

ANXIETY/UNCERTAINTY MANAGEMENT AND ITS RELATIONSHIP TO COMMUNITY
AS AN ANXIETY MANAGEMENT MECHANISM: A MIXED METHODS,
ACROSS CASE STUDY OF ONLINE GRADUATE STUDENTS

by

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ABSTRACT

This study examined student perceptions of community formation and maintenance as an anxiety management mechanism before, during, and after a mandatory on campus orientation for an online Master of Library Studies program. Anxiety/Uncertainty Management Theory provided the theoretical foundation for the study. Twenty-one participants were drawn from 171 students enrolled in four successive online cohorts of the program. Participants completed a 40-item online attitude questionnaire and a six-item online written interview. The questionnaire, which was an analogue to the theory, was analyzed using descriptive statistics, and the interview was analyzed along with a prior document analysis of the written materials provided to one of the participating cohorts prior to the orientation.

Analysis generally supported the axioms of the theory, especially those associated with seeking common ground with strangers as a basis for confidence about interacting, positive expectations and suspension of negative expectations in their interactions with strangers, and the desire for ethical interactions with strangers. Participants responded with strong agreement to the statements of reduced anxiety when they perceived that they knew how strangers would react, shared language or jargon, had an opportunity to realize and correct any mistakes in communication, and that managing anxiety was a key to effective communication with strangers. However, additional research under similar conditions is needed to further revise and refine the theory and determine the extent of community as a crucial anxiety management mechanism.

DEDICATION

Soli Deo Gloria

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Chapter One

Introduction

Purpose of the Study

The purpose of this study is to determine the role of community formation and maintenance, beginning with an on-campus orientation, in enabling online graduate students to manage the uncertainty and anxiety of interacting with new people and an unfamiliar environment as they progress from their encounter with people in the program through graduation and into the professional milieu. The theoretical foundation for the study is Anxiety/Uncertainty Management Theory (AUM), which was formulated by Gudykunst (1993, 2005) ostensibly for the purpose of facilitating intercultural communication. However, its first thirty-nine axioms address managing anxiety and uncertainty to enable effective communication in general, especially with respect to initial interactions with strangers (Gudykunst, 2004 & 2005). According to Gudykunst, “Managing anxiety over time is associated with developing trust” (2005, p. 288) and developing close relationships with strangers necessarily involves some degree of trust in order to overcome the fear associated with negative expectations. As relationships evolve and become more intimate, communication becomes more personal, less difficult, and minimizes misunderstandings (Gudykunst, 2004). In addition, increased trust enables development of community as a mechanism of anxiety/uncertainty management. Community involves cooperating with strangers to achieve shared goals, which figures prominently in AUM as well. Ultimately, formation of communities in which members are able to accept positive aspects of individual differences and negotiate respectfully with concern for

each other's needs provides a way to "balance emotion, anxiety, and fear with reason" (Gudykunst, 2004, p. 372). As communities grow and become more interdependent, trust increases and anxiety decreases.

Anxiety and uncertainty are common issues for graduate students in general, but for those taking online programs, fear of isolation and loneliness become additional sources of anxiety (Fogg, 2009; Lee & Chan, 2007). One of the most crucial components for success in an online environment is that of creating community to minimize isolation for students who cannot interact with others face-to-face as do their on-campus counterparts (Bajjaly, 2005; Lee & Chan, 2007; Zhao, Lei, Yan, Lai, & Tan, 2005). There are several strategies to maximize student-student and student-instructor communication, such as discussion boards, collaborative projects, and synchronous class time (Dolan, Donohue, Holstrom, Pernell & Sachdev, 2009). Many of the same elements of the learning environment affecting the success of traditional campus students affect online students as well. Creating community, both online and on-campus, fosters student interaction, engagement, and group identification which contribute to the achievement of objectives for students and institutions (Scagnoli, 2001). Liu, Magjuka, Bonk and Lee (2007) suggest that perceptions of belonging to a community contribute to learning outcomes as well. However, they also found that students want and expect different levels of engagement, based on their personal preferences for interaction and their expectations about the solitary nature of online programs. The continuum of students' interests and abilities runs from those who are highly self-directed to those who require greater intervention, as well as those who are highly technological to those who are not technologically skilled. The variation in skill level and learning speed may indicate that the types and levels of interaction between students must be individualized in some way in order to enable students to create and maintain the level of

community involvement that meets their personal needs (Wozniak, Mahony, Lever & Pizzica, 2009).

Students will naturally have different levels of anxiety and differing support needs associated with their feelings of anxiety, depending on their perceptions of self-efficacy, comfort with the graduate program, and personal needs for interaction. Students may not all need or want the same level of interaction and support. The formation of relationships in online learning communities allows students to access such support according to their needs and desires (Fogg, 2009). However, as anxiety mechanisms and manifestations change as students move through the program, the students' perceptions of efficacy of community in enabling them to manage that anxiety may adapt as they grow more familiar with each other, learn the expectations of the program, and become more experienced in completing graduate level work.

The Relationship between Social Identity Theory, Uncertainty Reduction Theory, and Anxiety/Uncertainty Management Theory

Palloff and Pratt (2007) offer the theme of “social presence” as the currency of online community. The authors delve deeply into the importance of creating social presence in building an online community, citing a tremendous amount of research that indicates the strong correlation between effective community building and maintenance, and student success and satisfaction. The idea of social presence is strongly influenced by Social Identity Theory (SIT) first espoused by Tajfel in 1982. Social Identity Theory explains interaction between individuals in a group or between groups in terms of group identification which requires awareness of group membership, shared group values, and emotional investment in the group (Tajfel, 1982). This theory posits that identity is derived from recognition of group membership and participation in group norms and mores to cement identity within a certain group. One's social identity is

formed not only from the knowledge of group membership, but from the status, power, and emotional value ascribed to that membership as well.

It is critical that students understand their social identity(ies) and group membership(s) and the ways that those groups may complement or conflict with one another, especially for those who attempt to negotiate between or among levels of status and power. Social identity is constructed through an individual's perception of positioning within a group based on these shared dynamics. Individuals strive to maintain positive self images, but threats to self esteem and social identity can cause anxiety and uncertainty. In addition, the presence of intergroup conflict and/or cohesion rooted in status and power differentials requires a framework to explain communication and interaction on both group and interpersonal levels. Social Identity Theory explains the need to form personal identity, vis-à-vis social presence, within and among groups as a means to alleviate uncertainty.

Anxiety influences the affective processes of intergroup communications (Gudykunst, 1995), resulting in cognitive uncertainty about how to interact with those whose values and behaviors may differ. Gudykunst (1988) draws on Berger and Calabrese's Uncertainty Reduction Theory (1975) of interpersonal communication and SIT to form Anxiety/Uncertainty Management (AUM) Theory of intergroup communication in order to explain effective interpersonal and intergroup communication simultaneously. Simmel's concept of the stranger (Spykman, 1925), whose dichotomous nature creates physical proximity but emotional distance, provides the link between the two theories. Uncertainty Reduction Theory (URT) asserts that strangers interact according to implicit and explicit rules and norms of communication characterized by three phases of interaction: entry (structured communication with low consequence demographic content), personal (a less constrained phase in which interaction

centers on values), and exit (in which decisions are made concerning the viability of future interactions). Gudykunst (1988, 1993) paired URT and SIT to develop a theory to improve effective communication practices. He theorized that humans have certain thresholds for anxiety/uncertainty and that effective communication occurs only when the meanings and realities constructed fall within acceptable minimum and maximum thresholds. Rather than simply reducing uncertainty in the service of reducing anxiety as in URT, AUM focuses on the managing uncertainty and anxiety to enable smoother negotiations of meaning with strangers (Gudykunst, 1993, 2005). AUM recognizes the reality of shifting levels of anxiety as relationships and circumstances change and evolve, necessitating modification of anxiety management strategies that maintain effective communication practices.

Anxiety derives from the uncertainty of predicting a stranger's attitudes and actions which affect the comfort level of interactions (Stephan & Stephan, 1992). Uncertainty occurs when one cannot explain a stranger's (or one's own) behavior (Berger & Calabrese, 1975). Those whose anxiety is above the maximum will be reluctant to communicate with others, and those whose anxiety is below the minimum will be unconcerned about their communications. AUM may provide the theoretical foundation for determining how students perceive their responses to the stress of meeting new classmates, plus faculty and staff, and forming a community of learners during a mandatory on-campus orientation program and how those perceptions change as students proceed through a graduate program. When self-concept and motivation to interact meet, uncertainty management begins, and when ethical interactions and connections to strangers intersect, anxiety management commences (Gudykunst, 2005). Because people can occupy multiple identities in a variety of contexts, communication behaviors are intentional, chosen acts guided by circumstances. Gudykunst (2005) draws on the Zen concept

of mindfulness (hyper consciousness of our own and others' attitudes and behavior) to explain intentionality in interactions. When circumstances generate uncertainty and anxiety, there is a need to deal with ambiguities and tension arising from the level of discomfort associated with negotiating an unfamiliar environment. Dealing with ambiguity involves mindfully managing uncertainty processes and behaviors, and coping with tension reduction involves mindfully managing anxiety and behaviors (Gudykunst, 2005).

Anxiety, Isolation, and Graduate School

Anxiety is a part of any new, unfamiliar experience, and graduate school presents an environment that almost certainly produces feelings of anxiety, uncertainty, and fear. According to Fogg (2009), graduate school can be described as “an incubator for anxiety and depression. Social isolation, financial burdens, lack of structure, and the pressure to produce groundbreaking work can wear heavily on graduate students” (p. B12). These feelings may be exacerbated by highly competitive and/or adversarial conditions fomented by faculty, lack of social support systems which breeds isolation, and loss of self-efficacy leading to fear of failure. Anxiety and isolation are problematic for on-campus graduate students due to the highly competitive environment in which they operate. Online students experience not only the anxiety inherent in graduate work, but the intrinsic physical isolation of the online environment, which can lead to even greater anxiety, especially where there is minimal contact with other students in the program (DeVaney, 2010; Lee & Chan, 2007; Melrose, 2006).

While on-campus students still comprise the majority, the online student population has risen steadily since the inception of online programs around 1999. Between 2002 and 2010, the total online student population, defined as taking at least one online course, in degree-granting institutions rose from approximately two million to seven million, a little less than 10% to just

over 30% of the total number of students in the United States. While enrollments have remained relatively steady from 2010 to 2011, indicating a possible tempering of the unbridled growth in online programs between 2002 and 2010, online enrollment in both individual courses and complete programs represents a sizeable portion of the student population for whom traditional challenges associated with taking college courses may be exacerbated by the additional challenges presented by distance (Allen & Seaman, 2011). On-campus graduate students struggle with particular aspects of graduate education, which can include “financial burdens, lack of structure, and the pressure to produce groundbreaking work” (Fogg, 2009, p. B12). For distance graduate students, physical and geographical isolation from the campus environment is an additional source of anxiety and contributes to difficulty in creating relationships with faculty and other students that promote a sense of inclusion and belonging, an opportunity that may be more readily available to on-campus students (Lee & Chan, 2007).

There is a body of literature that addresses the anxiety that both on-campus and online graduate students experience with their first foray into course work, much of it centering on the fear of failure in courses in statistics and quantitative research methods (DeVaney, 2010; Onwuegbuzie & Seaman, 1995; Pan & Tang, 2004; Pan & Tang, 2005; Rendulic & Terrell, 2000; Williams, 2010). However, there studies emerging that address manifestations of anxiety in online graduate students specifically (Bolliger & Halupa, 2012; Marchand & Gutierrez, 2012; O’Connor, 2010). The apprehension expressed is much the same for on-campus and online students, but online students have the additional stress of isolation that can exacerbate anxiety, so online educators have begun to formulate pedagogical strategies to mitigate stress for students in particular courses (DeVaney, 2010). However, schools can take a more holistic approach to enabling anxiety management among online students. Students experience multiple stressors –

powerlessness, test anxiety, fear that they cannot meet the program's demands, and Impostor Syndrome – that affect more than their ability to achieve success in a single course (Maringe, 2010; Montgomery, 1972).

Impostor Syndrome, first identified in 1978 by Clance and Imes, involves people who feel that they are presenting themselves as frauds with feelings of inferiority and self-doubt, with lesser perceived capabilities than others in the same or similar groups (Gravois, 2007).

Originally thought to be a phenomenon in only women, further research discovered that the fear of being “found out” or “unmasked” as an impostor is prevalent in all walks of life, regardless of actual ability or level of achievement. Even graduate students who have been thoroughly vetted prior to entering a graduate program find themselves manifesting anxiety over their perceived lack of ability in the forms of either perfectionism or procrastination. Bechtel (2007) labels such anxiety “the bread and butter of graduate student existence: anxiety over papers, marks, candidacy exams, the eventual job market” (p. 4). This anxiety can lead to feelings of powerlessness, especially where students perceive that they are at the mercy of faculty members who may not be acting in the student's best interest (Fogg, 2009). For graduate students who are reluctant to seek advice, support, or counseling, feeling like an impostor can lead to feelings of powerlessness. These stressors are multiplied in an online environment where students may not perceive that the same support resources that are readily available to on-campus students are also available to them. Isolation and lack of connection are added to the existing anxiety-producing mechanisms.

Managing Anxiety and Isolation

There are means by which graduate students can be helped to increase feelings of inclusion, identification, and attachment to the college campus. One such vehicle is through

orientation programs. Vickio and Tack (1989) advise that orientation provides a crucial support mechanism for graduate students that furnishes them with important information about academic issues, enables them to deal with fear and apprehension, and allows the formation of new relationships with other students. The authors outline several parameters for a comprehensive, well-organized orientation which includes students' spouses as part of the program. However, students need ongoing support that encompasses an entire program, beyond orientation, both in the classroom (physical and virtual), and in other personal and professional contexts that involve collaboration, interaction, and social behaviors. Maringe (2010) identifies three areas in which anxiety tends to increase as students progress through their programs – the ability to transition to graduate study, integration of cultures between home and school, and expectations of consistent assessments across courses. Moreover, these anxieties and stressors change as students progress through their course work, requiring a variety of coping mechanisms. It is the management of such anxieties, rather than the elimination of them, that seems to be the more realistic goal. Formation and maintenance of community may be a key factor in managing ongoing anxiety for online students. Beyond the immediacy of ostensible community formation during orientation, there exists a need to determine whether community plays a role in ongoing anxiety/uncertainty management as students move through the program.

In addition, since many graduate students are also working professionals with family responsibilities, graduate schools can assist students with learning to balance academic and personal demands to avoid anxiety borne of conflict between perceived roles (Fogg, 2009; Gardner, 2009, Phase II; Mallinckrodt & Leong, 1992; Offstein, et al, 2004). Competing demands on students force them to prioritize their activities, a situation that may require them to sacrifice time spent on schoolwork in favor of family or occupational obligations. As they move

deeper into their course work, students report that they value the advice and support they receive from peers more than any other source, mostly because peers, those familiar with the rigors of graduate work, are more able to empathize with their situation than other people in their lives (Gardner, 2009, Phase II). The opportunity to communicate with others who share the same circumstances provides an important tool for anxiety management. Peer relationships have shown to be a crucial form of social support, yet the literature has explored little of this relationship in favor of placing emphasis on the student/advisor relationship (Gardner, 2009, Phase II).

Community, as a vehicle for relationship formation and development, may provide this essential element of peer interaction as a function of anxiety management. In this respect, peer interaction becomes even more critical for online students who have no opportunity to interact with other students on a face-to-face basis, yet require the same sense of social support that on-campus students do. Enabling community to operate on both an academic and social level online facilitates community development and maintenance. Students should be able to rely on schools to provide several avenues for support and interaction in the context of the program. Graduate schools can provide environments that encourage students to seek assistance from faculty, student support services, and other students, rather than stigmatizing those who seek assistance (Fogg, 2009). Community formation activities establish group identification and membership that shows demonstrable benefits to graduate students (Gabelnick & Young, 1990; Pierce, Gilles & Barnes, 1993). Nowhere is a sense of community belonging more essential than for distance students, many of whom may never set foot on campus, but for whom social and academic support systems are as crucial for success as they are for on-campus students (Conrad, 2005; Lee & Chan, 2007).

Anxiety and Uncertainty in the Online Environment

A sense of community identity and belonging may be instrumental in reducing the tension and fear experienced by students entering an online program. Community members must develop relationships that involve trusting each other for emotional and social support to facilitate their comfort level with the online environment (Ali & Leeds, 2010; Bozarth, Chapman & LaMonica, 2004; Gudykunst, 2005; Melrose, 2006; O'Brien & Renner, 2002). Implicit in this is the assumption that not all of the students in the community have the same need for interaction with support networks. There are students who have a low comfort level with the social, technological, and/or academic components of the online environment and students who are proficient in one or more of these areas. The ideal community facilitates and nurtures its members by identifying specific concerns and meeting both individual and group needs (Lock, 2007).

A paradox arises from the immediacy of strangers with whom online students must interact and negotiate and the exigency of “forming community” in a distant, artificial environment, giving rise to anxiety and uncertainty about the form and nature of such interaction. Students will adopt strategies to manage anxiety levels accordingly. This may be especially crucial to adult students who are not accustomed to working in an online environment, for whom simply returning to school is a daunting prospect, let alone facing the need to negotiate technologies that are new and frightening (Dolan, et al, 2009; Wozniak, et al, 2009). Students can utilize available mechanisms to adjust their comfort levels by attempting to reduce and manage the anxiety and uncertainty associated with the transition into graduate school.

Bozarth, et al (2004) found that student expectations in the areas of necessary technology skills, time management, participation, and workload differ widely from instructor expectations.

Instructors assume that students enter programs with the necessary skill sets to negotiate the online coursework and classroom, while students largely assume that instructors will teach these skills along with the course content. This discrepancy creates a circumstance which fosters uncertainty and anxiety that may cause students to hesitate in interacting as a community, especially graduate students for whom fear of failure and Imposter Syndrome are real and imposing threats to self-efficacy (Gravois, 2007; Morris, 2004). Schools should provide students with a clear set of policies and expectations that advance understanding of the values of the institution and prepare them for what they might encounter, including people, policies, and viewpoints with which they disagree or may be uncomfortable (Bozarth, et al, 2004; Fisler & Foubert, 2006; Reissetter & Boris, 2004). Setting clear expectations appears to have a positive effect on student participation, a crucial component of community formation in online programs (Ali & Leeds, 2010; Conrad, 2005; Hrastinski, 2009; Palloff & Pratt, 2007). The university plays a key role in exhibiting a rhetorical and practical stance that is inclusive and encouraging, but communicates clear expectations for online participation. Without such participation, community building would be impossible or ineffective.

Distance Education and Community Formation

Various forms of distance education (DE), such as correspondence, teleconference, and remote broadcast, have been in use for decades, and student isolation has been problematic since the inception of DE (Palloff & Pratt, 1999). However, fully online courses, utilizing late twentieth century Internet technologies, have been in use for a relatively short time, and have a great deal of potential for development as twenty-first century technology enhances and improves communication and opportunities for learning (Hrastinski & Keller, 2007). Much has been written about the purpose, efficacy, and pedagogy of online courses, and there is wide

disagreement concerning these issues. However, there is general agreement that distance education, especially in the form of online programs, has become integral to the missions of most universities because of the movement towards universal access, especially for underserved or underrepresented populations (Allen & Seaman, 2008; Allen & Seaman, 2011). This includes working adults who return to school to complete or further their education for professional reasons or personal fulfillment, a population which comprises the majority of online graduate students (Conrad, 2005). The self-efficacy and success of these students may be tied to the university's community building and maintenance practices.

Community building predates online distance education. As early as the seventeenth century, Francis Lodowyck (1646) advocated learning communities in the service of advancing grammar and writing skills. Much of the early literature associated with communities focuses on community service programs and specialized schools created as a response to the cultural revolution of the late 1960s and early 1970s. A collection of essays from 1972 includes chapters such as "The Alternative to Schooling," by the notable Ivan Illich, which advances the notion of informal learning communities that emphasize learning over teaching (Rist, 1972). Ironically, Illich was criticized for his learner-centered approach, which has resurfaced as an effective pedagogical model for online learning. Collaborative learning is recognized as a valid alternative to the "scholars in isolation" paradigm, advancing the rediscovered paradigm of learning communities and shared knowledge (Allen, Cary & Delgado, 1995; Gabelnick & Young, 1990; Pierce, Gilles & Barnes, 1993; Stainback & Stainback, 1990).

Serious study of online learning communities appeared when Palloff and Pratt (1999) published their seminal work on transitioning from face-to-face classrooms to cyberspace classrooms. From the outset, they recognized the importance of building community in order to

foster a successful online experience for both teachers and students. Since then, building and maintaining community in online classrooms and programs has become a central tenet of distance education (Palloff & Pratt, 2007). Hrastinski, Keller, and Carlsson (2010) report that students, when questioned in focus groups, see social experiences in the online realm as a part of important community building opportunities.

The Master of Library and Information Studies Program

Many library and information professionals pursue graduate degrees that may be delivered through distance education, particularly via the Internet. Historically, schools of library and information studies (SLIS) have been in the vanguard of distance education and were among the first entities to recognize the inevitability and ultimate utility of technological advances (Barron, 2003). Guy (2007) produced an overview which reveals that schools of library and information studies have been highly receptive to technology, and have taken particular advantage of online education. Libraries occupy a crucial position as information and data hubs in the twenty-first century information economy (Schwarzwalder, 2000), and there is a need for trained library and information professionals who can provide knowledge management to information users. It is SLIS graduate programs that prepare those knowledge managers for careers in information (Martin, Hazeri & Sarrafzadeh, 2006).

The Master of Library and Information Studies (MLIS) program under study offers three avenues to procure an MLIS degree – on the main campus through traditional face-to-face courses, through a regional hybrid program which offers a blend of online courses and courses offered in various locations, and through an online program of synchronous courses. Online courses were introduced in 2001 with the program becoming fully online in 2005 with a first-year retention rate of 85% (2009 Working Plan for SLIS). According to the school's website,

“The Master of Library and Information Studies (MLIS) online option is custom designed for busy and disciplined students entering the information studies professions” (MLIS Online), mirroring the accepted characterization of online graduate students as primarily working professionals. Among such graduate students, anxiety concerning the use of technology exists, but does not seem to be of major concern, and online programs are perceived to bring as much value as face-to-face environments (Allen & Seaman, 2011; Chapman, Diaz, Moore & Deering, 2009). However, other aspects of online learning – course structure, instructor expectations, course procedures, useful course materials, time management, and readily available technology assistance – are areas of concern for students (Reisetter & Boris, 2004). Reisetter and Boris (2004) generate multiple questions concerning the nature of community formation in the online setting that may or may not contribute to reducing anxiety for the course elements that are of most concern. They suggest that there is a need for further study and evaluation of the needs of online learners and the role that community plays in addressing those needs.

The MLIS program in the School of Library and Information Studies (SLIS) at a large southeastern university under study here is no exception. Designed as a national online program that attracts students, mostly working professionals, from a wide geographic area of the country, it attracts international students as well. It is a synchronous program which carries the requirement that students attend a three-day intensive on-campus orientation prior to the start of the semester, a requirement which is never waived, regardless of the student’s geographic location or personal circumstances. Synchronous programs require students to use technology to attend virtual classes at regularly scheduled days and times, mimicking the on-campus experience. The vast majority of online graduate programs are asynchronous, requiring due dates and deadlines for course work, but not requiring students to attend virtual classes at

regularly scheduled meeting times. Students in the subject MLIS program are provided with information beginning with their acceptance almost five to six months prior to the orientation. The orientation itself is a for-credit introductory course that furnishes the students with technology instruction and workshops, round table discussions of program materials, Q&A sessions, and several social events that provide networking and socialization opportunities. According to Vickio & Tack (1989), such orientation programs should be considered routine components of graduate programs, both on and off-campus because of the propensity for isolation of geographically disparate students who have no strong identification with the campus of which they are ostensibly a part. Orientation provides opportunities for students to acquire information and begin to form relationships that can minimize uncertainty about the program and people, possibly serving as a mechanism to assuage anxiety.

At the time of the study, the subject MLIS program enrolled each group of students, dubbed a cohort and gave the cohort a name. E-mail interaction began even before the cohort met face-to-face at orientation. Students were encouraged to communicate with each other, and each student submitted a Power Point slide that contained directory information to facilitate preliminary communication. In addition, the SLIS faculty and staff communicated regularly and extensively with the cohort via e-mail prior to orientation. During orientation, students were engaged in learning and social activities from the time they arrived to the end of the orientation, which served as their first graduate level, for-credit course.

As of 2007, 92% of institutions offering online courses reported offering an asynchronous format, and only 31% reported offering courses synchronously, some offering courses in both formats (Skylar, 2009). The subject program provides a format which requires students to “attend class” in the form of synchronous virtual classroom sessions, scheduled in the

same way as traditional on-campus classes. Students participate in live virtual classrooms in which they can utilize application sharing, voice and visual communication, and other technological tools, such as MP3 and MP4 downloads. Since not all students have camera-ready capabilities on their computers, the subject program utilizes only voice communications, rather than voice and visual simultaneously. (Wimba™ was the protocol in use at the time of the study, but the learning management system has since been replaced with a different product.)

Moreover, at the time of the study online cohorts in this program were required to attend a three-and-one-half day, on campus orientation session prior to beginning course work in the program.

This on-site mandate would seem contrary to the original online standard of convenience and access for students for whom the traditional on-campus experience is either infeasible or undesirable (Bekele & Menchaca, 2008; Palloff & Pratt, 2007; Skylar, 2009). However, it should be noted that synchronous and asynchronous programs should not be conflated with a rigorous/non-rigorous dichotomy. Both types of online courses require students to produce course work according to scheduled due dates, most require students to post to discussion boards frequently, and many provide interactive or collaborative activities for the students. The most notable pedagogical difference between asynchronous and synchronous is attendance at a regularly scheduled class session where voice interaction provides a format for real-time communication between the instructor and the students. “In-class” interaction in the form of verbal or written discourse, albeit not face-to-face, characterizes synchronous courses and may contribute to greater feelings of inclusion and community.

Discussion boards supplement class discussions, allowing students to expand or clarify issues which time and location limitations may exacerbate (Lorenzetti, 2008). This does not negate or circumscribe the need for addressing community issues. Instead, it creates a sense of

urgency since community building is of the utmost importance to the success of the members of the online community. The nature and functions of community may be different from those required in on-campus courses since students enroll in online courses because of time and geographical constraints, so they may expect the nature of interaction to be different than that of their on-campus counterparts (Reisetter & Boris, 2004). However, the online environment may also present certain advantages as well. The students do get acquainted and can complete certain tasks in groups, but they do not actually see each other. Since students and instructors cannot see each other, biases may be suppressed automatically because there is no way to gauge race, ethnicity, disability, gender, or sexual orientation with any certainty. In addition, students who are reluctant to participate in class discussions face-to-face may feel less anxiety when they have the opportunity to formulate thoughtful responses to class discussions and instructor queries online. However, group dynamics and interaction are truncated due to the limited spontaneity inherent in online course delivery.

Determining online MLIS students' levels of anxiety and uncertainty with community interaction and their perceptions of the effectiveness of community formation and maintenance may allow for an understanding of how community functions as a vehicle for uncertainty/anxiety management along continuing points in the program. Much of the investigation of anxiety management centers on either anxiety with individual courses or anxiety with interaction in a cross-cultural context. In addition, much of the study of anxiety management involves undergraduate students, rather than graduate students. Although graduate students have been studied extensively with respect to anxiety over particular courses, examining online learning communities as holistic entities that evolve and adapt to students' changing needs may provide information that will enable institutions to determine revisions to courses and programs and

adapt the level and type of community building practices they employ. If online graduate students' perceptions of the utility of community change over time, institutions may want to train and equip instructors to adapt their course designs to accommodate the maturity of the community. In addition, universities may be able to provide experiences that target the changing needs of graduate students in different phases of the program.

The MLIS online program under study brings individuals together who may not share cultural norms, but who will share a group identity as a cohort. They must find a way to manage potentially stressful interactions with those of differing beliefs, customs, and habits. Participants engage in both interpersonal and intergroup communication events, including the mandatory on-campus orientation, designed to foster relationships. AUM may address how students negotiate the many types of interactions they encounter in the course of the orientation and online courses. Certainly, synchronous courses are natural sites of interaction and engagement since students must be "in class" at scheduled times, resembling the traditional face-to-face classroom experience. However, in an online environment, even a synchronous one, the lack of face-to-face engagement may hamper the ability of students to form critical bonds. Purposeful community formation and maintenance may be the vehicle by which bonds are created and sustained. The subject program begins community formation at the outset through the mandatory on-campus orientation. The focus of this study is on determining how students in four successive cohorts of the subject MLIS program perceive the nature and efficacy of community bonds as vehicles for managing anxiety and uncertainty as they move through the program from the beginning to their graduation as library and information professionals. AUM provides the theoretical platform from which to study the processes and results of communication practices in the subject program.

Orientation and Cohort Participation

The online MLIS program under study attracts applicants from a wide geographic area, including the United States, Canada, and some foreign countries. At the time of the study, approximately forty-two of over two hundred applicants were chosen each year to form a new cohort which began the program in the fall semester of each new school year. Though communications were minimal prior to a student's acceptance to the program, once the e-mail (followed by an official letter) acceptance was sent, communication with students became frequent and voluminous. Much of the communication, mostly in the form of e-mail, was centered around the mandatory on-campus orientation which took place for three-and-a-half days prior to the beginning of the fall semester, even though the remainder of the program is comprised of synchronous online classes. The orientation was considered to be the first for-credit "course" in the program, offering two credit hours to participants upon its completion. Moreover, the orientation provided an opportunity for cohort members to meet each other and become acquainted with SLIS faculty and staff.

Months prior to the orientation, new students received e-mails welcoming them and conveying information about the MLIS program, the orientation, and the technology requirements associated with each. A prior document analysis I conducted of the materials sent to students in the 2009 cohort revealed that there were approximately ten preliminary communications, mostly e-mails, sent to the cohort from SLIS faculty and staff. This was inclusive only of communications with the cohort as a whole, not e-mails/telephone calls between faculty/staff members and individual students, which were numerous. E-mail communications with the program's administrator were downloaded and logged. One e-mail, sent early in the process, informed students that they belonged to a cohort and that it had been

given a name, usually illustrative of the year of the program itself, the first cohort beginning in fall of 2005 and named. The cohorts under study here are Fantastic Fourth (2008), Fifth Dimension (2009), Sixth Sense (2010; also named Trickeration Nation after cohort members rebelled against the name and chose one for themselves), and Lucky Seventh (2011; also self-named). Naming the cohort and referring to it as a cohort enables the formation of a community of students, ostensibly one of the goals of the mandatory on-campus experience. The materials provided over the approximately five to six month span between acceptance to the program and the beginning of orientation seemed to privilege cohort identity formation over individual identity formation. However, one study indicates that while students recognize the importance of community in the online environment, they are not always sure whether there are distinctions between *class*, *cohort*, and *community* and how those terms play out in the actual affective domains of online learning (Conrad, 2005).

As the orientation approached, students were given information concerning hotel accommodations, transportation, meals, activities, and what they need to bring with them. Cohort members were encouraged to stay at a designated hotel and contact each other to arrange for sharing rooms and transportation to and from the airport, approximately one hour away from campus. All expenses, other than meals and entertainment provided by the university, were the responsibility of the students. A few students complained about the distance, the cost, and the inconvenience of attending the orientation, but they were made aware of the program requirements in advance and were able to choose not to accept an invitation to become a part of the MLIS program. So, they willingly took time off of work and away from their families, to attend orientation.

SLIS provided materials to the students as cohort materials, consistently using the term *cohort*, and once named, referred to the cohort by name in all communications and materials. The materials provided to the students via flash drive upon arrival and registration at the orientation were more general in nature, but were clearly materials that would be provided to all SLIS students, regardless of their location on or off campus. The Orientation Program agenda provided insight into the multiplicity of activities provided for participants as a community of learners. In fact, the agenda used the rhetoric of community in the titles of many of the sessions, such as “The [name redacted] Academic Community,” “The Library Community,” and “Partners in the Online MLIS Program.” In addition, sessions such as “Optional Meet and Greet,” “Networking at SLIS,” and “Lunch, Networking, and Photography” indicated an interactive, inclusive approach that enabled participants to familiarize themselves with all aspects of involvement with the people and the program. Much of the program material, while employing the rhetoric of community, provided a great deal of comforting and encouraging discourse designed to facilitate the students’ migration into the online program. This signaled a desire on the part of SLIS to communicate the students’ inclusion in the university and SLIS communities while enabling their entry into the program through a combination of orientation and information.

The first activity to which new cohort members were invited was an optional “Meet and Greet” session the evening prior to the first official day of orientation. This practice began with the 2010 cohort, presumably as an icebreaker so that students could initiate face-to-face introductions early in the process. A shuttle bus was provided to transport students to the Opening Session, which began at 9:15 the following morning with introductions and greetings from various SLIS and university officials, faculty, staff, and former students. Prior to 2010,

there was no optional gathering the evening before, and the official start of orientation was at lunch the first day. The program ran from lunch on Friday through the end of the day on Monday. Beginning in 2010, the program began on Thursday morning and ran through Saturday evening. In each of the orientation itineraries for the cohorts in this study, students and faculty/staff gathered for a dinner program on Saturday evening. Cohorts attended a party at the program director's house as well. (The program experienced a change of directors from 2010 to 2011, but each director chose to host the party at their residence, rather than another off campus venue. In addition, the program remained materially the same following the transition to the new director. However, subsequent to this study, the orientation has experienced some fundamental changes, including fewer days on campus and no credit hours towards graduation.)

Between the opening and closing sessions, students were required to attend sessions such as the aforementioned "Networking at SLIS" in which students were introduced to the SLIS faculty/staff and each other, "Reality at SLIS" where students were informed about what they needed to do to be successful in the program, "MLIS Core and Elective Courses" where various faculty members introduced and discussed the required courses, "Distance Learning Technologies" in which students were coached on the use of the university Learning Management System and the technology requirements of the program, "Library Services for SLIS Students" and "Library Databases and University Business" where students were invited to visit the university book store to buy materials and browse. The final day's sessions were geared towards securing internships, career placement information, and a very popular forum called "Table Talk" which featured various roundtable discussions on assorted topics pertinent to SLIS. Interspersed between formal sessions were several opportunities for cohort members to share meals and to experience local culture and places of interest in an informal setting conducive to

conversation and interaction among students, faculty, and staff. Most sessions were conducted in SLIS facilities (classrooms and conference rooms), but activities took place in a variety of locations on and off campus.

The orientation presented participants with an exhausting and extensive schedule designed to prepare them for the MLIS program and to encourage them to interact with faculty/staff and each other. Most of the activities were structured and geared towards informing the cohort members about what to expect as students in the program. Attendance at these sessions was mandatory, especially given that the orientation provided two credit hours in the program. However, there was unstructured time in which optional activities were provided or students were allowed to provide their own entertainment. Cohort members were encouraged to spend as much time together as possible to facilitate relationships and begin to build friendships, i.e. community. Once students have returned home and were ready to begin taking the core courses in the program, they had already become acquainted with those with whom they would interact in the synchronous classroom, on discussion boards, and social media. The initial interactions with strangers at the orientation became the interactions of a cohort in the classroom, leading to the formation of a community of learners who shared the explicit goal of successful completion of the program and a community of friends who shared the implicit goal of forming and maintaining relationships with those in the program.

A Brief Summary and Preview

Anxiety/Uncertainty Management Theory or AUM (Gudykunst, 2005) provides a framework and formula for anxiety management that supports effective communication, especially with unfamiliar people in unfamiliar circumstances. Although originally conceived as

a tool for intercultural communication, its first thirty-nine axioms provide guidelines for effective communication in general. The theory is extensive and, according to Gudykunst (2005), in a constant state of revision/refinement in order to discern its most salient characteristics. The program under study here, the online Master of Library and Information Studies (MLIS) at a large southeastern university, provides a platform from which to examine the validity of AUM as a guide for anxiety management in an intracultural setting. Using a mixed methods, across case study of four successive cohorts of students in the MLIS program, this study looks especially at the mandatory on-campus orientation in which participants are required to attend and interact with university faculty, staff, and other students in the program. The international nature of the program brings together individuals from widely disparate geographic areas who may have differing views, customs, languages, and beliefs. Each incoming class is dubbed a cohort, given a cohort name, and brought together for three-and-a-half days of orientation with intensive instruction and interaction prior to the start of the program. The orientation provides not only an opportunity for the cohort members to learn about the program itself, but to form a nascent learning community that will carry them forward into the core course work immediately following the orientation.

Anxiety and uncertainty are inherent in the process of beginning a graduate program for both on-campus and online students, but the additional physical isolation of online study presents obstacles to support mechanisms that may be more readily available to on-campus students, especially that of belonging to the university community. A thriving community is recognized as an important factor for engagement and success for online students. It is a hallmark of AUM as well because of Gudykunst's belief that effective communication leads to communities of people who are able to work collaboratively towards shared goals, even in the face of difference and

disagreement. The study examines whether AUM explains the students' perceptions of the effectiveness of the orientation in developing community and fostering effective communication practices that act as an anxiety management mechanism as they progress through the MLIS program. The theory is examined in light of the students' perceptions of the effectiveness of the formation and maintenance of the MLIS community.

Chapter Two of this study provides a review of the literature addressing the genesis of AUM, studies of anxiety as it relates to online education, and research into community formation. Almost all of the research concerning AUM was conducted by Gudykunst and his associates in controlled settings utilizing exclusively quantitative methods. There are no extant mixed methods studies of AUM to provide narrative support for the theory. Chapter Three explains the methods used to conduct the study herein, specifically an online questionnaire analyzed using descriptive statistics, an online interview analyzed using an iterative qualitative method, and an analysis of orientation materials conducted prior to the current study. Chapter Four contains the results of the analysis, especially as pertains to the validation of the theory, and the relationship of the results to the research questions. Chapter Five discusses the interpretation of the results and potential research generated by the study, with special emphasis on possible revision of the theory and implications for modification of online programs.

Chapter Two

Literature Review

Topic and Focus of the Study

Graduate students experience anxiety in various forms, over such issues as the intense and demanding nature of the course work, the often competitive and adversarial nature of the program, the time limitations of completing the program, presenting conference papers, and the pressure to perform innovative research (Loewenberg, 1969; Fogg, 2009; Montgomery, 1972; Offstein, et al, 2004). On-campus students generally have access to support mechanisms to manage anxiety, such as study groups, visiting their adviser and other faculty members personally, seeking counseling services, and socializing with each other. For online graduate students, who face the same pressures, the added stressors of geographical distance and isolation can increase anxiety levels but without the concomitant support mechanisms available on-campus. Communities of learners, which may form more naturally on-campus and which can provide outlets for anxiety, may not be as readily available and accessible for online students. Orientation programs for graduate students have proven to be valuable mechanisms for community formation (Vickio & Tack, 1989; Wozniak, et al, 2009), from which support mechanisms can arise. However, for online students who are isolated from other students and faculty, for whom a sense of community is crucial to engagement and success in the program, orientation programs provide a means to become acquainted with faculty, staff, and fellow students (Ali & Leeds, 2010; Bozarth, et al, 2004; Chapman& Diaz, 2009; Conrad, 2005;

Ingram, 2011; Ke & Hoadley, 2009; Lee & Chan, 2007; Liu, et al, 2007; Lock, 2007; Melrose, 2006; Palloff & Pratt, 2007; Scagnoli, 2001; Snyder, 2009; Vickio & Tack, 2989; Wozniak, et al, 2009).

The subject online Master of Library and Information Studies (MLIS) program, during the period under study, provided a mandatory, three-an-a-half day, intensive on-campus orientation experience designed not only as a way to introduce incoming students to the requirements and demands of the program, but to form a nascent community, under the sobriquet of “cohort.” Formation and maintenance of community encourages ongoing student-student, student-faculty, and student-staff communications. However, it is the effectiveness of the communication that is crucial to the health and development of the learning community. Effective communication requires anxiety management so that community members can avoid being either intimidated or uninterested in communicating with each other. The subject online MLIS program provides a platform from which to study Anxiety/Uncertainty Management Theory (Gudykunst, 2005), dubbed AUM, which provides a framework for anxiety management to facilitate effective communication, especially with unfamiliar people in unfamiliar settings or environments. While AUM was ostensibly formulated as a means to examine intercultural and cross-cultural communication practices, the first thirty-nine axioms address effective communication in general and can be applied to an intracultural setting.

This study is a mixed methods, across case study that examines student perceptions of community formation and maintenance in four successive cohorts in the online MLIS program at a major southeastern university. Study participants responded to a 40-item online questionnaire that was analogous to the first thirty-nine axioms of AUM, and axiom forty-three, which deals with power distance. Participants also responded to six written interview questions concerning

their experience with anxiety and community in the orientation and subsequent program for which they could post thoughtful, prepared responses to the questions. In addition, a previous analysis of the written materials provided to the 2009 cohort prior to the orientation was included to provide context for the community formation aspects associated with the orientation. The questionnaire was analyzed using descriptive statistics, the interview was analyzed using an iterative process to discern themes and patterns, and the written materials were analyzed for rhetoric of community. The results were related back to support or rejection of the axioms of the theory.

Anxiety/Uncertainty Management Theory

Anxiety/Uncertainty Management Theory (AUM) posits that when individuals are uncertain about interacting with others, especially strangers, they manifest adaptive behaviors that reduce uncertainty, and when they are anxious about interaction with others, they exhibit maladaptive behaviors that may reduce anxiety, but may also produce avoidance (Gudykunst, 2005). Gudykunst was influenced by the work of Georg Simmel concerning the role of the stranger as part of a larger system of human interaction. Simmel regarded communication as a structure of symbolic interaction occurring among individuals who have varying degrees of social distance (lack of intimacy) from each other (Rogers, 1999). He further asserted that communication fills a variety of human needs and goals which contribute to the creation of intimacy between individuals within, without, and between systems. It was the concept of those strangers working between systems (intercultural) that influenced Gudykunst to investigate the processes of communication that occur between strangers, rather than simply naming or describing the communication itself (Gudykunst, 1983).

The seeds of AUM were planted by Gudykunst and Nishida (1979) during the early study of intercultural communication, which they viewed as needing a theoretical framework from which to proceed, rather than simply a discussion of issues of sensitivity to cultural differences. In addition, rather than adhere to a traditionally positivistic approach of explanation-prediction-control, they advised that the goal of theories concerning culture is to understand the effectiveness of varying communication processes. They provided an overview of communication theories to that point, taking to task those who considered language to be the major variable in assessing communication. Their view was that the study of intercultural communication had not yet reached the maturity of a science, as defined by Kuhn (1962). In an eerie moment of prescience, they invoked Karl Popper's opinion that theory exists to cast a net over the world in order "to make the mesh ever finer and finer" (as cited in Gudykunst & Nishida, 1979, p. 15); Gudykunst's article concerning the final iteration of AUM theory prior to his death in 2005 would again draw on Popper's concept (Gudykunst, 2005).

Gudykunst (1983) reiterated the position that intercultural communication lacked a coherent theoretical framework from which to proceed, arguing that merely providing definitions from observational data ignores the processes taking place during communication. There begins to emerge an interest in the how and why of intercultural communication, rather than simply what and where. Employing Simmel's concept of the stranger and building on Uncertainty Reduction Theory (URT) (Berger & Calabrese, 1975) in which the uncertainty associated with initial interactions with strangers provides the central focus, Gudykunst (1984) sought to provide boundary conditions under which such interactions can be studied through the lens of culture and/or race, rather than simply cognition or attitudes. He studied initial interaction across cultures utilizing a comparison of uncertainty reduction strategies in Japanese and American

cultures. In order to provide boundaries for the study, he utilized attitude similarity, cultural similarity, culture, and self-monitoring as factors influencing uncertainty reduction strategies in initial encounters with strangers. The study consisted of self-reporting of interaction behaviors among 200 college students, 100 each from Japan and the United States split equally between males and females. The results of the study supported the hypothesis that cultural similarity/dissimilarity influences uncertainty reduction, and provided Gudykunst with a foundation from which to proceed with additional theory formulation.

Uncertainty Reduction Theory was developed to explore the development of interpersonal relationships, but was confined to the study of initial interactions in the United States. However, studies suggest that the theory is applicable not only to intracultural interactions, but to intercultural interactions as well. In addition, studies support its generalizability to various types of relationships. Gudykunst (1985) expanded the study of uncertainty reduction across types of relationships, explaining that “the purpose of the present research... is to extend [URT] by examining the effects of cultural similarity/dissimilarity, type of relationship (acquaintance vs. friend), and self-monitoring on attributional confidence, self-disclosure, interrogation, deception detection, attraction, attitude similarity, length of relationship, and shared communication networks” (p. 204). A survey of 400 college students, 200 each male and female, revealed that the type of relationship and cultural similarity are important factors which interact in uncertainty reduction processes, giving further impetus to Gudykunst’s speculation that URT’s scope and general applicability could be expanded.

Gudykunst (1986) conducted an overview of studies of intergroup behavior, the integration of which provided twenty-five axioms to create a “*preliminary* theoretical perspective for the study of intergroup communication” (p. 152, emphasis original), which

provided the clear foundation for AUM. The major areas addressed include axioms 1 to 3 concerning Social Categorization (ingroup and outgroup distinctions demonstrated by Tajfel's (1982) Social Identity Theory, axioms 4 to 13 concerning Language and Speech Patterns (role of language, language attitudes, speech accommodation, code-switching, and interpretation), axioms 14 to 20 concerning Intergroup Contact (structural factors, attitudes and contact, contact and information acquisition, novelty of intergroup contact, and perceived similarity), axioms 21 to 24 concerning Social Attributions (influences on social attributions, intergroup attribution errors, and individual and cultural differences), and axiom 25 concerning changes in intergroup salience, including individuation of outgroup behaviors. Gudykunst's goal was to develop a more formal theory to advance understanding of intergroup communication and to provide guidance for improving intergroup relations going forward.

Utilizing his work with other researchers, specifically Kim and Hammer, Gudykunst (1988) began to develop a formal theory to provide "an explanation of intergroup communication based on uncertainty reduction and ethnolinguistic identity theories" (p. 125). Again, Simmel's (1950) concept of the stranger figured prominently, especially where uncertainty and anxiety in outgroup interaction were concerned. Gudykunst (1988) formulated thirteen axioms that linked Ethnolinguistic Identity (through the lens of Social Identity Theory and Expectation States Theory), Group Similarity, Shared Networks, Interpersonal Salience, Second Language Competence, Personality Factors, Adaptation and Effectiveness, and Cross-Cultural Variations. Expectations States Theory (EST) was developed by Joseph Berger (1992) to explain characteristics and performance expectations of group interactions where competence is assigned to group members based on perceived expectations for task completion. This theory attempted to explain not only the processes of group interactions within a system, but how those

group interactions contribute to the system's stability. Gudykunst's formulation of AUM was based on the assumption that effective communication processes increased the stability of the system over time. In the original iteration of AUM, all of the axioms, except number 1, present the same relationship between uncertainty reduction and anxiety reduction, assuming that decreasing uncertainty decreases anxiety. Axiom 1 "posits a negative relationship between uncertainty reduction and strength of ethnolinguistic identity, but a positive relationship between reducing anxiety and strength of ethnolinguistic identity" (Gudykunst, 1988, p. 142). Gudykunst (1988) asserted that a large number of theorems could be generated from these axioms. However, he advised that additional critical issues should be addressed in testing and further development of the theory, especially those associated with uncertainty reduction and change. Ironically, he claimed that future iterations of the theory should be parsimonious.

Gudykunst (1993) unveiled the first complete outline of Anxiety/Uncertainty Management Theory of effective interpersonal and intergroup behavior which contained forty-nine axioms. It was his contention that all human communication, whether intercultural or intracultural, contained elements of both types of behavior and that one without the other presented an incomplete theory. The theory isolated four levels of analysis: individual, interpersonal, intergroup, and cultural, defined as follows:

The individual level involves those factors that motivate us to communicate and influence the way we create and interpret messages. The interpersonal level includes those factors that influence our exchange of messages when we are acting as unique persons. The intergroup level involves the factors that influence our exchange of messages when we are acting as representative of the groups of which we are members and the relations between the groups themselves. The cultural level involves those factors that lead people

in one culture to communicate similarly to or differently from people in other cultures. (p. 36)

Gudykunst (1993) proffered the idea of mindfulness as the moderating influence that enables conscious management of anxiety and uncertainty in achieving effective communication with others, especially those with whom we are unfamiliar or uncomfortable. Mindfulness manifests itself in situations for which we have no pre-existing script or behavioral patterns to guide interaction. According to Gudykunst, “Mindfully managing our uncertainty and anxiety is necessary for effective communication with strangers” (1993, p. 43), and mindfulness connects the components of competent communication – motivation (the desire for effective communication, knowledge (awareness of appropriate communication behaviors), and skills (ability to apply appropriate communication behaviors). The moderating influence of mindfulness also contains these three components as “openness to new information (motivation), awareness of more than one perspective (knowledge), and the ability to create new categories (skill)” (p. 43). Axioms 1 to 15 address motivation, axioms 16 to 30 address knowledge, and axioms 31 to 38 address skills. Axiom 39 addresses the confluence of uncertainty, anxiety, and effective communication, and axioms 40 to 49 address cultural variability. Gudykunst was chiefly concerned with greater intercultural understanding, but the elements of anxiety and uncertainty management are of concern to the study being reported in this paper.

Despite his prior admonition concerning parsimony, Gudykunst (1995) expanded AUM from forty-nine axioms to ninety-four axioms believing that a more fully developed theory would be less abstract and more widely applicable. The goal was to include intercultural adaptation as a practical function, rather than simply as a mechanism to understand the communication process. Again, ironically, he believed that the theory would need to be

expanded yet again to include the dialectical aspects of relationships, the reasons for formation of relationships, and additional axioms concerning anxiety, uncertainty, and effective communication, which is the real crux of the theory. Such a theory seems unwieldy and overly broad, but Gudykunst's belief in Popper's vision of casting a net over the world and making the mesh of the net ever finer dictated the constant refinement of AUM.

A study conducted by Hammer (with whom Gudykunst had worked to develop the original theory), Wiseman, Rasmussen and Bruschke (1998), utilizing self-reporting data from 291 international students at two major United States universities, found that the revised AUM theory fit well the concept of reducing uncertainty and anxiety to facilitate effective intercultural communication. However, the study also found "that uncertainty reduction and anxiety reduction were not significantly related" to each other (p. 311) and presented an unexpected development that "higher levels of knowledge about the host culture is related to uncertainty reduction and anxiety reduction" (p. 315) among strangers (to whom they referred as sojourners). While this study was geared more towards development of positive communication between those of the host culture and sojourners, the results suggested that (1) uncertainty reduction does not necessarily reduce anxiety, (2) intergroup salience contributes to cognitive understanding (uncertainty reduction), but not necessarily to affective processes (anxiety reduction), (3) anxiety reduction is a function of host culture contact conditions, and (4) insularity is negatively related to adaptation to the host culture. An important conclusion was that "this study offers general but not complete support for anxiety/uncertainty reduction theory as it is extended to the intercultural adaptation context" (p. 323), but the processes noted may find greater applicability to adaptation in other environments where strangers must interact in circumstances where uncertainty and anxiety may be elevated and a host culture stands as an intermediary.

The overriding concern that Gudykunst attempted to address is effective human communication, which includes understanding our own motivation, knowledge, and skills in our interactions with strangers. Such interactions, especially during initial contact, can cause uncertainty and anxiety, but uncertainty tends to decrease as familiarity increases. However, relationships may change over time, and uncertainty can fluctuate as those changes occur. Depending upon the circumstances, “increases in uncertainty can have positive or negative consequences for our relationships with strangers” (Gudykunst, 2004, p. 21). In addition, anxiety occurs as an affective response to uncertainty. According to Gudykunst, “The amount and quality of contact we have with strangers influences the anxiety we experience when we interact with them; the more contact and the more positive the contact, the less anxiety we experience” (2004, p. 23). Referencing Stephan and Stephan (1975), Gudykunst explained the four types of anxiety we experience in interactions with strangers: negative self-concept, negative behaviors, negative evaluations by strangers, and negative evaluations from those in our own groups. We experience minimum and maximum anxiety thresholds that make us lack consciousness of our actions or create levels of fear that cause us to avoid interaction, respectively. As we become more familiar with others, uncertainty and anxiety decrease, but those fluctuations are not consistent over time, and uncertainty and anxiety may serve different purposes as relationships evolve. Gudykunst (2004) offered the viewpoint that one of the mechanisms for managing uncertainty and anxiety in relationships is community formation. He asserted, “We need to be committed to our collective (social) identities associated with our communities and... to cooperating with stranger on our shared goals” (p. 370). It is the effect that such community building may have on uncertainty and anxiety management which is the chief concern of the research project that is the subject of this paper.

Gudykunst (2005) explained the final iteration of AUM (Gudykunst passed away in January, 2005 just prior to publication of this paper, but before his work on AUM was completed) as a practical way to explore anxiety and uncertainty management, taking it a step further than URT which deals with anxiety and uncertainty reduction only. He explained that there are four interrelated levels of effective communication – individual, interpersonal, intergroup, and cultural. These categories can be flexibly applied to a number of circumstances in which communication takes place, from initial encounters with strangers to more fully developed relationships, especially given the prior assertion that uncertainty can occur at various points in relationships (Gudykunst, 2004). He argued that “our communication is influenced by our cultures and group memberships, as well as structural, situational, and environmental factors” (Gudykunst, 2005, p. 284). In addition, there is an element of the stranger in every human interaction, so anxiety and uncertainty management are inherent in communication on all levels. He reiterated the genesis of AUM and discussed the various theoretical perspectives that amalgamate to create it. The final theory involves forty-seven axioms, the last eight of which deal with cross-cultural perspectives. Axioms 1 to 39 revolve around self-concept, motivation to communicate, reactions to strangers, social categorizations and identities, situational factors, nature of contact with strangers, moral and ethical components of interactions, and anxiety/uncertainty/mindfulness of effective communication. Gudykunst (2005) warranted that this version of AUM brings it back to the original conception of an extension of Social Identity Theory and Uncertainty Reduction Theory. An overview of research supporting the theory indicates that its application is confined to cross-cultural and intercultural circumstances, and it has been tested only quantitatively utilizing self-reporting questionnaires. To date, there has been no qualitative research across cases over time in a single culture. As such, the current

project being reported here attempts to explore community formation as a practical mechanism of anxiety/uncertainty management utilizing AUM as its theoretical base.

Other Theories Considered

Anxiety/Uncertainty Management Theory (AUM) is an amalgamation of several theories, including Social Identity Theory (Tajfel, 1982), Uncertainty Reduction Theory (Berger & Calabrese, 1975), Expectation States Theory (Berger, 1972), and Flow Theory (Csíkszentmihályi, 1988), each of which contributed to AUM in some way. SIT addressed the need to identify positively with groups that share common features, URT posited that individuals need to minimize uncertainty in interactions in order to be comfortable, EST established the expectation of particular events and conditions within a social framework, and FT argued that there are minimum and maximum thresholds of interest that drive human motivation. Gudykunst (1986) argued that the process of anxiety management was missing from the equation, and that only by engaging this process, could effective communication be achieved, especially relative to interactions with unfamiliar people and contexts. He developed AUM to address this deficit as a practical, instructive alternative to theories which were only descriptive in nature.

Though there are many theories which address different aspects of anxiety, they are rooted mainly in psychology, and tend to consider anxiety as a disorder to be treated, rather than an affective state which can be managed by social processes. The distinction between the psychological theories of anxiety and AUM, which is based in anthropology, is the emphasis on anxiety management as a mechanism to facilitate effective social communication. According to Gudykunst (2004), effective social communication results in developing and thriving communities in which individuals who initiate and maintain intimate relationships and share common networks and goals are motivated to interact within contexts and conditions which

reduce uncertainty and optimize anxiety. Although there are other theories which address social networks, these theories minimize individual attributes in favor of the way in which networks function as linkages between groups of people, and they explain structural attributes of such linkages, rather than communication processes occurring within the networks. Some theories, such as Depersonalized Ingroup Trust (Kenworthy & Jones, 2009) draw on the same concepts of social identity, anxiety, and uncertainty reduction in explaining the development of ingroup trust, but the theory deals with description and prediction in a controlled laboratory environment, rather than an explanation of processes involving anxiety management in a more realistic setting. Communication Apprehension (McCroskey, 1977), initially linked to the fear of public speaking, investigates individual anxiety concerning the prospect of communication with another. Initially thought to be a product of a certain personality trait that could be modified, the definition was expanded to include contextual factors that create anxiety. Much like AUM, Communication Apprehension identifies context as a consideration in anxiety, but it does not extend to social communication processes that enable anxiety management. Social Capital and Planning Theory attempts to marry theory with practice in linking networks of disparate groups around common social themes of cohesion, trust, and efficacy (Putnam, 2004). Intended as a framework for social planning, this theory carries broad implications for building communities, developing neighborhood and urban initiatives, and exploring international issues, but again it does not address anxiety management processes that enable effective communication practices.

Myriad cultural and communications theories, including organizational communication, critical theory, co-cultural theory, provide descriptions, definitions, and predictions about human social communication behavior. Many of these draw on SIT and URT as a foundation for social behavior. However, only AUM specifically focuses on anxiety management as an ongoing

affective process in social communications. The emphasis in this study on community as an anxiety management mechanism lends itself most closely to AUM as its theoretical foundation.

The Study of Student Anxiety and Its Relation to Online Education

Student anxiety has been a subject of study at least since the late 1960s when Loewenberg (1969) published a discussion of graduate student anxiety as a function of the perceived inequality of power between graduate students such that the students become infantilized and submissive and the professors become dominant figures who represent institutional authority. His treatise describes emotional factors which create counter-productive anxiety as crises that students and faculties must resolve. Utilizing Loewenberg as a foundation, Montgomery (1972) offers three hypotheses concerning graduate student anxiety: 1) Misapplication of theory contributes to non-productive anxiety by distorting plausible explanations and justifying inaccurate theoretical appropriation by faculty, 2) anxiety is fostered by reluctance to identify areas of resistance in affective domains, and 3) anxiety is produced by failure to recognize graduate school as a “process of establishing professional identity” (p. 26). It functions as a call for the study of “productive and of non-productive anxiety experienced by students” (p. 26) and a generalized framework for such study.

Anxiety studies would come to encompass technology literacy and computer use. Jones and Wall (1985) report on a study in which students were asked about their level of computer exposure, computer use, and computer anxiety when computer use was steadily rising, but before the advent of widespread use of the Internet. The nascent field of technology gave rise to studies on many aspects of computer use, including educational purposes, which appeared in the early 1990s (Allen & Seaman, 2003). Since then, technology in education studies have come to encompass a wide range of subjects, including student anxiety associated with online pedagogy,

environment, and practices. Much of the research to date is devoted to defining terms and concepts for further study. Palloff and Pratt's (1999) seminal work in online practice of community building spawned an area of study in community formation and maintenance as a vehicle for student efficacy and engagement in the cyber classroom. Conrad (2005) provides a working definition of community as "a general sense of connection, belonging, and comfort that develops over time among members of a group who share purpose or commitment to a common goal" (p. 2). Her longitudinal study of cohorts over time reveals that students value community and take responsibility for its long-term maintenance. Ingram (2011) further refines the concepts of engagement as "Deep *attention* to the learning tasks and activities at hand; *Activation of effective cognitive processes* that improve both performance in the task and learning; and usually, *a social context*, especially in collaboration and collaborative learning activities" (p. 55, emphasis original). His definition of community includes active participation, discussion and collaboration, and ongoing peer review and critique. Ingram (2011) also calls for additional research into identification and measurement of variables affecting online community, factors that affect the formation and maintenance of online communities, the effects of community on learning and student success, and the effect of community on social and affective aspects of online learning, specifically anxiety management.

Macaulay (2003) presents findings that suggest that even students who are technologically comfortable feel some anxiety at using the Internet for academic purposes. Furthermore, the greater the level of use, the greater the anxiety. However, the study makes no suggestions for anxiety management mechanisms, but calls for additional research into Internet anxiety management. Sun, Tsai, Finger, Chen and Yeh (2008) conducted an extensive investigation into learner satisfaction with online formats, and they discovered that although

computer use has become ubiquitous among college students, computer anxiety still exists for online learners. However, the form of anxiety studied relates more to the mechanical processes of computer interaction, rather than anxiety generated by social and affective interactions. Research into students' anxiety concerning the use of technology as a learning platform continues.

Online educators are still in the process of defining terms and concepts that are universally accepted by the education community, finding their feet as teachers, and working to determine the best practices associated with technology use (Power & Gould-Morven, 2011). Online practices are the subject of much contention between those who see it as a robust and viable learning environment and those whose milieu is the traditional classroom lecture format. Given that debates concerning online education are ongoing, the literature presents a mixture of types of studies that are largely anecdotal or single case, and subject matters that range from the pedagogy of single subjects in online courses to broad issues of technology use and efficacy (Bray, Harris & Major, 2007). And although the causes, effects, and management of student anxiety are well documented among the general population of students, especially for certain types of courses (math and statistics in particular), and anxiety related to computer use is accepted as a real phenomenon, community as a vehicle for anxiety management in online environments has not been the focus of much study. Conrad (2005) studied successive cohorts over time to discover their attitudes and perceptions concerning community formation and maintenance, but stopped short of researching the utility of community as an anxiety management mechanism.

Research into Community Formation

Research into learning communities developed heavily in the early 1990s, employing communications theories first developed by Schramm and other pioneers in the field of mass communications (Rogers, 1994). Liu, Magjuka, Bonk and Lee (2007) ask the question “does community matter?” The affirmative answer is nearly universal from the perspective of both students and instructors. For online learning, community is an issue that scholars largely agree is crucial, relevant, and requires additional study. Given the newness of online distance education relative to more traditional forms of distance education, such as correspondence courses and remote broadcast, the avenues for research and development of theory and practice are wide open. Even in its infancy, as instruction moved out of the physical classroom and onto the Internet, scholars recognized the necessity of creating community in order to encourage and sustain student involvement (Palloff & Pratt, 1999). In addition, many of the principles of good practice in the face-to-face classroom also apply in the online venue (Misanchuk, Anderson, Craner, Eddy & Smith, 2000; Palloff & Pratt, 1999). Such characteristics as clearly defining the purpose of the group, defining norms and expectations for behavior, and allowing for a range of interactions and roles among group members are vital to both on-campus and online communities. These issues are especially crucial in moving students from the status of cohort to the state of community.

Communication, cooperation, and collaboration establish the three levels of interaction required to transform a cohort into an online community (Misanchuk, et al, 2000). The emergence of a learner-centered approach to education creates rich opportunities in all venues of teaching, but appears to play a critical role in the online environment. Community becomes an integral part of all of the constituencies of online distance learning and teaching, and informs

practice in the learner-centered classroom. There is more work to be done in not only understanding how learners and educators accommodate the technological environment, especially for those for whom technology presents logistical or emotional/psychological difficulties, but also in the arena of format and content. Although general consensus exists concerning the importance of community, there remain many unanswered questions concerning pedagogy and praxis in the online classroom, given the absence of long-range comparative studies.

The conventionally asynchronous nature of online courses offers students and teachers the convenience of accessing course materials and assignments at the time of day most suitable to each one's schedule. However, some fully synchronous programs have proven to be quite attractive to students and can boast extremely high retention rates, even though there are fewer such programs which lack clear guidelines for content delivery (Hrastinski, Keller & Carlsson, 2010). One study indicates that even in a synchronous environment, the frequency of asynchronous communications among students remains high (Yeh, 2010). It is well established that there is the need for a sense of community for students and instructors in the online environment, to foster the sort of collegial relationships that generate discussion, cooperation, and collaboration that are the hallmark of successful online courses (Palloff & Pratt, 2007).

Community establishes connections between online participants and appears to enhance retention efforts. Hrastinski (2010) reports that research utilizing focus groups reveals that students see social experiences in the online realm as a part of important community building opportunities, but those who administer and teach in online programs have strikingly different expectations than students entering the online learning environment (Bozarth, Chapman, & LaMonica, 2004). Bozarth, et al (2004) found that student expectations in the areas of necessary

technology skills, time management, participation, and work load differed widely from instructor expectations. Instructors assume that students enter programs with the necessary skill sets to negotiate the online coursework and classroom, while students largely assume that instructors will teach these skills along with the course content. One possible way to manage expectations is to require orientation programs that promote nascent communities while providing vital information concerning students' participation in the program. However, Liu, et al (2007) point to a dearth of long range empirical studies that provide support for the effectiveness of particular programs, models, or initiatives in student learning and retention. Further, they question the assumption that all students desire or benefit from such community interaction, and they caution educators against a "one size fits all" approach in the absence of hard evidence.

There are indications that such empirical studies are beginning to appear in the forms of analyses and evaluations of individual courses and programs concerning a variety of particular issues. Ke and Hoadley (2009) provide support for eschewing generalized measures of evaluation for programs, instead suggesting ongoing diagnostic measures that examine causal relationships between indicators. Ali and Leeds (2010) hypothesize that requiring face-to-face orientation significantly increases the likelihood that students will complete online courses successfully. They followed two groups of students in online courses during two successive semesters. The first group did not complete a face-to-face orientation, but the second group did. The results indicate that their hypothesis is well supported as 91% of the students who completed the required orientation also completed the online course with a grade of C or better, compared to the previous group in which fewer than 20% of students successfully completed the course. Wozniak, et al (2009) devise a staged approach to orientation by using technology to address social, cognitive, and procedural issues at various stages from acceptance into the program

through graduation. Their preliminary findings, utilizing student feedback, suggest that students benefit from ongoing contact and interaction with instructors and other students concerning course content, processes, and technology. Hrastinski, Keller and Carlsson (2010) examine participation rates among students using synchronous communication, such as Instant Messaging, that enables them to engage course materials more deeply through collaborative practices. This paradigm provides a good fit for online instructional models.

There appears to be almost universal agreement that a constructivist approach to the design of online learning works well for the majority of students, especially given that those students tend to be adult learners who view the process as not only educational, but social in nature (Ali & Leeds, 2010; Snyder, 2009). Chen (2000) provides an overview of constructivist theory which generally relies on students' construction of knowledge based on prior learning and experience. It emphasizes authenticity and reality-based learning environments in both social and cognitive realms that also rely on collaborative practices. Snyder (2009) combines theories of adult learning, communities, and constructivism to generate a goal-oriented theory which enhances community and knowledge building. This article also cites the need to produce additional longitudinal research answering various questions concerning the best use of multiple technologies in a learner-centered environment.

Bray, Harris and Major (2007) conducted an exhaustive review of research in online education to that point, and they also concluded that much of the literature is anecdotal or contains single-focus case studies that provide no comparisons between various programs and their attempts at community building, pedagogical innovation, and student success/satisfaction. In addition, in the last five years, scholars have shown an increased interest in the collaborative or community-based aspects of online education. Wright, Sunal and Wilson (2006) produced a

volume devoted to “interactivity” with chapters outlining narrative strategies and collaborative learning to enhance the online experience. Given their view that online has become more the norm than the exception, their focus on the future of online education affords a somewhat prescient look at the trends in distance learning, including extensive use of hybrid models. Luppicini (2007) gathers articles by authors, including Palloff and Pratt, from issues of *Distance Education Quarterly* in a volume that devotes twenty chapters to an array of issues affecting online learning communities. The authors offer typologies, conceptual frameworks, and design and instruction models for improvement of online learning. Falk and Drayton (2009) present work which targets professional communities of online educators, including those behind the scenes in administrative, management, creative, and supporting roles. So, online community is not just about the students and their need for collaborative and supportive structures, but the practitioners and administrators of online courses and programs as well. Just as face-to-face educators require ongoing pedagogical research and training, so do online educators, who experience the urgency of sustainable growth models for online courses given the explosion of students interested in online course work.

Summary of the Theory, Online Graduate Student Anxiety, and Community

Anxiety/Uncertainty Management Theory (AUM) offered an ostensibly practical theory to enable understanding of uncertainty reduction processes in the service of effective communication (Gudykunst, 2005). In his final article, published around the time of his death in 2005, Gudykunst explained that the theory was not finished and he invited others to work with it to improve/refine it. Although the theory was intended to address intercultural communication, the first thirty-nine axioms provide a process that is widely applicable to general communication events, especially those involving strangers. The theory posited that high levels of uncertainty

surrounding expectations of strangers' behaviors and attitudes caused high levels of anxiety that caused avoidance behaviors. The goal was to minimize uncertainty to a point at which anxiety could be managed and effective communication could take place.

One venue in which there is a high level of uncertainty and anxiety is in online learning. The isolation of online students and the lack of access to on campus support mechanisms can increase anxiety for such students. The online Master of Library Studies program at a large southeastern university presents an opportunity to study anxiety management mechanisms utilizing AUM as a theoretical foundation, especially in light of the demanding nature of graduate programs. In general, graduate students experience elevated levels of anxiety due to course workload, conference attendance and presentations, copious papers, and the expectation of substantive research. Online students experience these stressors in addition to the physical and geographic isolation of distance learning. On campus students generally have ready access to support mechanisms, such as counseling, advising, and therapeutic services as well as face-to-face contact with faculty, staff, and fellow students with whom they can form ongoing relationships. Online students are excluded from such on campus facilities, and must rely on other avenues of support.

One such avenue is the online community of those in the program. The literature affirms that community has been identified as one of the most crucial elements of online student engagement and success. Viable communities are formed by those who participate in initiating and developing relationships that become more intimate and predictable over time (Gudykunst, 2004). However, for online students, the process is made more difficult by the lack of personal interactions. The MLIS program in this study is unique in that it has heretofore required an intensive face-to-face orientation program in which the students beginning the program each fall

semester are dubbed a cohort, given a name, and brought together for three-and-a-half days of instruction and social interaction prior to the beginning of the semester. The study examines the participants' perceptions of the community formation aspects of the orientation and the anxiety management effect of the ongoing community development as they progress through the program. The study seeks to determine whether participants' responses support some or all of the axioms of AUM relating to effective communication.

Chapter Three

Methods

Project Overview

Anxiety/Uncertainty Management Theory (AUM), developed by William Gudykunst (1993, 2005), is the theoretical lens on which the research in this paper is predicated. Based on the concept of mindfulness in Zen Buddhism, to which Gudykunst was an adherent, AUM posits that employing mindfulness in our interactions with strangers creates a heightened awareness of how we perceive and label ourselves and others, how we personally react to and process our interactions with them, and how mindfulness enables us to proceed with greater confidence and tranquility in interactions with unfamiliar people by taking their needs into account (Hawley, 2009). Although AUM was ostensibly advanced as a way to explain, understand, and facilitate interactions between disparate cultures, the first forty axioms of the theory can apply to most any interactions with unfamiliar people/situations that can be anxiety producing. Gudykunst's desire was to create a practical theory that, when properly applied, would enable people to produce smoother, more amicable interactions among strangers at a level of understanding that goes beyond visceral reactions.

Graduate programs are environments in which students face a variety of anxiety-producing situations and stressors, such as intense course work, extensive research papers, attendance at conferences, the need to produce significant new scholarship, and the pressure to publish. Online graduate students face the same obstacles as on-campus students with the added

impediment of geographical and physical isolation from faculty, fellow students, and campus facilities. Online programs are relatively new in the educational milieu of distance learning, and many facets have yet to be explored (Hrastinski & Keller, 2007). There is a growing body of literature that investigates and documents the differences and similarities between online and on-campus courses, encompassing design, administration, pedagogy, and student engagement in online learning (Ali & Leeds, 2010; Allen & Seaman, 2011; Conrad, 2005; DeVaney, 2010; Hrastinski, Keller, and Carlsson, 2010; Lee & Chan, 2007; Palloff & Pratt, 2007; Wozniak, Mahony, Lever & Pizzica, 2009). In addition, studies are emerging that specifically address the distinctive types of anxiety that online graduate students encounter (Bolliger & Halupa, 2012; Marchand & Gutierrez, 2012; O'Connor, 2010). The primary facet of online learning explored in this paper is the way in which anxiety affects the perceptions of students concerning the program, the people, and their relationships to them, and whether community formation and maintenance, something which is (possibly erroneously) taken for granted in a face-to-face classroom, provides a mechanism for managing anxiety levels and providing students with a greater sense of personal engagement.

The online Master of Library and Information Studies program at a large southeastern university attracts students from across the United States, Canada, and other areas of the globe. The program typically boasts an impressive retention-to-graduation rate of 90-95%. Students are enrolled in named cohorts, tracked by their year of enrollment in the program, and the course work is presented in an online synchronous format. At the time of this study, each cohort was required to attend an intensive, on-campus orientation over a period of three-and-a-half days just prior to the start of the regular semester. The orientation was actually considered to be the first course in the program and, as such, provided two credit hours upon completion. (Program

leadership has since changed, and the orientation has been revised to shorten the on-campus component and no longer offer credit hours towards completion of the program.) The orientation provides an opportunity for students to meet the faculty, staff, and each other face-to-face to begin formation of relationships leading to a nascent community. After the orientation, the students meet online only, once each week in a synchronous online classroom through the university's Learning Management System (LMS) for each course in which they are enrolled, and outside of class on the course discussion board and through various types of social media, such as Facebook. Synchronous classes mimic face-to-face courses in that students "attend class" together so that students interact with the professor and classmates during class through the chat and discussion functions. The relationships initiated at the orientation provide a platform for community growth and development as the students proceed through the program.

A Mixed Methods Approach

Previous research into uncertainty reduction and anxiety management has been undertaken with the goal of measuring and predicting communication behaviors with relatively little focus on effective communication practices. Given that Gudykunst's objective was to enable effective communication in the presence of anxiety and uncertainty, I take a more normative approach as defined by Goldsmith (2001). According to Goldsmith, "One important goal of a normative theory is to provide a basis for recommendations about how communicators can achieve desirable outcomes" (p. 515). Normative approaches provide support for abundant description and explanation, hallmarks of qualitative ethnographic and case study techniques, which supplement quantitative approaches that provide a snapshot in time with limited descriptive mechanisms. Predicting behaviors may not be as important as description and effect of communication practices on anxiety/uncertainty management, especially as applied to

practical issues of communication (Bradac, 2001). In addition, “a normative approach entails... recognizing the normative aspects of communication within a researcher’s own sociocultural context” (Goldsmith, 2001, p. 524).

Such analysis mainly foreshadows the findings of data in qualitative content analysis because of the permutable nature of qualitative content data (White & Marsh, 2006). Qualitative methods allow for flexibility in examination of the data and provide an iterative process whereby each review may yield additional questions and interpretations (Creswell, 2007; Huberman & Miles, 2002; Saldaña, 2009; White & Marsh, 2006). A normative approach, which recognizes the efficacy of both quantitative and qualitative data and acknowledges the need to have a platform from which to conduct future research, supports mixed methods that can not only predict and explain, but provide descriptive and interpretive results as well (Goldsmith, 2001). According to Wallace and Van Fleet, “Quantitative scientific research has been described as rigid, unitary, unforgiving, artificial, and mechanistic. Qualitative research has been described as flexible, multifaceted, responsive, humanistic, and naturalistic (although rarely natural). To the objective or reflective observer, neither characterization of the terms is entirely accurate or completely valid” (1998, p. 758). Normativity may seem counter-intuitive to qualitative inquiry, but the quantitative aspect of this study yields insight into the usefulness of each part of AUM as a theoretical foundation for examining anxiety and uncertainty reduction in practice.

While there are differences between qualitative and quantitative methods, there are important similarities as well, including sampling, unitizing, contextualizing, and systematic processes of rhetorical analysis (Thompson, 2001; White & Marsh, 2006). Although mixed methods approaches are not universally accepted by social science researchers, there is an increasing propensity to employ mixed methods in applied research that seeks to improve

communications practices as opposed to academic research for which control and prediction are the primary objectives (Fielding, 2010).

The goal of this study is to explore student perceptions of anxiety producing mechanisms in the online MLIS program, beginning with the mandatory orientation where students are thrust into intense interactions with strangers. The study further examines how creating a sense of community during the orientation can provide a coping mechanism that not only advances relationships, but sustains them throughout the program once the students have returned to the potential isolation of distance learning. Finally, the research findings will discuss whether the study results support or refute AUM.

Research Questions

This study is predicated on six research questions that explore the relationship between student perceptions of the anxiety associated with attending the mandatory orientation in the subject program, the nascent community that forms there, and its effects as an ongoing anxiety coping mechanism throughout the program.

RQ1: Does the MLIS orientation provide effective community formation for online cohorts? Or does ongoing interaction in the MLIS foundation courses provide a more effective platform for community formation?

Research strongly suggests that community formation and maintenance is absolutely necessary to student success in an online learning environment (Ali & Leeds, 2010; Conrad, 2005; Hrastinski, 2009; Palloff & Pratt, 2007). The face-to-face nature of the orientation in the program under study here forces students to interact with fellow students and program faculty/staff in intense, compressed conditions intended to foster fellowship and establish an

incipient community. That sense of community must be maintained as the program progresses in order for the students to remain engaged and motivated.

RQ2: In what ways does the initial interaction of the MLIS orientation increase or decrease anxiety and uncertainty for online graduate students?

AUM is predicated on interactions with strangers, and the mandatory nature of the orientation presents a situation in which the students are compelled to interact with strangers in a specific location during a compressed period of time. Such interaction can produce anxiety for students because of the uncertainty surrounding the unfamiliar people and environment. This initial interaction “sets the stage” for the development of community and the ongoing online interaction during the remainder of the program. Students can provide perceptions of the effectiveness of the orientation as an anxiety producing and potential anxiety management mechanism.

RQ3: How well do the written materials provided to the online cohorts prior to the actual orientation increase or decrease anxiety and uncertainty?

The written materials provided in advance of the orientation provide copious information about the program and the university to enable students to gain prior knowledge that will ostensibly facilitate their smooth entry into the program. AUM posits that prior acquisition of information contributes to decreasing uncertainty which, in turn, decreases anxiety. Program faculty and staff begin sending e-mail communications, starting with the student’s acceptance, to the students approximately five months prior to the orientation. Communication in various formats continues at regular intervals up to the day before the orientation begins. Not only does this study explore whether students perceived this material to have an effect on their anxiety level, it will also discuss a prior analysis of the website and the written materials I conducted to

ascertain the types, nature, and themes of the communications sent to the students during the period of time between their acceptance into the program and the end of orientation.

RQ4: Is community formation an effective vehicle for anxiety/uncertainty reduction for online graduate students?

Much of the literature suggests that anxiety plays a major role in students' perceptions of themselves and others, and their perceptions of engagement and success in online programs (Fogg, 2009; Gardner, 2009, Phase II; Mallinckrodt & Leong, 1992; Maringe, 2010; Offstein, et al, 2004). The literature further suggests that community formation and maintenance is a key component in reducing the anxiety that online students experience, especially those for whom isolation may be an obstacle (Ali & Leeds, 2010; Bozarth, Chapman & LaMonica, 2004; Hrastinski, Keller, and Carlsson, 2010; Melrose, 2006; O'Brien & Renner, 2002). Since each new group of students (online students are only admitted in the fall semester) proceeds together as a named cohort, de facto community is established prior to the cohort's first meeting at orientation. This study examines students' perceptions of the role and effectiveness of the cohort community in reducing anxiety.

RQ5: Do students perceive that uncertainty reduction enhances or enables anxiety management?

AUM postulates that as people acquire information and become better acquainted with others, they will experience reduced anxiety and increased confidence in their interactions. This study asks students to provide their perspective on how well their increased knowledge concerning the program (especially the orientation), their fellow students, and the faculty/staff enable them to manage their anxiety in coping with their relationships with the people associated with the program and the demands of the program.

RQ6: How do online graduate students perceive the effects of community as an anxiety management mechanism as they progress through their program of study?

Even though AUM focuses on interactions with strangers, which, by definition, would encompass mostly initial interactions, roles and relationships can change as the formation, development, and maintenance of a community proceeds. Students in the subject program are exposed to the stresses of interactions with strangers at the orientation, but must continue communicating each other and with faculty/staff constantly throughout the program. This study examines student perceptions of the way in which anxiety manifests itself in these relationships over time and whether anxiety can evolve and/or diverge as they progress through the program.

Data Collection

In order to ascertain the effectiveness of community formation practices in anxiety/uncertainty management, I utilized a mixed methods approach, including a quantitative questionnaire that provided baseline self assessment of participants' attitudes and perceptions about anxiety and uncertainty in their interactions with strangers and qualitative analysis of interviews with individual students and group discussion sessions to identify emergent themes and patterns in the service of addressing the research questions. In addition, I discussed the findings of a prior analysis of the program's website and the materials disseminated to students from their acceptance into the program through the orientation.

Population. The population from which the sample was drawn includes members of MLIS online cohorts from 2008, 2009, 2010, and 2011 with a total of 171 students enrolled in the four cohorts. The primary goal of the research was to determine the student perceptions of the role of community formation in enabling anxiety/uncertainty management. The assumption was that the closer the cohort is to the beginning of the program, the more anxiety/uncertainty

they experience and the role of community will be seen as a mitigating or coping mechanism, and concomitantly, as cohorts advance further into the program, their anxiety/uncertainty will decrease and their perceptions of the role of community mechanisms will change.

Procedure. The School of Library Studies administration provided e-mail lists for all students registered in each of the four cohorts. An initial e-mail request (Appendix A) was sent to all 171 students asking for their participation in the study, and potential participants were chosen from those who responded favorably. A follow-up e-mail (Appendix B) to those who had not responded to the first request was sent one week later. There was no upward limit placed on the number of participants from each cohort, and sample size varied between cohorts due to varying response rates. The goal was to have at least six participants from each cohort.

Once the number of potential participants was known, a course was set up in the university's learning management system (LMS) through which study materials would be provided to the participants. In order to maintain anonymity, each participant was assigned a pseudonym which contained an alpha-numeric code numbering 1 to 30 such that the codes began with 01mwdguest and ran numerically through 30mwdguest. Since potential participants names were grouped by cohorts, this also provided a way to group the participants' numbers as cohorts which facilitated data analysis (except 30mwdguest who responded quite late to the request and was assigned to the final slot).

I sent the participant an e-mail which provided his or her pseudonym and instructions for logging into the study course to access the materials. The materials included a 40-item attitude questionnaire utilizing a Likert scale (Appendix D) and six open-ended interview questions (Appendix E). The questionnaire is based on the first thirty-nine and the forty-third of the forty-seven axioms of AUM (Gudykunst, 2005) as well as a Five-Factor Personality Inventory

developed by Buchanan, Johnson & Goldberg (2005) for the Internet using the International Personality Item Pool (Appendix F). The questionnaire itself has not been validated, but the instruments on which it is based have a high rate of validity. Participants accessed the questionnaire through a link to Survey Monkey and they provided responses to the interview questions in an assignment in the LMS. I chose to use the assignment function, rather than the discussion board or blog, in order to maintain complete anonymity and privacy to the participants because assignments can be directed to individuals and kept private between the participant and the researcher. Questionnaire responses were correlated with the first thirty-nine axioms plus axiom forty-three of AUM to either support or refute each part of the theory and responses to the interview questions provided narratives that further explained participants' perceptions concerning anxiety/uncertainty management/reduction.

Previous studies have found that uncertainty control mechanisms operate separately from anxiety control mechanisms. When uncertainty control is operational, communication behavior appears to be adaptive, but when anxiety control is operational, behavior appears to be maladaptive (Hammer, et al, 1998; Hullett & Witte, 2001), suggesting that uncertainty and anxiety may manifest different management perceptions and behaviors. Written responses provide participants with an opportunity to answer questions in a more thoughtful, considered manner, and afford me the opportunity to seek clarification or amplification from the participants, as needed. E-mail also provides a transcript of all communications between me and the participants so that there is a complete, accurate account of each participant's statements to facilitate analysis and to eliminate the need for member checks.

Sample. The initial e-mail was sent to all 171 members of the four cohorts. Eight were rejected due to inactive e-mail addresses. The two rounds of e-mails yielded seven potential

participants from 2008, seven from 2009, six from 2010, and ten from 2011 for a total of thirty. Each participant signed a consent letter. The participants were asked to complete the questionnaire first and then the interview questions, and I was notified by e-mail of each completed interview. Due to various employment and personal issues, some of the participants were unable to complete the study materials in the time allotted, so I set up a second assignment for those who contacted me and requested that they be allowed to finish. They were given an additional 10 days to complete the questionnaire and the interview. The final number of participants who completed both the questionnaire and the interview was six from 2008, two from 2009, five from 2010, and eight from 2011 for a total of twenty-one, twenty females and one male. (I sent e-mails to those who had signed consent letters, but had not completed the study, and received no responses after two attempts).

Data Analysis

Questionnaire Coding/Analysis. The questionnaires were analyzed using descriptive statistics to establish self and group concepts and determine the levels of anxiety and uncertainty of each participant in their interactions with strangers. The items in the questionnaire correspond to the descriptive groupings that Gudykunst assigned to the axioms of AUM. Questionnaire Item 1 asks the participants for personal and demographic information, including name, age, gender, city/state of residence, and years in the profession, and the remaining items, 2 to 41, correspond to the theoretical axioms as follows: Personal and Social Identity (Axiom 1-5, Items 2-6), Motivation to Interact (Axioms 6-9, Items 7-10 and 16), Reactions to Strangers (Axioms 10-15, Items 11-15), Social Categorizations (Axioms 17-22, Items 17-23), Situational Processes (Axioms 23-26, Items 24-27 and 41), Connections to Strangers (Axioms 27-31, Items 28-32), Ethical Interactions (32-34, Items 33-35), and Anxiety, Uncertainty, Mindfulness, and Effective

Communication (Axioms 35-39, Items 36-40). According to White and Marsh, because “the object of qualitative research is not generalizability but transferability, sampling does not need to insure that all objects being analyzed have an equal or predictable probability of being included in the sample” (2006, p. 36). The objective is to identify patterns, which can be presented both qualitatively and “quantitatively through numbers and percentages but not through inferential statistics” (p. 36). In the process of identifying patterns, Item 16 was grouped with Motivation to Interact and Item 41 was grouped with Situational Processes. The groupings were compared quantitatively with the axioms of the theory to determine whether participants’ responses supported or refuted the theory, indicated little to no effect, or participants claimed neutrality.

I created an Excel spreadsheet of the participants’ responses by downloading the raw data directly from Survey Monkey. This allowed me to perform analysis in order to determine descriptive statistics (by question, by category, and by cohort) utilizing averages (Appendix G) and totals for each number of Likert responses from 1-5. Responses were color coded as follows: Orange – Majority opinion that appears to support axiom, Yellow – No or almost no disagreement, Pink – Wide disagreement, Blue – Wide agreement to entire category. I compared the responses to each questionnaire item to the corresponding axiom to ascertain participants’ agreement/disagreement, both by individual question and by groupings of questions. This was calculated for all participants inclusive and by cohort.

Interview Coding/Analysis. Participants posted their responses to the interview items by entering them directly in the assignment dialogue box or by attaching a Word document to the assignment. The initial response period was three weeks and the follow-up response period for those who missed the first deadline was ten days. Participants completed an interview containing six items (Appendix D).

The first reading of the documents was to familiarize myself with the material and determine how to group the documents. I created a Document Summary Form (DSF) (Miles & Huberman, 1994) for each participant (Appendix I), completing the demographic information and copying and pasting their responses to the interview questions directly onto the form, eliminating the need for transcription and to facilitate accurate analysis. I recorded the total number of words in each participant's response. In addition, I recorded the responses to Questionnaire Items 2 and 3, personal confidence level and confidence interacting with strangers. I completed the DSF by recording a brief summary of the participant's responses to begin discerning themes in the narratives.

During the second reading, I looked for rhetorical themes, using line items from the written materials provided. In addition, the DSF was used to make analytic memos which serve the purpose of reflecting on the coding process and emerging patterns and concepts (Saldaña, 2009). The Initial Coding, sometimes called Open Coding, was done by hand, and each document was coded for discourse indicating community formation, inclusiveness, exclusion, anxiety/uncertainty control, and language indicating problems, concerns, and negative feedback. The coded units consisted of words, phrases, single sentences, multiple sentences from a single paragraph, or whole paragraphs, and each unit coded is labeled as a passage. Where words are chosen as the unit of analysis, they were considered both as code and in context, referred to as the "two syntaxes of knowing" (Hogenraad, McKenzie, & Példeau, 2003, p. 223). Words as code imply consistency in agreed-upon meaning, and words in context indicate "a desire to meet the text on its own terms, and not in terms of fixed codes shared by a list of words" (p. 224). Each iteration of review provided increasingly detailed information concerning the participants' narratives, yielding insight into their perceptions concerning the efficacy of the orientation as a

community formation mechanism and its subsequent effect on anxiety management. I took copious notes during each review which yielded substantive observations concerning the way in which the participants discussed the program, people, orientation, and any individual commentary that might provide further insight into their perceptions. Participants' comments seemed to fall into the major categories of program, people, orientation, faculty/staff, and various personal observations from which I created spreadsheets that contained color coded categories as follows: Yellow – Causes of anxiety, Green – Anxiety reducing/coping mechanisms, Red – Overt criticism (Appendix J). The narratives provide detailed descriptions of the participants' perceptions in context which may either support or refute AUM and shed light on communication practices that speak to community as an anxiety production/reduction mechanism.

Reflexivity

Qualitative content analysis entails constant reflection given the highly interpretive and emergent nature of the data. Qualitative research assumes a bias and admits to particular interpretations of the data because of the inductive nature of the process and the inquiry. “Authority in a qualitative research report is established not through the application of established and unimpeachably objective methodologies but through the preparation of an essentially personal narrative presence (Lindlof, 1995, p. 248). “Reports on qualitative research are therefore often presented in the first person and frequently are very personal in nature” (Wallace & Van Fleet, 1998, p. 760). It is supremely important to communicate “positionality” as it can dramatically affect the analysis and interpretation of the data. According to Thompson, “researchers using qualitative content analysis attempt to be as objective as possible, while

recognizing that all research, especially textual analysis, reflects the researcher's prior knowledge and expectations and, hence, is quite subjective" (2001, p. 162).

My position in this project is that of an outsider to the SLIS MLIS program, but something of an insider to SLIS since I have been a graduate research assistant in the department. I am also heavily invested in online education as an Instructional Technologist and an experienced Online Instructor. I want this program to be successful, as I do all online programs, so my analysis may reflect my bias in favor of online education. I have taken several courses in Instructional Technology as my cognate, so I am knowledgeable about what makes online teaching "tick," and I have to wonder if it makes me a subconscious cheerleader for the success of online programs. My knowledge of the accepted value of community formation in online education may be viewed as a hindrance to objectivity in coding the texts. However, "qualitative content analysis focuses on creating a picture of a given phenomenon that is always embedded within a particular context, not on describing reality objectively" (White & Marsh, 2006, p. 38), but the results of qualitative data analysis require verisimilitude, so accuracy is still paramount in the research narrative. The participants' narratives provide such verisimilitude by discussing the actual context in which communication practices take place, especially in light of the interview questions which were designed to allow participants to take the narrative where they wanted it to go, rather than where I wanted it to go. One of the reasons I asked for written responses was to give participants time to think and reflect on their perceptions of their experience with the program and the people involved in it to achieve a more accurate interpretation of the results not colored by my own attitudes.

Methods Summary

Gudykunst developed AUM “to be applied by individuals to improve the quality of their communication, not just explain effective communication” (2005, p. 291). By employing mindfulness, which implies an awareness of our attitudes and behaviors and an appreciation for the needs of others in interactions, we can become more adept at communicating, especially those with whom we are unfamiliar. In other words, we can choose our behaviors when we are conscious of our doubts and anxieties about interacting with others, especially strangers. Gudykunst further contends that when we are either overly anxious (the affective manifestation of uncertainty) or not anxious at all (indifferent), we are not motivated to communicate effectively. He acknowledges that effective communication is defined differently depending on cultural, environmental, and situational factors.

Ultimately, AUM is meant to facilitate communication that promotes mutual respect and understanding at both interpersonal and intergroup levels. New or unfamiliar people and situations can cause uncertainty and anxiety which may make us reluctant to interact. Therefore, we attempt to mitigate those factors in order to alleviate the stress associated with such interactions. Gudykunst contends that “Attempts to deal with the ambiguity of new situations involves a pattern of information seeking (managing uncertainty) and tension reduction (managing anxiety)... Managing uncertainty and anxiety, therefore, are central processes affecting our communication with strangers” (2005, p. 285). The online MLIS program under study here, especially the mandatory on-campus orientation that requires face-to-face interaction with unfamiliar people and situations, presents an opportunity to gauge student perceptions of uncertainty/anxiety management in a circumstance where they cannot choose whether to interact.

One of the ostensible goals of the orientation is to forge bonds that promote the formation and eventual growth of community among the students in the program. Community is recognized as an essential component for student engagement and eventual success in online programs, and it may serve as an anxiety reducing or coping mechanism as interactions become more familiar and comfortable. Gudykunst contends that “We need to be committed to our collective (social) identities associated with our communities and to a participatory mode of politics within the community... We must be committed to cooperating with strangers on our shared goals” (2004, p. 370). In other words, as community increases, turning strangers into those for whom we are concerned, our willingness to communicate and work together effectively increases.

This study undertakes an examination of AUM and its correlation to community as a mechanism for uncertainty and anxiety reduction that facilitates interactions with strangers and promotes relationship building. The questionnaire administered to participants relates directly to their perceptions of anxiety/uncertainty in self and group identity, and the interview demonstrates their perceptions of community as a mechanism that can reduce anxiety and promote group cohesiveness. While the last iteration of AUM on which Gudykunst was working at the time of his death communicates his interest in effective intercultural (intergroup) communication, axioms 1-30 and 43 can be applied to any interaction that involves unfamiliar people, places, and situations.

Chapter Four

Research Questions and Results

Project Overview

AUM, developed by William Gudykunst (1993, 2005), presents a theoretical model for effective communication between strangers which is hindered by uncertainty and anxiety. Predicated on the concept of mindfulness (a tenet of Zen Buddhism to which Gudykunst was an adherent) whereby we are highly conscious of not only our attitudes and behaviors towards strangers but the strangers' needs as well, AUM seeks to facilitate interactions between strangers by providing mechanisms to manage uncertainty and anxiety. Further, Gudykunst asserts that "Community makes life worth living and the existence of community makes peace and intergroup harmony possible" (2004, p. 367). He further asserts that it is incumbent upon each individual to be in a constant state of mindfully building community in every facet of life (Gudykunst, 2004). His belief in peace and harmony, a central doctrine of Buddhism, led him to develop a theory that he believed would promote peaceful interaction, even in the face of conflict.

Given the potentially isolating format of online learning, researchers strongly agree that community is essential to student engagement, motivation, and success online (Ali & Leeds, 2010; Conrad, 2005; Hrastinski, 2009; Palloff & Pratt, 2007). Online graduate students face the same stressors as on-campus students, such as intensive workload, voluminous papers, and pressure to perform meaningful research, but with the added stress of isolation from the campus community and its attendant face-to-face interactions with faculty, staff, and fellow students. This inherent physical isolation can create additional anxiety with which online students must

cope in order to remain engaged and motivated to complete the program in which they are enrolled. The subject online Master of Library Studies (MLIS) program presents a unique opportunity to study the student perceptions of the correlation between community formation and maintenance and anxiety management through the lens of AUM. The program is unique in that it is synchronous, students meet in classes that are regularly scheduled similar to on-campus course sections, and there is a mandatory, intensive on-campus orientation that meets for three-and-a-half days just prior to the start of the semester and provides the first two credit hours of the program. The orientation brings students together as a cohort, requiring them to meet and interact with fellow students from across the country (in some instances, from distant foreign countries), faculty, and staff, a situation which has the potential to produce anxiety. In addition to providing program and technology instruction to the students, the orientation enables students to form a nascent community. This study examines student perceptions of the efficacy of community as an anxiety reduction/coping mechanism and its correlation to Anxiety/Uncertainty Management Theory (AUM).

This study seeks to determine how students in the subject MLIS program perceive community formation and maintenance as a mechanism for managing the anxiety experienced as a result of being required to interact with strangers – fellow students, faculty, and staff – in a required on-campus orientation and as they progress through the program. Although AUM chiefly addresses interaction with strangers, once initial interaction occurs, people are no longer strangers, but have become acquaintances. This acquaintance can either grow into a deeper relationship or remain undeveloped and tenuous, resulting in minimal anxiety/uncertainty reduction. As students become more familiar with each other and with the faculty and staff of the program, community can deepen and strengthen to provide a more sociable, nurturing, and

peaceful environment that either mitigates anxiety or enables students to manage it more effectively.

Research Questions

The research questions seek to address student perceptions that generally support/refute the axioms of AUM and community as a mechanism of anxiety reduction.

RQ1: Does the MLIS orientation provide effective community formation for online cohorts? Or does ongoing interaction in the MLIS foundation courses provide a more effective platform for community formation?

RQ2: In what ways does the initial interaction of the MLIS orientation increase or decrease anxiety and uncertainty for online graduate students?

RQ3: How well do the written materials provided to the online cohorts prior to the actual orientation increase or decrease anxiety and uncertainty?

RQ4: Is community formation an effective vehicle for anxiety/uncertainty reduction for online graduate students?

RQ5: Do students perceive that uncertainty reduction exacerbates anxiety management?

RQ6: How do online graduate students perceive the effects of community as an anxiety management mechanism as they progress through their program of study?

Methods Summary

This study is an across case study for which I adopted a mixed methods approach, utilizing a quantitative questionnaire and qualitative interview, as well as a review of a prior analysis that I conducted of the written materials provided to the MLIS students. While mixed methods are not entirely accepted by the academic community, mixed methods can yield results that not only predict and explain, but describe and interpret results (Fielding, 2010; Goldsmith,

2010; White & Marsh, 2006). A total of 21 (out of 171) members of the cohorts from 2008, 2009, 2010, and 2011 (20 females and one male) participated in the study. Participants ranged in age from 23 to 60, with an average age of 39, with the cohort averages of 46, 27, 34, and 40 respectively and an overall average of almost 8.8 years of professional experience, regardless of profession. Thirteen of the study participants were practicing library professionals, ranging from three months to thirty years of experience, with an average of eight years of library service, with an average age of 35. (The oldest participant had the most years of library experience, but the youngest participant did not have the least amount of library experience.) The remaining participants were employed in other careers and presumably contemplating changing careers. These participants averaged 38.6 years of age. The greatest percentage of practicing library professionals belonged to the 2008 cohort, five of six with an average of 11.6 years of library service. The 2009 cohort had only one participant with library experience at three months, but this cohort had the fewest study participants. This cohort also had the youngest average age at 27. The 2010 cohort, with an average age of 34, contained three of five practicing library professionals with an average of a little more than three years of experience. The 2011 cohort had the most study participants, with an average age of 40 and an average of nine years of library experience. Although the 2008 and 2011 cohorts exhibited the highest levels of library experience, utilizing four successive cohorts enabled comparisons that demonstrated whether responses were consistent across cohorts for the same questions or whether individual cohorts varied in meaningful ways.

Each participant was assigned a pseudonym, was enrolled in a course on the university's learning management system that had been designated for the purpose of the dissertation study, and completed a questionnaire and a written interview. The questionnaire, which is constructed

to reflect an analogue of the first 39 axioms plus Axiom 43 of AUM, containing 40 items with Likert scale responses, was administered through a link in the course to Survey Monkey and the interview items, which explore student perceptions of the relationship between anxiety and community, were completed through a course assignment so that each participant's identity was protected. Written interview responses enabled the participants to provide thoughtful responses and guaranteed accuracy through a ready transcript of each set of responses. I encouraged participants to communicate with me through e-mail if they had additional comments or questions concerning their participation in the study.

Questionnaires were analyzed through the use of descriptive, rather than inferential, statistics to determine whether the participants' responses demonstrated a correlation to the theory. White and Marsh (2006) and Goldsmith (2010) support the use of quantitative elements that augment qualitative data by providing a normative foundation upon which to build qualitative studies. Gudykunst (2005) was still refining the theory at the time of his death and he recognized that each attempt to validate the theory brought it closer to the ideal mechanism of effective communication. However, there are no extant qualitative studies of AUM that allow participants to supply narratives of their perceptions of anxiety causing/reducing scenarios. The interview component of this study provides the case study element of in-depth description from the perspective of the participants in the program.

Interview responses were analyzed by first documenting the structural elements of each participant's responses by use of the Document Summary Form (Appendix I). The first review of the responses yielded general categories concerning Program, People, and Orientation. Further review uncovered additional categories of Faculty/Staff, Social Media, and Other observations. Within those categories emerged further breakdowns of Anxiety Producing,

Anxiety Reducing/Coping, Positive Feedback, and Negative Feedback which were color coded (see Appendix J). Responses were then related back to the research questions.

Questionnaire Analysis Results

Gudykunst (2005) separated the axioms of AUM into groupings that reflect the various components of the theory as relates to self and group identifications. The questionnaire was designed to reflect the axioms and groupings as closely as possible. Table 4.1 illustrates the groupings, their associated axioms, and the questionnaire items associated with each grouping.

Table 4.1

Groupings AUM of Axioms and Questionnaire Items

Grouping Descriptions Gudykunst (Whitaker)	Axioms	Questionnaire Items
Personal/Social Identity (Social Identity and Self Image)	1-5	2-6*
Motivation to Interact (Feelings of Inclusion)	6-9	7-10, 16
Reactions to Strangers (Reactions to Strangers)	10-15	11-15
Social Categorizations (Categorizing Social Interactions)	17-22	17-23
Situational Processes (Situations and Conditions)	23-26, 43	24-27, 41
Connections to Strangers (Connectedness)	27-31	28-32
Ethical Interactions (Ethics and Fairness)	32-34	33-35
Anxiety, Uncertainty, Mindfulness, and Effective Communication (Anxiety, Uncertainty, Mindfulness, and Effective Communication)	35-39	36-40
*Questionnaire Item 1 requests demographic information only and is excluded from this analysis.		

I included both Gudykunst's and my descriptions of the groupings because the questionnaire items are my interpretation of the axiom to which each relates, so the axiom groupings are described using Gudykunst's terminology, and the questionnaire items are described with my interpretation of the grouping. I relocated questionnaire items 16 and 41

because they appeared to be more closely analogous to the groupings in AUM in which I placed them. Item 16, which deals with getting to know strangers and which closely aligns with Axiom 15 is grouped with Reactions to Strangers in the theory, but I interpret it as more closely aligned with Item 10 which also addresses motivations in getting to know others. Therefore, Item 16 is grouped with Motivation to Interact in my analysis. Item 41, which aligns with Axiom 43 concerning intercultural power distance, was borrowed from the theory grouping Cross-Cultural Variability in AUM Processes as a check against Item 27 which deals with one's own position of power rather than the perceived power of those with whom we interact. In addition, I reorganized some items within categories so that similar items appear together to provide direct comparisons of participants' responses.

Personal/Social Identity (Social Identity and Self-Image). Gudykunst (2005) defined self-concept and social identity as our view of ourselves and our view of the way in which we are perceived by the groups to which we belong. This provides personal and collective self-esteem which affect our communications with strangers. The stronger our personal and social identities, the greater our ability to manage anxiety and uncertainty in our interactions with strangers. Table 4.2 and Table 4.3 illustrate the participants' average responses and numerical distribution of responses, respectively, to questions of social identity and self-image. Tables 4.2, 4.4, 4.6, 4.8, 4.10, 4.12, 4.14, and 4.16 show the average responses to the questions in each grouping for all cohorts combined and for each cohort individually in order to illustrate participants' responses overall and any similarities/differences between cohorts. The x-axis indicates the cohort, and the y-axis indicates the question number. For example, the average response from all cohorts to question 2 indicates that most participants agreed that they were self-confident. However, agreement is strongest in the 2009 and 2011 cohorts. Tables 4.3, 4.5, 4.7, 4.9, 4.11,

4.13, 4.15, and 4.17 indicate the actual numerical distribution of responses to each question. The x-axis indicates the question number, and the y-axis indicates the Likert response to each question (5-strongly agree, 4-somewhat agree, 3-neither agree nor disagree, 2-somewhat disagree, 1-strongly disagree). For example, overall, question 2 elicited seven who strongly agreed, eleven who somewhat agreed, one who neither agreed nor disagreed, two who somewhat disagreed, and none who strongly disagreed that they were self-confident. As indicated in Table 4.2, eighteen of twenty-one participants considered themselves to be at least somewhat self-confident. Tables 4.2 through 4.17 present similar data for each of the questionnaire groupings that are analogous to the AUM axioms pertinent to this study. Interpretation of the data for each grouping follows the set of tables for that grouping.

Table 4.2

Social Identity and Self Image Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
2	4.1	3.67	4.5	4	4.375
3	3.67	3.167	3.5	3.4	4.25
4	3	3.33	3	3.4	2.5
5	2.714	3.167	3.5	2.8	2.125
6	3	3	3.5	3	2.875

Table 4.3

Social Identity and Self Image Numerical Distribution of Responses to Questionnaire – All Cohorts

Question/Response	#2	#3	#4	#5	#6
5	7	4	1	1	0
4	11	10	8	7	10
3	1	3	4	3	5
2	2	4	6	5	2
1	0	0	2	5	4

On average, participants considered themselves to be self-confident. Only two of 21 participants considered themselves not to be self-confident, both belonging to the 2008 cohort and both indicating that they were not confident in interactions with strangers; one participant, from the 2010 cohort, declined to commit to either position. Both 2009 and 2011 cohorts tended towards high levels of self-confidence. Participants were less confident in their interactions with strangers, with the exception of the 2011 cohort, which also had the highest degree of self confidence. When asked about anxiety levels in interaction with strangers, on average participants largely neither agreed nor disagreed that they experience anxiety in interactions with strangers. Again, the 2011 cohort tended to disagree with any statement of anxiety with strangers. Ironically, 14 participants agreed that they were confident in interactions with strangers, but when asked if they were anxious, rather than comfortable, in their interactions, nine agreed that they were anxious about such interactions, almost half of these coming from the 2008 cohort, who tended to have the least amount of self confidence. This would seem to indicate that confidence concerning interactions does not necessarily alleviate the anxiety associated with such interactions. However, the mere existence of anxiety does not seem to hinder the ability to interact. Overall, participants disagreed that they were comfortable interacting only with those with whom they have something in common. In general, participants were reluctant to commit to feeling anxious interacting only with those with whom they share commonality, yet almost half admitted to feeling anxious when interacting with those outside of a familiar environment. So, the environment in which people interact, especially for the first time, may have a bearing on their confidence and comfort level. While the 2011 cohort appeared to express greater levels of personal and social confidence, they were the first cohort to become

acquainted with each other through Facebook prior to the orientation, which may explain their high levels of self confidence related to their interactions.

Motivation to Interact (Feelings of Inclusion). Gudykunst (2005) theorized that we feel most secure in our interactions with strangers when our self-concept and security needs are met and our ability to envision how strangers will behave increases. This, in turn, increases our feelings of inclusion. Further, when these needs are met, our motivation to interact increases. Table 4.4 and Table 4.5 illustrate the participants’ average responses and actual numerical distribution of responses, respectively, to questions of feelings of inclusion.

Table 4.4

Feelings of Inclusion Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
7	4.142	4.167	5	4	4
8	4.429	4.833	5	4.2	4.125
9	3.95	4	5	3.4	4
10	4.476	4.67	5	4.2	4.375
16	4.1	4.167	5	4	3.875

Table 4.5

Feelings of Inclusion Numerical Distribution of Responses to Questionnaire – All Cohorts

Question/Response	#7	#8	#9	#10	#16
5	10	13	7	12	11
4	7	5	9	7	4
3	2	2	4	2	4
2	1	1	1	0	1
1	1	0	0	0	1

This grouping yielded a high degree of agreement among all cohorts with statements of familiarity and perception. Confidence increases and anxiety decreases when settings and people are familiar and when people perceive that others want to become acquainted. Questionnaire

Item #16, concerning the perception that a stranger wants to become acquainted, is included in this category, rather than Reactions to Strangers, because of its similarity to Item #10, involving the perception that confidence increases with the perception that strangers will react positively. This supports the contention that there are four critical factors in support of AUM: “(1) our need for a sense of predictability (or trust), (2) our need for a sense of group inclusion, (3) our need to avoid diffuse anxiety, and (4) our need to sustain our self-conceptions” (Gudykunst, 2005, p. 295). As individuals increase trust in and feelings of acceptance with strangers, they increase the ability to manage any anxiety concerning their interactions with them, increasing their motivation to interact. Participants’ responses supported the need to feel secure and trusting in order to be confident in anxiety management. Of note are the disparate responses to Item #5, in which almost half of the participants claimed to disagree with the statement that they feel more confident only when interacting with those with whom they have something in common, and Item #9 where 16 of the participants agreed that it is easier to interact with those whom they perceive to be similar, four declined to commit, and only one disagreed with the statement. This would lead to the impression that the participants may have been reluctant to judge themselves as egocentric or biased against strangers, but changed their perceptions when interactions with strangers were placed in the context of the situation, which is entirely consistent with the contention that “Our social identities are derived from a tension between our need to be seen as similar to and fit in with others and our need to be seen as unique people” (Gudykunst, 2005, p. 295).

Reactions to Strangers (Reactions to Strangers). Gudykunst (2005) argued that rigid attitudes that produce intolerance cause our expectations of interaction with strangers to be negative; we tend to perceive ambiguity and uncertainty as a threat producing greater anxiety. When we are

able to be empathetic towards strangers, our ability to manage uncertainty and anxiety increases because we are more likely to ignore preconceived notions and prejudices, and our reactions towards strangers will be more positive. Empathy allows us to be more accommodating with the needs of strangers and manage our affective behaviors, especially with regard to our ability to manage anxiety. Table 4.6 and Table 4.7 illustrate the participants' average responses and actual numerical distribution of responses, respectively, to questions of reactions to strangers.

Table 4.6

Reactions to Strangers Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
11	4	4.167	4.5	3	4.375
12	2.67	2.33	3.5	2.2	3
15	3.714	3.67	3.5	3.6	3.875
13	3.33	3.167	2.5	3.2	3.75
14	2.86	2.833	3	3.6	2.375

Table 4.7

Reactions to Strangers Numerical Distribution of Responses to Questionnaire – All Cohorts

Question/Response	#11	#12	#15	#13	#14
5	8	0	2	4	2
4	6	4	12	5	5
3	6	10	6	7	4
2	1	3	1	4	8
1	0	4	0	1	2

I arranged responses to the questionnaire items in this grouping to facilitate direct comparisons between similar items. Items 11, 12, and 15 were grouped consecutively because they asked similar questions, and Items 13 and 14 were similar. Most participants agreed that they were more confident in their interactions when they have information ahead of time, yet almost half refused to commit and four admitted to having pre-conceived notions of strangers;

only seven participants disagreed that they show any biases towards strangers. Fourteen participants believed that they feel empathy towards strangers, yet there was wide disagreement on questions of uncertainty and ambiguity concerning strangers, especially where uncertainty and ambiguity cause anxiety in interactions with strangers. So, while participants agreed that minimizing prior uncertainty about interactions reduces anxiety, which is consistent with participants' comfort in interacting with those with whom they perceive similarities, they differed widely on the topics of prejudices and ambiguity towards strangers and the effects of those differences on anxiety management.

Social Categorizations (Categorizing Social Interactions). Gudykunst (2005) claimed that we categorize people to bring order to our social environment so that we can make sense of our reactions to them. Categorizing strangers allows us to anticipate their behaviors; if we categorize strangers negatively, we will expect negative behaviors, but if we maintain positive expectations, we can manage anxieties concerning our interactions and react positively to strangers.

Gudykunst employed the principle of Zen mindfulness in this category saying, "When we are mindful that our negative expectations are being activated, we can cognitively manage our reactions" (2005, p. 299). This implies purposeful activity and intentionality in making an active decision to approach and interact with strangers. Table 4.8 and Table 4.9 illustrate the participants' average responses and actual numerical distribution of responses, respectively, to questions of categorizing social interactions.

I arranged responses to the questionnaire items in this grouping to facilitate direct comparisons between similar items. Item #17 and Item #18 asked about similarities and differences between self and strangers, and in each case 15 participants agreed that they were

aware of similarities and differences, that they actively look for them, and in Item #21 that they were more comfortable when they perceive similarities between themselves and strangers.

Table 4.8

Categorizing Social Interactions Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
17	3.81	4	4.5	3.6	3.625
18	4	4	5	4	3.75
21	3.81	3.833	3.5	3.8	3.875
19	4	4.33	5	3.6	3.75
20	3.48	3.5	3.5	3.2	3.625
22	4.29	4.167	4	4.6	4.25
23	4.1	4.33	4.5	4	3.875

Table 4.9

Categorizing Social Interactions Numerical Distribution of Responses to Questionnaire – All Cohorts

Questions/Responses	#17	#18	#21	#19	#20	#22	#23
5	7	8	2	7	4	10	7
4	8	7	13	8	5	7	9
3	3	4	6	5	9	4	5
2	2	2	0	1	3	0	0
1	0	0	0	0	0	0	0

This provides further support for the participants’ response that their anxiety decreased when they perceived that they have something in common with strangers. There is disagreement concerning the role of diversity in strangers’ groups, but participants largely agreed that positive expectations and suspension of negative expectations decreased their anxiety in interacting with strangers. So, participants’ responses generally supported AUM’s contention that intentionally approaching strangers positively, disregarding preconceived notions, increases confidence that those interactions will be positive. If we can categorize strangers in positive ways, we may be less anxious about approaching them.

Situational Processes (Situations and Conditions). Gudykunst (2005) described situations as circumstances in which we employ scripts to provide us with cues or guides to action in various contexts. David Herman uses the term scripts as described by Roger Schank and Robert Abelson: “As an economy measure in the storage of episodes, when enough of them are alike they are remembered in terms of a standardized generalized episode which we will call a script” (as cited in Herman, 1997, p. 1050) which occurs in a recognizable context. The absence of such cues in familiar context causes anxiety in interactions with strangers. When conditions of interaction lead to cooperation, anxiety decreases. Those conditions include structure, support, and power in interactions. Table 4.10 and Table 4.11 illustrate the participants’ average responses and actual numerical distribution of responses, respectively, to questions of situations and conditions.

Table 4.10

Situations and Conditions Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
24	4.33	4.67	5	4.2	4
25	3.48	3	4	3.6	3.625
26	3.95	4.33	4.5	3.2	4
27	3.71	4.167	4.5	3	3.625
41	3.29	3.33	4	3.4	3

Table 4.11

Situations and Conditions Numerical Distribution of Responses to Questionnaire – All Cohorts

Questions/Responses	#24	#25	#26	#27	#41
5	10	1	7	4	3
4	8	13	8	9	6
3	3	3	4	6	7
2	0	3	2	2	4
1	0	1	0	0	1

Item #41, which relates to Axiom 43 of AUM (part of Gudykunst's section concerning intercultural relationships), was included here due to its similarity to Item #27 concerning perception of power in relationships with strangers. A large majority of participants agreed with Item #24 that anxiety decreased when tasks undertaken with strangers were structured, and in fact, no participants disagreed with this statement. Majority agreement also occurred with the statement that institutional rules and peer support decreased anxiety, although not to the extent that structure did. Perceptions of personal power in a situation also appeared to decrease anxiety, but perceptions that others being in a position of power did not necessarily increase anxiety. It would appear that structure and support are the most influential of situational processes in decreasing anxiety in interactions with strangers. Structure allows us to exercise scripts for the context in which we interact, and support provides the confidence to exercise those scripts. While power distribution does not appear, in and of itself, to be a determining factor in decreasing anxiety, perceived power combined with structure and support provides a greater level of confidence in interactions with strangers.

Connections to Strangers (Connectedness). Gudykunst (2005) maintained that attraction or liking is a major contributor to the desire to develop relationships with strangers. The quality and quantity of contact, the amount of interdependence, the intimacy of the relationship, and the familiarity of the people we have in common with strangers affect the amount of anxiety we experience in our interactions. In other words, the social networks within which we operate influence our willingness to interact. The stronger the nature of our connections, especially within shared networks, the less uncertainty and anxiety we experience when we must interact with strangers. Table 4.12 and Table 4.13 illustrate the participants' average responses and actual numerical distribution of responses, respectively, to questions of connectedness.

Table 4.12

Connectedness to Strangers Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
28	2.76	2.5	2	2.4	3.375
29	3.71	3.167	4.5	4.2	3.625
30	3.52	3.67	4	3.2	3.5
31	4.24	3.67	5	4	4.625
32	3.91	3.83	4	4	3.875

Table 4.13

Connectedness to Strangers Numerical Distribution of Responses to Questionnaire – All Cohorts

Questions/Responses	#28	#29	#30	#31	#32
5	2	4	1	10	4
4	4	10	11	9	11
3	6	4	7	2	6
2	5	3	2	0	0
1	4	0	0	0	0

In general, there appeared to be little agreement that participants indicated less anxiety when they were attracted to strangers, contrary to Axiom 27. However, participants seemed to agree that anxiety decreased when the quality and quantity of relationships increased, implying that, as familiarity increased, perceptions of anxiety decreased. Nineteen participants agreed that increased intimacy decreased anxiety (two participants declined to commit), a statement with which none of the participants disagreed. Most notable was that all of the participants from the 2011 cohort agreed with this statement (the first cohort to become acquainted through Facebook during the months prior to the orientation). In addition, 15 participants agreed that shared networks of people increased their comfort level in interactions with strangers, and while six participants declined to commit, none disagreed with this statement. Again, the implication is that as we get to know others more intimately, anxiety decreases and we assume that we are able

to predict how another will react. However, familiarity takes us out of the realm of strangers, since intimacy implies knowledge (decrease in uncertainty), and into the realm of actual relationships. Networks of relationships in which people become familiar and interdependent move in the direction of community, a critical factor of anxiety reduction associated with this study. Gudykunst (2005) asserted that mindfulness plays an important role in connectedness because familiarity increases awareness of behavior in relationships as we are often not mindful of our actions when people are strangers.

Ethical Interactions (Ethics and Fairness). Gudykunst (2005) asserted that ethical interactions with strangers require dignity, respect, and morality in ourselves and our treatment of strangers. We are to assume that dignified, respectful behavior at the outset of a relationship will be reciprocated and “should lead to low levels of anxiety about interacting with strangers” (Gudykunst, 2005, p. 303). Respect leads to moral inclusiveness and fairness in our interactions with strangers, which leads us to expect fair treatment. In addition, our own ethical interactions and moral behavior towards strangers influences those around us to behave in a similar fashion which decreases the overall level of anxiety we experience. Table 4.14 and Table 4.15 illustrate the participants’ average responses and actual numerical distribution of responses, respectively, to questions of ethics and fairness.

Participants overwhelmingly agreed that their comfort level increased when interactions remained dignified, indicating that “a minimal level of self-respect, or feeling worthy, honored, and respected as a person” (Gudykunst, 2005, p. 303) provides an ethical environment in which to interact with others, especially strangers. Although participants generally agreed (with the exception of the 2009 cohort) that respect for strangers and a perception of morality in their actions decreased anxiety, dignity seems to be of more concern (one participant did not

Table 4.14

Ethics and Fairness Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
33	4.24	4	4	4.6	4.25
34	3.9	4.167	4	4.2	3.5
35	3.9	4.167	2.5	4	4

Table 4.15

Ethics and Fairness Numerical Distribution of Responses to Questionnaire – All Cohorts

Questions/Responses	#33	#34	#35
5	9	7	8
4	8	7	7
3	4	5	4
2	0	2	1
1	0	0	0

respond to Item #35). According to Gudykunst, “For most of us, maintaining our own and strangers’ dignity, respecting strangers, and being morally inclusive toward strangers requires that we be mindful” ((2005, p. 304). This implies that we must be highly aware of ethics, morality, and fairness in dealing with strangers in order to establish and maintain a mutually inclusive and respectful relationship.

Anxiety, Uncertainty, Mindfulness, and Effective Communication. Gudykunst (2005) maintained that Axioms 35 to 39 “are critical for effective communication; they focus on the basic causes (i.e., anxiety and uncertainty management and the processes (e.g., mindfulness) of effective communication” (p. 307). The preceding 34 axioms present “ways that we can manage our anxiety and uncertainty when we communicate with strangers” (p. 307) by focusing on external factors in effective communications. Axioms 35-39, address the ways in which we deal with the stranger’s perspective, or “put ourselves in their shoes,” by being open-minded, aware of distinctions, and sensitive to misunderstandings and mistakes. Being mindful (highly

conscious of our present attitudes and behaviors) creates an appreciation of the needs of those with whom we interact and enables us to place their needs above our own. This, in turn, drives effective communication. Table 4.16 and Table 4.17 illustrate the participants' average responses and actual numerical distribution of responses, respectively, to questions of anxiety, uncertainty, mindfulness and effective communication.

Table 4.16

Anxiety, Uncertainty, Mindfulness, and Effective Communication Average Responses to Questionnaire – by Question/Cohort

Question	All	2008	2009	2010	2011
36	3.9	3.83	4.5	4	3.75
37	4.24	4	5	4.4	4.125
38	3.57	3.67	3.5	3.8	3.375
39	4.19	4.5	3	4.4	4.125
40	4.24	4.67	3.5	4.2	4.125

Table 4.17

Anxiety, Uncertainty, Mindfulness, and Effective Communication Numerical Distribution of Responses to Questionnaire – All Cohorts

Questions/Responses	#36	#37	#38	#39	#40
5	6	9	4	8	8
4	8	8	8	9	10
3	6	4	7	4	3
2	1	0	1	0	0
1	0	0	0	0	0

Participants indicated overwhelming agreement, and almost no disagreement, with the statements in this grouping, especially for Item #37, shared language/jargon with strangers, Item #39, mindfulness in correcting errors with strangers, and Item #40, ability to manage anxiety in interactions with strangers. In general, participants were less convinced that they were more confident when they knew how strangers would react or that mindfulness enabled them to

manage anxiety. This implies that predictive behaviors, one of the main tenets of AUM, are less important for this population than finding commonality with strangers. This further supports the responses in groupings where similarities and differences are addressed, and engenders the suggestion that people look for common ground from which to launch a relationship when they are faced with interactions with strangers.

Gudykunst (2005) expected the theory to produce more effective communications, especially among strangers, and to improve the quality of those communications. He asserted that the “theory also suggests that when we are mindful, we should create new categories for strangers (e.g., look for individuating information about strangers), be open to new information (e.g., things we do not already know about the strangers with whom we are communicating), and be aware of how strangers are interpreting messages” (p. 313). He believed that accomplishing this would enable us to manage anxiety by being better able to predict and explain strangers’ behavior. The results of the study questionnaire seem to indicate that a more important factor for establishing and cultivating relationships with strangers is the ability to find common ground from which to begin communication. Once commonality is identified, it may be more advantageous to limit expectations of strangers to allow for greater flexibility. It is possible that participants were more likely to be open-minded when they held fewer pre-conceived suppositions concerning those with whom they were required to interact.

Interview Analysis Results

In general, the questionnaire results appear to support parts of AUM, especially those dealing with finding similarities and common ground with strangers from which to initiate communication. According to Gudykunst (2005), we can utilize AUM to manage our anxieties mindfully concerning interactions with strangers so that we are more effective communicators.

Through the written interviews, the participants in this study provided narrative data concerning an actual situation where forced communication occurred, the mandatory on-campus orientation.

The following questions were asked of study participants:

1. Describe any feelings of uncertainty and anxiety you may or may not have had concerning entry into the online MLIS program at the University of [redacted].
2. In what ways did the communications and written materials that were sent to you prior to the orientation enable, or not enable, you to manage feelings of uncertainty and/or anxiety?
3. In what ways did the MLIS orientation alleviate or exacerbate your feelings of uncertainty and anxiety concerning your entry into the program? Discuss your interactions with the other students and university faculty and staff.
4. Discuss your feelings concerning belonging to the MLIS community since your entry into the program. How has (did) belonging to this community alleviated or exacerbated your feelings of uncertainty and anxiety about the program?
5. How have (did) your feelings of anxiety and uncertainty chang(ed) since you began the program? In what ways has being a part of the MLIS community affected your perceptions of the university, the program, and your fellow students?
6. Discuss what you did personally to manage your feelings of anxiety and uncertainty concerning your entry and participation in the MLIS orientation and your continuation in the program.

Responses were analyzed as a whole body of text and individually by question. AUM operates on four levels, individual, interpersonal, intergroup, and cultural (Gudykunst, 2005). This study mainly examines the first three levels and only marginally the cultural level, although the university culture in which the participants' communication occurs, appears to have an

influence, especially as pertains to the roles of faculty and staff, a component of the host culture which I will address in the discussion. The questions were asked with the explicit purpose of allowing students to respond on any level, and in some cases, on multiple levels for the same question. Table 4.18 provides an example of the coding table format.

Table 4.18

Interview Coding Table Example – Anxiety Reducing/Coping Mechanisms

Color-Question-Participant #	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media
BG-1-16			Alleviated anxiety		
BG-1-22	Prior info/experience				Started Facebook group prior to Orientation
BG-3-01			Positive experience	Faculty - pleasant	
BG-3-03			Same hotel/shared rooms; making friends; removed concerns over total isolation	Faculty - friendly and involved; [Faculty name redacted] - driving shuttle bus	
BG-3-04				Faculty/staff - Friendly, respectful	
BG-3-05			Helpful meeting other students		

Themes emerged broadly under the categories of Program, People (Cohort/Community), Orientation, Faculty/Staff, Social Media, and Other comments. The categories were further color-coded to reflect Causes of Anxiety (Yellow), Anxiety Reducing/Coping Mechanisms

(Bright Green), and Overt Criticisms (Red). Coded responses were charted according to the color, question, and participant number. (Yellow Coding Tables – Appendix K; Bright Green Coding Tables – Appendix L; Red Coding Table – Appendix M.)

Question 1. Question 1 was formulated in a general way so as not to lead participants to a pre-determined conclusion concerning which aspect(s) of the orientation caused the greatest anxiety for them. However, this question necessarily coded almost entirely as Anxiety Producing comments. The results indicate that for most participants, the program itself was as much a cause of anxiety as the people. Participants cited the technology requirements and rigor of the workload as the two most common causes of anxiety about the program. Thirteen participants, 10 of whom also expressed anxiety about the program, expressed concern about various aspects of interacting with the people in the program. Concerns ranged from fear of meeting and being accepted by new people to communicating through technology. The isolation of the online environment was of some concern, but was addressed directly by only one participant. This may be due to the fact that students in this program (and similar programs) know that the program is online and have already processed and accommodated that information in choosing the program.

Only one participant cited the cost of the program as a major concern, even though most of the costs associated with the orientation, transportation and hotel accommodations are the responsibility of the student. One participant contended that they had no concerns or reservations about attending the orientation. This particular participant commented, “I did not feel a great deal of anxiety going into the program. I am an older returning student, and have a great deal of work (and life) experience, and I suppose some level of confidence grows from that” (29mwdguest). Ironically, two other participants classifying themselves as older, returning

students remarked, “I was nervous about going back to school after 27 years” (05mwdguest) and “I was pretty anxious about being “too old” (I was 54 when I started the program) and just hoped that my work experience in technology and libraries would carry me through” (06mwdguest). Both were members of the 2008 cohort and both rated themselves as highly self-confident. The youngest participant in the study, at age 23, rated themselves as self-confident, but “very introverted,” and expressed concern that “most of the people who would be trying to get into the program would be older, in their thirties, perhaps going for the MLIS after working, starting families. I worried how well I would fit in with those people, not having shared their typical life experiences” (15mwdguest), again reinforcing Gudykunst’s contention that effective communication is encouraged when people believe that they “fit” the context.

The average age of the participants was 38 with 9 years of experience as working professionals, some in a library and some not, so such fears were not unfounded. Later in the interview, this same participant wrote, “I felt severe anxiety about the first morning meeting, where I would officially introduce myself to my future classmates” (15mwdguest). The participant further wrote, “Near the final day of orientation, I felt comfortable around the members of my cohort. I remember calling my mother and telling her, ‘I have found my people! We sang Sound of Music [sic] songs in the van! And I debated grammar and semantics with a classmate!’” (15mwdguest). Participants across cohorts expressed similar observations. One participant, who was average age for the study with seven years of library experience and had a previous negative experience with an online course, stated, “I was not sure of the type of interaction that would take place in class between the students and professor or what the expectations for class participation would be” (17mwdguest). Similarly, a 46 year old participant with 17 years of library experience expressed the concern that “I had uncertainty

about my ability to fully participate in class discussions. I am quite shy and felt that being physically separated would further inhibit my participation” (26mwdguest). Anxiety/Uncertainty Management addresses exactly this type of interaction with strangers, offering strategies for suspension of negative expectations, replacing them with positive assumptions concerning anticipated interactions. In addition, AUM envisions community building as a means to facilitate this type of interaction.

Question 2. Question 2 addressed issues of resolving uncertainty through the use of copious written materials, both through regular mail and e-mail, prior to the orientation. AUM contends that uncertainty is a direct cause of anxiety and that eliminating uncertainty brings about a decrease in anxiety. Several participants commented on the helpfulness of the communications, especially e-mails concerning the technology set-up and requirements for the program using adjectives such as “phenomenal,” “friendly,” “encouraging,” “helpful,” “supportive,” “reassuring,” and “responsive.” Ten participants specifically cited faculty and/or staff members of the program as instrumental in providing help and encouragement that alleviated their concerns by providing assistance and information. Although the question asked directly about the written materials and their effect on anxiety, several participants returned to the subject of the orientation, discussing logistics and technology issues, rather than addressing the informational materials. Comments included, “Knowing there would be an orientation and that I’d meet all my cohort and profs made helped me feel like I would have a chance to make connections” (03mwdguest), “The MLIS orientation was a great way to become better acquainted with members of the cohort... Introducing professors and giving students a chance to [sic] interact with them was by far one of the most helpful aspects of orientation

(27mwdguest), and “I thought it was nice that [name redacted] was going through so much to make sure everyone felt comfortable with the technology” (18mwdguest).

Of greater interest are the seven participants, spread evenly across cohorts, who either did not remember receiving the written materials or for whom it was of no help in alleviating their concerns. One simply remarked, “My fears were abated when I attended the orientation,” (05mwdguest), the entire response to Question 2, but made no mention of the materials at all. This is especially noteworthy in light of a prior analysis I performed on all communications made with the students for the 2009 cohort from the time of the e-mail acceptance to the program through the end of the orientation. Table 4.19 lists and describes the documents analyzed for the document study. I was looking for rhetorical themes, using line items from the written materials provided. The Initial Coding was done by hand, and each document was coded for discourse indicating community formation, inclusiveness, exclusion, anxiety/uncertainty control, and hegemonic language. The coded units consisted of single sentences, multiple sentences from a single paragraph, or whole paragraphs, and each unit coded was labeled as a passage. In some cases, I coded the entire document as a unit since the document was intended for a singular purpose and the intention seemed clear.

All subsequent coding and analysis methods followed strategies outlined by Saldaña (2009). Upon completion of the initial code selection, I performed First Cycle Coding in which I prepared a computer table to chart the hand-coded passages for each document, re-examining each passage, and in some cases, making the decision to assign a different code to a passage based on a re-interpretation of its basic intention and/or underlying effect. I then performed a First Cycle Coding Primary Analysis in which I grouped similarly coded passages according to each one’s initial code. During Second Cycle Coding, I employed a Focused Coding method in

which I conflated similar categories of passages and regrouped some of the passages such that like items were grouped under a single code in order to discern major themes in the data. The final stage of coding, referred to as Post-Coding and Pre-Writing, involved choosing a “Top 10” list of passages that represents the most significant overall concept(s) for each code or group of codes. In addition, I identified what I term “Signature Passages,” the greeting or first line of

Table 4.19

Written materials given to 2009 MLIS cohort – Acceptance through Orientation

<u>DOC #</u>	<u>DATE</u>	<u>DOCUMENT TITLE</u>
1	4/30	E-mail acceptance to MLIS program
2	5/1	Letter of acceptance to MLIS program/Orientation acceptance form
3	6/7	E-mail of registration and technology requirements for orientation/General program information
4	6/16	E-mail of detailed orientation information
5	7/14	E-mail of additional detailed orientation information
6	7/14	E-mail Transportation information
7	8/4	E-mail Wimba™ test drive
8	8/5	E-mail Last minute updates and reminders
9	8/17	E-mail Final message before orientation
10	8/18	Orientation/LS 509 Program *
11	nd	List of activities on and around campus*
12	nd	SLIS Information Brochure*
13	5/21	SLIS Annual Diversity Report*
14	8/21	Evaluation of Orientation
15	Jul (nd)	E-mail Technology Skills Assessment
16	8/20	Technology Orientation PPT
17	nd	Communication Techniques & Strategies PPT
18	nd	Cohort Directory PPT*
*Documents included on the flash drive given to students on the first day of orientation		
<u>DOC #</u>	<u>DOCUMENT CATEGORIES</u>	
1-2	INDIVIDUAL – Documents sent to individual students (acceptance to MLIS program)	
3-10	COHORT – Documents sent to the entire cohort about orientation	
10-14	ORIENTATION – General Documents as part of the orientation program	
15	COHORT – Technology Skills Assessment for orientation and program sent to entire cohort	
16-17	ORIENTATION – Presentations made by faculty during orientation	
18	COHORT – Pictorial Power Point Directory	

each document, all of which address the group of students as a whole. There are also 8 “Paradox” Passages that I interpreted as contradictory or paradoxical messages since the language employed suggested an inclusive/exclusionary dichotomy.

Much of the program material, while employing the rhetoric of community, provided a great deal of comforting and encouraging discourse designed to facilitate the students’ migration into the online program. For instance, a passage from Document 1, e-mail acceptance to the program, immediately informed the students that such facilitation is the goal of the orientation program, stating “Orientation is a for-credit event designed to facilitate your introduction to The University, the School and to your colleagues in the cohort as well as to the technology that will deliver the synchronous MLIS courses to your computer during real-time classes. You will receive additional information about orientation during the summer.” This signaled a desire on the part of SLIS to communicate the students’ inclusion in the University and SLIS communities while enabling their entry into the program through a combination of orientation and information. Document 2 provided further evidence of anxiety/uncertainty control rhetoric by assuring cohort members that they would have information necessary to prepare for the orientation and their entrance into the program: “During orientation we will be sure that you are “up and running” and ready to receive instruction through Wimba™” and “Further specific information will be coming your way – you can expect to hear from us regularly between now and the first day of orientation.” This type of rhetoric appeared to indicate the desire for students to feel comfortable and mitigate anxiety about what to expect going forward.

While the rhetoric of community was, by far, the most evident over all of the materials, there was also the desire to communicate comfort, especially physical comfort, evident in such passages as “You will be very busy during these days on campus, so you will want to be well

rested on Thursday morning and ready to put in long days,” “Special food considerations... We will make every effort to accommodate your needs,” and “let me remind you that it is hot, hot, hot in Tuscaloosa in August, and it is very, very, very cold inside some buildings. I don't go anywhere without a sweater for insider weather. You will have the option to walk from the hotel to the library a couple of times, so please be sure to wear comfortable shoes.”

There were nine pre-Orientation communications sent to all cohort members, so it was somewhat surprising that participants had no memory of the information, especially since it was clearly designed to assist students with their attendance at the Orientation and their transition into the online program. AUM argues that the anxiety that we may feel naturally in any new or uncomfortable situation decreases and is managed as we acquire new information about those with whom we come in contact and the processes with which we will engage (Gudykunst, 1995). So, the natural extension to this argument is that the entire orientation is an exercise in anxiety/uncertainty management in preparation for cohort members to enter an online MLIS program, especially for those who heretofore have not been technology proficient or who have little experience in an online environment.

Question 3. Question 3 specifically addressed the orientation in terms of possible anxiety/uncertainty reduction and the interactions with the people associated with the program, including other cohort members and university faculty and staff. Eighteen participants cited the orientation as a positive experience overall, with 15 commenting specifically on the opportunity to meet the other people in the program and the faculty/staff personally in order to get acquainted, become more comfortable, and make connections. The oldest and most experienced participant in the study, a member of the 2008 cohort, commented, “The orientation was a largely positive experience and my interactions with other students and the faculty were very

pleasant. I had a lot of fun meeting everyone and was impressed and grateful that the faculty drove us around everywhere (being picked up at the hotel and driven to events was a big factor in eliminating anxiety for me)” (01mwdguest). From the same cohort, a librarian with 12 years of experience noted, “Loved that most of the cohort was in same hotel. I even shared a room with a classmate I hadn’t met until arrival (I’m so glad I did!). Made it like a dorm atmosphere and allowed us to gather socially at breakfast and in the evenings easily. I made an effort to make friends and learn about as many classmates as possible” (03mwdguest). Members of the other cohorts expressed similar sentiments, such as this member of the 2009 cohort who was new to the library profession and commented, “I very much enjoyed meeting the other members of my cohort and the faculty--it was nice to be able to put faces with names, so I could envision that person speaking in our online classes. It helped me form a deeper connection with my classmates and faculty” (10mwdguest).

Several participants employed language that addressed community formation with such commentary as, “The orientation really created a sense of unity amongst the students. By the end of the weekend, we were hanging out with each other outside of the structured orientation program and becoming friends” (17mwdguest) and “We became an instant family, almost... I came away knowing that my professors and fellow students were going to support me, I know because they hugged me or shook my hand and looked me in the eye and told me so” (26mwdguest). Ironically, although this participant definitely communicated the community aspect of attending the orientation, they remarked that it was expensive and much of it could be accomplished virtually. However, they completed the response to Question 3 with “However, as soon as we started classes it was immediately apparent that the orientation was essential to my being comfortable, confident and productive” (26mwdguest). Many of the responses echoed this

same attitude, pointing to the value of the face-to-face interaction and shared experience that was a hallmark of this MLIS online program. Participants were remarkably uniform in their overall positive evaluation of the program as a means for students, faculty, and staff to become acquainted and achieve a functional comfort level with the program and the people. Nineteen participants commented specifically that the orientation was helpful in relieving anxiety about the program on some level.

SLIS faculty and staff figured prominently in participants' commentary concerning the people with whom they interacted in the program. Seventeen mentioned the interactions of faculty and staff either generally, or named them specifically as being integral to the positive environment of the orientation. Faculty members were intimately involved in the entire orientation, not only conducting academic sessions, but providing such services as driving the shuttle bus from the hotel to the various activities around campus and socializing at the casual events from the first night meet-and-greet cocktail party to the closing party on the last evening. There were a few comments that communicated frustration with faculty who appeared either disorganized in their presentation or staff who were rigid in their expectations, appearing unbending in their application of orientation rules. However, the almost universally positive commentary concerning the value of the Orientation itself and the interactions with the people associated with it supports the contentions of AUM concerning suspension of negative expectations, even in the face of anxiety about interacting with strangers.

Question 4. Question 4 sought to explain community as an ongoing anxiety management mechanism after its initial inception at the Orientation. According to Gudykunst (2004), community facilitates harmonious relationships and permits cooperation in attaining shared goals in an atmosphere of trust. Participants shared the goals of performing well in their course work

and completing the program with a minimum of anxiety and frustration. The community of students in the MLIS program, labeled as cohorts, appeared to act not only as a mechanism for interaction in the courses, but as a main support group even outside the virtual classroom. Several participants cited the chat feature in the virtual classroom as an important tool of communication during class meetings, and several indicated that social media, such as Facebook, Twitter, and e-mail enabled cohort members to communicate about program issues and exchange communication on a personal level.

Participants' commentary evidenced the necessary elements of cooperation and trust in the cohort community, and indicated the crucial nature of ongoing community maintenance in the program as a factor in anxiety management. Participants across cohorts mentioned the instrumental nature of the MLIS community, which included faculty and staff, as a factor in their success in the program with observations such as "I'm not sure I could have stayed in the program without the encouragement of others in my cohort" (01mwdguest), "For the most part, belonging to the community alleviated feelings of anxiety because I had people to talk to if I had a question" (12mwdguest), "I enjoy knowing that if I have an issue with my schoolwork or even my personal life, my cohort members are there to listen and offer advice. It really does feel like a little family, and it has helped me to succeed in this program" (15mwdguest), and "I would not be on facebook [sic] if we did not have our group on there, I actually hate social media most of the time. However, without my group to turn to during difficult times I probably would have considered dropping out of the program" (24mwdguest).

One participant, in particular, provided extensive commentary which summarized the totality of the community experience writing,

The SLIS community, particularly my cohort group and secondarily my professors alleviated my anxiety. There was a pretty big difference between classes in my cohort and open electives. I don't think I would have been as successful (and certainly would have fared less well emotionally) if we didn't have the blocks of cohort classes first and had just been thrown into classes with different people in each, many you haven't met. The program as it was for me was great. Classmates did side chats and emails, made a facebook [sic] group (plus many also became facebook [sic] friends), made a private mailing list. I have lifelong friends, people to collaborate with, connections. People I will recognize and am excited to see at conferences. One huge fear was not getting that because online but think I made out better because I have a network literally across the US (and some world) right out of the gate, where in person program likely to be mostly from one region. I think asynchronous programs and those without in person orientation, and possibly those without cohort groups, don't get that. We commiserated, compared notes, clarified assignments/expectations/concepts, were social unrelated to grad school, encouraged eachother [sic], did group projects. It was great. They (as a result of the efforts made by SLIS to facilitate the connections) made all the difference for me in my anxiety about the program. (03mwdguest)

Participant commentaries underscored the importance of community formation and maintenance in facilitating communication and as an anxiety management mechanism. According to Gudykunst, "To build community in our lives we must be mindful of the processes occurring in our interactions with strangers. Building community requires a conscious effort" (2004, p. 368). A review of the prior analysis of the MLIS materials indicated that the SLIS faculty and staff made a conscious effort to imbue a sense of community from the outset,

beginning with using the terminology “cohort” to describe the students and naming the cohorts so that each one had a unique identifier that bonded its members as a unit. Cohort members themselves made an effort to nourish the community through the use of classroom chat and social media. While each cohort in the study mentioned the use of social media, the 2011 cohort was the first one to establish a Facebook group months prior to the Orientation to facilitate relationships prior to face-to-face interaction.

Question 5. Question 5 asked participants to discuss their ongoing relationships with fellow cohort members and their changing perceptions of the people, program, and university as they progress(ed) through the program. Participants’ responses covered a wide range of perceptions, including the strength of the program, the sense of belonging and community, pride in being associated with the university, the quality of the faculty, and the importance of social media. Commentary was overwhelmingly positive with remarks such as, “I strongly recommend our school to MLIS seekers – and in fact referred 2 current students to the program. This is all in large part due to the MLIS community (my classmates and professors)” (03mwdguest), “I am proud to be a part of [school name redacted] and of the SLIS program. I also feel like many of my fellow students are valuable colleagues and friends” (20mwdguest), and “Being a part of the MLIS community has further solidified my belief that the [school name redacted] SLIS education is among the best. I see me fellow students, faculty and staff putting themselves out there and really making a difference in the world” (26mwdguest).

One significant factor that emerged continuously throughout the responses was the critical role that faculty and staff played in the formation and ongoing development of community and their relevance to the success of the students in the program, especially where faculty failed to communicate. One participant explained,

When a distance student reaches out and receives NO communication from an instructor, that student is left in a place of increased anxiety and even helplessness. Professors need to be very aware of the fact that even highly-competent, highly-motivated students can become disenfranchised very quickly when faced with a "wall of silence." So, if a distance education professor is too over-worked to provide timely responses, the entire class can become collateral damage. (27mwdguest)

The importance of faculty and staff to student perceptions and success quickly became apparent, especially for students who were struggling or troubled. The inclusion of faculty and staff in the MLIS community indicated the crucial bond that must exist between not only cohort members, but students and faculty/staff as well. However, participants' comments concerning the role of faculty and staff were largely positive, citing the extent to which faculty and staff helped and encouraged students. The community environment was established from the moment students were notified of their acceptance to the program, and the participants' comments throughout the interviews returned often to the integral nature of all members of the community in fostering an atmosphere of trust, cooperation, and success.

Question 6. Question 6 asked participants to discuss their personal coping strategies for anxiety reduction during the course of the program. The wide range of responses suggested that students employed various means to overcome doubts, fears, and anxieties. However, many participants credited family, friends, and the MLIS community, including cohort members and faculty, with support and encouragement from the outset of the program through the end of the program. Participants responded, "I relied on family support and support from others in my cohort to manage my feelings of anxiety and uncertainty in participating in the program" (01mwdguest) and "I think key to my comfort with the program was professors and classmates

(cohort-mates) who worked at creating a relationship with us” (30mwdguest). Another participant mentioned Zen mindfulness specifically as a coping mechanism, especially when problems arose. They wrote, “My honest answer to this is mindfulness in the Zen tradition. I had to do this many times last semester when professors did not answer emails or discussion posts” (27mwdguest). The Zen principle of being “completely in the present” by cultivating an awareness of the particular circumstances and issues that others are facing undergirds AUM. The ideals of open-mindedness, empathy, and cooperating to achieve a common goal, as well as the usefulness of social media, were evident in the remark that “I feel much more connected to all of them through class and through facebook [sic]. Also, during orientation, I did a lot of telling myself that everyone’s in the same boat, and we’re all here to meet each other, and will need to make connections for the next two years... that helped me to reach out” (29mwdguest).

Summary of the Results

Analysis of the questionnaire and interview results generally appeared to support the axioms of AUM, with some minor exceptions. Most notable was the overwhelming support of the Motivations to Interact (Feelings of Inclusion), Social Categorizations (Categorizing Social Interactions), Ethical Interactions with Strangers (Ethics and Fairness), and Anxiety, Uncertainty, Mindfulness, and Effective Communication groupings. Motivations to Interact responses indicated that participants acknowledged seeking common ground with strangers as a basis for confidence about interacting. In addition, they reported being more comfortable when there was a perception that strangers would interact positively and that they were interested in interacting as well. Again, Social Categorizations indicated that while participants did not necessarily feel more or less comfortable when strangers’ groups themselves were diverse, they did indicate that they noticed similarities and differences in their interactions with strangers, and they sought to

understand those elements of the stranger. They also strongly agreed that positive expectations and suspension of negative expectations decreased anxiety in their interactions.

Participants were also more comfortable when interactions with strangers remained dignified, respectful, and moral. While dignity and morality can be defined differently by different groups of people, the responses provided evidence that respectful behavior between strangers opens the door to more effective communication. Participants responded with strong agreement to the statements of reduced anxiety when they perceived that they knew how strangers would react, shared common language or jargon, had an opportunity to realize and correct any mistakes in communication, and they strongly agreed that managing anxiety was a key to effective communication with strangers.

Responses showed a wider range of disparity on the subject of interacting only in a familiar environment, uncertainty and ambiguity about strangers, and power distance. Disagreement may signal that participants were comfortable interacting with strangers outside of a familiar setting or that their comfort level was not dependent upon the setting. However, they did indicate a preference for a more structured environment that was supported by institutional rules, something which the highly structured orientation and synchronous program offered. Participants did not indicate discomfort in interacting with strangers, even in the face of uncertainty, but certainly searched for similarities that provided a commonality for initiating interactions.

Participants indicated that attraction to a stranger did not necessarily decrease anxiety, but it must be noted that attraction was not defined. Also, while participants did feel more comfortable if they perceived that they had social power in interactions, they did not indicate that

they were uncomfortable with those whom they perceived to be in positions of power. This may or may not have been due to the age and experience of these particular participants.

Interview commentary revealed the crucial nature of community development for the participants in the study. Gudykunst (2005, 2004) argued that community is a natural outgrowth of effective communication and anxiety reduction in interactions with strangers a necessary ingredient to facilitate communication behaviors. The growth and advancement of community comes through intentional (mindful) interaction that is designed to foster communication and relationships.

Although many of the participants did not indicate that their initial anxiety was one of interactions with strangers, the ongoing interaction with the people associated with the program, cohort members and faculty/staff, was absolutely essential to the health of the community. Most notable was the emergence of the role of the host culture (university faculty, staff, and environment) in providing an atmosphere conducive to community formation and maintenance. In general, the combination of the written materials provided to participants prior to the Orientation, the mandatory attendance at the Orientation, and ongoing interactions following the Orientation appeared to offer an environment conducive to community formation, growth, and development that lead to anxiety/uncertainty reduction in the online MLIS graduate cohorts studied. Of note was the near universal agreement concerning the value of the orientation in providing a setting that enabled community, with 19 of 21 participants offering positive commentary concerning their experience. In addition, every study participant mentioned faculty and staff as a vital factor in some respect, even if the perception was negative in a limited number of cases. The emergent picture suggests that community is crucial to these participants; students, faculty, and staff are all important actors in the community; and the orientation is an

useful platform for community formation which leads to effective communication practices among online students.

Chapter Five

Conclusions, Implications, and Future Research

Introduction

Gudykunst (1986) formulated Anxiety/Uncertainty Management Theory (AUM) as a means to not simply explain the role of anxiety management in effective communications with strangers from other cultures, but to offer a practical theory for understanding communications processes as well. He offered a theory which he expected to enable cross-cultural interactions with a minimum of uncertainty and anxiety concerning interactions with strangers. His eventual goal was effective global communications in the service of intercultural understanding. AUM was an amalgam of several theories, each of which contained useful bits, but for which Gudykunst found each wanting. Building on Simmel's concept of the stranger (Rogers, 1994), he paired Social Identity Theory (Tajfel, 1982) with Uncertainty Reduction Theory (Berger & Calabrese, 1975) with a nod to Berger's Expectation States Theory and Csíkszentmihályi's Flow Theory (Rogers, 1994), to formulate AUM. Gudykunst drew from each of these theories, one that he deemed practical for understanding not only defining effective communication, but for advancing the practice of it. The practice of effective communication involves the reduction of uncertainty and management of anxiety to enable communication processes in unfamiliar contexts with unfamiliar people.

One platform for examination of effective communications practices is in the online learning environment, in which students' physical separation from faculty, staff, and classmates

can have an isolating effect. Students may not engage fully with others when communication is truncated due to distance and lack of familiarity or comfort in communicating. This can cause an increase in uncertainty and anxiety making it difficult for online students to overcome the fear of interacting with those with whom they may have little in common. Research reinforces the need for online students to participate in communities of learners where interaction provides a support mechanism for those who do not have access to on campus support facilities. Community forms as communication becomes easier and more intimate, making interaction less anxious and more predictable (Gudykunst, 2004). Such community can provide a crucial anxiety management mechanism for online students.

This study examines the relationship of AUM to community as an anxiety management mechanism for students in an online MLIS program. Of specific interest is the mandatory on campus orientation in this particular program. At the time of the study, the orientation took place over three-and-a-half days (the program has since changed leadership and the orientation is in the process of being revised, although it will maintain an on campus component), which is unique among online MLIS programs. The only other on campus orientation in an online MLIS programs lasts for one day. This study examined student perceptions of community formation and maintenance as an anxiety management mechanism through the theoretical lens of AUM.

This study utilized a convenience sample of students and graduates from four successive cohorts, 2008-2011, of an online MLIS program at a large southeastern university. All students enrolled in those cohorts were invited to participate, and ultimately, twenty-one students consented to participate in this mixed methods, across case study. Participants responded to a forty-item questionnaire and a six-item written interview, all conducted online through the university's learning management system. In addition, a previously conducted analysis of the

written materials provided to the 2009 cohort from their acceptance to the program through the orientation was utilized in the analysis. The questionnaire provided descriptive statistics concerning the relationship between the participants' responses and the analogous axioms of AUM. The interview questions asked participants to provide narratives concerning their perceptions of the communications practices before, during, and after the on campus orientation, especially relative to community formation and maintenance and its effect on anxiety management.

Conclusions

The research conducted for this study provided descriptive statistical, narrative, and rhetorical evidence in an examination of the validity of AUM in providing a theory that not only describes and anxiety management in communications with strangers, but also creates a framework for understanding how to advance effective communication. Comparing the questionnaire responses, interview narratives, and analysis of written materials provided to the cohorts by SLIS to the axioms of AUM provides support for some aspects of the theory, and presents an opportunity to refine the theory further. However, rather than expanding the theory, this study supports contracting the theory by drawing on redundant themes to provide a core set of axioms which focus on effective communication as a general objective of intracultural interactions.

Questionnaire. The questionnaire was most closely analogous to the axioms 1-39 and 43 of AUM, and provided clear support for some and ambiguous or little support for others. Gudykunst (2005) divided the theory into labeled groupings of axioms, which were reflected directly in the questionnaire groupings. I gave each grouping an alternate title that seemed to more closely approximate the actual questionnaire items (these will appear below in parentheses

next to the names given them in AUM theory). I also regrouped some items in a way that more closely approximated the actual questionnaire and my interpretation of the item as similar to an item elsewhere in the questionnaire. Some groupings generated resounding agreement/disagreement for all or almost items in a grouping across cases, each cohort representing a case. The groupings that generated such responses seemed clearly to support the theory, while groupings in which there were wide variations in responses among the cases or the results were ambiguous merit further consideration. Certain groupings or parts of groupings that point to some common themes indicate the need for a closer look at AUM's revision and refinement, or "making the mesh of the net finer," as Gudykunst (2005) intoned. Gudykunst (2005) invited scrutiny of his theory in order to make it more practical and more explanatory. He expanded and contracted AUM as he developed and refined it, but the specificity with which it operates may best be addressed as corollary theories that pertain to particular communications processes.

The results of the questionnaire analysis provide evidence that the axioms of AUM that deal with laying a foundation for effective communication and seeking some point(s) of commonality from which to initiate a relationship are among those that are supported by the study. However, some of the axioms that deal more with affective responses to uncertainty seem not to be supported by this study. Hammer, et al (1998) found that decreased uncertainty, in the form of knowledge acquisition, did not necessarily portend decreased anxiety. The current study seems to bear out the finding that anxiety may be situational as well as relationship driven. For instance, item 28 asked whether participants felt less anxiety interacting with a stranger to whom they were attracted, a direct analogue of Axiom 27 in the theory. The theory posits that increased attraction produces decreased anxiety (Gudykunst, 2005), but participants across cases

disagreed with this statement. However, the 2011 cohort tended either toward greater agreement with this statement or preferred to remain neutral. Results of this type are ambiguous and/or inconclusive, and suggest that further testing be done to control for situational differences.

In general, participants indicate that they want to initiate interactions on the basis of some sort of common ground, preferably in a familiar situation or one that is structured and has some set of guidelines to follow. As interactions increase in quality, anxiety decreases and stranger interactions move towards relationships where communication becomes more confident and less anxious. They also indicate that they prefer interactions to be straightforward and ethical, and that they are willing to correct any preconceived notions of strangers' behavior. While only a small number of participants were willing to admit to biases towards strangers, a strong majority agreed that having an opportunity to correct mistakes was an important part of decreased anxiety and better communication. In addition, participants largely agreed that managing anxiety about interactions with strangers was crucial to being an effective communicator. Results were spread across groupings, and in some cases, reiterated axioms from another grouping. Conclusions for each questionnaire grouping are summarized below.

Self-Image and Motivation to Interact (Social Identity and Self-Image & Feelings of Inclusion).

While participants overwhelmingly indicated personal self-confidence, they were reluctant to profess either anxiety or confidence in interactions with strangers, instead preferring to remain neutral. They also preferred to profess neutrality in questions of interacting with those with whom they had something in common and interacting in a familiar environment. The notable exception was the 2011 cohort, which tended to disagree with statements indicating that they were less anxious interacting in such circumstances. Given that this cohort was the first one to initiate communication through Facebook prior to face-to-face interaction at the orientation,

indicates a case for social media as a foundation to facilitate more comfortable interaction. The implication is that social media acts as an effective platform for knowledge acquisition that can promote future interaction. However, the neutrality indicated in the first grouping disappears in the Motivation to Interact grouping where there was almost total agreement that being in a familiar setting with familiar people increased confidence in interactions with strangers. Interaction was described as easier when there were perceived similarities between participants and strangers, and that interaction was easier and less anxious when participants had positive expectations of their interactions and perceived that strangers wanted to interact with them. So, when participants were on familiar ground and had positive expectations of their interaction with strangers, they expected interactions to be less anxious.

These two groupings appear to support Axioms 1 to 9 and Axiom 15 of AUM (which was moved from the grouping Reactions to Strangers because it seemed more of a motive to interact, rather than a reaction). However, participants were reluctant to report that they viewed themselves as more comfortable in familiar settings with familiar people, but when asked about motivation, rather than self image, they tended to agree that they were less anxious when people and places were familiar and that there was some common bond to bring strangers together. Participants appeared to want to know that there was some apparent reason for them to interact with strangers and that both parties had positive expectations concerning the interaction.

Reactions to Strangers (Reactions to Strangers). Participants agreed strongly that they were more confident in their interactions with strangers when they had some information about them ahead of time. However, they also tended to agree that uncertainty and ambiguity about strangers made them nervous, but did not commit to holding pre-conceived notions about strangers. In addition, they tended to remain neutral on statements of empathy towards strangers.

So, this appears to support the assumption that having information about people in advance may make interactions more comfortable, but that people may reserve judgment about strangers until they know more about them. Participants did not appear to equate pre-conceived ideas and lack of information as biased reactions to people. So, they did not consider themselves biased, but viewed lack of uncertainty as an anxiety management mechanism. This somewhat supports AUM's contention that a reduction in uncertainty carries a concomitant reduction in anxiety in interacting with strangers, but it also appears to introduce the concept of context as a determiner of anxiety levels. This leads to the conclusion that anxiety concerning strangers is context dependent, and the more comfortable the context, the easier it is to interact with strangers.

Social Categorizations (Categorizing Social Interactions). This grouping of questions examined the participants' perceptions of the extent to which they categorized themselves and strangers in trying to determine whether they were anxious about interacting. Overall, the cohorts agreed that they were aware of similarities and differences, and they actually look for them. There was also strong agreement that they were more comfortable if their group and the stranger's group were similar, even there was no disagreement, fifteen participants either agreed or strongly agreed with this statement. There was also very strong agreement with Items 22 and 23, which again asked about anxiety levels when the participant held positive expectations of the interaction and was able to suspend negative expectations. Participants were less committal about responding to whether they were more comfortable when the stranger's group was diverse. In addition, they largely agreed that they tried to understand how strangers categorize themselves. The findings seem to reiterate the extent to which similarities and differences play a role in anxiety about communication with strangers, especially in initiating it when there is little to no familiarity with which to feel comfortable. And participants responded that they were less

anxious and more comfortable when expectations were positive. It appears that participants exhibit a desire to interact positively, regardless of the diversity of the people involved, as long as there is some basis for their interaction. They were more comfortable when they had categories in which to place strangers and a reason to expect positive results from interactions with them. In other words, the interaction must make sense to the participants.

Another observation from the analysis recognizes the verbiage to which the participants responded. The action phrases “look for,” “try to,” and “to suspend” suggest that there is intuitive mindfulness at work, or deliberation, in the interpersonal scrutiny that participants report employing in forming social relationships with strangers. Rather than the type of Zen mindfulness that Gudykunst (2005) practiced, there was an intuitive thought process that occurred when participants were engaged in knowledge acquisition in deciding to initiate interaction with a stranger. The need for information gathering (uncertainty reduction) is a central tenet of AUM, and the theory assumes that the more knowledge people can acquire about each other, the greater the comfort level of interaction and the less anxiety associated with it. Again, this points to the need for people to make sense of human interaction, even when they are not fully aware that they are actively trying to provide an acceptable comfort level to their interactions. Zen mindfulness trains people to use their innate awareness of difference in a more conscious, methodical way that generates positive expectations.

Situational Processes (Situations and Conditions). The most conspicuous finding in this grouping was that participants strongly agree that anxiety decreases when cooperative tasks undertaken with strangers are structured. However, there was much less commitment to the statements that anxiety decreases when institutional rules governed communication, others are present from their group, and there was a power differential between the stranger and them. The

2008 and 2009 cohorts tended towards stronger agreement on all of these issues, with the 2009 cohort agreeing very strongly on all points. There were only two participants from the 2009 cohort, so the answers may be skewed towards strong feelings of negativity, given that the interview questions elicited more negative feedback from these two participants than any of the participants in the other cohorts.

The need for structure coincided with the need to gather information in that both circumstances support carefully reasoned approaches to reducing uncertainty and minimizing anxiety. Part of the structure was the presence of someone else who was a member of the same group, which would obviate the isolation of being the lone member of any group present in the situation. They didn't profess to be concerned about who was in power as long as there was a recognizable structure to the interactions, which is consistent with the need to make sense of the situation in order to facilitate more objective communications. In addition, they did not support institutional rules over seeking a comfort level with the context, which suggests that anxiety levels are subject to context conditions, something which Gudykunst (2005) observed. While he conceded that complete objectivity was impossible, he argued that becoming wholly aware and in control of attitudes and behaviors towards strangers enables people to manage their expectations and anxieties about interacting with strangers in pursuit of effective communication on an interpersonal and intergroup level (Gudykunst, 2005). While his focus was more on an intercultural level, there are implications for interpersonal communication within multiple contexts, especially where strangers coming together are involved.

Connections to Strangers (Connectedness). Findings in this grouping addressed the participants' perceptions of the strength of connections and level of intimacy that increased confidence in their relationships with strangers. A deeper level of intimacy implies greater

personal knowledge and a strong affinity for another, and on average, the participants' responses indicated strong agreement that becoming more deeply acquainted with others decreased anxiety. However, they disagreed that being attracted to a stranger necessarily decreased anxiety. The term 'attraction' was not defined, so the participants could have construed the term to mean varying types of attraction, e.g., sexual, platonic, theoretical, etc. The question of intimacy assumes that those who grow more intimate have already resolved the issue of attraction, regardless of the type of attraction. On average, the cohorts agreed that increasing the quantity and quality of interactions with strangers, which implies moving beyond initial interactions, decreased anxiety. They also agreed that interactions were more comfortable when connections were made through shared networks, which revisits the issue of structure and a context with some familiar characteristics. Again, the conclusion is that participants indicated the need for a framework in which they could place a context that would allow for not only initial interactions, but the opportunity to grow and develop the relationship within certain comfort levels, which is generally consistent with Gudykunst's (2005) contention that there are minimum and maximum levels of anxiety within which people can operate, even when they are uncomfortable. They adjust those levels by reducing uncertainty through ongoing information gathering that enables them to manage anxiety levels. Knowledge produces intimacy which enables growth and development of cooperative relationships, one of the basic tenets of the formation and maintenance of communities (Gudykunst, 2004).

Ethical Interactions (Ethics and Fairness). Participants largely agreed that interactions with strangers were more comfortable and less anxious when those interactions were dignified, respectful and moral. This coincides with the participants' perceptions that expectations of positive interactions aid in decreasing anxiety. Gudykunst (2005) contended that an expectation

of mutual respect would facilitate effective communication by providing modeling behavior for others to follow. While this may or may not be true, participants in this study did indicate a preference for respectful interactions in which all participants could be expected to act in good faith. It is paradoxical that participants did not perceive institutional rules or equality of power structures to be as critical to decreasing anxiety as the behavioral responsibilities of individuals. Again, Gudykunst (2004) contends that individuals acting responsibly and morally towards each other, which ultimately generates trust between the parties, form the basis for a working community.

Anxiety, Uncertainty, Mindfulness, and Effective Communication. Gudykunst asserts that the axioms in this grouping are “critical for effective communication; they focus on the basic causes (i.e., anxiety and uncertainty management) and the processes (e.g., mindfulness) of effective communication” (2005, p. 307). These axioms are foundational to the first thirty-four, which provide anxiety management mechanisms for communication with strangers. The participants’ responses reiterated some basic themes. Acquiring prior knowledge of behaviors and looking for common ground from which to initiate communication decreased anxiety and created expectations of positive encounters. Having information about how strangers would react created confidence, and language/jargon was one of the common elements that participants agreed created a positive expectation for interaction with strangers. With the exception of the 2009 cohort, participants strongly agreed that they perceived themselves to be more effective communicators when they were aware of mistakes and had an opportunity to correct them. They also agreed that they perceived themselves as effective when they were able to manage their anxieties. The two most basic elements of AUM are represented in this grouping, uncertainty reduction and anxiety management.

Participants were in less agreement on the question of whether they perceived themselves as better able to manage their anxiety in communicating with strangers when they were mindful of their communication. Although twelve participants agreed or strongly agreed, seven chose to neither agree nor disagree, and one disagreed, even though seventeen agreed or strongly agreed that they were more effective when they were mindful. It appears that mindfulness may have a greater influence on effectiveness than on anxiety management, which also assumes that anxiety does not necessarily obviate effective communication practices. This provides support for Gudykunst's (2005) contention that it is the management of anxiety, not its absence, which enables meaningful interactions between strangers. Those encounters eventually either cease to occur or grow and develop into deeper, more cooperative interactions, a hallmark of effective community formation and maintenance, which Gudykunst (2004) strongly encouraged.

Summary of Conclusions – Questionnaire. Anxiety/Uncertainty Management Theory was largely supported by the results of the questionnaire analysis. Some of the forty questionnaire items, which were analogues of the axioms 1 to 39 and 43, were strongly supported with little to no disagreement among the cohorts, but some were not as well supported or a substantial number of participants were reluctant to commit to a response, rendering some of the items ambiguous or inconclusive. Conclusions can be drawn from each of the groupings, which are also analogous to the axiom groupings in AUM. The general conclusions which were drawn from the results include the following: Participants' establishing self image and confidence levels in interacting with strangers was useful for identifying general levels of anxiety; Participants indicated a need to be motivated to interact based on a context that carries positive expectations and perceived similarities with strangers; Uncertainty reduction positively affects anxiety management in a context where there is some level of comfort and familiarity;

There is a need to have reasons and establish order to make sense of communication, and people will take steps to pursue categories and frameworks that they can place in context to enable an order that promotes uncertainty reduction; Strength and quality of association with strangers and shared networks of people provide greater comfort and reduced anxiety leading to growth and development of relationships; Expectations of dignity, respect, and morality make interacting with strangers more comfortable; Uncertainty reduction generally produces effective anxiety management, which, in turn, enables more effective communication.

In general, Axioms 1-11, 15, 17, 18, 21, 22, 23, 24, 30, 32-34, 36, 38, and 39 were strongly supported by the participants' responses to the questions in the related groupings. These axioms largely address uncertainty reduction through familiar circumstances and contexts in which positive expectations for interactions lead to reduced anxiety which facilitates effective communication. The result might be a corollary to AUM which addresses anxiety management within a variety of context dependent conditions, such as familiar environment, familiar people, similarities and differences, purpose for communication, shared networks, and positive expectations, and examine anxiety reduction under these conditions.

Interview Results. The six interview items were most closely analogous to the research questions. Participants were asked to respond to the questions in writing with thoughtfully composed responses that gave them the freedom to express themselves in as much detail as they required. Some participants wrote extensively while others' responses were rather parsimonious, but collectively, the interviews yielded rich narratives that provided detailed insight into the participants' perceptions of the MLIS orientation and the subsequent interactions with the online MLIS community. Through several readings and iterations of the data, the major categories that emerged were Program, People (Cohort/Community), Orientation, Faculty/Staff, Social Media,

and Other. Each of these categories was coded for language that was 1) anxiety inducing, 2) anxiety reducing, or 3) overtly critical of the program. However, the vast majority of the narratives supported the required orientation as an important means to provide a sense of community for participants who would spend the remainder of the program geographically separated and physically isolated from the on campus community. For these participants, community was an essential ingredient to manage anxiety and communicate effectively with others in the MLIS community, including faculty and staff, whose importance as members of the community became readily apparent.

Interview Question 1. Describe any feelings of uncertainty and anxiety you may or may not have had concerning entry into the online MLIS program at the University of [redacted]. Almost all of the participants described some sort of anxiety, but the primary source of anxiety was split fairly evenly between navigating the program itself and interaction with the people associated with it. Several participants reported that they were anxious about attending the on campus orientation, but subsequently reported that it proved to be a worthwhile opportunity to engage with the cohort/MLIS community.

Graduate students experience multiple types of stress, including performance in courses, pressure to do extensive research and attend conferences, constant paper demands, financial issues, and personal issues. On campus students have facilities available for counseling, advising, and socializing; in other words, a community. Online graduate students face the same pressures as on campus students, but they carry the added stress of isolation where campus support mechanisms may not be readily available to them. They also do not generally have the face-to-face interaction with fellow students to initiate personal relationships with strangers.

So, it is not surprising that both the program and the people were mentioned as sources of anxiety. The program was a source of anxiety because of the workload and technology demands. Many participants voiced concern over their ability to handle the workload, and those who were not technologically skilled expressed anxiety over the various types and uses of technology required. Some also expressed that they worried about whether they would be able to communicate adequately with those resources, both faculty and staff, they found themselves in need of during the orientation and in the program. Participants also indicated their fears about getting acquainted with the people in their cohort, and whether they would be well received. This is perfectly consistent with AUM's tenet that people want to know they will be well received by others in order to decrease anxiety about initial interaction.

Interview Question 2. In what ways did the communications and written materials that were sent to you prior to the orientation enable, or not enable, you to manage feelings of uncertainty and/or anxiety? The theory also states that people want to have enough information about the circumstances and the strangers involved to have some indication of how the strangers will behave. The voluminous written communications between the university and the cohort, between their acceptance to the program through the orientation, provided a significant amount of information about the orientation and what would be required, the physical conditions of the orientation, the technology requirements for the program, uses of technology during the orientation and in the program, information about sharing rides and hotel rooms, biographical information about the other cohort members, and information about the university and where they fit within the university community. The materials contain the rhetoric of community and collaboration, from the naming of each cohort to the final event of the orientation. Participants

perceived positive expectations in the materials. The university informs the students what to expect and presents them with rudiments of community as an MLIS cohort.

The majority of the participants indicated that the written materials were helpful in providing information, which had some effect on anxiety reduction because it answered several of their questions. However, about one third of the participants either did not remember the written materials very well, if at all, or they claimed that they did nothing to assuage anxiety about attending the orientation. Of those, six were focused on the anxiety issues associated with the program itself, rather than the people involved as their primary reason for anxiety. So, the effect of uncertainty reduction in the form of information acquisition appears to be dependent on the context in which and for which it is presented. While the questionnaire analysis revealed a clear relationship between uncertainty reduction and anxiety management, changing contexts brought a need for new or more information. So, the written materials may have had an effect for a given context, but once the context shifted, the sources of anxiety shifted and the processes of anxiety management shifted with them.

Interview Question 3. In what ways did the MLIS orientation alleviate or exacerbate your feelings of uncertainty and anxiety concerning your entry into the program? Discuss your interactions with the other students and university faculty and staff. Eighteen of the participants perceived their interactions with others at the orientation as positive, helpful, and encouraging. Seventeen participants referred specifically to certain faculty and staff members whom they perceived to be helpful, friendly, knowledgeable, and supportive. Several participants used terms, such as ‘friendship,’ and ‘family’ to describe their impression of their interactions with people at the orientation who had been strangers prior to that event. Four participants commented on the social media that enabled more intimate communications with others in their

cohort, and Facebook was mentioned frequently as a means to increase the intimacy of the relationships with the people in the MLIS community.

The 2009 cohort was the first to create a Facebook page to facilitate communications months prior to the orientation. They also expressed the greatest level of confidence in their interactions with strangers, even though two of the participants identified themselves as having low self-confidence. Perhaps in the pre-orientation process, Facebook allowed these participants to acquire enough information that they no longer viewed others in the cohort as strangers at the beginning of the orientation. This is consistent with the axioms of AUM concerning the need to reduce uncertainty and create a level of comfort that enables anxiety management, regardless of the context.

Interview Question 4. Discuss your feelings concerning belonging to the MLIS community since your entry into the program. How has (did) belonging to this community alleviated or exacerbated your feelings of uncertainty and anxiety about the program? Seventeen participants cited membership in and relationships within the MLIS community as either one of the crucial factors or their primary source of anxiety management. Faculty and staff were considered prominently as members of the MLIS community. Many addressed relationships initiated at the orientation which had grown and developed as the participants grew closer, indicating that those relationships acted as a source of support and encouragement subsequent to the orientation. Some participants remarked that they did not feel as though the community would have thrived as it did if not for the face-to-face interaction at the orientation. They were of the opinion that the orientation provided a unique foundation for increased intimacy in the community that could not be achieved in an online orientation.

Interview Question 5. How have (did) your feelings of anxiety and uncertainty chang(ed) since you began the program? In what ways has being a part of the MLIS community affected your perceptions of the university, the program, and your fellow students? Participants overwhelmingly praised the program, the faculty and staff, the university, and each other as support mechanisms within the MLIS community that provided positive expectations of interaction. Again, faculty and staff were mentioned prominently as members of the community who were influential in creating a comfortable, less anxious environment. There were participants who expressed negative perceptions of particular members of the community, in very particularized and localized contexts, but no participants indicated that their experience with the community resulted in an overall negative experience. Indeed, participants' perceptions progressively improved as they moved through the program, such that several participants who had already graduated stated that they had strongly recommended the program to others. This is consistent with Gudykunst's (2004, 2005) contention that a decrease in uncertainty and anxiety, and an increase in trust leads to the growth and development of a cooperative community of effective communicators.

Interview Question 6. Discuss what you did personally to manage your feelings of anxiety and uncertainty concerning your entry and participation in the MLIS orientation and your continuation in the program. Participants offered many strategies for coping with feelings of uncertainty and anxiety, including organizational and psychological methods, but the majority indicated that they turned to those in the MLIS community when they needed to manage anxiety. Faculty and staff again figured prominently as members of the community whom participants could trust to provide guidance, encouragement, and accurate information. The faculty and staff, were part of the host culture in this context, and were heavily relied upon to provide a certain

amount of information that facilitated anxiety management, especially concerning workload and course requirements. Though there were minimal negative interactions with faculty and staff reported, participants who reported them assigned responsibility for ineffective communications to the faculty/staff involved. While the role of the host culture was not explicitly explored in AUM, Hammer, et al (1998) mentioned the apparent importance of the host culture in preparing an engaging, inviting, comfortable environment in which to initiate relationships among strangers. The host culture can offer a user-friendly environment in which to initiate and begin to cultivate a developing community that is informed, secure, and engaged. The on campus orientation provided a clear opportunity for testing the basic tenets of AUM and its relationship to community formation as an anxiety management mechanism.

Research Questions. The research questions were designed as a bridge between the theory questionnaire and the participants' perceptions of how the MLIS community did or did not function as an anxiety management mechanism. The theory argues that uncertainty reduction relieves anxiety so that interacting with strangers becomes more comfortable and more predictable. The theory also suggests that anxiety is context dependent and fluctuates with the comfort level of the context. The greater the comfort level, the less the anxiety. One way to increase the comfort level of interactions is through intimacy which comes from gaining knowledge about each other. Knowledge acquisition is a way to reduce uncertainty, and the more knowledge strangers acquire about each other, the less anxious they become with each other and the more deeply they work towards intimacy, which is a form of trust. Trust decreases anxiety because an increase in information reduces uncertainty and makes the interaction more comfortable and predictable. Trusting each other with increasing levels of information leads to community, which comes from cooperation to achieve common goals and effective

communication. Effective relationships cannot develop without trust, and community is essential to developing effective relationships (Gudykunst, 2004).

The participants in this study began as strangers, required to interact at a mandatory on campus orientation, sharing the common goal of successful completion of the program. The orientation provided the participants with an opportunity to meet and get to know the other students in the cohort, as well as the faculty and staff with whom they would interact online throughout the program. Their responses indicated that they recognized the community as an anxiety management mechanism, and they considered community as an essential element of their engagement with the others in the program. Several also considered the MLIS community to be their primary source of anxiety management, especially when the context became uncomfortable in some way that increased anxiety. They strongly perceived the need for a thriving community and actively pursued it. Their narratives also provided support for AUM as it relates to community formation as an anxiety management mechanism for online students.

Research Question 1. Does the MLIS orientation provide effective community formation for online cohorts? Or does ongoing interaction in the MLIS foundation courses provide a more effective platform for community formation? In general, the study seems to support the efficacy of the on-campus orientation in providing community formation for the online cohorts. The interview narratives indicate that participants found that the relationships, both with faculty/staff and fellow students, formed during the orientation proved to be beneficial to relieving anxiety and providing encouragement for success in the program. While many of the participants did not indicate that interactions with the people in the program were their primary source of anxiety, they were nearly unanimous in their agreement that the relationships formed during the orientation were crucial to their feelings of belonging and inclusion once they entered

the subsequent courses in the program. The synchronous nature of the program provided real time interactions with the people with whom the participants had interacted during the orientation. In addition, the virtual classroom chat feature, discussion boards, and social media such as Facebook enabled participants to develop and maintain the cohort community as the program progressed. This underscores the importance of the orientation as a community formation experience for online students and its effect in providing a foundation for expanding and improving relationships within the community over time.

Research Question 2. In what ways does the initial interaction of the MLIS orientation increase or decrease anxiety and uncertainty for online graduate students? The results of the study indicate that there are ways in which the interactions that occur during orientation have a significant effect on anxiety reduction after the initial interaction. A little more than half of the participants in the study indicated anxiety concerning the necessity of interacting with strangers at the orientation, including whether they would have anything in common, whether they might say or do something embarrassing, and whether they would feel inferior to others in the cohort. However, the mandatory nature of the orientation precluded avoidance of interaction, and the intensive nature of the orientation sessions required participants to interact frequently. The pre-orientation meet and greet cocktail party, although optional, was a source of anxiety for those who planned to attend, especially if they considered themselves to be socially awkward or unconfident. Impostor Syndrome actually accounted for some of the anxiety that participants indicated. However, the 2011 cohort claimed the highest level of self confidence and the lowest level of anxiety concerning interactions with strangers among the cohorts studied, which may have been due to the fact that they were the first cohort to form a Facebook group months prior to the orientation. Many of these cohort members had already become acquainted through

Facebook postings, so the initial interaction technically had already occurred prior to attendance at the orientation. This provides implication for social media as a means to foster ongoing social interaction leading to effective communication.

Research Question 3. How well do the written materials provided to the online cohorts prior to the actual orientation increase or decrease anxiety and uncertainty? One of the basic assumptions of AUM is that uncertainty reduction promotes anxiety reduction by providing knowledge that reduces insecurity. However, the study provided inconsistent findings that do not necessarily support increased knowledge as an anxiety reduction mechanism. For example, several participants had little or no memory of the written materials provided to them by the SLIS faculty/staff in the months prior to the orientation, even though a prior analysis of those materials showed that at least ten paper and e-mail communications were sent to the entire cohort. Of those who did recall receiving the communications, few participants indicated that their anxiety was relieved by the communications themselves. The people interaction of the orientation, workload and performance in the program, and fear of failure were mentioned more often as sources of anxiety, conditions that the written communications do not address. This supports the findings of Hammer, et al (1998) that uncertainty and anxiety may be mutually exclusive. Certainly, this does not imply that the materials sent to the cohorts are unimportant or nonessential, but it does not necessarily relieve the anxiety of the required face-to-face interactions at the orientation.

Research Question 4. Is community formation an effective vehicle for anxiety/uncertainty reduction for online graduate students? One of the goals of AUM is effective communication that initiates relationships that deepen and become more intimate. Relationships in which people can cooperate to work towards a common goal are an integral part of community

formation and maintenance. As community develops, relationships produce less anxiety. The results of the study indicate that the community which forms during the orientation and evolves during the course of the program serves as a crucial anxiety management mechanism for the study participants. Several participants indicated that the support of the community, which included faculty/staff and fellow cohort members, played a significant role in encouraging them throughout the program. This support appeared to serve as an important anxiety management tool for the participants in the study, indicating the essential nature of community in the online environment.

Research Question 5. Do students perceive that uncertainty reduction exacerbates anxiety management? The study results remained inconclusive on this point. Some study participants related knowledge acquisition directly to anxiety reduction, but more so concerning the requirements of the program rather than interactions with the people. However, there was some indication that prior knowledge concerning the people with whom participants would interact at the orientation provided at least some comfort at the outset of the program. This was especially notable with the 2011 cohort, the first cohort to communicate through Facebook months prior to the orientation. This group indicated that they were much more confident in their ability to deal with interaction with strangers and much less likely to see such interaction at the orientation as an anxiety producing situation. The fact that many of them had been communicating with each other for several weeks prior to orientation may have negated the aspect of the stranger from their interactions once they were face-to-face. In essence, they were no longer strangers at that point, and they had acquired knowledge about each other that enabled more relaxed interactions. There is an implication for social media as a mechanism of interaction that facilitates communication, and that such interaction may enable those who are

less confident in interpersonal interactions to achieve a level of anxiety management that provides them with increased confidence.

Research Question 6. How do online graduate students perceive the effects of community as an anxiety management mechanism as they progress through their program of study? Participants overwhelmingly indicated that the sense of community that was initiated at the orientation and developed as the program progressed had a significant effect on anxiety management. While participants discussed other outlets for encouragement and support, e.g., family, faith, meditation, they were almost universal in their approbation of the community as a crucial ingredient of their comfort level with meeting the demands of the program. Some participants noted this specifically in relation to difficulty with the course material and/or inadequate communications with faculty. In addition, they suggested that such interaction relieved the stress of isolation that is inherent in online learning by providing communication channels through chat in the virtual classroom, discussion boards, and social media. The orientation provided the foundation for community formation, and the virtual classroom and other technologies enabled the growth and development of the community over time.

Implications

An obvious implication of this study is an examination of orientation practices in online programs, in general, and graduate programs, specifically. The results of the study clearly indicate the importance of community to the participants, and its anxiety management potential for online students. The orientation provided a platform for examining community formation for these online cohorts, groups for which isolation from the physical campus community is problematic. Participants indicated that the community served a crucial role in managing their anxiety concerning program issues and their motivation to remain in the program. The

opportunity for community formation presented by the on campus orientation in this online program resulted in the perception of increased and effective communication among members of the community, including faculty and staff, and positive anxiety management for the participants. The study results affirm the importance of orientation programs for online graduate students and suggest that face-to-face orientations may have an even greater effect, especially as relates to community formation.

The study program is one of only two online MLIS programs that require an on-campus orientation, the other program offering only a one-day orientation, as opposed to the three-and-a-half day orientation for the study program. In addition, the study program is synchronous, bringing students together in an online classroom at a regularly scheduled day and time, which mimics an on-campus classroom environment. Interaction takes place in real time through the professors' lectures/discussions and through the chat feature in the virtual classroom. The unusual nature of this particular MLIS program may provide a more favorable atmosphere for community formation and may provide a model which other programs may want to emulate, especially given the high retention-to-graduation rate. This study does not link community directly with graduation rate, but the retention rate in the study program raises such issues and merits further examination.

Social Media. There are also implications for an examination of the effective use of social media and its role in forming and maintaining community in an online learning environment. Participants' repeatedly cited Facebook, virtual classroom chat rooms, discussion boards, e-mail, and Twitter as modes of communication that figured prominently in their ability to maintain thriving relationships with the members of the MLIS community. Of special interest is a more extensive examination of the role of social media in facilitating initial interactions

between strangers. When the 2011 cohort attended the orientation, they had communicated via Facebook for several weeks. Technically, they were no longer strangers, but had formed relationships that were already developing at the time of the orientation. This cohort reported not only greater levels of confidence, but greater levels of comfort and less anxiety in the environment. This opens up questions of social media's place in online student orientation, and provides some interesting evidence of the potential of social media in forming communities.

Host Culture. Gudykunst (2005) touches on the importance of the host culture in his application of AUM to only intercultural communication. Gudykunst and Hammer (1988) discuss intercultural adaptation from the perspective of strangers interacting with a host culture for the first time or as sojourners who are unfamiliar with the habits and customs of an unfamiliar people or environment. They present assumptions that apply to anyone entering an unfamiliar situation in which they are required to interact with strangers. Utilizing Simmel's (1950) characterization of a stranger, they define strangers as "physically present and participating in a situation (that is, the host culture), but at the same time, are outside the situation because they are from a different place (that is, a different culture)" (Gudykunst & Hammer, 1988, p. 107). They argue that acquiring information about the host culture prior to entry into the host's environment enables uncertainty and anxiety reduction. However, they provide no information concerning the responsibility of the host culture in providing a favorable environment, an area which may deserve more than cursory attention.

The implications for the host culture in online learning concern the role of the host in providing for an environment that reduces uncertainty, enables anxiety management, and culture encourages formation of community. In addition, the host culture in online education provides the medium through which ongoing interactions will take place, so there is impetus to examine

the impact of the host culture to determine best practices in online learning. Participants in the subject study included faculty and staff of the MLIS program as members of the community across all cases. They repeatedly invoked the importance of faculty and staff communications concerning the program itself, the course work, and as hosts for the orientation. Faculty and staff were often credited with providing the encouragement and attention that the participant needed in order to overcome some anxiety producing situation or event. They were also faulted, but only minimally, when communication was not deemed acceptable by the participant. This leads to the need for an examination of the extent of the role of the host culture in providing the proper medium for effective communication within the online environment, at the interpersonal and intergroup levels.

Limitations

An obvious limitation of this study is that only one online program was studied, and the study program was somewhat unusual in nature considering the on-campus orientation and the synchronous nature of its classes. While the study did involve an across case sample, students in this program may not react similarly to students in programs that do not require an orientation or are asynchronous. Although Palloff and Pratt (1999, 2007) established the importance of community building and maintenance in an online environment and other research provides evidence that orientation is a factor in community building (Vickio & Tack, 1989; Wozniak, et al, 2009), the subject study has no basis for comparison of participants' perceptions of community in other online graduate programs that are logistically different. Additional studies, comparing a variety of online graduate programs, especially comparison to other Library Studies programs, may yield richer, more diverse results.

The participation rate relative to the available pool of participants was also low at 12%. Ideally, a participation rate of approximately 20% would have provided greater validity to the results of the questionnaire and additional richness to the interview data. The participation rate for the 2009 cohort was especially low, and after three attempts to contact potential participants, it was deemed sufficient effort to solicit participants. The low participation rate was balanced by the consistency of the commentary, especially as relates to questions concerning the efficacy of the orientation as a community formation mechanism. Subsequent research may need to determine ways to elicit greater participation rates. However, qualitative studies tend to become difficult to analyze as data become more voluminous.

Another limitation of the study is the absence of intercultural data, other than the information provided concerning the culture of the MLIS program under study. While AUM is considered to be an intercultural theory, this study concentrated on only the axioms that deal with effective communication, eliminating the axioms that refer specifically to intercultural communication. However, the theory extends URT, which addresses interpersonal communication, to intergroup relations and incorporates anxiety to address affective factors of communication (Gudykunst, 1995), enabling the communications axioms of the theory to stand in isolation from its intercultural axioms. It was the notion of anxiety management that served as the focus of the subject study in an *intracultural* context, rather than in an intercultural one, especially since all of the participants were citizens of the same country. In constructing the original iteration of the theory, Gudykunst and Nishida (1979) quoted an anonymous source which advised that “A good theory is one that holds together long enough to get you to a better one” (p. 1), and in his final publication on AUM, Gudykunst (2005) noted that “This version of AUM theory is designed to explain interpersonal and intergroup communication effectiveness”

(p. 283). Further, he states that “The current version of the theory is not a finished product” (Gudykunst, 2005, p. 314), inviting researchers to make the theory better and more useful by examining those aspects of communication that encourage human beings to conduct mindful, effective communication. I chose to examine the axioms that address managing anxiety concerning communications, regardless of cultural context because the implications of the study could provide pedagogical guidance for the online paradigm. Although, it could be argued that students entering an online graduate program are encountering a new culture, especially if they are unfamiliar with online and/or graduate education. Those who administer and teach the program are the host culture which provides the students with the environment in which communication takes place.

Future Research

Further research begins with the question “Does anxiety management in interactions with strangers actually improve communication to make it more effective?” Does AUM describe, explain, and provide deeper understanding of the processes of anxiety management that lead to more effective communication? Before additional research on community and online practices, AUM needs to be vetted more fully to provide specific evidence of its validity as a theory of effective communication. Many of the axioms of the theory were supported by this study, especially those addressing the need for seeking optimal comfort and anxiety levels in being motivated to interact with strangers, the context dependent nature of sources of anxiety, and the ultimate effect of anxiety management on perceived effectiveness in communication. The study provided evidence that on campus orientation for online graduate students can be an important element in overcoming anxieties and forming important relationships with members of the online community.

Gudykunst (2005) invited scrutiny and refinement of AUM because he argued that theories are only useful if they can find practical applications. Gudykunst (1986) set out to find a theory that would provide an overarching framework for intercultural communication and understanding. At one point, AUM had more than ninety axioms, but Gudykunst recognized the need for greater parsimony. However, the subject study suggests that there are corollaries to AUM that provide focus on its major themes of comfort, familiarity, context, and anxiety management within those frames. The context studied here is the on campus orientation of an online synchronous MLIS program and its ongoing effect on community development. Given that the study program is anomalous among online MLIS programs, AUM could be examined in the context of the orientation of other synchronous online programs in various disciplines.

The on campus orientation in the subject online program was unusual among online MLIS programs, and participants in the study largely agreed on the effectiveness of the on campus orientation in fostering engagement with the program and the people in the MLIS community. What is not known is the extent to which on campus orientation, although counterintuitive to the largely asynchronous environment of online learning, facilitates communication for the faculty, staff, and students in a program. The majority of programs present online orientation in conjunction with the traditional asynchronous online course work, but there is a need to determine whether orientation, in any form, is equally effective for online students. Orientation is recognized as a crucial element in student engagement with online programs (Scagnoli, 2001; Vickio & Tack, 1989; Wozniak, et al, 2009), but there is little to suggest the efficacy of on campus orientation over online orientation for online programs.

The importance of community is recognized not only in online learning, but in on campus classrooms as well (Liu, et al, 2007; Misanchuk, et al, 2000; Palloff & Pratt, 1999).

Anxiety/Uncertainty Management Theory may well explain the processes that occur among members of the academic community, especially students, in their interactions with strangers in the learning environment. Examining practices of community formation in classrooms can lead to studies of collaboration and changing contexts of interaction for effective communication. Gudykunst (2004) claimed that in functional communities, effective communication occurs even in the face of conflict, and further, that thoughtfully executed conflict is healthful to a thriving community of ideas. The study participants assigned overwhelming support for a well developed community as an anxiety management mechanism for online graduate students. However, the synchronous nature of the courses in the program may also have had an effect, which suggests a study addressing synchronous versus asynchronous courses with respect to community development.

All of the facets of AUM and effective communication suggest ongoing examination, analysis, and improvement of online processes and pedagogy. Given the rapid growth of online participation, with one third of all college students taking at least one online course (Allen & Seaman, 2011), and the differing educational strategies between online and on campus, AUM may provide a sound theoretical foundation for developing better online classroom practices. However, the theory needs to be refined to address the specific communications processes and practices of intracultural interactions in specific contexts and environments. Such practices in online learning provide an appropriate environment in which to examine whether the axioms of AUM enable researchers to understand effective communication that provides the type of interaction envisioned by Gudykunst.

Gudykunst espoused an interest in providing a theory of effective communication for use on a global scale, especially where intercultural interactions take place (1986). His theory

showed promise in studying the processes that take place among strangers in the initial stages of interaction to better understand how those processes either reduce or exacerbate the anxiety that accompanies contact with unfamiliar people and environments. Gudykunst's (2005) ultimate goal for AUM was to enable groups to manage the anxiety of interaction among strangers to advance effective communication among differing cultures. However, there needs to be more research on a local level to determine the validity of AUM as a useful theoretical foundation for determining effective communication process and practice.

Summary

Anxiety/Uncertainty Management Theory (AUM) was formulated by Gudykunst (1986) to facilitate understanding of the processes involved in effective communication between unfamiliar people in unfamiliar contexts. He argued that effective communication was the result of reducing uncertainty to enable anxiety management in circumstances where fear and preconceived notions of interacting with strangers have been minimized. The theory waxed and waned over the course of twenty years, and was as yet unfinished at the time of Gudykunst's death in 2005. Yet, in his final published article, he invited researchers to work with his theory to refine and improve it. Most of the research completed on AUM was conducted on intercultural communication events, but the first thirty-nine axioms address communication processes in general. Presumably, uncertainty and anxiety occur in any interaction where strangers initiate personal contact with each other, including in online learning situations.

Graduate students experience anxieties over multiple stressors, but online graduate students have the additional stress of physical isolation. Getting acquainted with faculty, staff, and fellow students presents a challenge for those online because of the nature of online learning. Online students do not have the opportunity to interact with the same support structures that on

campus students do, so the support of the online community itself becomes a support mechanism. However, unless they can form relationships with others in the community, they will be unable to utilize community members for support. Orientation is an important way in which graduate students become acquainted with others associated with their programs. It is especially crucial for online students who have little to no on campus contact with others.

The online MLIS program under study provided a context in which students who were unacquainted with each other and with the faculty and staff who teach and administer the program were required to attend an on campus orientation in which they had to interact. The remainder of the program was synchronous online; subsequent to the orientation, the students returned to their homes and interacted electronically with the MLIS community through Facebook, chat rooms, discussion boards, e-mail, and other social media. The study analyzed AUM and its relationship to community as an anxiety management mechanism before, during, and after the mandatory orientation.

The study supported the majority of the first thirty-nine axioms of AUM, but returned ambiguous or unsupportive data on some. The results showed a strong relationship between uncertainty reduction and anxiety management for participants in the study. The more certain and comfortable the interactions became, the more confident and intimate their relationships grew. The on campus orientation provided a venue in which participants were required to interact with strangers, but as interaction occurred and acquaintances moved beyond stranger status, the sense of community developed. Participants reported that the developing community at the orientation grew into a thriving and highly interactive community that acted as a support system that enabled anxiety management throughout the program.

More research needs to be conducted to establish the validity of AUM and/or formulate corollaries to the theory that address communication processes in various contexts. In addition, there are implications for the study of online versus on campus orientation for online students and discussion of best practices in online education. The importance of community as an anxiety management mechanism lends further support to the critical nature of orientation for online students. Research on AUM has implications for the study of a variety of communications contexts, especially for those involving interactions between strangers. One of the venues is online programs where students require additional communications support to engage and succeed. Although AUM was developed as a means to facilitate intercultural communication, it has the potential to affect communication processes and practices on many levels.

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Appendix A

Initial Contact E-mail

Dear SLIS MLIS Cohort Member:

My name is Maryann Whitaker, and I am a doctoral candidate in the College of Communication and Information Sciences at the University of [Name Redacted]. I am requesting your participation in a study, in furtherance of my dissertation, concerning student perceptions of community formation and maintenance and its relationship to anxiety management for online graduate students. As a member of a SLIS MLIS online cohort, your opinions and perceptions will provide pertinent information for analysis. You will be asked to complete a consent letter, an attitude questionnaire, and an online interview.

As soon as I receive your response to this e-mail, indicating that you are interested in participating in the study, I will send a consent form to be signed and returned to me. Once I receive your consent form, I will forward instructions for logging into eLearning to access the questionnaire and the interview questions. The questionnaire should take no more than 10-15 minutes to complete, and the online interview will depend upon how lengthy you choose to make your answers to the questions. You are free to drop out of the study at any time.

Please signal your desire to participate by replying to this e-mail, and I will send you a consent letter, which you must read, sign and return. Although you will not be compensated for your participation, you will be providing vital information necessary to complete this study.

Thank you for your willingness to participate in this study. If you need additional information or have any questions, please feel free to respond to this e-mail.

Sincerely,
Maryann S. Whitaker

Appendix B

Follow-up E-mail to Initial Contact

Dear SLIS MLIS Cohort Member or Graduate:

My name is Maryann Whitaker, and I am a doctoral candidate in the College of Communication and Information Sciences at the University of [Name Redacted]. About a week ago, I sent you an e-mail concerning participation in a study in furtherance of my dissertation. Since I have not received a response from you, I am sending a second request. Please contact me by responding to this e-mail if you have any questions or want additional information. The body of the original e-mail appears below:

My name is Maryann Whitaker, and I am a doctoral candidate in the College of Communication and Information Sciences at the University of [Name Redacted]. I am requesting your participation in a study, in furtherance of my dissertation, concerning student perceptions of community formation and maintenance and its relationship to anxiety management for online graduate students. As a member of a SLIS MLIS online cohort, your opinions and perceptions will provide pertinent information for analysis. You will be asked to complete a consent letter, an attitude questionnaire, and an online interview.

As soon as I receive your response to this e-mail, indicating that you are interested in participating in the study, I will send a consent form to be signed and returned to me. Once I receive your consent form, I will forward the instructions for accessing the questionnaire and the interview questions to you. The questionnaire should take no more than 10-15 minutes to complete, and the online interview will depend upon how lengthy you choose to make your answers to the questions. You are free to drop out of the study at any time.

Please signal your desire to participate by replying to this e-mail, and I will send you a consent letter, which you must read, sign and return. Although you will not be compensated for your participation, you will be providing vital information necessary to complete this study.

Thank you for your willingness to participate. If you need additional information or have any questions, please feel free to respond to this e-mail.

If I do not hear from you within another week, I may contact you again, but will not contact you again after a third attempt. Please feel free to respond to this e-mail that you are not interested in participating in the study, and I will delete you from the list of potential participants.

Sincerely,
Maryann S. Whitaker

Appendix C

UNIVERSITY OF [Name Redacted] HUMAN RESEARCH PROTECTION PROGRAM

Informed Consent for a Non-Medical Study

Study title: Community Formation and Maintenance as an Anxiety/Uncertainty Reduction Mechanism for Online Graduate Students: An Across Case Study of Anxiety/Uncertainty Management Theory

Investigator: Maryann Stark Whitaker

Status: Doctoral Candidate

You are being asked to take part in a research study.

This study is called “Community Formation and Maintenance as an Anxiety/Uncertainty Reduction Mechanism for Online Graduate Students: An Across Case Study of Anxiety/Uncertainty Management Theory.” The study is being done by Maryann Stark Whitaker, who is a doctoral candidate at the University of [Redacted]. Ms. Whitaker is being supervised by [Name Redacted], PhD, who is a professor of Library and Information Studies at the University of [Redacted].

The researcher is not being compensated for this study. There is no product or service being developed from this research that will benefit the researcher financially now or in the future. The researcher has no conflict of interest arising from this research.

What is this study about? What is the investigator trying to learn? This study seeks to test Anxiety/Uncertainty Management Theory (AUM) in the context of community formation and maintenance in online graduate programs. Participants will be asked, through a questionnaire and an online interview, about their anxiety levels upon entering and advancing through the Master in Library and Information Studies (MLIS) online program and their perceptions concerning community formation and maintenance as a factor in enabling them to minimize uncertainty and manage their anxiety. The researcher is trying to learn whether the theory being tested may serve as a framework for enabling program designers and administrators to identify ways to help students to manage their anxiety levels.

Why is this study important or useful? This study may enable university program designers, administrators, and faculty to create mechanisms in online graduate

programs that can assist students with anxiety management, especially when they are interacting with people with whom they are unfamiliar or potentially uncomfortable.

Why have I been asked to be in this study? You have been asked to be in this study because you are now a student in or have graduated from the MLIS online program in the School of Library and Information Studies at the University of [Redacted]. By checking the box at the end of this form, you have agreed to participate in this study by consenting to complete the attitude questionnaire and participating in an e-mail interview. Your responses will be confidential and known only to the researcher.

How many people will be in this study? There will be a minimum of 24 and a maximum of 160 people in this study.

What will I be asked to do in this study?

If you agree to be in this study, you will be asked to do these things:

- Once you agree to be in the course and sign a consent form, you will be enrolled in the eLearning course by the researcher. Your participant name will be your pseudonym and you will receive a temporary password, which you may change so that only you know your password. You will be asked to log into the course and access the assignment function to complete the questionnaire and the interview.
- You will be asked to complete a questionnaire that asks for some demographic information (name, age, gender, profession, and to which cohort you belong) and answers to questions about your confidence levels in your interactions with others, especially strangers.
- You will be asked to participate in a one-on-one online interview concerning your perceptions of whether the on-campus orientation for the MLIS program may have helped your cohort to form a sense of community or bonding among the cohort members. In addition, you will be asked to discuss your feelings about how getting to know the people in your cohort may or may not have helped you cope with becoming accustomed to being in an online graduate program, and whether getting becoming more closely acquainted with them affected your comfort level as you progressed through the program. The interview questions will ask for your perceptions and opinions about the experience of bonding with the other students in the program, but you will not be asked to provide any information about your course work or how well you performed in your courses.
- The questionnaire and the interview will be conducted through eLearning in the assignment function where no other participants will see your responses. In addition, the roster and e-mail functions in the course will be hidden such that each participant will see only their own information once they log into the course. The researcher will be the only other person with access to your responses.

How much time will I spend being this study? The initial questionnaire should take no more than 10-15 minutes to complete. The length of time spent on the interview questions will be up to the individual participant. This activity could take as little as 30 minutes and as much as several hours, depending on the level of detail you put into your answers.

Will being in this study cost me anything? The only cost to you will be your time to complete each of the activities.

Will I be compensated for being in this study? You will receive no compensation for participating in this study.

Can the investigator take me out of this study? The investigator may take you out of the study if s/he feels that you are no longer fulfilling the requirements of the study or that your participation in it is causing you some type of difficulty. You may also elect to withdraw from the study if you feel as though you are unable to finish it.

What are the risks (dangers or harms) to me if I am in this study? There is little potential risk to you or any of the participants. However, the findings will be reported in my dissertation and may subsequently be reported in journal articles or conference presentations. Any individual data, such as quotations from your interview, will be reported using your pseudonym, but any individual identifying information will be excised to protect your privacy. Every attempt will be made to assign a pseudonym that will not allow for individual identification of any study participant and every attempt will be made to protect participants from anything that will identify individuals. You may also get tired of participating in the study and decide that you are no longer interested.

What are the benefits (good things) that may happen if I am in this study? You may be contributing information and insights that will assist program designers, administrators, and faculty with improved program design that meets the needs of students. You may also enjoy being able to express your opinions about certain aspects of the MLIS program.

What are the benefits to science or society? This study may provide validation for a theoretical framework from which university officials may derive program improvements. This may also provide better understanding of how community may provide a mechanism for anxiety management.

How will my privacy be protected? All questionnaires and interviews will be confidential, conducted one-on-one with the researcher, and stored in a password protected environment in eLearning. You will be asked to discuss your perceptions of the MLIS orientation and your subsequent experiences interacting with members of your cohort and other students in the program. The researcher will be the only person who has access to the data as it will be kept in password protected files in a password protected eLearning course. You will also be assigned a pseudonym when the researcher registers you in eLearning. You will not need to do anything to register. The

assigned pseudonym will be communicated to you by the researcher, along with a temporary eLearning password, which you may change in order to further protect your privacy. Only the researcher will have access to the pseudonym assigned to each participant, and every effort will be made to protect your privacy throughout the study. Every effort will be made to disguise any individual data reported at the conclusion of the study.

How will my confidentiality be protected? All questionnaires will be stored in a password protected file accessible only to the researcher and in a different file from the other study data. Interview texts will be stored in a password protected course in the eLearning system of the University of [Redacted]. The researcher will be the only person with access to the study data. Upon completion of the study, individual data will be destroyed by deleting it from the eLearning course. Your responses to both the questionnaire and the interview questions will not be accessible to anyone else.

What are the alternatives to being in this study? Do I have other choices? The alternative to being in this study is not to participate.

What are my rights as a participant in this study? Taking part in this study is voluntary. It is your free choice. You can refuse to be in it at all. If you start the study, you can stop at any time. There will be no effect on your relations with the University of [Redacted].

The University of [Redacted] Institutional Review Board (“the IRB”) is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

If new information becomes available that might affect your willingness to continue participating in this study, we will tell you.

Who do I call if I have questions or problems? If you have questions, concerns, or complaints about the study right now, please ask them. If you have questions, concerns, or complaints about the study later on, please call the investigator Maryann Whitaker at 205-310-4228.

If you have questions about your rights as a person in a research study, call [Name Redacted] the Research Compliance Officer of the University, at [Phone Number Redacted] or toll-free at [Phone Number Redacted].

You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at [Web Address Redacted] or email the Research Compliance office at [e-mail Redacted].

After you participate, you are encouraged to complete the survey for research participants that is online at the outreach website or you may ask the investigator for a

copy of it and mail it to the University Office for Research Compliance, [Address Redacted].

I have read this consent form. I have had a chance to ask questions. I agree to take part in this study.

I will receive a copy of this consent form to keep.

Signature of Research Participant

Date

Signature of Investigator

Date

Appendix D

Online Attitude Questionnaire

Name:

Cohort (Year begun program):

Age:

Profession:

Years in Profession:

Residence (City and State):

Please respond to the following questions on a scale from 1-5, with 1 being *Strongly Disagree* and 5 being *Strongly Agree*:

Self-Image (Social Identity and Self Conflict)

2. I consider myself to be a confident person.
3. I feel confident when interacting with strangers.
4. I feel anxious when interacting with strangers.
5. I feel confident only when interacting with those with whom I have something in common.
6. I feel anxious when interacting with those outside of my familiar environment.

Feeling of Inclusion (Motivation to interact)

7. I feel more confident interacting with strangers when I am in a familiar setting.
8. I feel more confident interacting with strangers when I am in a familiar group of people.
9. It is easier for me to interact with strangers whom I perceive to be similar to me.
10. It is easier for me to interact with strangers when I perceive that they will react positively to me.

Reactions to Strangers (Reactions to Strangers)

11. I feel confident interacting with strangers when I have information about them ahead of time.
12. I tend to hold pre-conceived notions of strangers.
13. Uncertainty about strangers does not bother me.
14. Uncertainty and ambiguity about strangers makes me anxious.
15. I tend to empathize with strangers.

16. I feel less anxious interacting with strangers when I perceive that they want to get to know me.

Categorizing Social Interactions (Social Categorizations)

17. I am aware of similarities and differences when interacting with strangers.

18. I look for similarities between myself and others when interacting with strangers.

19. I try to understand the way in which strangers categorize themselves.

20. I am more comfortable when I perceive that a stranger's group is comprised of diverse people.

21. I am more comfortable when I perceive similarities between a stranger's group and mine.

22. I am less anxious when I have positive expectations of interactions with strangers.

23. I am less anxious when I am able to suspend my negative expectations in interactions with strangers.

Situations and Conditions (Situational Processes)

24. I am less anxious when cooperative tasks undertaken with strangers are structured.

25. I am less anxious when there are institutional rules that govern communication with strangers.

26. I am more comfortable interacting with strangers when there are members of my group present.

27. I am more comfortable when I perceive that I have a position of power when interacting with strangers.

Connectedness (Connections to Strangers)

28. I feel less anxious when I am attracted to a stranger with whom I am interacting.

29. I feel less anxious when the quality and quantity of interactions with strangers increase.

30. I feel less anxious when I perceive that I am becoming more interdependent with strangers.

31. I feel less anxious when the intimacy level increases between me and a stranger.

32. I am more comfortable interacting with strangers when we share the same networks.

Ethics and Fairness (Ethical Interactions)

33. I feel more comfortable when my interactions with strangers remain dignified.

34. I feel less anxious when my respect for a stranger increases.

35. I feel less anxious when I perceive that strangers are acting morally.

Anxiety, Uncertainty, Mindfulness, and Effective Communication (Anxiety, Uncertainty,
Mindfulness for Effective Communication)

36. I feel confident when I think I know how strangers will react to me.
37. I feel more positive towards strangers when I know their language/jargon.
38. I am better able to manage my anxiety concerning interactions with strangers when I am mindful concerning my communication with them.
39. I perceive that I am more effective in communicating what I mean to strangers when I am mindful of and can correct any errors that I make.
40. I perceive that I am more effective in communicating when I am able to manage my anxiety concerning interacting with strangers.

Power (Power distance)

41. I am more anxious when interacting with those whom I perceive to be in a position of power, especially in a situation where there are unequal power relationships.

Appendix E

Online Interview Items

1. Describe any feelings of uncertainty and anxiety you may or may not have had concerning entry into the online MLIS program at the University of [redacted].
2. In what ways did the communications and written materials that were sent to you prior to the orientation enable, or not enable, you to manage feelings of uncertainty and/or anxiety?
3. In what ways did the MLIS orientation alleviate or exacerbate your feelings of uncertainty and anxiety concerning your entry into the program? Discuss your interactions with the other students and university faculty and staff.
4. Discuss your feelings concerning belonging to the MLIS community since your entry into the program. How has (did) belonging to this community alleviated or exacerbated your feelings of uncertainty and anxiety about the program?
5. How have (did) your feelings of anxiety and uncertainty chang(ed) since you began the program? In what ways has being a part of the MLIS community affected your perceptions of the university, the program, and your fellow students?
6. Discuss what you did personally to manage your feelings of anxiety and uncertainty concerning your entry and participation in the MLIS orientation and your continuation in the program.

Appendix F

Five Factor Personality Inventory Items from IPIP (International Personality Item Pool)

1. I am skilled in handling social situations.
2. I make friends easily.
3. I feel comfortable around people.
4. I don't talk a lot.
5. I keep in the background.
6. I know how to captivate people.
7. I don't like to draw attention to myself.
8. I feel comfortable with myself.
9. I am very pleased with myself.
10. I am not easily bothered by things.
11. I pay attention to details.
12. I have a good word for everyone.
13. I respect others.
14. I believe that others have good intentions.
15. I accept people as they are.
16. I make people feel at ease.
17. I cut others to pieces.
18. I insult people.
19. I have a sharp tongue.
20. I suspect hidden motives in others.
21. I enjoy hearing new ideas.
22. I carry the conversation to a higher level.
23. I am not interested in abstract ideas.
24. I avoid philosophical discussions.

Appendix G

Overall Averages for Questions in Each Axiom Category

Social Identity and Self Image					
Question	All	2008	2009	2010	2011
2	4.1	3.67	4.5	4	4.375
3	3.67	3.167	3.5	3.4	4.25
4	3	3.33	3	3.4	2.5
5	2.714	3.167	3.5	2.8	2.125
6	3	3	3.5	3	2.875
Feelings of Inclusion					
	All	2008	2009	2010	2011
7	4.142	4.167	5	4	4
8	4.429	4.833	5	4.2	4.125
9	3.95	4	5	3.4	4
10	4.476	4.67	5	4.2	4.375
Reactions to Strangers					
	All	2008	2009	2010	2011
11	4	4.167	4.5	3	4.375
12	2.67	2.33	3.5	2.2	3
13	3.33	3.167	2.5	3.2	3.75
14	2.86	2.833	3	3.6	2.375
15	3.714	3.67	3.5	3.6	3.875
16	4.1	4.167	5	4	3.875
Categorizing Social Interactions					
	All	2008	2009	2010	2011
17	3.81	4	4.5	3.6	3.625
18	4	4	5	4	3.75
19	4	4.33	5	3.6	3.75
20	3.48	3.5	3.5	3.2	3.625
21	3.81	3.833	3.5	3.8	3.875
22	4.29	4.167	4	4.6	4.25
23	4.1	4.33	4.5	4	3.875
Situations and Conditions					
	All	2008	2009	2010	2011
24	4.33	4.67	5	4.2	4
25	3.48	3	4	3.6	3.625
26	3.95	4.33	4.5	3.2	4

27	3.71	4.167	4.5	3	3.625
	Connectedness				
	All	2008	2009	2010	2011
28	2.76	2.5	2	2.4	3.375
29	3.71	3.167	4.5	4.2	3.625
30	3.52	3.67	4	3.2	3.5
31	4.24	3.67	5	4	4.625
32	3.91	3.83	4	4	3.875
	Ethics and Fairness				
	All	2008	2009	2010	2011
33	4.24	4	4	4.6	4.25
34	3.9	4.167	4	4.2	3.5
35	3.9	4.167	2.5	4	4
	Anxiety, Uncertainty, Mindfulness, and Effective Communication				
	All	2008	2009	2010	2011
36	3.9	3.83	4.5	4	3.75
37	4.24	4	5	4.4	4.125
38	3.57	3.67	3.5	3.8	3.375
39	4.19	4.5	3	4.4	4.125
40	4.24	4.67	3.5	4.2	4.125
	Power Distance				
	All	2008	2009	2010	2011
41	3.29	3.33	4	3.4	3

Appendix H

Distribution of Likert Responses by Question Grouping/Cohort

	Question/ Likert Response	#2	#3	#4	#5	#6
All Cohorts	5	7	4	1	1	0
	4	11	10	8	7	10
	3	1	3	4	3	5
	2	2	4	6	5	2
	1	0	0	2	5	4
2008 Cohort	5	2	1	0	1	0
	4	2	2	4	3	4
	3	0	0	0	0	0
	2	2	3	2	0	0
	1	0	0	0	2	2
2009 Cohort	5	1	0	0	0	0
	4	1	1	1	1	1
	3	0	1	0	1	1
	2	0	0	1	0	0
	1	0	0	0	0	0
2010 Cohort	5	1	0	1	0	0
	4	3	3	1	2	2
	3	1	1	2	1	2
	2	0	1	1	1	0
	1	0	0	0	1	1
2011 Cohort	5	3	3	0	0	0
	4	5	4	2	1	3
	3	0	1	2	1	2
	2	0	0	2	4	2
	1	0	0	2	2	1

	Question/ Likert Response	#7	#8	#9	#10	#16
All Cohorts	5	10	13	7	12	11
	4	7	5	9	7	4
	3	2	2	4	2	4
	2	1	1	1	0	1
	1	1	0	0	0	1
2008 Cohort	5	4	5	2	4	4
	4	1	1	2	2	1
	3	0	0	2	0	0
	2	0	0	0	0	0
	1	1	0	0	0	1
2009 Cohort	5	2	2	2	2	2
	4	0	0	0	0	0
	3	0	0	0	0	0
	2	0	0	0	0	0
	1	0	0	0	0	0
2010 Cohort	5	1	2	0	2	3
	4	3	2	3	2	0
	3	1	1	1	1	1
	2	0	0	1	0	1
	1	0	0	0	0	0
2011 Cohort	5	3	4	2	4	2
	4	3	2	4	3	3
	3	1	1	2	1	3
	2	1	1	0	0	0
	1	0	0	0	0	0

	Question/ Likert Response	#11	#12	#15	#13	#14
All Cohorts	5	8	0	2	4	2
	4	6	4	12	5	5
	3	6	10	6	7	4
	2	1	3	1	4	8
	1	0	4	0	1	2
2008 Cohort	5	3	0	1	1	1
	4	1	1	2	2	1
	3	2	2	3	0	1
	2	0	1	0	3	2
	1	0	2	0	0	1
2009 Cohort	5	1	0	0	0	0
	4	1	1	1	0	1
	3	0	1	1	1	0
	2	0	0	0	1	1
	1	0	0	0	0	0
2010 Cohort	5	0	0	0	1	0
	4	1	0	4	1	3
	3	3	2	0	2	2
	2	1	2	1	0	0
	1	0	1	0	1	0
2011 Cohort	5	4	0	1	2	1
	4	3	2	5	2	0
	3	1	5	2	4	1
	2	0	0	0	0	5
	1	0	1	0	0	1

	Question/ Likert Response	#17	#18	#21	#19	#20	#22	#23
All Cohorts	5	7	8	2	7	4	10	7
	4	8	7	13	8	5	7	9
	3	3	4	6	5	9	4	5
	2	2	2	0	1	3	0	0
	1	0	0	0	0	0	0	0
2008 Cohort	5	3	3	1	4	2	2	3
	4	1	1	3	1	0	3	2
	3	1	1	2	0	3	1	1
	2	1	1	0	1	1	0	0
	1	0	0	0	0	0	0	0
2009 Cohort	5	1	2	0	2	0	0	1
	4	1	0	1	0	1	2	1
	3	0	0	1	0	1	0	0
	2	0	0	0	0	0	0	0
	1	0	0	0	0	0	0	0
2010 Cohort	5	1	1	0	0	0	4	2
	4	2	3	4	3	2	0	1
	3	1	1	1	2	2	1	2
	2	1	0	0	0	1	0	0
	1	0	0	0	0	0	0	0
2011 Cohort	5	2	2	1	1	2	4	1
	4	4	3	5	4	2	2	5
	3	1	2	2	3	3	2	2
	2	0	1	0	0	1	0	0
	1	0	0	0	0	0	0	0

	Question/ Likert Response	#24	#25	#26	#27	#41
All Cohorts	5	10	1	7	4	3
	4	8	13	8	9	6
	3	3	3	4	6	7
	2	0	3	2	2	4
	1	0	1	0	0	1
2008 Cohort	5	4	1	3	3	2
	4	2	1	2	2	1
	3	0	2	1	0	1
	2	0	1	0	1	1
	1	0	1	0	0	1
2009 Cohort	5	2	0	1	1	0
	4	0	2	1	1	2
	3	0	0	0	0	0
	2	0	0	0	0	0
	1	0	0	0	0	0
2010 Cohort	5	2	0	0	0	1
	4	2	4	3	1	1
	3	1	0	0	3	2
	2	0	1	2	1	1
	1	0	0	0	0	0
2011 Cohort	5	2	0	3	0	0
	4	4	6	2	5	2
	3	2	1	3	3	4
	2	0	1	0	0	2
	1	0	0	0	0	0

	Question/ Likert Response	#28	#29	#30	#31	#32
All Cohorts	5	2	4	1	10	4
	4	4	10	11	9	11
	3	6	4	7	2	6
	2	5	3	2	0	0
	1	4	0	0	0	0
2008 Cohort	5	0	0	1	1	1
	4	1	3	3	3	3
	3	2	1	1	1	2
	2	2	2	1	1	0
	1	1	0	0	0	0
2009 Cohort	5	0	1	0	2	1
	4	0	1	2	0	0
	3	1	0	0	0	1
	2	0	0	0	0	0
	1	1	0	0	0	0
2010 Cohort	5	1	3	0	2	1
	4	0	1	2	2	3
	3	1	0	2	0	1
	2	1	1	1	1	0
	1	2	0	0	0	0
2011 Cohort	5	1	0	0	5	1
	4	3	5	4	3	5
	3	2	3	4	0	2
	2	2	0	0	0	0
	1	0	0	0	0	0

	Question/ Likert Response	#33	#34	#35
All Cohorts	5	9	7	8
	4	8	7	7
	3	4	5	4
	2	0	2	1
	1	0	0	0
2008 Cohort	5	3	4	3
	4	0	0	1
	3	3	1	2
	2	0	1	0
	1	0	0	0
2009 Cohort	5	1	1	1
	4	0	0	0
	3	1	1	0
	2	0	0	0
	1	0	0	0
2010 Cohort	5	3	2	3
	4	2	2	0
	3	0	1	1
	2	0	0	1
	1	0	0	0
2011 Cohort	5	2	0	1
	4	6	5	6
	3	0	2	1
	2	0	1	0
	1	0	0	0

	Question/ Likert Response	#36	#37	#38	#39	#40
All Cohorts	5	6	9	4	8	8
	4	8	8	8	9	10
	3	6	4	7	4	3
	2	1	0	1	0	0
	1	0	0	0	0	0
2008 Cohort	5	1	2	1	3	4
	4	3	2	3	3	2
	3	2	2	1	0	0
	2	0	0	1	0	0
	1	0	0	0	0	0
2009 Cohort	5	1	2	0	0	0
	4	1	0	1	0	1
	3	0	0	1	2	1
	2	0	0	0	0	0
	1	0	0	0	0	0
2010 Cohort	5	3	2	1	3	2
	4	0	3	2	1	2
	3	1	0	2	1	1
	2	1	0	0	0	0
	1	0	0	0	0	0
2011 Cohort	5	1	3	2	2	2
	4	4	3	2	5	5
	3	3	2	3	1	1
	2	0	0	0	0	0
	1	0	0	0	0	0

Appendix I

Interview Document Summary Form

DOCUMENT SUMMARY FORM	Site: SLIS-UA Participant: Pseudonym: Cohort Year: Date Interview Complete:
	# Words:
Associated Material Attached	Personal Confidence Level: Confidence With Strangers:
Brief Summary of Contents	Keywords:

Complete Interview:

Appendix J

Annotated Themes Worksheet

Color/Question/Participant				
Yellow - Causes of Anxiety and Uncertainty	Program	People	Orientation	Other
Y-1-01	Technology			
Y-1-03	Rigor, Isolation	Lack of communication		
Y-1-04	Technology	Meeting new		
Y-1-05	Technology	Older student		
Y-1-06	Workload, Unchallenging Courses	Older student; Social media/online communication		
Y-1-07	Workload			
Y-1-10			Getting there	
Y-1-12		Knowing Professors		
Y-1-15	Rigor	Very young, shy		
Y-1-16	Technology			
Y-1-17	Online environment	Lack of interaction		
Y-1-18	Family Commitments	Lack of prior knowledge		
Y-1-20	Admission, Cost			
Y-1-22		Meeting people	Cost	
Y-1-23	Expectations	Communicating w/technology		
Y-1-24	Workload	Acceptance		
Y-1-26	Isolation, Workload, Family/Work Commitments			

Y-1-27		Quality of teaching		
Y-1-28	Acceptance			
Y-1-29				None
Y-1-30	Workload	Connectedness		
Reiterating Anxieties	Program	People	Orientation	Other
Y-2-18			Technology	
Y-2-22			Expectations	
Y-3-01			Technology	
Y-3-04			Overwhelming	
Y-3-10			Attending; [name redacted] - negative	
Y-3-15			Meeting new people	
Y-3-16			Interacting w/other students	
Y-3-28			Discussion w/former students	
Y-3-29			Meeting new people	
Y-4-01	Workload			
Y-4-03		Lack of connectedness		
Y-4-04				Last of cohort to finish
Y-4-12		Lack of connectedness		
Y-5-03	Acceptance, Rigor		Travel	
Y-5-17	Expectations			
Y-5-26	Online environment, Expectations			

Y-5-27		Lack of faculty communication		Students as "collateral damage"
Yellow - Causes of Anxiety and Uncertainty	Program	People	Orientation	Other
Y-6-04	Job hunting			

Bright Green - Coping/ Anxiety Reducing Strategies	Program	People - Cohort/ Community	Orientation	Faculty/Staff	Social media	Other
BG-2-01						
BG-2-03	Info on synchronous program		Meet cohort to make connections	Meeting profs to make connections		
BG-2-04			Logistics			
BG-2-05			Abated all fears			
BG-2-06			Technology - Wimba small group sessions	[names redacted] Kept everyone informed		
BG-2-07						
BG-2-10			Technology	[name redacted] - technology e-mails helpful		
BG-2-12						
BG-2-15						
BG-2-16			People kind	Staff - kind		
BG-2-17	Helpful					Fears not alleviated
BG-2-18			Technology	[name redacted] - making everyone comfortable		

				w/technology		
BG-2-20			Wimba Practice	[name redacted] - helpful		
BG-2-22						
BG-2-23			Technology			
BG-2-24			Information	[name redacted] - phenomenal - emails friendly, congratulatory, encouraging	Facebook group/ sharing via social media	
BG-2-26			Technology	[name redacted] - helpful, funny, supportive, reassuring; [name redacted] - helpful, responsive		
BG-2-27			Getting acquainted	Introduction to professors helpful		Too much material at Orientation
BG-2-28	Information					
BG-2-29			Information	[name redacted] - keeping parts up to date		
BG-2-30						
	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media	Other
BG-1-16			Alleviated anxiety			

BG-1-22	Prior info/experience				Started Facebook group prior to Orientation	
BG-3-01			Positive experience	Faculty - pleasant		
BG-3-03			Same hotel/shared rooms; making friends; removed concerns over total isolation	Faculty - friendly and involved; [name redacted] - driving shuttle bus		
BG-3-04				Faculty/staff - Friendly, respectful		
BG-3-05			Helpful meeting other students			
BG-3-07		Camaraderie of cohort	Relieved anxiety	[name redacted] inspirational message at Orientation; [name redacted] positive		
BG-3-10			Meeting other students; shared interests	Faculty voices in casual sessions - positive		
BG-3-12				Faculty/staff - Reassuring		
BG-3-15			Getting comfortable around other cohort members	[names redacted] - positive; Staff - pleasant		
BG-3-16			Intimidated by other students' level of experience; increased anxiety	Staff - made things comfortable	Facebook page - most helpful	

BG-3-17			Created sense of unity among students; becoming friends	Got to know faculty personally [f2f]		
BG-3-18			Making connections; shared interests; first meeting s/be structured	Limited rapport with faculty; round table discussions helpful		
BG-3-20		Meeting other students	Felt relaxed and prepared	Meeting professors		
BG-3-22			Becoming comfortable w/other students	Becoming comfortable w/faculty; round table discussions		
BG-3-23			Anxiety about ability relieved by meeting other students	[name redacted] helpful w/technology		
BG-3-24		Like joining a club or a family	Roommates made the experience feel safer	Faculty interaction positive		
BG-3-26		Became instant family	Essential to being comfortable, confident and productive in the program	Faculty strongly supportive; [names redacted] helpful	Wimba - helpful for getting to know classmates	
BG -3-27			Meeting professors worth the time			
BG-3-28			Reduced stress about the program; meeting classmates provided confidence	Faculty wonderful and concerned		
BG-3-29			Critical for getting to know cohort and professors	Faculty committed to student success	Active Facebook group - s/have joined prior	

					to Orientation	
BG-3-30			Comfortable w/program and faculty/staff		Wimba	
	Program	People - Cohort/Commu nity	Orientation	Faculty/Staff	Social media	Other
BG-4-01		Main support mechanism				
BG-4-03		Main anxiety release/support mechanism		Secondary anxiety release; Efforts by SLIS to facilitate connections	Wimba chat, e- mail, Facebook group, private mailing list	
BG-4-05		Community instrumental				
BG-4-06		Enjoyed classes together				
BG-4-07		Class discussions gave sense of belonging			Wimba chat most important	
BG-4-10		Reach out to feel connected			Facebook especially	
BG-4-12		Alleviated anxiety having someone to talk to			Wimba/Fac ebook sometimes misused	
BG-4-15		Feels like family; has helped success			Facebook /Twitter to keep in touch	
BG-4-16				Contact faculty for help		
BG-4-17		Maintaining personal connections to cohort			Facebook page	
BG-4-18				Faculty s/join Facebook page	Facebook page - best thing;	

					sense of belonging	
BG-4-22		Family; bonds made at Orientation		[name redacted] - fairy godmother; SLIS family dedicated to student success		
BG-4-23			Develop friendships at Orientation			
BG-4-24		Kept from dropping out of the program			Facebook most important communication mechanism	
BG-4-26			Felt like family	[name redacted] - member of Facebook group; Faculty/staff helpful and encouraging	Facebook group formed bond	
BG-4-27	Cohort part of success in program	Cohort interaction the highlight; Community bonded daily				
BG-4-28		Positive; sharing; empathy				
BG-4-29		Anxiety/ Uncertainty alleviated through connecting to others				
BG-4-30		Peers/friends/ cohort members for support and encouragement				

	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media	Other
BG-5-03	Postpone Research Methods course	Strongly recommends school due to MLIS community		Recommend faculty		
BG-5-05	Confidence in career					
BG-5-07		Sense of belonging		Faculty cared about student success; [names redacted]	Friends on Facebook	
BG-5-10		Becoming better acquainted, more comfortable interacting			Wimba chat, Discussion Board	
BG-5-12					E-mail, Wimba, Facebook helped with knowing students and faculty	
BG-5-15				Faculty recognized in the field		
BG-5-16		Temporary extended family		Staff accommodating	Plan to stay connected via Facebook	
BG-5-17			Provided confidence to start program			
BG-5-18		Familiarity breeds comfort				Attended graduation because of friends in the cohort

BG-5-20	Working out anxieties as goes through the program	Valuable colleagues and friends				
BG-5-22		Continuous improvement w/continued interaction				
BG-5-24			Proud to be part of cohort		Listserve and Facebook	
BG-5-26		Pride in being part of a community at a well respected school		Faculty/staff - put themselves out there		
BG-5-29		Supportive community				
BG-5-30		Good peer support system; Acceptance, laughing, bonding			Wimba chat surprisingly important	

	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media	Other
BG-6-01	Prior Info	Family/Cohort Support		Learning professors' quirks		
BG-6-03	Prior Info					
BG-6-04	Time/study skills					
BG-6-05			Making/maintaining friends			

BG-6-06		Small group of e-mail friends			Wimba chat for sidebar comments that classmates could share; small group e-mail	GO SLIS!
BG-6-07	Setting limits	Cohort members		[name redacted] - inspirational talk		Faith
BG-6-10				[name redacted]-negative; GTAs-positive (job situation)		No anxiety
BG-6-12						Not sure what to do; did nothing
BG-6-15			Making/maintaining friends			
BG-6-16	Positive Attitude					
BG-6-17				Faculty/Staff - Professional		
BG-6-18		Family Support		[name redacted] - e-mail information		
BG-6-20				Talked w/advisor about any problems		
BG-6-22			Making/maintaining friends			
BG-6-23		Community interaction				

BG-6-24			Making/maintaining friends			
BG-6-26	Staying organized		Making/maintaining friends	[names redacted] - all friendly and helpful		
BG-6-27						Mindfulness of Zen
BG-6-28			Making/maintaining friends			
BG-6-29			Making/maintaining friends			
BG-6-30	Maintaining balance			Professors worked at creating relationships - key to comfort	Facebook, Wimba	

Red - Overt Criticism/Negative Comment	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media	Other
Question 1 - No overt criticism						
R-2-01			Don't recall written materials			
R-2-07			Written materials did not help anxiety			
R-2-12			Written materials no effect on anxiety			

R-2-16			Doesn't remember written materials prior to Orientation			
R-2-17			Written materials did not help anxiety			
R-2-27			Too much written material at Orientation			
R-2-30			Can't remember any written material that had an impact			
R-3-06				[name redacted] - scattered intro to technology		
R-3-10				[name redacted] - Awkward employment situation, but unbending (almost dropped out of program)		
R-3-16		Personal feelings of inadequacy compared to other students				
R-3-26			Expensive; Potential waste of time and money			
R-3-27			Too much waiting around; expensive hotel; tainted experience and impression of SLIS	Staff insistent on staying at conference hotel		
R-4-06	Group work			Badly handled by SLIS		

				personnel		
R-4-07				Professors did not always interact well with students		
R-4-12					Wimba/Facebook misused	
R-4-16					Social media misused	
R-5-03	Summer Research Methods course					
R-5-22	Too many courses not offered online					
R-5-27				Professors routinely ignoring e-mail; students "collateral damage"		
R-6-10				[name redacted]- Lacked support for job situation		
R-6-27	Course expectations unclear			Professors routinely ignoring e-mail; students "collateral damage"		
AC-01				Professor unhelpful in Digital Libraries course; student had hard time keeping up, but classmates helped		

Appendix K

Yellow Coding Table – Causes of Anxiety and Uncertainty

Color/Question/Participant	Program	People	Orientation	Other
Y-1-01	Technology			
Y-1-03	Rigor, Isolation	Lack of comm		
Y-1-04	Technology	Meeting new		
Y-1-05	Technology	Older student		
Y-1-06	Workload, Unchallenging Courses	Older student; Social media/online communication		
Y-1-07	Workload			
Y-1-10			Getting there	
Y-1-12		Knowing Professors		
Y-1-15	Rigor	Very young, shy		
Y-1-16	Technology			
Y-1-17	Online environment	Lack of interaction		
Y-1-18	Family Commitments	Lack of prior knowledge		
Y-1-20	Admission, Cost			
Y-1-22		Meeting people	Cost	
Y-1-23	Expectations	Communicating w/technology		
Y-1-24	Workload	Acceptance		
Y-1-26	Isolation, Workload, Family/Work Commitments			

Y-1-27		Quality of teaching		
Y-1-28	Acceptance			
Y-1-29				None
Y-1-30	Workload	Connectedness		

Reiterating Anxieties	Program	People	Orientation	Other
Y-2-18			Technology	
Y-2-22			Expectations	
Y-3-01			Technology	
Y-3-04			Overwhelming	
Y-3-10			Attending; Riggs - negative	
Y-3-15			Meeting new people	
Y-3-16			Interacting w/other students	
Y-3-28			Discussion w/former students	
Y-3-29			Meeting new people	
Y-4-01	Workload			
Y-4-03		Lack of connectedness		
Y-4-04				Last of cohort to finish
Y-4-12		Lack of connectedness		
Y-5-03	Acceptance, Rigor		Travel	

Y-5-17	Expectations			
Y-5-26	Online environment, Expectations			
Y-5-27		Lack of faculty communication		Students as "collateral damage"

Yellow - Causes of Anxiety and Uncertainty	Program	People	Orientation
Y-6-04	Job hunting		
Y-6-07	Coursework		
Y-6-16		Class discussions	
Y-6-20	Workload		
Y-6-28		Opening up	
Y-6-29			Getting to know people

Appendix L

Bright Green Coding Table – Anxiety Reducing/Coping Mechanisms

Color-Question-Participant	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media	Other
BG-1-16			Alleviated anxiety			
BG-1-22	Prior info/experience				Started Facebook group prior to Orientation	
BG-3-01			Positive experience	Faculty - pleasant		
BG-3-03			Same hotel/shared rooms; making friends; removed concerns over total isolation	Faculty - friendly and involved; [name redacted] - driving shuttle bus		
BG-3-04				Faculty/staff - Friendly, respectful		
BG-3-05			Helpful meeting other students			
BG-3-07		Camaraderie of cohort	Relieved anxiety	[name redacted] inspirational message at Orientation; [name redacted] positive		
BG-3-10			Meeting other students; shared interests	Faculty voices in casual sessions - positive		
BG-3-12				Faculty/staff - Reassuring		
BG-3-15			Getting comfortable around other cohort members	[names redacted] - positive; Staff - pleasant		

BG-3-16			Intimidated by other students' level of experience; increased anxiety	Staff - made things comfortable	Facebook page - most helpful	
BG-3-17			Created sense of unity among students; becoming friends	Got to know faculty personally [f2f]		
BG-3-18			Making connections; shared interests; first meeting s/be structured	Limited rapport with faculty; round table discussions helpful		
BG-3-20		Meeting other students	Felt relaxed and prepared	Meeting professors		
BG-3-22			Becoming comfortable w/other students	Becoming comfortable w/faculty; round table discussions		
BG-3-23			Anxiety about ability relieved by meeting other students	[name redacted] helpful w/technology		
BG-3-24		Like joining a club or a family	Roommates made the experience feel safer	Faculty interaction positive		
BG-3-26		Became instant family	Essential to being comfortable, confident and productive in the program	Faculty strongly supportive; [names redacted] helpful	Wimba - helpful for getting to know classmates	
BG -3-27			Meeting professors worth the time			
BG-3-28			Reduced stress about the program; meeting classmates provided	Faculty wonderful and concerned		

			confidence			
BG-3-29			Critical for getting to know cohort and professors	Faculty committed to student success	Active Facebook group (s/have joined prior to Orientation)	
BG-3-30			Comfortable w/program and faculty/staff		Wimba	
BG-4-01		Main support mechanism				
BG-4-03		Main anxiety release/support mechanism		Secondary anxiety release; Efforts by SLIS to facilitate connections	Wimba chat, e-mail, Facebook group, private mailing list	
BG-4-05		Community instrumental				
BG-4-06		Enjoyed classes together				
BG-4-07		Class discussions gave sense of belonging			Wimba chat most important	
BG-4-10		Reach out to feel connected			Facebook especially	
BG-4-12		Alleviated anxiety having someone to talk to			Wimba/Facebook sometimes misused	
BG-4-15		Feels like family; has helped success			Facebook /Twitter to keep in touch	
BG-4-16				Contact faculty for help		
BG-4-17		Maintaining personal connections to cohort			Facebook page	

BG-4-18				Faculty s/join Facebook page	Facebook page - best thing; sense of belonging	
BG-4-22		Family; bonds made at Orientation		[name redacted] - fairy godmother; SLIS family dedicated to student success		
BG-4-23			Develop friendships at Orientation			
BG-4-24		Kept from dropping out of the program			Facebook most important communicatio n mechanism	
BG-4-26			Felt like family	[name redacted] - member of Facebook group; Faculty/staff helpful and encouraging	Facebook group formed bond	
BG-4-27	Cohort part of success in program	Cohort interaction the highlight; Community bonded daily				
BG-4-28		Positive; sharing; empathy				
BG-4-29		Anxiety/Uncertai nty alleviated through connecting to others				
BG-4-30		Peers/friends/coh ort members for support and encouragement				

BG-5-03	Postpone Research Methods course	Strongly recommends school due to MLIS community		Recommend faculty		
BG-5-05	Confidence in career					
BG-5-07		Sense of belonging		Faculty cared about student success; [names redacted]	Friends on Facebook	
BG-5-10		Becoming better acquainted, more comfortable interacting			Wimba chat, Discussion Board	
BG-5-12					E-mail, Wimba, Facebook helped with knowing students and faculty	
BG-5-15				Faculty recognized in the field		
BG-5-16		Temporary extended family		Staff accommodating	Plan to stay connected via Facebook	
BG-5-17			Provided confidence to start program			
BG-5-18		Familiarity breeds comfort				Attended graduation because of friends in the cohort
BG-5-20	Working out anxieties as goes through the program	Valuable colleagues and friends				

BG-5-22		Continuous improvement w/continued interaction				
BG-5-24			Proud to be part of cohort		Listserve and Facebook	
BG-5-26		Pride in being part of a community at a well respected school		Faculty/staff - put themselves out there		
BG-5-29		Supportive community				
BG-5-30		Good peer support system; Acceptance, laughing, bonding			Wimba chat surprisingly important	
BG-2-01						
BG-2-03	Info on synchronous program		Meet cohort to make connections	Meeting profs to make connections		
BG-2-04			Logistics			
BG-2-05			Abated all fears			
BG-2-06			Technology - Wimba small group sessions	[names redacted] Kept everyone informed		
BG-2-07						
BG-2-10			Technology	[name redacted] - technology e-mails helpful		
BG-2-12						
BG-2-15						
BG-2-16			People kind	Staff - kind		

BG-2-17	Helpful					Fears not alleviated
BG-2-18			Technology	[name redacted] - making everyone comfortable w/technology		
BG-2-20			Wimba Practice	[name redacted] – helpful; helped me out by spelling out the requirement in an email which I was able to give to my boss		
BG-2-22						
BG-2-23			Technology			
BG-2-24			Information	[name redacted] - phenomenal - emails friendly, congratulatory, encouraging	Facebook group/sharing via social media	
BG-2-26			Technology	[name redacted] - helpful, funny, supportive, reassuring; [name redacted] - helpful, responsive		
BG-2-27			Getting acquainted	Introduction to professors helpful		Too much material at Orientation
BG-2-28	Information					
BG-2-29			Information	[name redacted] - keeping parts up to date		
BG-2-30						

BG-6-01	Prior Info	Family/Cohort Support		Learning professors' quirks		
BG-6-03	Prior Info					
BG-6-04	Time/study skills					
BG-6-05			Making/maintaining friends			
BG-6-06		Small group of e-mail friends			Wimba chat for sidebar comments that classmates could share; small group e-mail	GO SLIS!
BG-6-07	Setting limits	Cohort members		[name redacted] - inspirational talk		Faith
BG-6-10				[name redacted]-negative; GTAs-positive (job situation)		No anxiety
BG-6-12						Not sure what to do; did nothing
BG-6-15			Making/maintaining friends			
BG-6-16	Positive Attitude					
BG-6-17				Faculty/Staff - Professional		
BG-6-18		Family Support		[name redacted] - e-mail information		
BG-6-20				Talked w/advisor about any problems		
BG-6-22			Making/maintaining friends			

BG-6-23		Community interaction				
BG-6-24			Making/maintaining friends			
BG-6-26	Staying organized		Making/maintaining friends	[names redacted] - all friendly and helpful		
BG-6-27						Mindfulness of Zen
BG-6-28			Making/maintaining friends			
BG-6-29			Making/maintaining friends			
BG-6-30	Maintaining balance			Professors worked at creating relationships - key to comfort	Facebook, Wimba	

Appendix M

Red Coding Table – Negative Remarks/Overt Criticism

Color-Question-Participant	Program	People - Cohort/Community	Orientation	Faculty/Staff	Social media	Other
Question 1 - No overt criticism						
R-2-01			Don't recall written materials			
R-2-07			Written materials did not help anxiety			
R-2-12			Written materials no effect on anxiety			
R-2-16			Doesn't remember written materials prior to Orientation			
R-2-17			Written materials did not help anxiety			
R-2-27			Too much written material at Orientation			
R-2-30			Can't remember any written material that had an impact			
R-3-06				[name redacted] - scattered intro to technology		
R-3-10				[name redacted] - Awkward employment situation, but unbending (almost dropped out of program)		

R-3-16		Personal feelings of inadequacy compared to other students				
R-3-26			Expensive; Potential waste of time and money			
R-3-27			Too much waiting around; expensive hotel; tainted experience and impression of SLIS	Staff insistent on staying at conference hotel		
R-4-06	Group work			Badly handled by SLIS personnel		
R-4-07				Professors did not always interact well with students		
R-4-12					Wimba/ Facebook misused	
R-4-16					Social media misused	
R-5-03	Summer Research Methods course					
R-5-22	Too many courses not offered online					
R-5-27				Professors routinely ignoring e-mail; students "collateral damage		
R-6-10				[name redacted]- Lacked support for job situation		

R-6-27	Course expectations unclear			Professors routinely ignoring e-mail; students "collateral damage"		
Additional Comment-01				Professor unhelpful in Digital Libraries course; student had hard time keeping up, but classmates helped		

April 25, 2012

Office for Research
Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
R E S E A R C H

Maryann Stark Whitaker
Office for Graduate Studies
College of Communication & Information Sciences
The University of Alabama

Re: IRB # 12-OR-149 "Community Formation and Maintenance as an Anxiety/Uncertainty Reduction Mechanism for Online Graduate Students: An Across Cases Study of Anxiety/Uncertainty Management Theory"

Dear Ms. Whitaker:

The University of Alabama Institutional Review Board has granted approval for your proposed research

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on April 24, 2013. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Study Closure Form.

Please use reproductions of the IRB approved informed consent form to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,



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