide students with an overview of the questionnaire (see appendix 3). (The student questionnaire was then closed in November 2015.)

Interviews of faculty began after the questionnaire was closed; the first was conducted on November 23, 2015, and the last was completed on December 2, 2015. The interviews with all four instructors lasted between 30 to 90 minutes. The interviews consisted of twenty-four

questions (see appendix 2). Both Irish institution faculty participants were individually interviewed in November of 2015, via Skype, and both U.S. institution faculty members were individually interviewed face to face in December of 2015.

Phase Two: Collecting Data from Learners

The second phase of the study required investigating the experiences of learners in their online courses to answer the research question:

What are the experiences of learners in these online technical communication courses?

The learners chosen for this study were the students enrolled in the online graduate courses that the four participating technical communication instructors were teaching that fall 2015 semester. For this phase, online learners in these four classes were asked to answer a questionnaire.

I sent the link to the questionnaire, via email, to instructors on October 29, 2015, and it became open for students to fill until November 23, 2015. Due to the low number of responses by this time, the close date for the questionnaire was extended to November 26, 2015, and the questionnaire was officially closed on November 27, 2015.

Thirty responses were recorded, by November 23, of a possible sixty-four students. By November 27, an additional four responses were recorded for a total of thirty-four responses. Of these responses, a total of ten were recorded as partial (three of these partial responses came after the November 23 deadline). Upon investigation, Qualtrics personnel informed me the partial responses were respondents who agreed to participate but did not complete the questionnaire. These ten responses were disqualified, bringing the total number of qualified responses of the survey to twenty-four (out of 64 possible respondents) with a 38% response rate.

Phase Three: Analyzing the Data

Collecting data from the syllabus, instructor, and learner began in August of 2015, and it was completed in December of 2015. The analytical phase of the data was to answer all research questions, but it was especially important to answer the following research question:

> *How do the practices of instructors and the experiences of learners compare across instructors, institutions, and cultures?*

I carried out a cursory analysis of data received from each source throughout the collection period, but a more thorough analysis was completed after data collection was finished.

To analyze the data after a cursory analysis, two analytical tools proved immensely beneficial:

1. Qualtrics Survey Software ® which allowed for a quantitative-like content analysis of the questionnaire responses
2. Atlas Ti © which allowed for qualitative content analysis of all the study documents[2].

I had to conduct a careful study of the data to determine instructor practices. I had to identify patterns —similarities, differences, and recurring activities— across all four participants and all (learner) respondents in this phase of the study.

Syllabus Datatype

The first piece of data collected was the syllabi that I initially read to identify the course: title, description, objectives, and assignments. An important data from the syllabus was to

[2] Atlas Ti © allows for notetaking in its memo application that can be accessed across all documents (texts and audio-visual). While this tool could not replace the close observation skills of human observers, it supplemented for having a single principal investigator. Similarly, Qualtrics Survey Software ® offers a tool to record the number of certain types of responses (number who agreed/said "yes," "no") across all questionnaire respondents (helpful to identify when the responses are similar and different across respondents). These tools allowed this researcher to better identify patterns and so better understand practices of instructors and experiences of learners that developed from the data.

identify activities instructors planned for the course, to better note what activities learners may have carried out and so further develop the questionnaire for learners.

The content of the syllabus (on a cursory perusal) revealed differences at an institutional level between the two groups of instructors. Some aspect of teaching approaches could be identified from the syllabi, but very few parallels were found upon which to base any specific questions for the questionnaire.

Questionnaire Datatype

To understand learners' experiences in the online learning environment, the questionnaire was developed to seek out the following:

- Learners' insight about the course gathered from the questionnaire
- Learners' responses and reactions to their interactions with peers, instructor, content, and technology
- Learners' overall impact on the online learning course gathered from the interview

The questionnaire provided data for the first two aspects: learners' insight and responses to the course. The third (learners' impact) could only be obtained from the last collection tool: the instructors' interview. The interview provided the individual instructor's input about their strategies and whether learners' responses or reactions affected these strategies in the course. The questionnaire was developed to identify learners' interaction with the four aspects of the online platform: peers, content, instructor, and technology (Chao, Hwu, & Chang, 2011).

Interview Datatype

The questionnaire provided rich data to focus the instructor interviews. The interview was the last piece of data collected to understand instructors' practices. Instructors elaborated on

what they did to design and develop, carry out, and conclude the course. To understand instructor practice, the following information was sought from data collected from the instructors:

- Teaching experience
- Online teaching experience
- Online teaching training
- Tools used to develop the course
- Tools needed by learners to complete the course
- Process of implementing online courses
- Difficulties implementing online courses
- Interaction with administration
- Interaction with learners
- Course assessment

The interview provided information to understand instructors' practices and learners' experiences owing to the detail provided. The following chapter provides details about what was observed from the study.

Chapter 4: Observations of the Cross-Cultural Study of Online Instructional Practices

This chapter shares details of the observations made from the pilot study. The chapter begins with observations made first from the instructors, based on their syllabus, and then, from an interview. Next are the observations of learners based on their responses to the questionnaire. This chapter provides observations based on the first two research questions; the third research question (comparing the responses) is presented in the "Implications" chapter.

The instructors from the Irish institution are both women, and the instructors from the U.S. institution are both men, with teaching experience at their institutions, across all four faculty members, ranging from 4 years to 16 years. Both of the Irish institution instructors use Sakai, a learning management system adopted by the Irish institution. Both of the U.S. institution instructors use Blackboard to have students initially access their courses, but one instructor uses an independent website that his students access for the duration of the semester.

The observations presented reflect concepts related, and in response to, the first research question:

> *What are some of the considerations, strategies, and practices instructors use at different points (i.e., before, during, after the course) when planning for and teaching technical communication online courses in different countries?*

Instructor Practices: Syllabus Structure

At the onset of this study, I presumed that the syllabi among all four participants would be significantly different. After all, the instructors were teaching different courses, they came from different cultural backgrounds, and they had varying numbers of years of experience. My thoughts were that the language, purpose, content, and structure aspects of the syllabus would be

the major differences. What was instead revealed was that the syllabi among all four participants were significantly similar in three of the four aforementioned aspects: purpose, content, and structure (type of information presented). The language used in the syllabi studied, on the other hand, was different in certain aspects (described in more detail below), but similarities could be found between the two participants from the same university; there was not much in common in language among all four individual participants. The stronger similarities between the syllabi of the instructors coming from the same institution can be attributed to institutional policies that guide the instructors. That is, the Irish institution instructors shared similar formatting (how the information is presented) and policies in their syllabi that references institutional policies across the board. For instance, the Irish institution instructors participate in a collaborative curricular effort to determine information that should go in their syllabi, and, for this reason, their structure and formatting are similar.

The participants from the U.S. institution presented their information using different formatting (i.e., Participant 1 using numerous headers and sub-headers to navigate the content, while Participant 2 used a more prose-like approach with five headings). Both were similar in the not-so-formal tone of the language used. U.S. institution Participant 2 noted that, program-wise, after courses have been approved, instructors are independent to develop their own syllabi.

Instructor Training to Teach Online

By use of the term "training", this dissertation refers to having received formal courses in designing, planning, and teaching for online environments, whether as graduate students or while working on the job. All four of the participants stated they did not receive any formal training in online teaching. One of the instructors noted that technical communication is particularly disposed to online instruction. Irish institution Participant 1, for example, noted she is self-taught, and she and her colleagues have been innovators in online learning at her institution.

Even at the U.S. institution, the technical communication MA concentration is one of the few concentrations within the English department that is offered solely online. Combining rhetoric (with its focus on audience) and technology (writing and designing for) allows technical communication instructors the theory and practice needed for online learning. Davis (2005) notes technical communication favors adopting its principles to designing effective online courses when she explained that technical communicators "have mastered the important concepts of audience, purpose, persona, and usability, they have the knowledge of the technology for online delivery; they have a strong collaborative work ethic and experience in project management; and they usually have the strength in instructional design to create effective online learning" (p. 16). In a follow-up article, Jaramillo-Santoy and Cano-Monreal (2013) advocate for employing Davis' (2005) concepts to train instructors to teach online. So, it is no surprise online learning organically develops from technical communication programs, even when the instructors have no formal training. Participant 2, from the Irish institution, explained she is offering training to faculty members at her institution. Irish institution Participant 1 noted that this professionalization is becoming increasingly recommended, but it is not required.

At the U.S. institution, training is offered to first time online instructors in the form of modules instructors must complete, and this training is supplied by the university administration. The training offered is very general for faculty across the institution. The training is not tailored to technical communication online pedagogies. U.S. institution Participant 1 explained he began his online career (at another institution) by speaking with specialists in the field. Through this form of mentorship he developed an architecture for his online courses that he uses currently. Participant 1 also explained that a course was made available, at his graduate school, that provided instruction in online teaching, but he was not able to take it. U.S. institution Participant

2 noted that when he initially began teaching online courses, over sixteen years ago, he received mentorship from senior colleagues. For the participants of this study training to teach technical communication online was not a standard practice.

Course Planning and Preparation

For the Irish institution, the teaching strategies of the two instructors are influenced highly by their traditional onsite courses and keeping the online and onsite experiences very similar. Learners have similar projects, activities leading up to the projects, and often students switch from online to onsite and vice-versa. Both Irish institution instructors also have similar activities: podcasts, group work, discussions. But even though the Irish institution participants use similar activities, Irish institution Participant 2 requires learners to use real-world tools, including an interview, to develop real-world products based on theory. Irish institution Participant 1's course requires more academic-focused, theory-based products. The instructors use similar tools and strategies in the 2 platforms (onsite and online) i.e., podcasts and group work, but their approach differed because of the nature of their courses. Irish institution Participant 2 assigned more e-tivities, or electronic activities—too many, she noted, to focus learners on their final project of assessing their newly designed e-learning course. Irish institution Participant 1 was able to focus more on readings and discussion.

The U.S. institution instructors, however, have a stronger "fully online" presence; this is quite possibly the case because an onsite presence does not exist within their program.

It was notable how similar the preparation is across cultures for online learning. Once the instructors had established and taught the online course before (more than one time seemed to be the norm), course preparation was not as demanding thereafter. The differences become apparent with institutional policies or administrative interaction. For example, ways the Irish institution assigned courses was more consistent; instructors could predict which courses they would teach.

The U.S. institution's course awarding process was not as apparent with respect to the courses studied in this paper. None of the participants noted any discord with their institution's administrative practice in this regard; this is a notable point that I will elaborate upon later in this study.

Teaching Style

An important similarity among all four instructors, within their teaching practice, was their emphasis on peer interaction and use of peer review at some point during the course. All four courses required learners to complete projects throughout the semester. As part of the writing process, learners were required to share drafts of these projects with peers and, according to instructions given by instructors, review these drafts. Participants from both institutions noted the value of this activity for the writer and reviewer.

Two important findings emerged from the actual teaching of the course:

- *Teaching style was influenced by the type of online programs their institution/departments embraced*. For example, the Irish institution instructors underscored the importance of group work. Both participants explained that the number of students enrolled in the courses was 35 (maximum capacity, but this counted for both the online and onsite platforms), so assigning group work was one strategy instructors could use in this relatively large group. The Irish institution instructors, however, noted the importance of group work as a learning goal in and of itself. At the U.S. institution, the participants both noted that online courses have a 15 student (maximum) capacity. Neither of the U.S. institution participants used group work outside of peer review; instead, they expected other forms of peer interaction in their courses.
- *Accounting for technology difficulties differed by institution*. For example, the Irish institution instructors explained that the LMS was very difficult to navigate. They

explained that they formatted their courses to be easier to navigate, but they placed the responsibility of the difficulty on the tool. The U.S. institution participants, on the other hand, explained that users were responsible for technology difficulties: not understanding the tool/learners' resistance to technology. In both instances, whether the LMS was difficult to navigate, or, due to learners' resistance, instructors took learners' difficulties into consideration and made adjustments either to the course assignments or towards the technology itself.

At the conclusion of the course, all four instructors explained that they made no major course adaptations once they had completed evaluations of students. Instructors did make "micro-adjustments" during the course or formative (as opposed to summative) adjustments, that is, small adjustments throughout the duration of the course. The major difference among the instructors' formative adjustments was how they determined when adjustments were needed, based on factors such as

- Feedback from the students (both institutions)
- Information gathered from the live chats (Irish institution)
- Personal turn-around with returning feedback (both institutions)
- Usability aspects of the tools (U.S. institution)
- Observations of how students complete their work (both institutions)

These micro-adjustments are kept within the platform, and are already present when the instructor delivers the course again.

Overview of Instructors' Practices Teaching Technical Communication Online Courses

From the practices of the instructors teaching technical communication online courses, some important findings emerged:

- Programmatic policy regarding syllabi was not consistent, and syllabi content and language varied (e.g., the structure of the Irish institution syllabus were very different from the U.S. institution syllabus)
- Teaching style varied more significantly by the type of courses the instructor was teaching
- How faculty were assigned online courses to teach each semester (and what courses they would be assigned in any given semester) varied by institution
- How faculty addressed technology difficulties varied by institution

The practices of the four instructors revealed that institutional policies (described later) significantly influence the differences between faculty practices from the two institutions.

The following section shares the observations made regarding learners to answer the second research question:

What are the experiences of learners in these online technical communication courses?

The learners enrolled in the courses taught by the four instructors completed a questionnaire inquiring about learners' interaction with peers, instructor, content, and technology. The response to the questionnaire was low but revealed some interesting experiences on the part of the learners.

Learner Responses: Learner-to-Peer

In regards to learners' interaction with their peers, I expected this aspect of the research would reveal mixed responses. Not much in the literature focuses on a study of peer to peer interaction. What was mentioned was that, to some extent, the online environment can be competitive and isolating, but, often learners develop a community (Ashong & Commander, June, 2012; Chao, Hwu, & Chang, 2011; Ware, 2004; and Yeh, 2010). What the responses

revealed was that the majority of respondents (18 out of a total 24 respondents) found peer interaction a positive experience (that is, they rated the interaction 4 or higher of a possible 6). Out of a total of 24 respondents, 15 (63%) found their courses easy to interact in, while 5 (21%) reported that they "did not interact much." Only 3 (13%) of 24 respondents reported that "the course did not allow for interaction." Most respondents from the U.S. institution felt they had sufficient interaction with peers, but 1 respondent from each of the Irish institution instructors' courses felt that the interaction was insufficient. Table 1 reveals the type of interactions learners were asked about and how they participated in these activities.

Table 1: Respondents reactions to peer interaction in the online learning courses

Interaction type	Irish institution1 (4 respondents)	Irish institution2 (12 respondents)	U.S. institution1 (5 respondents)	U.S. institution2 (3 respondents)
Easy to interact	2 (50%)	9 (75%)	2 (40%)	2 (67%)
Easy to share ideas	3 (75%)	7 (58%)	5 (100%)	3 (100%)
Difficult to interact	0	1 (8%)	0	0
Course did not allow interaction	1 (25%)	1 (8%)	1 (20%)	0
Good quality feedback	2 (50%)	10 (83%)	5 (100%)	3 (100%)
Poor quality feedback	2 (50%)	2 (17%)	0	1 (33%)
Did not interact much	0	4 (33%)	0	1 (33%)
Insufficient interaction with peers	1 (25%)	1 (8%)	0	0

The results show that peer-to-peer interaction was mixed, but the interaction was positive overall.

Learner-to-Instructor: Trends Across The Two Institutions

Research focusing on learner-instructor interaction is scarce, but Ashong and Commander (2012) note that this interaction is key to "learner engagement and motivation" (p. 13). Interaction in the online environment is important, and positive interaction enhances the learning environment. The responses to instructor interaction were immensely positive, but not

all respondents answered the aspects of Question 11 that focused on instructor-learner interaction. For Irish institution Participant 2, there is an overlap: 1 respondent noted the teaching approach was both "familiar" and "new", but that respondent was comfortable with the approach all the same (see Table 2).

Table 2: Respondents Responses to Instructor Interaction

Instructor interaction	Irish institution 1 (4 respondents)	Irish institution 2 (12 respondents)	U.S. institution 1 (5 respondents)	U.S. institution 2 (3 respondents)
Approach relevant to platform	3 (75%)	11 (92%)	5 (100%)	3 (100%)
New approach/Comfortable	2 (50%)	8 (67%)	0	0
Familiar approach/Comfortable	0	5 (42%)	3 (60%)	3 (100%)
New approach/difficult	1 (25%)	0	0	0
Familiar approach/Difficult	0	0	0	0
Insufficient interaction	0	1 (8%)	0	0

The respondents from the U.S. institution overwhelmingly view the instructors' teaching approach as relevant, as well as do a majority of the respondents from the Irish institution.

While none of the 8 respondents from the U.S. institution courses viewed the approach as new to their experience (see Table 2), a significant number from the Irish institution (10 of 16 respondents or 63%) found the instructors' approach new, and their responses to the approach were mixed. Although the respondents to Irish institution Participant 2 found the approach positive (12 out of 12)—they were comfortable with the instructor's approach—one respondent noted that he or she had insufficient interaction. Respondents to Irish institution Participant 1 had at least one respondent (out of 4 total) who was not comfortable with the approach. Overall, respondents were satisfied with the interaction they had with their instructor (0 respondents checked off insufficient interaction for Irish institution Participant 2, U.S. institution Participant 1 or U.S. institution Participant 2), and only one respondent from Irish institution Participant 2's course noted insufficient interaction. Asking learners about their instructors' teaching approach is difficult, but the responses from learners were positive,

especially the ways they rated interaction with instructors in the overall online learning experience, respondents rated this interaction 5.3 of 6.0.

Learner to Content

One of the most significant commendations of online learning is the access it gives learners to content and activities. In a study completed by Rohleder et al (2008), the authors note that benefits to online learning, as explained by learners, included "ease of communication, easy submission of assignments, the cost effectiveness of paperless work, availability of resources, the convenience of reading whenever/wherever; availability of peers' work to learn from each other" (p. 100). I expected that learners would have a positive experience with this aspect of online learning. It was not surprising, then, that the online learners provided positive feedback for the course content (see Table 3).

Table 3: Respondents Reaction to Course Content

	Irish institution 1 (4 respondents)	Irish institution 2 (12 respondents)	U.S. institution 1 (5 respondents)	U.S. institution 2 (3 respondents)
Content relevant	3 (75%)	10 (83%)	5 (100%)	3 (100%)
Clear instructions	3 (75%)	12 (100%)	4 (80%)	2 (66%)
Content understandable	2 (50%)	10 (83%)	5 (100%)	3 (100%)
Content easy to locate	3 (75%)	10 (83%)	5 (100%)	3 (100%)

The majority (21 of 24 or 88%) stated that they had easy access to the content. Overwhelmingly, the respondents from the U.S. institution rated the content positively.

The Irish institution respondents gave overall positive responses, with respondents from Irish institution Participant 2's course (Instructional Design) doing so especially for clear instructions provided (12 out of 12). From the interview, this participant underscored being clear in directing students. For Irish institution Participant 1 (Technical Communication Theory), learners noted in the open-ended question (asking about what can change in the

course) that they struggled with the course content—noting it was hard to understand and to keep up with. The nature of the course, Technical Communication Theory, may affect this response especially since this was most of the respondents' first experience with online learning. On the part of the U.S. institution participants, only respondents from Participant 2 (Grant Writing) noted any issues with the content—the learners had to provide much of it. Again, this issue may be due to the nature of the course; Grant Writing requires the learners to find topic-specific research, and, for the most part, learners have to find and develop their own content.

Learner to Technology

While course content is lauded by learners, a criticism of online learning noted in the research (Rohleder et al, 2008; Herrington, 2008; Gibson & Martinez, 2013; Shimmura & Clark, 2007; St. Amant, 2009) is that of technology. Learners often have problems using the software and hardware, and they experience difficulties with Internet access; these problems marginalize online learners. The study revealed that learners had some difficulties with the technology used in their courses, but this was not a significant issue. References to popular social media tools may explain some of the mixed expectations, but it does not account for all the issues respondents had with technology. For example, one respondent noted a need to "lurk" to better understand how discussions worked, and Irish institution Participant 1, in the interview, noted that learners wanted the LMS to reflect popular social media platforms. Even U.S. institution Participant 1, in the interview, noted that a student asked whether a tool on the learning platform could act more like a social media tool, and a respondent to the questionnaire from the U.S. institution noted the need for a better design of the discussion forum. Internet access and respondents' lack of experience with the online learning platform may also have contributed to

the difficulties learners experienced with the LMS and other technological tools respondents used for the courses (see Table 4).

Table 4: Respondents Reaction to Technology

	Irish institution 1 (4 respondents)	Irish institution 2 (12 respondents)	U.S. institution 1 (5 respondents)	U.S. institution 2 (3 respondents)
Difficulties with technology	0	3 (25%)	1 (20%)	1 (33%)
Correctly identified the learning platform	3 (75%)	10 (83%)	5 (100%)	3 (100%)

It is noteworthy that, for U.S. institution respondents, all 8 of a total of 8 (100%) respondents were able to identify the technological tool used for course presentation.

For U.S. institution Participant 2, all 3 (100%) respondents had experience (and the most experience) with online learning. No respondents to U.S. institution Participant 2 (0 of 3) noted it was their 1st online course. Two of 3 total respondents (67%) for U.S. institution Participant 2's course noted that this course was their 4th or 5th online course, and 1 of 3 (33%) noted they had completed more than 5 online courses (quite possibly on the institutional LMS). In addition, U.S. institution Participant 1 created an activity for learners to complete to understand the course website. Experience with the learning platform may account for U.S. institution respondents' being able to identify the learning platform. In contrast, the majority of respondents from the Irish institution (10 of a total of 16 respondents or 63%) explained this was their first experience with online learning, and that this inexperience may explain their inability to identify the learning platform (see Table 4). Of Irish institution Participant 1 course respondents, 3 of 4 (75%) stated it was their first online course, and of Irish institution Participant 2 course respondents, 7 of 12 (58%) stated this was their first online course.

Table 5: Respondents' Online Learning Experience

	Irish institution 1 (4 respondents)	Irish institution 2 (12 respondents)	U.S. institution 1 (5 respondents)	U.S. institution 2 (3 respondents)
1st online course	3 (75%)	7 (58%)	3 (60%)	0
2-3 courses	1 (25%)	5 (42%)	1 (20%)	0

4-5 courses	0	0	0	2 (67%)
5+ courses	0	0	1 (20%)	1 (33%)

Findings About Learner Experience

Significant, therefore, is that respondents from U.S. institution Participant 1's course gave overwhelmingly positive responses in all four interactions of online experience: peer, instructor, course content, and technology interaction. While the U.S. institution respondents had noted difficulties with technology, the respondents to the Irish institution Participant 1 noted none, but the respondents to Irish institution Participant 2 noted their challenge with the institutional LMS. Again, because this may have been their first online course, learners were inexperienced with the technology, and both Irish institution instructors noted the LMS was complex. Two important findings that emerge from the learner feedback in response to technology, therefore, are

- the degree of prior experience learners had with online classes affected the responses learners provided (e.g., students with more experience in online classes were able to identify their learning technology); and, in turn
- the degree of prior experience with the learning technology affected some of the responses learners gave (e.g., learners who were able to identify the LMS and reported not having any technology problems with the LMS also rated their overall learning experience very high (see Table 6)).

Table 6: Respondents' Technology Experience Affects Overall Online Interaction

	Irish institution 1 (4 respondents)	Irish institution 2 (12 respondents)	U.S. institution 1 (5 respondents)	U.S. institution 2 (3 respondents)
Difficulties with technology	0	3 (25%)	1 (20%)	1 (33%)
Identifying the learning platform	3 (75%)	10 (83%)	5 (100%)	3 (100%)
Overall interaction rating of 6	5.0 of 6.0	4.6 of 6.0	5.6 of 6.0	5.0 of 6.0

What these observations point to, for instructors, is that they should be aware of learners' experience with technology and online learning, and they should be prepared to assist learners in navigating the online course. Overall, if learners are unable to navigate the course site, this will affect their entire online experience. Respondents having little to no difficulties with the technology reflect their overall positive experience and their positive response towards the various aspects of the online learning environment.

The final research question is discussed in the following chapter. The question explores how instructors' practices compare among individual instructors and between institutions. It also compares the learners' experiences and reveals how all participants' activities reflect culture's impact on the online environment. Most importantly, the comparison reveals how culture's impact is more complicated, since culture is not wholly dependent on an individual's national culture. It is in contrasting the observations of instructors' activities, and learners' experiences, that the influences on online learning are revealed, and that there are elements of a unique culture in the online environment.

Chapter 5: The Impact of Culture on Online Learning

The study revealed how four online instructors from two different countries prepared for, taught, and concluded their online courses. Though the questions asked of the participants and their learners did not directly inquire into how their cultural identities affected their actions, it sought to understand participants' activities, specifically how these activities developed into their practice and experiences. The study used a contrastive approach to make evident the different contexts the instructors work within. The following discussion compares and contrasts the instructors' practices and learners' experiences. The activities of the instructors and the learners' experiences reveal how different forms of culture were salient in the implementation of the online courses.

The following observations are in response to the third research question posed in the study:

How do the practices of instructors and the experiences of learners compare across instructors, institutions, and cultures?

Similarities of Practices Across Cultures

For the Irish institution participants who teach their courses in both an online and onsite format, they report using very similar planning strategies for both contexts. In the interviews both Irish institution instructors stated they use their instructional design backgrounds to develop their courses. Other similar planning strategies the Irish institution participants used included collaborative discussions about teaching approaches and online learning strategies, posting podcasts of lectures, and weekly live chat discussions with learners.

While the technical communication concentration in the U.S. institution graduate program is strictly online, U.S. institution Participant 1 explains that similarly, he uses the same

approach in planning his onsite and online courses. This approach includes developing an online presence with the course readings and discussion platform on an independent website he creates for his courses. U.S. institution Participant 1 noted that for his onsite courses the only difference is "he shows up to class." U.S. institution Participant 2 noted that teaching an onsite undergraduate course requires significantly different planning than for teaching a graduate course. U.S. Participant 2 stated he had no context to compare teaching onsite and online graduate courses. He did use the course materials from a previous instructor, similar to U.S. institution Participant 1, to develop his course. U.S. institution Participant 2's strategies included tailoring his archived course, updating content, and adjusting the course content to student needs during the course.

Online Teaching Training Was Lacking at Both Institutions

All participants noted that they received feedback for their overall online courses even if they did not participate in any formal training to teach online. This feedback, in the case of Irish institution participants, comes from colleagues who would complete peer observations. In the case of U.S. institution Participant 1 who is on the tenure track, he received feedback from senior colleagues. U.S. institution Participant 2 noted significant feedback from prior instructors who taught the course and from whom he adopted the Grant Writing course.

In addition the Irish institution participants explained that they do plan their online courses together and Irish institution Participant 2 explained she completed several professionalization courses nationally and internationally[3] since teaching at her institution and trains other faculty at her institution as well. The training she carries out is currently strictly voluntary. U.S. institution Participant 1 noted his own professionalization practices included

[3] A module with Swinburg University, in Australia; Carpe Diem with Gilly Salmon of University of Leicester, in the U.K.; a three day boot camp at Carol University in the U.S.

looking at other online courses and strategies completed by instructors internal and external to his institution[4].

Of particular focus, U.S. institution Participant 1 noted that before teaching online courses he completed the training modules required by his institution. This, according to the more seasoned Participant 2, is a new requirement enacted after he started teaching. The modules, however, are basic and technical communication instructors note they bring more knowledge from their discipline than the modules cover. The module (training) was not considered as training by the U.S. instructors.

Online Design Influences

Instructors at both institutions developed varying teaching styles to match their programs and their courses. For example, U.S. institution Participant 2 embeds his syllabus within the course LMS since the course is completely online. Irish institution Participant 1 notes three projects for her online course but four for the onsite (the extra project being a live presentation of the final project) in her syllabus. Their styles also highly depended on their own technical communication-based backgrounds. The Irish institution participants relied on their instructional design backgrounds, U.S. institution Participant 1 on his user experience design background, U.S. institution Participant 2 on his rhetoric and media design background.

Differences Across Instructors' Practices

Although the following observations are different, the various activities that make up the practice may include some similarities within the same institution but significantly different across the

[4] Using tips from a Web designer who specializes in online learning and who also shared with U.S. Participant 1 how to engage learners in the development of course sites. U.S. institution Participant 1 also noted looking at other technical communication instructors' course sites to learn to simplify his site and develop his own pedagogy.

two institutions. These observations include: syllabi, content, and language, how instructors were assigned courses, and how instructors accounted for technology difficulties among learners.

Syllabi Content and Language Varied

Academia calls for its own formal language (e.g., the guidelines provided to write and cite manuscripts) and this language is usually reflected in the syllabus where students are first introduced to the course and to the language they will be expected to use. The language in the syllabi for all instructors had its level of formality. The following examples of such language and expectations are from two participants:

> My assessment will reflect how well you have met an assignment's requirements (content and organization), your project management (including management of relationships among the various stakeholders in your grant project), your problem solving skills, your use of business style and tone, and your correct use of professional written English. (U.S. institution Participant 2, syllabus)

> It is the student's responsibility to ensure that all relevant files/ folders are submitted, in the correct format, and that they work as per the assignment guidelines. (Irish institution Participant 1, syllabus)

In both instances the instructors assert certain policies and expectations of the course. In the case of the U.S. institution participant's syllabus this expectation is stated using active voice, "My assessment will reflect"; in the case of the Irish institution participant in the passive voice, "folders are submitted."

Cultural Factors: Active/Passive Voice

As a cultural standard, American English has a predisposition to active voice and disapproves of passive voice. This is especially the case in technical communication (Markel,

2007), where an actor is expected to take responsibility for an action. In other English speaking nations, however, passive voice is used more frequently in academic settings (see findings in Thayer et al., 2007).

Cultural background can account for the use of passive voice in the Irish institution syllabus. Examples of the use of passive voice include the use of phrases such as "Grade descriptions will be used to grade assignments" from Irish institution Participant 1 and "From time to time, additional reading material (on- and off-line) will be assigned to supplement the recommended texts. Reference details will be provided online," from Irish institution Participant 2's syllabus.

The interactive or active voice that can be identified in U.S. institution Participant 2's syllabus, the lack of policy guidelines, and a "peer-like" discourse (see the quote below as an example) can reflect the graduate program audience or the online audience in general. The graduate online learner audience usually is a non-traditional audience. This non-traditional audience is usually employed full-time, adults who have significant field experience, pursuing life-long learning through online learning or certifications for work purposes (Eaton, 2013). The learners would be peer-like. The language in the syllabus would reflect this peer-like graduate learner audience.

> Throughout the process, I'll serve as a coach and adviser, but please also call upon your fellow students for feedback. I'll facilitate some conversations among the large group, but you're grad students, so I expect you to be reasonably self‑motivated to seek out support and resources and to interact with one another. (U.S. institution Participant 2, syllabus)

Syllabi for traditional learners may often reflect directives that students will interact with peers and rewards and/or penalties for such participation. In this case, the instructor establishes his

role: not “grader,” “teacher,” but “coach” and “adviser.” For U.S. institution Participant 2, the learners enrolled in his course were also veteran online learners having taken four or more online courses. In addition to cultural background of the instructors, the graduate audience can factor into the choice of language and structure used by instructors in the syllabus. Overall, however, the language and formatting (see “Chapter 4: Observations”) of the syllabus for all four instructors differed on some level.

Administrative Factors

Another difference referenced in the syllabi was the grading policy. Both Irish institution participants noted in their syllabus that an “External Examiner. . . has the final say on grades awarded.” The “examiner” refers to an administrative member whose contact information can be found in the student handbook that the syllabus references later in the document. Irish institution Participant 1 further notes that “If you are unhappy with your final grade in a module, you may request a grade recheck through official university channels as outlined on pp. 30 – 31 of the Student Handbook” this grading policy seemed to be a form of transparency determined by administration and the Irish participants viewed it positively as noted in the interview.

While similar policies for contesting a grade exist at U.S. institutions, such policies are not mentioned in any of the syllabi studied for this research. No administrative intervention is mentioned in the syllabus and U.S. institution Participant 2 noted such in the interview. This may be best explained by Geert Hofstede’s (2001) study on the seven dimensions of culture. One of these dimension being “**Power Distance Index:** the degree to which the less powerful members of a society accept and expect that power is distributed unequally**”** (ITIM International, 2016).

Ireland falls under the higher degree of the power distance index dimension, according to Hofstede’s study (ITIM International, 2016), that the members of society accept the “unequal distribution” of power. This power distance index is reflected in the Irish institution syllabi with

the administration being referenced if learners want to dispute a grade. That is, the Irish institution instructors acknowledge their position in the power hierarchy and reflect that the power hierarchy continues above them. It reflects that their culture values hierarchical relations and respect for authority. Interestingly this also accounts for the use of passive voice, since passive voice is considered more formal and less personal- maintaining authority.

In societies like the U.S. the power distance index is lower in most instances. This does not mean a power dynamic does not exist but the hierarchy is flatter. The lack of reference to higher authority does not mean such authority in the U.S. institution does not exist, but that these authorities are more accessible to learners.

How Faculty Were Assigned Courses Varied

Another striking difference that seems to be institutional is the way instructors are assigned online courses to teach. As noted earlier, there are "owned" courses, as noted with the Irish institution participants, and then "inherited" courses, exemplified with the U.S. institution participants. By owned, the course was developed and taught by a specific instructor, while inherited courses are courses developed by a previous instructor, passed on and taught by different instructors. While Irish institution Participant 1 noted the course had been passed on to her, she has taught it every year for ten years, changed it significantly, and was given the course upon the previous instructor retiring. The participants did not find this practice of assigning courses problematic. More study would be needed to see whether this practice of how courses are assigned affects instructor strategies in the online learning environment.

Accounting for Technology Difficulties Varied

When asked in the interviews about possible technological difficulties learners may experience, the instructors' responses were remarkable. The Irish institution participants acknowledged that technological glitches could occur and did occur (Irish institution Participant

2 noted, for example, that over a weekend an assignment was due the LMS experienced a downtime) and cited the complex LMS, Sakai, used by the institution. They noted alternative means students were given to complete or submit activities (e.g., emailing assignments rather than posting to the LMS). The U.S. institution participants, however, noted that difficulties were rare and any technological difficulties experienced with the learning platform usually were due to user error (e.g., the Discussion Board forum was mentioned as a problem by learners and U.S. institution Participant 2 noted users' lack of knowledge of the discussion board function). U.S. institution Participant 2 pointed out that the user could be either the instructor or the learner. How instructors accounted for technological difficulties, then, differed.

The various activities carried out by the instructors are only one aspect of the online environment. While the instructors' activities significantly influence the learning and learners, learners' experience account for another aspect of the online learning environment and the culture that arises. The next section compares learners' experiences.

Comparison of Learners' Experiences: Peer Interaction

A notable similarity observed across learners was in peer interaction. Learners rated peer interaction lower than they rated any other interaction (4.6 of a possible 6.0).

From the learner feedback several reasons emerged explaining why peer interaction received the lowest rating of 4.6 of 6.0 (4.3 Irish institution Participant 1, 4.3 Irish institution Participant 2, 5.0 for U.S. institution Participant 1, and 5.0 for U.S. institution Participant 2). The Irish institution respondents, especially for Participant 2, note that the peer interaction can be demanding: one respondent noted that they did not have time to meet physically, another noted they formed a "Viber" group (Viber is a free online application that individuals can talk using phone capabilities and chat). Still, the respondents also noted peer interaction was mostly

positive as was the quality of the feedback. For Irish institution Participant 1, responses to peer interaction was more mixed with respondents commenting they wanted more of it. This was the case also for respondents in U.S. institution Participant 2's course; from the responses learners shared that they wanted more peer interaction also noting that the quality of peer feedback was good. The responses to U.S. institution Participant 1's course were mixed, respondents noted that, mostly, interaction was good but one commented the peer review activity was tedious.

Instructor Interaction

Another similarity shared by learners was how high they rated instructor interaction (see Table 2). Respondents across all sections of all courses gave the highest ratings to instructor interactions. Respondents in Irish institution Participant 2's course gave instructor interaction the highest rating of the 4 aspects examined (5.3 of 6.0). For Irish institution Participant 1 and both U.S. institution instructors, respondents similarly gave the highest ratings for this aspect of the online experience (see Table 7). Responses to instructor approach and interaction was mostly positive even with a respondent to Irish institution Participant 1's course stating interaction prevented free communication, while Irish institution Participant 2's course a respondent felt there was insufficient interaction. Similarly respondents from U.S. institution Participant 1's course noted they wanted more instructor interaction, while U.S. institution Participant 2's course respondents rated the interaction positively, none made comments to the open-ended questions.

Table 7: Ratings out of 6 that respondents gave online learning aspects

	Irish participant 1 (4respondents)	Irish participant 2 (12respondents)	U.S. participant 1 (5respondents)	U.S. participant 2 (3respondents)	Overall (24 respondents)
Peer interaction	4.3	4.3	5.0	5.0	4.6
Instructor interaction	5.0	5.3	5.8	5.0	5.3

Course content	4.5	5.0	5.8	4.7	5.0
Overall	5.0	4.6	5.6	5.0	5.1

Course Content

In the case of Irish institution Participant 1, one respondent explained they had many different types of content: "essential reading, recommended readings, podcasts, slides," commenting that it was hard to keep up with course content. One respondent from the Irish institution Participant 2's course noted difficulty accessing texts. While for U.S. institution Participant 2's course, one respondent explained the course required learners to use sources they had to locate on their own and they would have wanted that to change. U.S. institution Participant 1 got an almost perfect rating, with respondents giving positive comments like the source material was helpful.

The type of courses may have affected the difference in how learners responded to course content. The Grant Writing course (U.S. Participant 2) as well as the Instructional Design (Irish Participant 2) course required students to develop products based on theory but meant for clients. In the case of the U.S. institution Grant Writing course, the client was real, thus provided more challenges to the learners. In the case of the Irish institution Instructional Design (Participant 2) course, the client was fictional, but learners had to interview real users. In both these courses, therefore, learners would have been responsible for course readings and then personal readings in regard to their individual topics. This could be problematic for distance education learners employed full time, because resource materials would be harder to find or access if the resources are not in electronic formats.

The U.S. institution Research Methods (Participant 1) course and Irish institution Technical Communication Theory (Participant 1) courses required more theory-based academic

work. The reading pieces provided in the content would have been limited to what is provided within the course.

Experience with Technology Affected Learners' Responses

Ware's (2004) assertion that prior experience with online learning and technology predicts success may explain the actual responses provided by learners in how they rated their overall interaction in their online courses. Learners in U.S. institution Participant 1's course gave overwhelmingly positive responses in all four interactions that provided data about their online experience: peer, instructor, course content, and overall experience in the online environment (see Table 6). Notable is that in the interview U.S. institution Participant 1 stated that he included an exercise to familiarize learners to the learning platform. In the case of U.S. institution Participant 2's course, respondents consistently gave 5.0 out of 6.0 for their interactions with peer, content, instructor and overall online interaction. In both cases of the U.S. institution participants their respondents had or else developed experience with technology and had completed a number of online courses before.

Respondents from Irish institution Participant 1 may not have had prior experience with online courses but either their experience with technology or having no issues with it may have substituted for the respondents having what seems like a comfortable experience with technology and an overall comfortable interaction in the online course (see Table 8).

Table 8: Respondents Experience with Technology and Overall Rating of the Courses

	Irish institution 1 (4 respondents)	Irish institution 2 (12 respondents)	U.S. institution 1 (5 respondents)	U.S. institution 2 (3 respondents)
Difficulties with technology	0	3 (25%)	1 (20%)	1 (33%)
Identifying the learning platform	3 (75%)	10 (83%)	5 (100%)	3 (100%)

Overall interaction rating of 6	5.0 of 6	4.6 of 6	5.6 of 6	5.0 of 6

The respondents to Irish institution Participant 2 noted their challenge with the institutional LMS; respondents noted in the open-ended questions that the LMS was hard to navigate to find the content. One respondent noted they landed on the wrong start page and was unable to find the readings. Again, because this may have been their first online course learners were inexperienced with the technology, and both Irish institution instructors noted in the interview the LMS was complex. Still, learners commented the instructor labelled content in the course site for easier navigation. Overall, if learners are unable to navigate the course site, this would affect their entire online experience (Gillani, 2003; Perry and Pilati, 2011; Chametzky, 2014). The overall positive responses given to the various aspects of the online learning environment reflect learners had little to no difficulties with the technology.

Cultural Influences on the Online Environment

Clearly culture influences the practices and experiences of instructors and learners. What the study revealed, however, was that culture is a nuanced factor. Individuals are assimilated into a number of cultures in their experiences. For technical communication online instructors, these would include their personal/national culture (discussed in the language used within their syllabi), a culture within their study (technical communication), within their institution (administration and colleagues), and within the technological environment they develop with their learners. The following discussion considers what these cultures theoretically look like and how they are incorporated into the practices of the instructors and then the experiences of learners in this study.

The observations from this study reveal that not only is the culture that stakeholders bring to the online course more nuanced than is explained in the literature but also the digital environment technical communication online instructors create for students develops into a culture in itself. By Sun's (2012) definition, a culture encompasses "meanings, behaviors, and practices" in certain forms like "artifacts, values, and states of consciousness" (p. 5). These aspects of culture are manifested in our courses; we require the artifacts of our students (stated in our syllabus) or implicitly expect values (shared in other verbal means when they are not being met), and significantly influence students' states of consciousness.

In "Chapter 2: The Literature on Culture and Technical Communication," the various research revealed a three-pronged approach to culture:

- How culture affects learners (that is, how an aspect of culture (societal background) can influence their ability to successfully complete online programs/courses
- How culture affects the instructors' practice
- How culture affects community building within the digital environment by making stakeholders—learners and instructors—aware of cultural differences and fostering sensitivity to those differences to avoid miscommunication.

This means that culture affects learners and instructors; instructors must be aware of the various cultures their learners come from; instructors are responsible to initiate community-building among an intercultural audience where to communicate each member must be culturally sensitive. This study attempted to identify how that three-pronged effect of culture manifests in the practices of online instructors. What became quite evident is that the culture referenced in the research strongly reflected the national culture embraced by individuals, but online learning is

not only a distinct cultural phenomenon in its own right, it is influenced by many other forms of culture: digital, institutional, and disciplinary.

National Culture

From the study the most telling evidence of national culture was in the instructors' varying use of language. As noted in the above discussion, the syllabi from the Irish institution participants and those of the U.S. institution participants varied in the use of passive/active voice, in the peer-like discourse, and in referencing administration in their policies. Wang and Reeves (2007) explain that instructional design is a product of culture "inextricably tied to [the instructor's] societal context and thus infused with cultural influences" (p. 9). The authors note that instructors cannot escape cultural influences but that their pedagogy should accommodate learners' cultural differences. Wang and Reeves' (2007) statement is significant but also surprising since even with the differences observed in the study, national culture had some impact on instructors' activities, and so practices, but not as great as was expected based on the literature. Perhaps due to the nature of this study, I was not able to determine the degree to which the national culture influenced instructor practice. What is clear, however, is that instructors must acknowledge cultural influences in their teaching styles when teaching learners in cross-cultural online courses.

The acknowledgement of one's culture can be both implicit and explicit. The most important is to do so implicitly (that is, an individual is able to understand the influence of culture on her or his practice), and depending on the learners, make an explicit acknowledgement of one's culture. As noted in different parts of this study, culture is tacit. We can go through our daily activities performing cultural customs and not be aware that these activities are unique to our culture. An individual who tries to communicate with persons from other cultures who are not aware of their cultural influences upon their behaviors will be frustrated in their interactions.

When an instructor is aware of her or his cultural identity —implicitly acknowledging culture— allows her or him to understand difference and how to navigate such difference. Making ones cultural identity known to learners —explicitly acknowledging culture— can come at a chosen interval in the course if at all. An instructor can share her or his cultural identity depending on whether such information will help build community or, if knowing that such differences exist in the first place may exaggerate perceptions of difference and threaten community building, not at all.

Digital Culture

A more influential aspect of culture emerged in the learners' interaction in the online environment, that of digital culture. Digital culture precludes the behaviors and practices users need to have to interact with others and artifacts and to consume or produce artifacts in digital environments. Digital culture affects learners' ability to navigate and interact in online courses. According to the questionnaire data considering learners' experiences, the degree of prior experience learners had with online classes seemed to affect the responses learners provided (e.g., students with more experience in online classes rated their interaction in the overall online environment higher). When learners, especially novice learners, encounter online environments, the culture shock they encounter, e.g. in having to access documents, upload assignments, post responses, and then be frustrated for not being able to do so in the digital environment, can lead to a negative view of the online course. This lack of experience in online environments and its effects on learners can also be explained by Zapf's (1991) definition of culture which underscores that culture acts as a map to help individuals interpret the world. When individuals are introduced to new environments (including the digital environment of an online course), where their preexisting maps gives too few clues to interpret the environment, and they receive negative responses to their efforts, it often leads to frustrating experiences. Without experience in

online learning, learners may find the environment unpredictable, and they may experience immense discomfort. Some of the ratings respondents gave their course may reflect some of this discomfort deriving from the unpredictability of the unfamiliar learning environment.

On the other hand, if learners are familiar with online learning and have cultural experience with such, they have better experiences and rate the online learning interactions higher. This seems to have been the case with the U.S. institution Participant 2. The respondents to the Grant Writing course all noted that they had completed four or more prior online courses and rated the overall online interaction 5.0 of 6.0. While the respondents to Irish institution Participant 2's course noted that for 7 of 12 (58%) respondents this was their first online course. The respondents to this course rated the overall online interaction the lowest: 4.6 of 6.0. The ratings were still above the half-way mark. Learners also acknowledged their instructor's efforts. For example, one respondent to Irish institution Participant 2's course mentioned having a hard time finding the readings but acknowledged her instructor did a good job of labeling aspects of the LMS so learners could better find the content.

From learners' responses to the online courses studied, then, it became apparent that culture is not limited to how one's national culture influences meaning making. What the research revealed was national culture was only a small aspect of the culture that influenced the online environment. When our education involves a digital environment that is not the familiar contexts for education for most individuals, online learners must become familiar with another culture —the digital environment requiring specific behaviors and communication. Other aspects of culture, besides digital, that influenced the online culture include that of the organizations we work for and the disciplines we study in are discussed in the following sections.

Institutional Culture

Two observations made in the study further complicate culture's effects in the online environment. Take the following two examples:

- Programmatic policy regarding syllabi was not evident and syllabi content and language varied (e.g., the structures of the Irish Institution syllabi were very different from the U.S. Institution syllabi)
- Assignment of online classes to faculty varied by institution (i.e., the Irish Institution participants knew that they would teach the course again the next year, while the U.S. Institution participants did not).

The instructors did not express any concerns about these policies. Such is the case with institutional culture. Peterson and Spencer define institutional culture as "the deeply embedded patterns of organizational behavior and the shared values, assumptions, beliefs, or ideologies that members have about their organization or its work" (as cited in Campbell & Hourigan, 2008, p. 142). The authors' reference to institution is specifically to academic institutions. This definition brings to the fore that institutional culture does not only involve behaviors of an organization (used interchangeably with institution) but also the abstract ideologies and beliefs that are upheld by an organization as part of its culture.

Depending on the size of the organization, however, the culture varies. Campbell and Hourigan (2008) note at least four sub-cultures that exist within the overarching institutional culture:

1. A collegial culture that arises primarily from the disciplines within the faculty and values scholarly engagement and shared governance;
2. A managerial culture that focuses on the goals and purposes of the institution and values efficiency, effective supervisory skills and fiscal responsibility;

3. A developmental culture that focuses on the personal and professional growth of all members of the institution; and
4. A negotiating culture that establishes equitable and egalitarian policies and procedures, valuing confrontation, interest groups, mediation and power. (Campbell and Hourigan, 2008, par. 6)

Institutional culture is manifested in one or a combination of the four described sub-cultures. Two of these sub-cultures, the "collegial" and the "managerial," were prominent in the practices identified by the instructors in this study. These two subcultures were highlighted in the way the syllabi were created and how instructors were assigned courses. The practices were different in the two universities studied, but both institutions reflected characteristics of institutional cultures as presented by Campbell and Hourigan (2008).

Collegial and Managerial Sub-Cultures in the Study: Irish Institution

For the Irish participants, how the syllabi were created reflects collegial culture, i.e., valuing scholarly engagement and shared governance. Earlier in this chapter I shared an analysis of the syllabi collected from the Irish institution instructors that revealed similarities in the formatting of the documents, content, and presentation of institutional policies. Some differences were present as well —in language and course content. The Irish instructors stated in the interviews that faculty members in their program have collaborative discussions about their courses especially in its development process. Irish institution Participant 2, who taught the Instructional Design course, noted that she developed her course with input from Participant 1, who taught the Technical Communication Theories course.

The practice of the Irish institution instructors to collaborate on instructional material (like their syllabi) reflects the collegial culture in "valuing scholarly engagement and shared governance" (Campbell & Hourigan, 2008, par. 6).

How instructors are assigned courses at the Irish institution was very consistent. Both participants noted that they had taught the courses for a number of years (Irish institution Participant 1 taught the Theories in Technical Communication for 10 years and Participant 2 taught Instructional Design for 12 years) with significant online teaching experience (Participant 1 for 13 years and Participant 2 for 6 years). The Irish institution instructors explained that they planned to teach the course in the next cycle (i.e., the next year it would be offered again). Both instructors had strong backgrounds in the topics they taught and had experience teaching the courses. This practice reflects the managerial culture of the institution. As Campbell and Hourigan (2008) describe, the managerial culture "focuses on the goals and purposes of the institution and values efficiency, effective supervisory skills and fiscal responsibility" (par. 6). The Irish institution's technical communication program does not have a very complex method of assigning courses to its instructors. In fact, the institution reflects efficiency in supervising such assignment of courses.

Institutional Culture at U.S. Institution

How participants in the U.S. Institution develop their syllabi at first glance may reflect less engagement by faculty in creating this document; the syllabi collected from the two instructors were significantly different in formatting and were only similar in the interactive language both used. From the interview, however, both of the U.S. institution participants noted their contents were influenced by another instructor, the instructor from whom they inherited the course or who had taught it previously. For example, Participant 1 explained that he borrowed

content heavily from one instructor with whom he shared similar theoretical backgrounds (usability) to teach the Research Methods course. U.S. institution Participant 2 also explained he borrowed much of the content and teaching strategies for the Grant Writing course from one of the first instructors who taught the course. Even though the interaction was not among the two participants in the study, the collegial culture was also strongly reflected among U.S. instructors. That is, the U.S. participants showed value in "scholarly engagement and shared governance." The collegial culture is made visible in how they share their syllabi and teaching strategies with each other in the development of the course and in how this knowledge was shared from more senior to more junior faculty.

The U.S. institution participants were assigned courses in what seemed at first a less systematic fashion than that of the Irish institution faculty. That is, instructors did not know for sure if they would teach the course in the next cycle when it would be offered again. This assignment of courses reflects the managerial culture in its valuing "efficiency and effective supervisory skills based on fiscal responsibility" (Campbell & Hourigan, 2008, par. 6). The U.S. institution has a small faculty of eight members, and courses in the technical communication concentration at both the graduate and undergraduate level rotate among these members. Additionally, U.S. institution Participant 2 explained that while the course, Grant Writing, is usually taught once a year, the course would be offered both semesters if there was a demand in the "off" semester. Juggling the small number of faculty to teach in the program requires "effective supervisory skills based on fiscal responsibility" (Campbell & Hourigan, 2008, par. 6).

The two institutions studied here reflected very different practices in how syllabi were developed and courses assigned, but all the same, their practices reflect the two subcultures of institutional culture as presented by Campbell and Hourigan (2008), that is, collegial and

managerial cultures. The instructors noted no problems with institutional policies, nor did they note whether these policies affected their practices, reflecting how deeply embedded they are within their institutional culture.

Disciplinary Culture

Another cultural factor often overlooked is in regard to our own disciplines. The knowledge we gain from our programs of study changes how we think and how we come to know new information. We are immersed in this knowledge not only from our reading, but in our writing and sharing of this knowledge at conferences and then with colleagues at work. We form networks, and over time, certain knowledge becomes innate. Genre theory reflects in many ways an innate communicative property found in different fields. To share certain information, we use different types of documents and writing styles. These are learned through participation in the field and become part of our latent knowledge of that field, taken for granted except when not adhered to.

Our disciplines are a part of our culture, separate from our national culture and from our organization's culture. Disciplinary culture is as evident in technical communication as it is in any other discipline. In technical communication, a major focus is on technology. Dobrin (2004) describes various ways technical communication can be defined and how the discipline accommodates technology is the center of that definition. And in our discipline, various phenomena have been debated that influence our stance on technology, including the academy-field divide, the humanist-social science divide, and the research methods that pull members toward differing if not polarizing stances.

The stance on how we view technology is one such phenomena that has been debated in our discipline; while not inflammatory, it does drive members of our discipline to a specific stance. In this study, I observed one example of how disciplinary culture influences online

instruction—how participants addressed technology problems. In addressing technology problems, the Irish institution participants tended to assign blame to technology for any glitches. The U.S. participants tended to put the responsibility of technology problems on the users. Both the Irish and U.S. participants explained that they assisted learners with technology problems. The Irish participants noted that their LMS was in need of an upgrade (one they noted was coming), and was thus the reason for learners' problems. By contrast, the U.S. participants explained that learners' problems with the technology may stem from the users (rather than with the technology).

How the participants from both institutions accounted for technological problems reflects a philosophical question that is at the core of technical communication studies. That is, how do we view technology? The theory of technological determinism long held in the scientific/social science field, for which technical communication/writing served as a "crutch," is that technology takes precedence over its user. The fact that technical communicators document technology, and as noted by Johnson (1998), technology was viewed "as something that predetermines our very thinking about who we are, what we do" (p. 76). This technological deterministic theory still holds some influence in our field, even when the humanistic and user-centered theory of technology has been largely adopted in technical communication.

Garrison (2014) notes that technical communication has largely settled upon a three-dimensional approach toward technology: scientific (adopted from the social sciences), philosophical (adopted from humanities), and rhetorical (adopted from rhetorical studies), but Garrison also reveals a weakness in this approach. The weakness is that technical communication needs to develop its own theory toward technology.

The instructors' response to the technological problems faced by learners reveals, to some degree, technical communication's unclear approach toward technology. The Irish institution faculty's clear stance that the LMS should be replaced reflects the instructors' scientific view that better technology exists and their community's having improved technology reflects their progress as well. Or else it reflects the philosophical/humanist placing the value of their learners' concerns above the usefulness of the technology.

Similarly, the U.S. institution instructors' responses could fall under one of two of the technology approaches taken by technical communication. That is, the U.S. institution participants' approach to place responsibility on the user could reflect the scientific approach, viewing technology as neutral (neither good nor bad), but rather focusing on the user's inability to use the technology. Alternatively, it might reflect the rhetorical approach that either clearer instructions are needed to use the technology or that the user needs to be better persuaded to use the technology as designed.

Instructors of technical communication place high value on using technology as part of the curriculum because we understand that learners learn about technology while using it. In both instances (despite having different responses to technological problems experienced by learners), the instructors from the Irish institution and American institution assisted learners through the difficulties they experienced with technology, whether by offering alternatives or by providing labels to guide them in using the technology.

The idea of culture as expressed in studies across the field as they relate to online education adheres to some degree to the three-pronged approach to culture's impact on the online environment. That is, how individuals' national culture affects the instructors' practice, learners' behavior, and community building. The culture of any given individual is more complicated than

the most evident national or geographical culture into which they were born. In the digital environment, different types of cultures influence instructors' practice and then the experience of their learners. The study revealed that, at some level, different types of cultures emerged that affected both instructors and learners in developing the distinct online learning community governing their course interactions. These cultures included, to a small degree, participants' national culture, and to greater degrees, the digital culture, institutional culture, and disciplinary culture (technological determinism). These various cultures molded a new culture among the various stakeholders within the online course. What became evident was that within the online course itself a new culture emerged, one in which both instructor and learners developed a map to navigate, specific ways of communicating, and specific tools (artifacts) that they could use to build knowledge within the course. In the next chapter, I discuss in more detail how these findings affect how online instructors move forward.

Chapter 6: Implications for Developing Culture Online

From the comparison of instructors' practices and learners' experiences, two important findings emerge:

1. The impact of culture goes beyond the stakeholders' national culture in the online environment; and
2. A culture of its own develops in the online environment, one that the stakeholders develop to navigate the online environment and to commune among diverse individuals.

This chapter offers ways to nurture and guide the culture that inevitably develops in online courses while considering the national and other cultures brought together in the course. As has been noted in the study and analysis, culture is not an easy concept to define. This study adapts Geertz's (1973) perspective on culture, as noted in his Chapter 1, "Framework for Application." Geertz (1973) describes the following six key factors of culture: three tacit and three tangible.

- **Practices** refer to the activities completed by instructors and learners for specific purposes, using the available digital software and other tools.
- **Behaviors** refer to the actions/activities completed by the learner based on the rules of communicating with each other. The online environment is dynamic, however, so establishing behaviors also needs to be dynamic and thus instructors and learners need to be flexible and create or modify rules during the course.
- **Meanings** refer to the stakeholders' perceived concepts; these influence stakeholders' responses (behaviors) and preservation strategies (practices).

These three tacit aspects of culture (meaning, behavior, and practice) underscore how the tangible aspects work. The three tangible aspects of culture are "artifacts," "values," and "states of consciousness":

- **Artifacts** refer to the documents of the course—created by the instructor and learners—and the software applications used to create documents in the course.
- **Values** refer to the expected behaviors of stakeholders and why these behaviors are important.
- **States of consciousness** refer to stakeholders' ability to share meaning, influenced by the perspectives they bring to a forum and their awareness of these perspectives.

These concepts are exemplified in the creation of an artifact—the syllabus—that innately reflects the instructor's national culture but that also displays both institutional and disciplinary cultures. The syllabus is created to help learners conceptualize the course (its meaning). Although the syllabus underscores what is acceptable behavior in the course, it also effects an expected behavior: that learners will read it to understand how to interact. In fact, this artifact is a practice in itself; instructors are expected to create one as part of their institutional culture, but the artifact also reflects the instructor's disciplinary culture in its content, and it changes each time the instructor teaches the course, so it evolves in response to practice, undergoing adaptation from semester to semester.

Based on Geertz's (1972) observations of culture and also Hall's (1990, 1995) theory of "context," the study's framework is used here to identify the ways that cultural considerations can be built into the design of a course at its inception rather than as later, ad hoc fixes in response to problems. These considerations are based on an understanding of cross-cultural contexts, by which I mean not only the contexts of international learners but even of learners coming from different backgrounds in the same country. As I explain in the rest of this chapter,

the very specific frame used in my study aims to build a course that considers culture in a more nuanced approach rather than only acknowledging national culture.

Because of my cultural focus, this chapter also addresses language considerations. The strategies I propose below should serve to guide an online culture that helps all participants achieve intercultural competence (Hall, 1990). Based on the findings of this study, I adopt Hall's (1990) term to include being able to transition between high and low context communication based on the nature of the information relating to the different types of cultures. For example, participants who are immersed in their disciplines will need to be aware of the context of their communication communicating ideas about said discipline to their interlocutors, being self-aware of interlocutor's background in the discipline. A speaker with significant experience in the discipline should use low-context type communication to the interlocutor with little to no experience with the discipline. That is stakeholders will be able to translate from high to low context communication and vice-versa.

Cultural competence develops from cultural understanding. That is, participants understand that individuals have varying levels of experience with the different forms of cultures so require different communication patterns based on the amount of "context" any given participant requires to understand information about the type of cultural message being shared. Cultural competence develops when individuals are able to communicate among individuals who have varying levels of experience with any culture switching between high and low context communication pattern. This means that individuals will be able to shift communication strategies from low context to high context communication and vice versa as needed. For example, instructors can initially introduce projects in low context communication strategies and shift to a situationally more effective high context communication as they customize projects to

learners' specific needs. Throughout the course stakeholders will transition between the two communication strategies in an iterative process as they navigate the online course.

Low to High Context Communication Strategies

One initiative instructors can take to help learners navigate the intercultural online environment is in guiding learners' communicative behaviors. A major factor in communicative behavior is determining the context of communication. The concept laid out here is based on the premise that individuals' cultural background influences language, as well as on the premise that the institution and disciplines use specific language patterns that influence communicative practices in the online course. Instructors are not only using a language in the online environment that is new to learners because they may come from a different country, but also because they are often new to the institution and the discipline.

To accommodate these challenges, instructors should consider using low context communication strategies at the onset of the course. Instructors will be describing content and expectations in detail, leaving as little as possible to assumption or inference at the course's onset. This also means instructors must become self-aware of their own cultural influences, and be able to help learners immerse into low context communication, one part of the language practice used in the digital culture. Not only should instructors adopt a low context communication strategy at the onset, but they should also help learners to do the same to attain intercultural competence as part of the digital cultural experience of the course, e.g. through requiring learners to add detail in describing their own backgrounds by providing a list of questions so learners understand what they need to share.

The digital nature of online learning reinforces the need for low context communication as well. Traditional education (even though it is changing) uses a high context communication

strategy. This is expected when participants are in the same room, where artifacts are in plain view, when students are able to talk to each other outside of the classroom context, when non-verbal communication is appropriate, and little context needs to be communicated in the actual messages being exchanged. But the textual and isolating nature of the online environment presents a very different circumstance. In this environment, communicative behaviors focus on written communication among distanced participants in the course. To mitigate this distance problem, instructors use multi-modal tools or artifacts (e.g. videos, images, synchronous chats) to share information. Doing so requires multiple artifacts to be posted. In the online environment, even when certain artifacts are available to all participants, students cannot use artifacts if they cannot locate them. Often, these tools are imperceptible, especially to a digital novice; seamless interfaces are only intuitive to the user who is knowledgeable about the digital environment. Instructors need to use low context communication strategies to help digital novice learners navigate the online environment. The goal is for learners to understand the digital environment from low context, detailed, explicit messages until the information about the digital environment becomes tacit and they can interpret meaning from the environment, thus working toward developing high context communication proficiency.

Online instructors, therefore, must not only communicate with their learners using low context communication strategies, but they must help those learners understand how to communicate in low context formats, at least at the outset of the course.

Individuals who use high context communication, according to Hall (1990) transmit very little information in their message because most of the "information is stored in the memory of the individuals" (p. 25). Hall (1990) explains that the information can be derived from the environment or the culture itself, an environment that "is made up of parts [that] interrelate to

make the environment meaningful" (p. 27). In graduate courses discipline specific information is shared with learners who are expected to adopt it in meaningful ways. That is, learners create knowledge by applying information to their needs or experience. The information shared in low context communication strategies, therefore take on high context characteristics with the formation of new knowledge. High context communication, while harder to grasp and communicate, develops in the online environment with practice.

Community is an important concept to high context communication. That is learners are expected to feel they are a part of the group, they should be building knowledge together, that is make "meanings," perform "behaviors," and "practices," create "artifacts," "values," and share their "states of consciousness." Participants need to build a culture within the online environment before they are able to move to high context communication strategies in their online courses. Only when individuals internalize these cultural characteristics that are common so meaningful to them will they be able to use the information that is appropriate to that environment and then build on it for more general uses outside of their online culture. Thus the online participants are developing intercultural competence, translating from low context communication to high context strategies and then back again as needed.

Applying Low and High Context Communication Strategies

An example of helping learners understand how to communicate using low context communication and move to high context communication is the exercise many instructors give learners to complete personal introductions. By introducing themselves to their peers in the first week, learners are being encouraged to use a form of low context communication, because they are giving background information that might ordinarily remain tacit or part of the social background in other situations. But the exercise also requires students to possess some experience or knowledge regarding what is expected in the institution and what is relevant to the

discipline. This exercise can be uncomfortable to learners from high context cultures, but also to students who are new to the institution or the discipline. Introducing oneself may not be a familiar practice for students, or else students may be unaware of what to say in contexts that are new to them, whether the new element is a new national culture, the digital environment, the new institution, or the new discipline. To help learners with "context"—that is, to help them discover how much background information is sufficient—instructors can provide learners with specifics to include. For example, one online course asked that learners share their names, occupation, position, study focus, concentration, level of study, and hobbies, and to include a picture of themselves (to help other members match a face with the name).

Providing specific information to include helps to make introductions a more comfortable experience for individuals new to the program and who may be coming from cultures where the information in the introductions may be understood as "self-glorification," which is taboo in some cultures. In this first week, instructors can share important information about the institution and the discipline, aspects of the online environment, ideas about intercultural communication, and cultural knowledge, using themselves as examples of how they come from low or high context cultural communication backgrounds, the length of time they have been immersed in the discipline and the institution, and what this means about their communicative behaviors.

Instructors can describe in detail the artifacts, behaviors, and practices (described in detail later in this chapter) in this first week in multiple modalities (repetition is good). For each week thereafter, instructors can make available such instructions for exercises and create a separate discussion forum for learners to ask questions. This practice is to allow learners who require more information to have a space to receive that information, but move into high context communication where learners who already intuit the processes need less instruction. In the

beginning, instructors should monitor forums to help learners but ask that other learners answer questions as everyone is being introduced to the communication of the online culture. The practice of an open discussion forum (where both learners and instructors can ask and answer questions) is another approach at developing community.

Studies have shown that a sense of community is important to the online learning environment (Liu, Magjuka, Bonk, & Lee, 2007; Chao, Hwu, & Chang, 2011; McDowell, Trunzo, & Vincent, 2005; Roberts, 2005; Yeh, 2010). In courses open to learners new to the institution or the discipline, and coming from diverse cultural backgrounds, online instructors should acknowledge that the course is building an entirely new culture/cultural community. And once the foundations of the online environment has been laid, learners internalize its "meanings," "behaviors," "practices," are able to create "artifacts," "values," and share their "states of consciousness" (Sun, 2012, p.5), high context communication strategies can develop. The following discussion explains the cultural characteristics needed to build the community that can foster intercultural competence, that is, building the environment suitable to an online learning culture.

Making "Meaning," Determining Behaviors Online, Establishing Practices

The context of the communication strategies plays an important role since it guides how stakeholders share information. Other aspects of the digital culture instructors must consider in developing this digital culture include the tacit and tangible aspects of culture. "Meanings," "behaviors," and "practices" are the tacit aspects of culture that Sun (2012) noted were imperative to develop the tangible "artifacts," "values," and "states of consciousness." This section explains how instructors can effectively address these aspects to build their online culture.

I explore the tangible manifestations of culture—artifacts, values, and states of consciousness—more fully here to show how they can be developed in the online learning environment. I include some already widely used and known practices (along with some lesser known), explaining how they develop culture and help in developing intercultural competence for the diverse audiences entering these learning environments.

Meaning of Artifacts

The **artifacts** that the instructor brings to the course include the syllabus, assignment sheets, instructions, and so on. Although the technology used to create these artifacts may not affect the online participants, instructors' artifacts do affect learners when they determine the type of learning management system that will be used to post these artifacts, the placement of these artifacts, and the types of technologies required in the online course.

Gibson and Martinez (2013) highlight the problems that learners face when technology is not significantly considered in designing online courses; some learners may be marginalized or even unable to complete online courses. Learners may use fiber optics, broadband, Internet cafes, or borrowed Wi-Fi (St. Amant, 2007), so instructors must consider sharing information in compressed formats for faster transfer. Screen size is another important consideration because some learners might access online courses using small screens like phones and tablets, while others use larger screens like desktops and laptops.

Ware's (2004) discussion of major considerations about artifacts for learners indicates that the learner's technological ability and previous online learning experiences were big determinants of how student participants responded to the online learning environment. Also, McDowell, Trunzo, and Vincent (2005) emphasized that students' experience with the technology used in the online learning forum determined when and how often students respond in the online learning forum. If learners are able to use the technology required to complete the

course and are comfortable using it, this capability "prevents them from becoming so frustrated with the technology that they give up or transfer that frustration to the course content, creating a barrier to their learning" (Rubens and Southard, 2005, p. 193). In other words, learners who are able to use the technology required to create documents and complete tasks in the online courses have a higher chance of successfully completing that course and expressed greater satisfaction in their online courses.

Behaviors using Artifacts

Ali (2007) explained, based on a case study he conducted, that "students who had more technology skills preferred using the Internet while those with limited technology skills were less inclined to use the Internet for learning" (p. 336). The behaviors instructors expect of learners in regard to technology may differ from students' actual behaviors. Instructors may expect their students to find technology accessible and to be able to use available technologies to successfully create more artifacts required of the course (culture). Ali (2007) noted, however, that even when students were comfortable using technology, if they had limited Internet access, they encountered setbacks. The research literature regards technological setbacks suffered by learners as a given. The culture instructors want to create, however, is one where as few as possible of these setbacks occur. To address this disparity, Ali (2007) suggested an alternative to Internet-based technology. He proposed that learners can use video broadcasting as a supplement to strictly online interaction, and that when Internet access is problematic for learners, learners can use CDs instead. St. Amant (2007) also suggests that learners can be given alternative methods to access artifacts, such as phone or fax, or hard copies of course materials. The alternative to have students print hard copies of readings and activities is doubly beneficial, since it serves as

an alternative access and it allows learners to limit their time on the Internet. But it only works if instructors post readings and activities in printable formats.

Practices using Artifacts

Cross-cultural contexts present an added complication to the considerations instructors must make in regard to artifacts. Instructors' practices are significantly affected by artifacts, especially technical communication instructors who must consider the technology that can be used. Yet Brian Street (2005) explains that technological literacy cannot be assumed to be used in the same ways or translated into the same meanings by persons from different cultures:

> Although communication on the Internet, for instance, may be "international," we have to still take into account the fact that communicators come from specific cultural and linguistic backgrounds and ask, how does this affect their interaction? We can't assume that because the means of communication are now cross-cultural, the meanings are necessarily so. (Street, 2005, p. 30)

Here Street (2005) shares that technology is not neutral and used the same way everywhere. Even though Street (2005) acknowledges national culture, institutional and disciplinary cultures effect individuals' interpretation of technologies significantly as well. How a natural science researcher and social science researcher use textual analytic tools, for example, may differ significantly. Street (2005) underscores the need for low context communication in using technology—that is, explaining clearly and directly to learners how to use tools to develop the knowledge and skills that instructors expect.

In considering the tools instructors require learners to access and create, instructors must consider these questions:

- Are the tools available to learners?

- Are they accessible (are learners able to find and use them)?
- Are the tools available to read and create documents formatted the same way across the different types of hardware and web browsers?
- How do we help learners understand how to use them if they don't already know how?

Another means of addressing learners' technological challenges is presented by Rubens and Southard (2005), who explain that learners often face their greatest technological challenges online in the first few weeks of the course. To address this challenge, the authors note that training learners to use the technology in the first weeks should be part of the content of the course: training in the use of the Internet browser, email communication, and navigating the learning management system (Rubens & Southard, 2005).

These considerations suggest that instructors must consider the artifacts used and expected in their courses. Instructors must also be cognizant of their individual learners' technological background: their skills with technology, how they use technology, and how they get access to tools, including the Internet. U.S. institution Participant 1 in this research study noted that he was in tune with his online learners' pulse, and so was able to intervene once he recognized a learner was encountering a problem. To be able to do so, instructors must be aware of learners' different levels of skills and access to technology. Ways of assuaging these problems include:

- Have the first week of introductions include exercises to introduce learners to the technological tools they will be using in the course
- Include having learners state their online learning experience and level of comfort with technology in introductions

- Offer alternative means of having students read and submit assignments
- Offer alternative tools learners may use to complete course activities
- Intervene if learners ask for help or are not participating as expected.

Meaning of Values

The principles and beliefs individuals have at their core influences their behavior. Based on this premise, cultures often are guided by values. In the online environment, therefore, the behaviors that instructors expect of learners are based on certain values. The behaviors stakeholders bring to the online course overlap with those of other cultures the participants interact in. The institutional culture, for example, may want to stifle explicit political and religious values from dominating. This principle can be beneficial when individuals from different views interact. Instructors merely ignoring controversial values, however, does not prevent these values from affecting behaviors in their online courses.

In Zaidi, Verstegen, Naqvi, Morahan, and Dornan's (2016) article "Gender, Religion, and Sociopolitical Issues in Online Education," the authors note that topics like gender, religion, and politics can erupt into volatile discussions in an intercultural online setting, so these topics are often avoided in such settings. When topics like asking learners what gender they identify with is a political act, it is important that instructors provide the space for discussions between learners and with the instructor. Where possible, in private communication, learners may share sensitive information with the instructor who can take the lead in guiding learners about addressing their colleagues. Zaidi et al. (2016) explain that if we want to teach our students to have a "critical consciousness of the unequal distribution of power in cross-cultural online education," instructors should address these issues (p. 288) even if doing so is challenging. The authors explain that instructors must monitor such conversations, however. The online culture

stakeholders want to foster is one where individuals behave with respect toward each other and treat each other as equals. Instructors must groom the behaviors they want in their online culture and do so purposefully to foster the type of values appropriate for their online courses.

Behaviors and Values

The values expected in the online courses should depend on learners' knowledge of social justice issues. Practices in traditional cultures that instructors and learners often come from reflect oppressive systems: bias against women, of racial groups, based on economic background, sexual orientation or sexuality, religious beliefs, and even towards regions from where individuals come from. It is often inevitable that learners behave in negative ways reflecting these unjust practices (which are valued in other groups that learners interact in) in online spaces. For instructors to foster positive values in online cultures these spaces need to be open and safe for learners; they must be open to speak about political, economic, religious, social, and other issues. Learners will be expected to behave in ways that reflect respect and equal treatment to all participants in the course.

Practices and Values

Technical communication scholars and instructors are positioning themselves closely to social justice issues (see Haas, 2012; Katz, 2004; Selfe & Selfe, 1994; Starke-Meyerring & Wilson, 2008), bringing awareness to the discipline of the biases inherent in the technologies we study and the theories and practices we develop. It would not require a great extension of our efforts for instructors to incorporate Zaidi et al.'s (2016) suggestion to bring critical consciousness to learners. Zaidi et al. (2016) suggest that students can discuss topics of religion, gender, and politics to bring awareness to the unequal distribution of power, and this can be done in monitored discussions in cross-cultural online settings, especially in creating the cultures in online courses that foster a sense of community.

On an individual basis, instructors can help learners to internalize the values of the online community by doing the following:

- Sharing literature that discusses unequal distribution of power
- Having learners discuss the nature of these relationships in their communities
- Having learners share how the values in the course are beneficial to stakeholders.

Youmei Liu (2005) explains that equality across differences of gender, ethnicity, religion or any other identity variables is a value that should be fostered in collaborative activities online. Liu (2005) explains that when everyone experiences a sense of equality, "relationships between students improve" (p. 44). For instructors to promote the value that learners can be successful regardless of their backgrounds, instructors "need to be aware of diverse cultural value systems and of their characteristics" (p. 36). Liu (2005) explains that communication is the only assurance of online instructional quality (p. 49), and that instructors need to provide students with explicit instructions on how to conduct collaborative learning.

To do so, instructors should give detailed and explicit instructions to learners working in collaborative groups, including giving clear guidance on goals, objectives, roles, specific tasks, timelines, expectations, and participation (Liu, 2005, p. 44). These aspects, along with the values they promote in online courses, are especially useful for instructors teaching cross-cultural online courses, but they are also useful to all types of formats. The values encouraged in considering both individual and collaborative activities combine low context strategies—the explicit instructions that help to prevent errors—and high context strategies—the inclusion of these values in the practices of participants without having to restate them. On both levels, instructors share the message of the values espoused in their online courses.

Meaning of States of Consciousness

States of consciousness are the internal/internalized beliefs a person has of her or his personhood based on external factors like the person's society or culture. If a person's culture gives value to her or his existence through positive external stimuli, the person turns out (often) positive behaviors and products—useable knowledge. If the person does not receive positive stimuli, that person folds into her or himself, withdrawing and becoming marginalized. In a high textual context like the digital environment, an individual's only means of sharing his or her existence, personhood, or state of consciousness is through language. Language, then, becomes more than a system of symbols, but a symbolic social act.

Pennycock (2010) highlights that language is a "product of the embodied social practices that bring it about. . . . To look at language as a practice is to view language structure as deriving from repeated activity" (p. 9). And for this reason language and how participants in the online environment use language is salient to individuals' expression of their states of consciousness—their identities, the cultural perspective stakeholders come from. Pennycock's view on social practices like language developing with repeated activity brings into focus the importance of basing the instructors' and learners' shared, emergent online culture upon developing language specific to their groups. For this aspect of culture, it is important that stakeholders be aware of their own cultural influences. Instructors need to be aware of the institutional culture and disciplinary culture that influences much of the content they produce and the way it is shared. Learners must be aware of the different subsets of speech codes they belong to and how these influence them.

Philipsen's (2008) Speech Code Theory explains that an individual's speech is culturally influenced. In the online course, stakeholders express their states of consciousness through written communication. This written communication is influenced by the nuances of their

language, the speech code (or codes) they adopt. Instructors must come to understand that language is not just a system of communication used by people in different contexts, but that it reflects “deeply social and cultural activities in which people engage" (Pennycock, 2010, p. 1), and so is an important aspect of identity. Thrush and Popham (2013) note how people from different cultures use different types of English. The dispersal of English has an oppressive history for people from many cultures. The cultures that have adopted English, and the individuals within them, change it to suit their cultures.

Behaviors and States of Consciousness

Instructors must be aware that different nations, groups, and communities speak and write different versions of English. In the online environment, especially in cross-cultural contexts, learners who are using English use different forms of the language. Instructors must consider, then, that language is not only a system of communication but also represents the learner’s unique state of consciousness.

This concept of language helps us view language use—speaking, reading, writing—not so much as a tool but as symbolic social action. Through this view of language, instructors will understand that learners’ languages are dynamic, not static. This view of language is important for the online instructor who wants to develop a culture that embraces the language diversity of online participants. Pennycock (2010) explains that language diversity is a crucial issue because of the diversity of meaning that can be made and understood from language (p. 3). For learners coming from countries and backgrounds different from the instructor’s or her or his institution’s and discipline’s, instructors should consider the question of how information is interpreted in that context (Pennycock, 2010, p. 3). Instructors cannot assume that all readers will interpret literature in the same ways, but should consider the “regional, national, global, universal, modern" (Pennycock, 2010, p. 4) contexts that influence students’ interpretations. The language

used by individuals and the way individuals interpret language is dependent on the contexts—the backgrounds, the experiences—that influence and are part of learners' cognition of language and expressions of themselves.

Practices and States of Consciousness

If artifacts and values significantly affect instructors' practice, states of consciousness are the culmination of influences upon an instructor's practice. Instructors must consider the artifacts (especially technological artifacts) and values that are represented in the online culture. These two aspects of culture affect the states of consciousness of learners, and so invariably affect instructor practices. If the language that learners use expresses their states of consciousness, how are instructors supposed to act to reconcile the differences encountered in the online environment? What language will instructors expect learners to use in their online culture? Instructors can use the following strategies to develop a language consistent to their online culture:

- Establish a standard language and a standard dialect that will be used in all class exchanges. Directly specifying (rather than assuming) the standard can prompt students from different dialect groups to learn more about the dialect used for class (and thus help avoid confusion). Or, making participants aware of such differences could soften the frustration that sometimes results from cross-dialect exchanges (St. Amant, 2001). An example of this approach could be identifying American English as the standard language for the class.
- Attempt to identify non-native speakers well in advance of the actual

class. For example, the Irish instructors in this study had learners who struggled because of language barriers, so the instructors developed pre-courses for ESL speakers to take before starting graduate coursework.

- Establish and distribute an annotated schedule or agenda for each class discussion or each online activity well in advance of the actual event. This is exemplified in the syllabi, but used by instructors in their weekly introductions.
- Create and share a weekly glossary of terms with all students. For example, in a Medical Rhetoric course, where medical jargon may be region-specific, the instructor can create a glossary based upon the assigned readings and topics and share that glossary with all students when the topic is introduced.
- Include links in the course website to online writing centers with tutors trained to work with non-native speakers.
- Include a link to a style manual and a free-access online English-language dictionary on all course websites.
- Consider whether the genres learners are assigned are culturally appropriate. Thrush and Popham (2013) note that some genres commonly used in the United States are not used in other countries and so are irrelevant and possibly even unintelligible to individuals coming from these cultures. Instead, provide a variety of genres that are culturally relevant to participants and have learners collaboratively work on these projects.

- Allow discussions of readings posted to online forums to have learners share interpretations based on their context, and encourage discussion of these perspectives so that everyone can learn from one another about these different perspectives.

The strategies above are adapted from St. Amant (2007) and Thrush and Popham (2013). Not only do the strategies help in developing a language suited to the culture of the online course, but they also help online participants to represent their states of consciousness openly. The strategies also emphasize a low context form of communication that, if implemented early, is best internalized by participants. Communication can then turn to high context, where these rules form the basis upon which language is used and shared.

Applying Cultural Aspects Online: Caveat

From the considerations and strategies provided in building culture in online courses, the first few weeks are the period when instructors have to share the most significant amount of information to learners to establish the online culture. The introduction to each course needs to be well planned, and the subsequent weeks need to be well monitored. The information shared early will form the basis of the culture through which participants will interact, so the process of establishing the culture does not actually have an endpoint. Instructors will be working on establishing the culture and helping students transition to high context and to move between high and low context cultural communication throughout the course. The outcome is that learners should be able to transition from low context (having little to no background information) to high context communication and back to low context as needed attaining intercultural competence.

Real-world Application

Online pedagogy that allows instructors to reduce presence so that the learners begin making knowledge based on established rules within the developing online culture moves communication along the low to high context spectrum. Often, when new content or a new exercise begins, both instructors and learners have to move back and forth between low and high context communication strategies. I highlight the need to involve learners and the reasons for these practices in my discussion of considerations and strategies for instructors to build community. While these strategies help to build culture in online courses, they also help students to build intercultural competency for real-world application.

As this study progressed, it became clear that online learners should be involved in the development of their online course cultures, especially learners at the graduate level. For this reason, I focus on ways instructors can adapt courses based on learners' responses that develop a culture that embraces learners from various backgrounds. The study focused on online learning in cross-cultural contexts, and strategies to fully embrace the international learners who are welcomed into these courses. As noted earlier, however, the strategies would be appropriate even for learners who come from the same country but from different cultural backgrounds.

Future Research

As noted earlier, this study was based on a small population for one semester. Future research should look at a broader cross-section of participants (institutions, courses, instructors, and students) over a longer period of time. Future research can look at incorporating Ashong and Commander's (2012) research findings to see how learners' feedback on online learning can inform more insightful instruments for assessment of technical communication online courses for cross-cultural audiences. Ashong and Commander (2012) found that "affective support,

motivation, and social interaction" (p. 2) were the biggest barriers to completing online courses. Using these factors to assess online courses may give online instructors important factors to build into the design of courses.

A major take-away from the study was the need for longer, more sustained studies of online courses offered to intercultural learners. This would require developing relationships with instructors and direct observation (perhaps through invitations to participate in an online course rather than only observing from the outside as was the case with this study). The study also highlighted the importance of developing relationships with instructor colleagues nationally and internationally. Thus the study highlighted the potential importance of enlisting stakeholders through the field's conferences and technical communication organizations, especially those with international reach such as STC and Tekom.

This study's focus was to understand culture's effect on the stakeholders in the online environment. Though it revealed the nuanced influences of institutional, digital, and disciplinary cultures, surprisingly little was revealed about the influences of national culture, possibly because of limitations of the study's sample. The literature highlights national culture as a key influence, and a larger study with a more diversified group of participants may uncover how national culture impacts online learning in cross-cultural contexts. One way to access a broader population for a more in-depth study is to invite instructors from different countries to participate in online courses that instructors are teaching to have greater access to the entire learning process. Similar studies have been conducted in affiliation with the Trans-Atlantic and Pacific Project (Sorenson, Hammer, & Maylath, 2015) and The Global Classroom Project (Herrington, 2008).

A focus of this study was on learners. A low rate of response from learners limited the study's insight into learner experiences, future studies may be able to raise learner participation both by increasing the number of participating courses and by increasing the researcher's in-course presence rather than depending upon student willingness to participate after the fact. Future research can also focus on learners' use and development of artifacts, perceived meanings and values in their course, use of language in the online learning forum and how it varies, differences between course language and the language used in other areas of the learner's life, and how and why learners change their language use practices. These data sets can be gathered from the same studies where instructors from other countries participate in sustained multi-partnered research. Data from such studies would yield more substantial insights into the challenging but important process of designing and teaching online courses in technical communication cross-cultural contexts.

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Appendices

Appendix 1: IRB Approval

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/irb**

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
To: Therese Pennell
CC: Kirk St Amant
Date: 4/4/2014
Re: UMCIRB 14-000625
Online study

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 6/2/2014 to 6/1/2015. The research study is eligible for review under expedited category #6, 7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

Continuing Review Reminder

ID: UMCIRB 14-000625
Title: Mobile learning at the University of Belize/ Online learning for Intercultural Students
Description: This project will expire on 12/9/2016. To navigate to the project workspace, click on the above ID.

Appendix 2: Interview Questions

Interview questions for instructors:

1. What's your name? Where are you originally from? Where are you currently teaching? For how long have you been teaching courses in technical communication?
2. How long have you been teaching in your current technical communication program?
3. How long have you been teaching technical communication courses online?
4. How many different technical communication courses do you teach online during a semester? Do you teach the same online course more than once a semester? (If yes, how many times per semester do you usually teach that course?) More than once a year?
5. Why do you teach online?

6. Does your administration require you to have any specific training or meet any particular requirements or criteria before you can teach online? If yes, what are they?
7. Did you get training to teach online?
    a. If yes, can you describe this training process?
    b. If yes, did you receive any specific training in how to teach technical communication courses online?
    c. If yes, can you describe this training process?
8. Did you – or do you – receive any mentoring when teaching online? If so, can you describe this mentoring process?
9. How do you prepare for an online course? How does this preparation differ from how you would teach an on-site course?
10. How do you prepare for an online course when you are teaching a new course for the first time?
11. How do you prepare for an online course when you've taught that same course online before?
12. How does this preparation differ from when getting ready to teach an on-site course for the first time? When getting ready to teach an on-site course you've taught on-site before?

13. Why did you decide to teach this specific course online?
14. Is this your first time teaching this course? (The class you – Therese – are examining)
15. If no,
    a. How often do you – or does a member of your department – teach this specific course (e.g., once a semester, once a year, etc.)?
    b. How many times have you taught this specific course?

16. Did you develop this online course, or was it originally developed by someone else and you are now charged with teaching it?
17. Share with me some of the steps you went through to prepare for this specific online course.
18. Is the course shared with students on the institution's LMS only?
    a. If yes, why?

b. If no, where else, and why?

19. What are some difficulties you've experienced while teaching the course? are these

-with students

-with the technology

-with the content material

-administration

-other? (Don't raise these questions at first. Rather, let the interviewees respond to your initial question, and – when they are done – if they have not addressed these specific items, you can ask about them.)

20. How do you assess the effectiveness of this online class? When do you do/what mechanisms do you use to perform such assessment? How often do you perform this assessment (e.g., Once at the end of the term? Throughout the term?)?
21. How do you use the results of this assessment to modify the course for the future?
22. Is your online teaching observed and evaluated? If so, by whom and how often? How do you use the results of this review to modify the course for the future?
23. Does your administration evaluate online classes and assess online teaching differently from what it does for an on-site class? If so, what is the nature of this difference?

24. Do you have anything else you would like to share about the online learning teaching experience so far?

Appendix 3: Questionnaire

Online Learning Across Cultures

Q22 Title of Research Study: Online Learning in a Global Context Principal Investigator: Therese Pennell

Q17 Consent to participate. Please choose whether you agree or not to participate in the research. By clicking "I do not agree" you will be directed to the end of the questionnaire. You are free to stop any time during the questionnaire, you will not be penalized in any way.

- ❍ I agree (1)
- ❍ I do not agree (2)

If I do not agree Is Selected, Then Skip To End of Survey

Q1 What is the name of your academic institution?

Q2 What level of study are you currently pursuing?

- ❍ Undergraduate: Bachelor's degree (1)
- ❍ Graduate: Master's degree (2)
- ❍ Graduate: Doctoral (3)
- ❍ Other, please explain in the following space what level of study you are pursuing: (4) _____

Q3 What is the title of the course you are currently taking to fill this questionnaire?

Q4 How many fully online courses have you taken?

- ❍ this is my first (1)
- ❍ 2-3 (2)
- ❍ 4-5 (3)
- ❍ more than 5 (4)

Q10 Does your instructor encourage interacting with you peers?

- ❍ Yes (1)
- ❍ No (2)

Q8 Describe the experience you had with your peers. (Choose all options that apply to your situation.)

- ❑ I found them easy to speak to (1)
- ❑ I found them easy to share ideas with (2)
- ❑ I received great feedback from them (3)
- ❑ I did not interact much with my peers (4)
- ❑ I found it difficult to get feedback from my peers (5)
- ❑ I found it difficult to speak with or share ideas with my peers (6)
- ❑ I did not receive any feedback from my peers (7)
- ❑ The course did not allow too much interaction with my peers (8)

Q9 Did you encounter any problems with any peer(s) in this course?

- ❍ Yes (1)
- ❍ No (2)
- ❍ If yes, please explain in the following space the problems you experienced with your peers: (3)

  _____

Q6 Have you found the content material accessible (easy to find and understand)?

- ❍ Yes (1)
- ❍ No (2)
- ❍ If no, please explain in the following space why you did not find the material accessible: (3)

  _____

Q7 Describe your experience with the course content material so far. (Choose all options that apply to your situation.)

- ❑ I could not locate the course material (1)
- ❑ I found the reading material hard to understand (2)
- ❑ I did not find the material relevant to my situation (3)
- ❑ I did not find the reading material relevant to the topic (4)
- ❑ I found the instructions unclear for the assignments (5)
- ❑ I found the instructions unclear for the daily activities (6)
- ❑ I located the course materials easily (7)
- ❑ I found the reading material understandable (8)
- ❑ I found the material relevant to my situation (9)
- ❑ I found the reading material relevant to the topic (10)
- ❑ I found the instructions were clear for assignments (11)
- ❑ I found the instructions were clear for daily activities (12)

Q20 What technological tool was used to present the course? (Choose all options that apply to your situation.)

- ❑ a learning management system (e.g. Blackboard, Moodle, Angel) (1)
- ❑ a blog (2)
- ❑ Web CT (3)
- ❑ video conferencing (4)
- ❑ Web site (5)
- ❑ Other, please explain in the following space what tool was used to present the course: (6)

  _____

Q11 How would you describe your instructor's approach to presenting the course material? (Choose all options that apply to your situation.)

- ❑ it was relevant for the e-learning platform (1)
- ❑ it was relevant to the course being taught (2)
- ❑ it is a teaching approach/method I have experienced before and I am comfortable with (3)
- ❑ it is a teaching approach/method I have experienced before that I am uncomfortable with (4)
- ❑ it was a new approach/method, but I enjoyed it (5)
- ❑ it was a new approach/method, and I had a difficult time with it (6)

Q12 What were some difficulties that you experienced in the course? (Choose all options that apply to your situation.)

- ❍ My computer broke (1)
- ❍ I did not have reliable internet access (2)
- ❍ I did not have the software tool to complete an assignment (3)
- ❍ The institution's system went down (4)
- ❍ The institution's learning management system is hard to navigate (5)
- ❍ I did not understand 1 or more of the assignment(s) (6)
- ❍ I had insufficient interaction with my peers (7)
- ❍ The course demanded too much interaction with peers (8)
- ❍ I had insufficient interaction with my instructor (9)
- ❍ E-learning does not suit my learning style (10)
- ❍ I could not locate the reading material (11)
- ❍ I could not locate support material (12)
- ❍ I did not have enough time to complete assignments/readings (13)
- ❍ Other, please explain in the space provided the difficulty you experienced: (14)

  _____

Q13 Compared to your experiences in traditional face-to-face learning, how does your overall learning experience in the e-learning environment rate?

- ❍ Much Worse (1)
- ❍ Worse (2)
- ❍ Somewhat Worse (3)
- ❍ About the Same (4)
- ❍ Somewhat Better (5)
- ❍ Better (6)
- ❍ Much Better (7)

Q5 On a scale of 1-6, please rate your e-learning experience in this course. 1 being very dissatisfied and 6 being very satisfied with the experience so far.

_____ Interaction with instructor (1)
_____ Interaction with peers (2)
_____ Interaction with the course content: reading materials, text, instructions, assignments/projects (3)
_____ Overall experience in the course so far (4)

Q14 What would you change about the e-learning course to make it better?

Q15 Please share any particularly positive experience in the course in the following space.

Q16 Please share any ideas about your experience in the e-learning course that was not covered in the questionnaire in the following space.

Q19 Thanks for completing the questionnaire. If you would like to participate in a follow-up interview via Skype, Google+, or other social media platform, please email me at pennellt08@students.ecu.edu to set up a time and medium (Skype, Google+, or other social media platform) convenient for you.

Appendix 4: Email

Email sent to instructors:

Dear (instructor),

Please share the following link with your students to complete the questionnaire.

The questionnaire asks students about their overall experience in the online course: interaction with their peers, content, and instructor. The research seeks to understand the online practices of learners and instructors in different countries and institutions to make these practices apparent and identify broader social influences upon such practices. Please understand that answering the questionnaire is optional, that the individual responses will not be shared with instructors, and the responses are completely anonymous.

[Link to Questionnaire]

Thanks for your assistance in this study.

Email sent to students:

All,

Therese Pennell is a Ph.D. Candidate in our program who is studying interactions students have with instructors during online courses for her dissertation research.

Please take a few moments to fill out her survey (see below). Any questions about it should be directed to her at PENNELLT08@students.ecu.edu. I will not see your responses or know if you have taken the survey.

From Therese: "The questionnaire asks students about their overall experience in the online course: interaction with their peers, content, and instructor. The research seeks to understand the online practices of learners and instructors in different countries and institutions to make these practices apparent and identify broader social influences upon such practices. Please understand that answering the questionnaire is optional, that the individual responses will not be shared with instructors, and the responses are completely anonymous."

[Link to Questionnaire]