

To the Graduate Council:

I am submitting a dissertation written by Donna A. Phillips entitled “Exploration of the Value of Electronic Discourse for Developing Cultural Competency in College Freshmen.” I have examined the final electronic copy of this dissertation and recommend that it be accepted in partial fulfillment of the requirements for the Doctor of Education, with a major in Learning and Leadership.

Dr. M. D. Roblyer, Chairperson

We have read this dissertation
and recommend its acceptance.

Dr. Antonio Chiareli

Dr. Lloyd Davis

Dr. Rebecca Elliot

Accepted for the Graduate Council:

Dr. Stephanie Bellar
Interim Dean of the Graduate School

EXPLORATION OF THE VALUE OF ELECTRONIC DISCOURSE FOR
DEVELOPING CULTURAL COMPETENCY IN COLLEGE FRESHMEN

A Dissertation Presented for
The Doctor of Education Degree
The University of Tennessee at Chattanooga

Donna Alley Phillips

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Dedication

For constant encouragement and inspiration, I dedicate this project to my husband, Steven Phillips. I am grateful for his inexhaustible protection, trust, hope, and perseverance.

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Abstract

The purpose of this study was to explore the impact of electronic discourse on cultural competency growth among college students. Data were gathered by monitoring six discussion groups, three of which held face-to-face (FTF) discussions and three of which held electronic discussions (ED). Each group was led by a college professor after a whole-group, face-to-face presentation on three topics related to cultural competency.

Research questions were: (1) Do students participating in asynchronous ED report higher levels of self-reflective discussion contributions, as evidenced by the *Assessment of Student Reflection (ASR)*, than those participating in FTF discussions? (2) Are student participation levels more equally-distributed in ED groups in than in FTF groups? (3) Do students involved in ED demonstrate evidence of more growth in cultural competency, as evidenced by the *Scale of Ethnocultural Empathy (SEE)* scores, than students involved in FTF discussions?

Analysis of the *ASR* found that students in the FTF and ED groups did not have significantly different reports about their levels of reflection. Based on the participant responses to open-ended questions on the *ASR*, discussions did help to facilitate reflection on students' beliefs and actions. The data showed that the groups reported similar levels of reflection, regardless of the type of discussion group assignment.

The analysis of the discussion group contributions demonstrated that ED groups showed evidence of more evenly-distributed participation by discussion group members. An *F*-ratio indicated that the variance of contributions in the FTF groups was significantly higher than in the ED groups.

Finally, the pretest and posttest results of the *SEE* showed that the FTF and ED groups had similar student outcomes. Results of the *t* tests revealed no significant differences in pretest-to-posttest gains on the *SEE* between the FTF and ED groups. An ANOVA to compare differences among the sub-groups found no significant differences within the groups. Implications for practice and recommendations for future research are provided.

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Chapter 1: Introduction

Overview of the Study

This study examines the task of developing culturally-competent teachers, who are desperately needed for an educational system that represents a culturally-diverse society. The National Center of Education Statistics (Planty, et al., 2009) indicates that from 1972 until 2007, the percentage of white students has decreased from 78% to 56% of all schools, and other ethnic groups have increased from 22% to 44% of all schools. Other reports indicate the number of minority teachers has decreased (NCES, 2004 and 2009). Because culturally-competent teachers are needed to meet the educational needs of all students, it is the task of college teacher preparation programs to prepare them. To address this 21st century need, numerous programs and studies are being conducted to find effective ways to facilitate the growth of cultural competency. This study focuses on the use of electronic discourse in cultural competency development in college students.

Background on the Problem

Educational researchers report that students of color are most likely to be represented at the lower end of the achievement gap (Gay, 1997; Howard, 2006; America's Perfect Storm, 2007). "The achievement gap, along with its possible causes and its potential solutions, has become one of the central issues in public education in general and urban education in particular," wrote Uhlenberg and Brown (2002, p. 493). There is much study and speculation around this issue and the public education system is addressing this inequity with multiple strategies. Areas that have been identified as potential contributors to the achievement gap include the following: assessment tools (English, 2002); parental involvement (Lee & Bowen, 2006); student-related issues;

teacher-related issues; and school system-related issues (Uhlenberg & Brown, 2002).

Though it is not possible at this point to determine how much any one of these particular issues contributes to the achievement gap, trends in recent literature reflect the belief that teacher-related issues in the area of race and culture play a role. For example, Picower (2007) wrote, "Growing poverty and social stratification along racial and class lines have severely impacted the access that low-income African American and Latino students have ... to quality education" (p. 2).

This study focuses on one area of concern that grows out of this literature: the need for culturally-competent teaching. Teachers may impact minority students negatively if they hold low expectations for academic accomplishments, do not provide instruction that meets student needs, or engage in racially-biased behaviors (Uhlenberg & Brown, 2002). Villegas and Lucas (2007) indicate that teachers who hold low academic expectations for students are likely to interact with them in ways that help to fulfill those depressed expectations. Teachers need an outlet to reflect critically on teaching pedagogies for their students (Picower, 2007).

A prerequisite for examining the potential value of electronic discourse in cultural competency formation is a general overview of cultural competency and its significance in American society. Addressing the meaning of cultural competency, how it relates to the concept of self, and the challenges that face a society that is culturally divided sets the stage for this study.

Defining cultural competency. Though in increasingly common use, the term "cultural competency" may be misunderstood by the average person. Indeed, there are varying definitions, depending on the context. This study will incorporate multiple

cultural competency definitions. Howard (2006) provides a broad definition of cultural competency as, “The will and the ability to form authentic and effective relationships across difference” (2006, p. 130). In the medical field, cultural competency is described by a six-stage continuum that includes the following: cultural destructiveness, cultural incapacity, cultural blindness, cultural pre-competence, cultural competency, and cultural proficiency (Goode, 2004). In relation to teaching, cultural competency is described by the National Education Association (n.d.) as the “ability to successfully teach students who come from a culture or cultures other than our own. It entails developing certain personal and interpersonal awareness and sensitivities, understanding certain bodies of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural teaching and culturally responsive teaching.” Before leaping too quickly to the application of cultural competency to the classroom, it is appropriate to consider how one begins the journey of developing cultural competency.

The culturally-competent individual. Statistics show that the student population of the United States is evolving. In 1972, 76% of the student population was white with minority ethnicities representing 24% of the student population. By 2007, the picture changed significantly, with the white student population dropping to 56% and the minority student population increasing to 44% of the student population (National Center for Education Statistics, 2007). (See Table 1.1.) The National Center for Education Statistics (NCES) reports for the 2007-2008 school year show that, while 44.1% of the student population is minority, the teacher population remains disproportionately white. The divide along racial lines is increasing, as fewer minority teachers enter the

workforce. (See Table 1.2.) Each of these teachers brings a cultural perspective to the classroom that shapes both interactions with and expectations of students.

Table 1.1

*Ethnicity of U. S. Student Population:
National Center for Education Statistics Report for 1972-2007*

Year	White %	Total Minority %	Black %	Hispanic %	Asian %
1977	76	24	16	6	-
1987	68	32	17	11	-
1997	63	37	17	15	4
2007	56	44	15	21	4

Source: <http://nces.ed.gov/programs/coe/2009/section1/table-1er-1.asp>

Table 1.2

*Ethnicity of U. S. Teachers:
National Center for Education Statistics Reports for 2004 & 2009*

	2004 (for 2002-2003)	2009 (for 2007-2008)
White, non-Hispanic	83.70	86.30
Black	7.40	7.20
Hispanic	6.00	3.00
Other	2.90	3.50
Total All Races	100.00	100.00
Total Minority	16.30	13.70

Sources: For 2009: http://nces.ed.gov/programs/digest/d09/tables/dt09_100.asp
For 2004: http://nces.ed.gov/surveys/sass/tables/sass_2004_18.asp

In order for a teacher to engage in culturally-responsive teaching, one must recognize one's own cultural context (Banks, 1999; Howard, 2006; Villegas & Lucas, 2006). With so many white teachers engaging students of differing ethnicities, perhaps the appropriate place to begin when considering cultural competency development is with the individual.

Robert Jensen's (2005) work, *The Heart of Whiteness*, helped to clarify some important underlying issues of racism that exist in the United States. Jensen (2005) provides a detailed picture of a society dominated by white culture. He shared multiple statistics testifying to the inequality experienced by people of color. But an even greater concern is the lack of awareness that some white people have regarding a society dominated by their commonly held values and beliefs. Kozol (2005) referred to the unrecognized impact of white cultural dominance as "white privilege." "That's part of white privilege – the privilege to ignore the reality of a white-supremacist society when it makes us uncomfortable, to rationalize why it's not really so bad, to deny one's own role in it," wrote Jensen (2005, p. 10).

Delpit (2006) echoed this sentiment as she pointed out that teachers reflect the societal views in which they were raised. These authors feel that people tend to operate from a view of the world that reflects their own individual experiences. Jensen (2005) contended that white people may need to understand the inequities in a society that hold people of color in positions of disadvantage. Jensen asserted, "To be fully human is to seek communion with others not separation from them, and one cannot find that connection under conditions in which unjust power brings unearned privilege" (p. xx). Freire (1970) expresses this concept clearly and concisely, "No one can be authentically

human while he prevents others from being so” (p. 12). Stepping outside of an insulated, privileged, perspective and into authentic engagement without discrimination is the essence of cultural competency.

When addressing cultural competency in the self, one must begin with one’s own cultural background. Membership in the culturally-dominant society interferes with recognition of culture (Ladson-Billings, 1994). Jensen (2005) described how white people are insulated from self-criticism through belonging to the dominant race. Howard (2006) described the process by which white people do not recognize their own culture, “It is difficult for the members of any hegemonic group to see their own dominance. Because of our social positionality as Whites in Western settings, the arrangements of dominance may seem ‘normal’ to us, part of the assumed and natural fabric of reality” (p. 38).

Ladson-Billings (2004) supported Howard’s assertion, “Most members of the dominant society rarely acknowledge themselves as cultural beings. They have no reason to. Culture is that exotic element possessed by ‘minorities’” (p. 107). Howard (2006) asserts the importance of developing an ‘authentic white identity’. Acknowledging and valuing one’s own culture in its entirety “provides a concept, a circle of meaning, and a sense of relationship to all life” (Howard, p. 25).

The importance of a well-developed self-identity that recognizes one’s own culture of origin is seen across many cultural competency and multicultural education theories. Table 1.3 displays multiple references to the importance of self-awareness common to many cultural competency development paradigms.

Table 1.3

Directives for Self-knowledge and Awareness

Source	Self-Awareness Recommendation
1. Howard (2006)	Discover racial and cultural identity.
2. Villegas & Lucas (2007)	Develop socio-cultural consciousness that reflects an understanding that one's own worldview is a singular perspective.
3. The Association of Teacher Educators (n.d.)	Demonstrate cultural self-knowledge and lead students in achieving the same.
4. Van Roekel (2008)	Understand that all life experiences shape self-identity
5. Bennett (1995)	Consciousness of one's worldview and its relationship to the views of others.
6. Banks (1999)	Develop cultural cognitiveness that reflects an awareness of one's own ethnicity and how it is distinct from other ethnic groups.

A culturally-divided society. Even such a clear directive as developing self-awareness can be a complicated process because of the conflicted cultural climate that characterizes the United States. An example of this rift is racial segregation in neighborhoods and schools (A Public Education Primer, 2006). Advocating for the desegregation of the schools, Martin Luther King Jr. wrote on the issue of societal segregation. "It injures one spiritually. It scars the soul and distorts the personality. It inflicts the segregator with a false sense of superiority while inflicting the segregated with a false sense of inferiority" wrote King (as cited in Frankenberg, Lee, and Orfield, p. 7).

After a period of improvement in the desegregation of schools, there is currently a trend moving back toward a more segregated system. This segregation is not caused by law, but is happening simply by a matter of choice, de facto. Frankenberg, Lee, and Orfield (2003), writing for Harvard University's Civil Rights Project, provided statistics

that document this movement. In a summary of their findings they concluded, “Our schools are becoming steadily more nonwhite, as the minority student enrollment approaches 40% of all U.S. public school students, nearly twice the share of minority school students during the 1960s” (p. 4). But at the same time, 66% of white students attend schools that have fewer than 24% minority students, while 71% of African American students attend schools that have more than 50% minority students (A Public Education Primer, 2006). In addition, a scant 5% of white students attend schools in which the poverty concentration is 75% or higher, while the percentage of African American students attending a school with a 75% or higher poverty concentration is 47% (A Public Education Primer, 2006). In other words, student diversity is growing, but division by race and socioeconomic levels is also growing.

Another significant statistic reported in the *Public Education Primer: Basic (and Sometimes Surprising) Facts about the U. S. Education System* (2006) is the lack of development in teacher diversity. In 1971, 8% of the teaching force was African American and diminished to 6% by 2001. At the same time, the percentage of white teachers represented in the teaching force has grown. According to NCES reports (2009), white teachers represented 86.3% of the teacher work force in the 2007-2008 school year, an increase from 83.7% in 2004. An increasingly diverse student population is met by a decreasingly diverse teacher population. If one delves deeper, the statistics for teacher educators also show a lack of diversity. A little more than 10 years ago, teacher education professors were reportedly 91% white (Gay, 1997). The National Center for Education Statistics' *Digest of Educational Statistics* (2008) showed that today's college and university faculty members' ethnicities are 83% white and 17% minority. At the time of

this report, white males represented 43% of the faculty and white females represented 36% of the faculty. “In other words,” wrote Gay (1997), “the portrait of teacher education preparation programs reveals White, middle-class, female (and increasingly middle-age) students being taught by White, middle-class male professors from a Eurocentric middle-class framework to go out and teach White, middle-class, suburban students” (p. 151), though this picture may be changing to some degree.

With student diversity in K-12 schools growing and teacher diversity shrinking, the capacity for teachers to engage in culturally-competent practices is crucial. Ladson-Billings (2004) wrote that preservice teachers must become engaged in the study of culture; begin to see themselves as “cultural beings” and participate in opportunities to integrate global experiences into their education. To overcome the inequities in education, one must face the perceptions of inequality harbored in society by first recognizing the misconceptions in one’s own thinking (Howard, 2006; Paley, 2000; Tettegah, 2002).

Needs addressed by culturally-competent teachers. Culturally-competent teachers are needed to address the numerous issues that exist in a society that is culturally divided. English language learners need to be recognized as capable learners (Delpit, 2006); low academic achievers need to be valued and challenged to work to their highest potential (Villegas & Lucas, 2007); and all students need to be enriched by an educational system in which all learners are valued (Bennett, 1995.) The section that follows explores these topics in greater detail.

Culturally-competent teachers address language barriers. Immigrant populations have been growing in the American school system. Twenty percent of the

school population has a native language other than English (Villegas & Lucas, 2007). Differences in language usage and attitudinal dispositions can contribute to misunderstandings and conflict (Delpit, 2006). English language learners represent 10% of the public school student population. This group of students is the fastest growing population in public schools (A Public School Primer, 2006). Delpit wrote, “If we are to be successful at educating diverse children, we must accomplish the Herculean feat of developing this clear-sightedness, for in the words of a wonderful Native Alaskan educator: ‘In order to teach you, I must know you’” (p. 183). Delpit (2006) described a research project in which the written stories of black and white children are evaluated by a group of black and white adults. The stories of the black children were down-graded by the white adults while the same stories were positively evaluated and commended for their depth of description by black evaluators (Delpit, 2006). It seems that language usage may be one of the more difficult issues for educators to address in diverse settings because one’s acquired language is unconscious and natural while code switching or learning a new language tends to be more mechanical (Delpit, 2006). It is also a challenging topic because Standard English is derived from a society of white dominance (Delpit, 2006; Howard, 2006; Kozol, 2005). Culturally-competent teachers encourage students to appreciate their linguistic background while also integrating a new linguistic experience. “We can recognize that diversity of thought, language, and worldview in our classrooms cannot only provide an exciting educational setting, but can also prepare our children for the richness of living in an increasingly diverse national community,” wrote Delpit (2006, p. 66-67).

Culturally-competent teachers address the achievement gap. Research indicates that students of color are most likely to be represented at the negative end of the achievement gap (Gay, 1997; Howard, 2006; America's Perfect Storm, 2007). Teachers who hold low academic expectations for students are likely to interact with them in ways that help to fulfill those depressed expectations (Villegas & Lucas, 2007). In 2003 the National Assessment of Educational Progress reported that an average eighth grade student of color performs at the academic level of an average White student in the fourth grade (Howard, 2006).

Kozol (2005) maintained that a primary contributing factor in the achievement gap is financial. Students who are from privileged financial backgrounds attend public schools that are funded more generously than others or attend independent schools that are privately funded. Kozol (2005) suggested that an educational system that does not fund a pre-school program for all children, and yet holds all of the students responsible for equal academic scores on standardized tests four years later, is flirting with hypocrisy. In addition to unequal funding from government sources, Kozol (2005) also described the differences in parental fund-raising potential. He cited the parental contributions to a school located in a low-income community of four thousand dollars are dwarfed in comparison to the mammoth two-hundred thousand dollars raised by an affluent community.

Another significant issue in explaining the achievement gap is the cultural discontinuity in the learning environment. "Because learning takes place in particular socio-cultural contexts, a misfit or mismatch between the cultural systems of the school and the homes of the communities of various ethnic groups can jeopardize the success of

the teaching-learning process,” wrote Gay (1997, p. 153). Frankenberg, Lee, and Orfield (2003) said that, “When teachers are trained and use techniques to create positive academic interactions in racially diverse schools, the benefits of desegregated schools increase substantially” (p. 12). Culturally-competent teaching requires educators to perceive all learners as capable and requires an understanding of the needs of diverse learners (Villegas & Lucas, 2007).

Culturally-competent teachers benefit all students. Pre-service teachers entering the American school system are charged with the task of educating a diverse population of students. Educational practices that resonate with student culture positively impact student learning (Gay, 1997). “Helping learners make the link between their culture and the new knowledge and skills they encounter inside school is at the heart of ensuring that all students achieve at high levels” (NEA Policy Brief). Pedro Noguera wrote,

I fundamentally believe that educating all children, even those who are poor and non-White, is an achievable goal, *if* we truly value all children. Of course, that is the real question: Does American society truly value all of its children?” (as cited in Howard, 2006, p.1)

Noguera’s question has multiple layers. An apparent interpretation may highlight the degree to which American society values the education of its diverse student population. However, his question may also point to the fact that educating all children benefits all children. All students are positively impacted by bringing equality to the education system. Frankenberg et al. (2003) reported that 90% of the students surveyed from the culturally diverse and ethnically integrated school system in Cambridge, Massachusetts

indicate they are “prepared to live and work among people of diverse racial and ethnic backgrounds” (p. 13).

Teachers who conduct classrooms that respect the multicultural nature of their students create an environment that promotes the personal and academic growth of all students (Bennett, 1995). It is evident that the benefit of culturally-competent pedagogy is not limited to minority groups. As oppressed cultures find freedom and voice, all are transformed and liberated (Freire, 1970). “Racial, ethnic, and cultural diversity creates a rich American tapestry that enriches us all” (Van Roekel, 2008).

Role of teacher education programs to prepare culturally-competent teachers. The call to colleges of education is clear and compelling. Since culturally-competent teachers are needed to meet the educational needs of all students, it is the task of colleges of education to prepare them. Since the 1970’s diverse teacher percentages have been falling while white teacher percentages have been climbing (A Public Education Primer, 2006). The disparity between teachers choosing a career in education and the public school student population is significant (Sleeter, 2001). Teacher education programs are charged with the responsibility to prepare pre-service teachers for a variety of diverse teaching experiences. This involves providing instruction that prepares all preservice teachers to teach with cultural sensitivity (Ladson-Billings, 2004; Gay, 1997).

Crumpler, Lenski, and Stallworth (2005) wrote about their attempt to prepare student teachers to respond intelligently to cultural differences in the classroom. Their research focuses on the use of ethnography. Observation and reflective writing were used to assist students in their quest for self and cultural awareness. One of the student teachers in the study shared this insight “I discovered that, contrary to popular belief,

ethnography is not merely studying people, but actually learning from people” (as cited in Crumpler et al., 2005, p. 6). Crumpler et al. (2005) believed that the ethnographic experiences of the pre-service teachers enabled and empowered them to hear and value the voices of others.

Esther Sokolov Fine (1997) wrote about the continually growing diversity she sees in student body at York University. She addressed the expanding diverse student population through the topic of cultural identity within her courses. One of the workshops she facilitated encouraged students to reflect on their own personal stories of cultural identity and acceptance. As students articulate and share these stories, they “.. begin to see that we have historically biased versions of who and what is important” (Fine, 1997, p. 54). Fine maintained that listening to the voices of others and engaging in self-reflection are crucial in developing an authentically cultural competence.

Another innovative strategy being employed includes providing an Urban Practicum Advisor (UPA) for pre-service teachers during their clinical practice (Matus, 1999). The UPA functioned in a role outside the typical student teacher triad and did not participate in the evaluation process. The UPA, who was an experienced urban school educator, met weekly with the pre-service teachers in a seminar setting or individually as needed. Matus (1999) reported that student teachers respond positively to the small group and one-on-one discussion opportunities provided through the UPA. A short-coming of this strategy is the additional time investment required by the pre-service teachers during an already busy and exhausting time of clinical practice.

Process-oriented models of cultural competence development and assessment are described by McCallister and Irvine (2000) as a framework for the instructional

components of cultural competency development. These components include traditional modes of instruction as well as reflective writing and group discussion that facilitate the growth of self-awareness and cultural inquiry. Process-oriented models developed by Helms, Banks, and Bennett are evaluated and provided useful frameworks for assisting in the growth of cultural competency in pre-service teachers (McCallister & Irvine, 2000).

Banks (1999) called for call for an approach to multicultural education that moves beyond heroes, holidays, and ethnic foods. It is a call that teaches students to know, to care, and to act (1999). Four approaches are described that move from lesser to greater levels of curricular integration with the last approach culminating in behavioral changes that result in action. The Contributions Approach is the least integrative and is limited to the celebrations of heroes and holidays. Next is the Additive Approach, which involves the inclusion of culturally-relevant themes into the curriculum without major restructuring of the curriculum. A third tier of multicultural education is identified as the Transformative Approach, which is inherently different from the first two approaches because it is deeply interwoven into the warp and woof of the curriculum for the purpose of helping students understand the perspectives of diverse student groups. Finally, the Decision Making and Social Action Approach is deeply rooted in the curriculum and reflects the goal of empowering students for action (Banks, 1993).

Sleeter (2001) suggested a research model that begins with examining the practices of effective teachers of diverse students and works backward to identify teacher educator program strategies. "Teams should also bring expertise in different research methodologies and epistemologies. . . Teams that bring different research strengths can design projects that look at questions from different angles of vision," wrote Sleeter

(2001, p. 242). Ladson-Billings (1994) embraced this approach as she completed a case study of eight teachers who were identified as culturally-competent by principals and parents. The successes of these teachers provide valuable insight on the practices of culturally-competent teachers (Ladson-Billings, 1994).

A culturally-competent framework for teaching was outlined by Villegas and Lucas (2007) which included six particular qualities or competencies. These competencies are as follows:

1. understanding how learners construct knowledge;
2. learning about students' lives;
3. being socioculturally conscious;
4. holding affirming views about diversity;
5. using appropriate instructional strategies; and
6. advocating for all students. (Villegas & Lucas, 2007, p. 29-32)

Assessing the development of cultural competency has also become a concern of teacher education programs. Guyton and Wesche (2005) developed *The Multicultural Efficacy Scale* to evaluate the progress of preservice teachers in the development of cultural competency. Assorted other scales have been developed for the same purpose including the *Teacher Multicultural Attitude Survey* (Turner, 2007) and the *Scale of Ethnocultural Empathy* (Wang et. al, 2003).

Purpose of the Study

The research in preservice teacher preparation is ongoing. McCallister and Irvine (2000) wrote, "Hopefully future research areas will assist teacher educators, teachers, and researchers in enhancing cross-cultural knowledge, skills, and attitudes that reverse the

cycle of school failure for far too many culturally diverse students” (p. 21). Exploring new and accessible ways to guide preservice teachers toward culturally-competent pedagogies is vital.

The Pew Internet and American Life Project report (2002) indicated that college-age students were early adopters of technology and have been engaged in technology utilization since first or second grade. Eighty-five percent of college students owned a personal computer and seventy-nine percent attest that the Internet has enhanced their education. The availability and pervasiveness of computer technology among college students makes it an attractive tool for educators (The Pew Internet, 2002).

Predictions for trends in higher education take into consideration the changing face of the student population. Those needs according to Kasper (2001) were the necessity of a life-long learning philosophy, increased on-line opportunities, and greater flexibility in course design. As instructional delivery becomes a key concern, asynchronous electronic discourse may “... likely form the backbone of many connected and virtual classrooms. Threaded discussion will be used more extensively to promote a high level of student-student and student-teacher interactivity,” wrote Kasper (2001, ¶ 10).

In addition to the accessibility and popularity of computer technology and electronic discourse, there is evidence that electronic discussion (ED) technologies support collaborative learning (Resta & Laferriere, 2007); critical thinking (Yang, Newby, & Bill, 2005; Greenlaw & DeLoach, 2003; Hara, Bonk, & Angeli, 2000); self-reflection (Killian & Willhite, 2003; Maher & Jacob, 2006), and reflective problem-solving (Wade, Fauske, & Thompson, 2008). Electronic discourse successes have also

surfaced in the field of cultural competency development for educators. Tettegah (2002) wrote about the value of computer mediated communication for the development of cultural consciousness, while others have uncovered the strengths of electronic discourse for inspiring deeply reflective thinking about urban field experiences (Whipp, 2003).

The need for culturally-competent teachers to instruct an increasingly diverse student population seems evident. Insuring that new teachers who join the ranks of classroom teachers are prepared to create a culturally-intuitive classroom falls to teacher education programs. The studies reported here investigate the value of employing electronic discourse as a tool to promote self-analysis; solidify a commitment to social equity in the classroom; and guide student teachers on their journey toward cultural competency.

Research Questions

The purpose of the study is to explore the value that electronic discourse may bring to the development of cultural competency in college students. In order to provide evidence that sheds light on these issues, the study will focus on the following research questions. Each question is presented here in three ways. First, the informal question statement describes what the study is looking at in practical terms. This is followed by a brief summary of how this question relates to the research literature. Finally, the formal study research question is given, which includes the means by which it will be answered in the study methods.

Research question 1 asks, “Do students participating in asynchronous ED report higher levels of self- reflective discussion contributions than those participating in FTF discussions?” This question focuses on the perceptions of participants regarding their

degree of self-reflection through ED participation. When developing cultural competency, it is essential that students engage in self-reflection about their belief systems and worldview. Greater self-reflection will promote deeper understanding of their current perspectives and how these may need to change to make them better able to teach in today's classrooms. Past studies have hypothesized that advantages of the asynchronous ED medium promote more in-depth (and therefore, more useful) reflection than do in-person discussions (Hara, et al., 2000; Wade, Fauske, & Thompson, 2008).

The formalized version of research question one is posed in the following fashion: When college freshmen participate in discussions for the purpose of developing their cultural competency, do freshmen in asynchronous ED groups demonstrate higher average levels of self-reflective discussion contributions, as measured by responses to self-reported Likert-scale statements, than do freshmen participating in FTF discussions? This study seeks to provide evidence that will shed light on this question.

Research question 2 asks, "Are student participation levels more equally-distributed in ED groups in comparison with FTF groups?" This question addresses the issue of group member participation. Prior research indicates that ED opens the door to reticent participants (Hara, Bonk, & Angeli, 2000; Killian & Willhite, 2003; Walther, 2003). This question is probing at the concept of equalized participation in ED. If this question is answered affirmatively, results will show that the students in the electronic groups have contribution levels that are more similar to each other than the contribution levels of students in FTF groups. If this question is answered in the negative, results will show that students in the electronic groups had a distribution of discussion contributions similar to the students in the FTF groups or that the student contributions in the electronic

groups show even greater dissimilarity than the contributions of the students in the FTF groups

The formalized version of research question two is posed in the following fashion: Do college freshmen participating in asynchronous ED groups demonstrate more equally-distributed discussion contributions, as measured by the number of student postings in each electronic group session, than students participating in the FTF groups, as measured by the number of student contributions in each live discussion? This study seeks to provide evidence that will shed light on this question.

Research question 3 asks, “Do students involved in ED demonstrate evidence of more growth in cultural competency, as evidenced by the *SEE* scores, than students involved in FTF discussions?” The objective is to find out if college freshmen participating in asynchronous ED groups demonstrate greater levels of growth than students participating in the FTF discussions due to the advantages considered by some to be inherent strengths of ED such as the accessibility and popularity of computer technology (Oblinger & Oblinger 2005; Maximizing the Impact, n.d.); flexible participation (Dutt-Doner & Powers, 2000; Hara, Bonk, & Angeli, 2000); greater honesty and vulnerability (Killian & Willhite, 2003); and deep levels of self-reflection (Chickering & Ehrmann, 1996; Yost, Sentner, & Forlenza-Bailey, 2000).

The formalized version of research question three is: “Do students participating in ED demonstrate evidence of more growth in cultural competency, as evidenced by the pre-test and post-test *SEE* scores, than students participating in FTF discussions?” This study seeks to provide evidence that will shed light on this question.

Definitions

Terms that will be used throughout this research project include the following:

1. Achievement Gap – The distance between the standardized achievement testing scores of students of color and standardized achievement testing scores of white students (*Public Education Primer*, 2006).
2. Cultural Competency – “The will and the ability to form authentic and effective relationships across difference” (Howard, 2006, p. 130).
3. Culturally-Competent Teaching – “A pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (Ladson-Billings, 1994, p. 17).
4. Electronic Discourse (ED) – Although electronic discourse is defined in terms of various kinds of electronic exchanges (e.g., emails, discussion boards, chats), it is used in this study to refer to asynchronous discussion that takes place through an electronic discussion board that allows participants to post at any time.
5. Multicultural Education – “The idea that all students- regardless of gender and social class and their ethnic, racial, or cultural characteristics- should have an equal opportunity to learn in school” (Banks & Banks, 1993, p. 3)
6. Reflection – Deep thought focusing on one’s personal perspective, values, and/or beliefs.

Summary of the Study

In review, this project is motivated by the need for students from all types of diverse backgrounds to receive an appropriate education. Culturally-competent teachers are necessary to necessary for accomplishing this goal (Howard, 2006; Villegas & Lucas,

2007). This study will explore the differences in cultural competency development in college students as they engage in small group discussion that takes place electronically or face-to-face. The ultimate goal is to identify the best tools and means for helping pre-service teachers to develop culturally-competent thinking and acting.

Chapter 2: Review of the Literature

Reviewing the Problem

Chapter 1 addressed some of the challenges related to living in a society that is divided by race and socio-economic levels. A society that is culturally-divided generates classrooms that are also marked by cultural divisions which points to the need for cultural competence in classroom instructors (Frankenberg, Lee, & Orfield, 2003). Literature presented in this chapter provides further background for the focus and methods of the study.

A culturally-divided society. A central problem is white privilege: a society dominated by white culture may result in pervasive inequities for people of color (Jensen, 2005; Kozol, 2005). The phenomenon of white privilege is perpetuated by the difficulty of recognizing the distinctive aspects of one's own cultural background (Ladson-Billings, 1994). Due to a position of dominance, cultural values held by Whites are perceived as commonplace or "normal" (Howard, 2006). This conception of one's own cultural values as normal inhibits the understanding of the inequities that others experience when operating outside their own cultural norms and the cultural divide is widened. Contributing to the cultural divide is the prominence of racially-divided neighborhoods. The de facto segregation of races leads to an artificial designation of superiority and inferiority (Frankenberg, et al., 2003). Racial segregation widens the divide between cultures in American society.

Culturally-divided classrooms. American classrooms are naturally impacted by the society in which they exist. Even though student populations are becoming more diverse, classrooms across America are increasingly segregated by race and

socioeconomic levels (A Public Education primer, 2006). Culturally-divided schools have negative implications for their students. Schools populated primarily by minority students are often characterized by higher levels of poverty and lower test score averages. (Frankenberg et al, 2003). In addition to being divided by the racial identity of its students, classrooms are also culturally-divided between teachers and students. Teacher diversity has decreased while student diversity has increased. Teachers at segregated schools are also more likely to be less qualified (A Public Education Primer, 2006; Frankenberg, et. al, 2003).

With the growth of student diversity and the diminishing of teacher diversity, the capacity for all teachers to engage in culturally-competent practices is crucial. Ladson-Billings (2004) wrote that teachers must become engaged in the study of culture; they must begin to see themselves as “cultural beings” and participate in opportunities to integrate global experiences into their education. Teachers must develop cultural competency in order to recognize and address the inequities that plague some classrooms (Howard, 2006; Paley, 2000; Tettegah, 2002).

The Need for Culturally-Competent Teachers

Evidence that the need for culturally-competent teachers is increasingly important is evident by the growing population of minority students, higher numbers of English language learners, and the continued presence of the achievement gap (Frankenberg, et al., 2003). In addition, teachers benefit all students by using culturally-sensitive pedagogy (Schulte, 2000).

Addressing linguistically-diverse students. Culturally-competent teachers are needed to address the diverse issues that accompany a diverse student body.

Linguistically-diverse learners are one concern. English language learners represent 10% of the public school student population. This group of students is the fastest growing population in public schools (A Public School Primer, 2006; Frankenberg et al., 2003). Delpit (2006) described the goal of a culturally-competent teacher engaging a student who is initially acquiring English, “Teachers need to support the language that students bring to school, provide them input from an additional code, and give them the opportunity to use the new code in a non-threatening, real communicative context” (p. 53). Culturally-competent teachers help to usher students from linguistically-diverse backgrounds into a shared language experience with English-speaking students and facilitate the enrichment of the classroom by the addition of diverse language exposure (Delpit, 2006).

Addressing the achievement gap. A second critical issue awaiting the attention of culturally-competent teachers is the achievement gap. Research indicates that students of color are most likely to be represented at the negative end of the achievement gap (Gay, 1997; Howard, 2006; America’s Perfect Storm, 2007). Teachers who hold low academic expectations for students are likely to interact with them in ways that help to fulfill those depressed expectations (Villegas & Lucas, 2007). Culturally-competent teachers are required in order to fulfill the following needs: set high expectations for all students; advocate for equity in educational funding; and provide continuity for all classrooms (Gay, 1997; Kozol, 2005).

Uhlenberg and Brown (2002) conducted a study that focused on teacher opinions regarding the achievement gap. Teachers were asked to indicate issues that are most responsible for causing the achievement gap. Teacher responses were grouped by race.

White teachers were more likely to identify child-related issues such as misbehavior, lack of effort, and lack of potential as causes for the achievement gap. Black teachers were more likely to identify teacher-related issues such as low student expectations, racially-discriminating behaviors, and instruction that does not address student needs as causes for the achievement gap (Uhlenberg & Brown, 2002).

Not all researchers are united in their views of culturally-competent teaching and its impact on the achievement gap. Some have expressed doubt regarding the value of culture-based instruction on student outcomes (August, Goldenberg, & Rueda, 2006). For example, a significant literacy study conducted by Tharp has been questioned by the National Literacy Panel researchers. “Mr. Tharpe’s evaluation proves only that the overall program sparked a rise in reading scores and doesn’t show to what degree cultural accommodations caused the increase,” wrote Zehr (2008, p. 8). In a review of culturally-responsive instruction with Native Americans, August et al. (2006) maintained that, although benefits of greater student engagement were detected, there is no evidence of higher student achievement levels. Further research that firmly connects advancement in student outcomes to culturally-responsive teaching is needed (August, et al. 2006; Zehr, 2008).

Promoting cultural competence for the common good. It is essential that all students reap the benefits of culturally-competent teaching. Teachers who conduct classrooms in ways that respect the multicultural nature of their students create an environment that promotes the personal and academic growth of all students (Bennett, 1995). It is evident that the benefit of culturally-competent pedagogy is not limited to minority groups. As oppressed cultures find freedom and voice, all are transformed and

liberated (Freire, 1970). Schulte (2000) expressed the value she found when promoting cultural competency among her Student Teaching Seminar students,

A heightened awareness of my membership in the dominant culture has had one of the most profound influences on me personally. . . I think this ‘enlightenment’ makes me a better teacher because I spend more energy trying to understand perspectives different than mine, rather than judging those that do not match my paradigm. I feel more human because of it. I naturally want the student teachers I supervise to experience this as well (p. 7).

Bringing Cultural Competence to Teachers and Classrooms

Teacher educators have the two-fold task of helping preservice candidates develop personal cultural competence and helping them develop culturally-relevant pedagogy (The Association of Teacher Educator Standards, n.d.). Reflection on one’s personal story and one’s cultural sensitivity must be translated into transformational classroom practices (Nieto, 2000).

Liberation through story-telling. Some scholars believe that cultural competency begins by articulating a story; the story of how one perceives the world and one’s place in that world is the foundation of cultural perception (Takaki, 1993).

We can be sure that much of our society’s future will be influenced by which “mirror” we choose to see ourselves. America does not belong to one race or one group . . . Americans have been constantly redefining their national identity from the moment of first contact on the Virginia shore. By sharing their stories, they invite us to see ourselves in a different mirror. (Takaki, 1993, p. 17)

Bennett (1999) emphasized the need for cultural consciousness. In essence, cultural consciousness is an understanding of one's own worldview, how it shapes one's thinking, and an understanding that others hold different, but equally-valid worldviews. The need for widespread cultural consciousness becomes more essential with the growth of a global community which demands a greater need for intercultural understanding (Flournoy, 1993).

Paley (2000) shared compelling stories about developing cultural competency in her teaching. An interesting paradigm shift in her thinking that she documented is her perspective on recognizing color. Paley and her colleagues began to recognize that the inappropriate behavior of black children was more often noticed than the inappropriate behavior of white children. In a faculty meeting, they constructed a plan to deal with this problem. Paley remembers the discussion, "We must only look at behavior . . . we must bend over backward to see no color, hear no color, speak no color" (p. 7). However, a few months later, Mrs. Hawkins, a black parent, shared with Paley her perspective on the color of her children. She explained that she doesn't expect skin color to be ignored, "It's a positive difference, an interesting difference, and a comfortable difference. At least it could be so if you teachers valued differences more" (p. 12). Later in Paley's story she related how her experiences taught her that all children want to be accepted, but to feel truly accepted, they must first be truly recognized.

Ladson-Billings (1994), a female African-American scholar, teacher, and parent, shared the stories of eight teachers who demonstrate a variety of culturally-competent teaching practices. Ladson-Billings shared these stories within the context of her personal educational experiences with the goal of providing crucial examples that may spur other

educators toward culturally relevant teaching. Doing so keeps alive the dream that education is a tool that assists African-Americans to achieve their goals.

Takaki (1993), the son of Japanese immigrants, described the problem of the cultural consciousness deficit in his writings about a multicultural American history.

What happens, to borrow the words of Adrienne Rich, ‘when someone with the authority of a teacher’ describes our society, and ‘you are not in it’? Such an experience can be disorienting- ‘a moment of psychic disequilibrium, as if you looked into a mirror and saw nothing.’ (Takaki, 1993, p.16)

It is the goal of cultural competency development and multicultural education to address the deficiencies and inequities that arise out of an incomplete perception of the world. “Life experiences are the ‘stories people live’ and they have a considerable impact on the type of classroom environments teachers create,” wrote Leonard and Leonard (2006, p.33). Giving students opportunities to develop and tell their stories is essential to cultural competency growth.

Self-knowledge through reflection. Cultural competency development is strongly supported by the art of self-knowledge or self-reflection (Howard, 2006). Tauer and Tate (1998) referred to the work of Dewey in regard to the value of reflection for educators.

Reflective thought is valuable for it emancipates us from merely impulsive and merely routine activity. It enables us to direct our activities with foresight and to plan according to ends-in-view, or purposes of which we are aware.... It converts action that is merely appetitive, blind, and impulsive to intelligent action. (as cited in Tauer & Tate, 1998, p.143)

Liston and Zeichner (1988) described the value of reflection for the teacher educator, “Our reflective approach to teacher education is centrally concerned with developing morally and intellectually autonomous prospective teachers, who are compassionate and caring toward others and engaged in developing their identities as teachers” (p. 9). Reflection is ultimately a worthwhile endeavor because intellectual engagement is only the beginning of the process. Reflection should motivate one toward action. The ‘Reflective Citizen’ embodies the characteristics of an educator whose intellectual engagement in reflection results in thoughtful action (Tauer & Tate, 1998).

Reflective Citizens question and examine the aims, goals, and values of the school in society and share the fruit of their reflection with other teachers in the same environment who are striving to create a more moral and ethical environment in which to educate students. (Tauer & Tate, 1998, p. 146)

A reflective teacher begins with self- transformation, but the goal of reflective practice is aimed at changing and improving the classroom, the school and society itself.

A systematic plan for developing cultural competence. In order for teachers to provide a truly multicultural education, they must become culturally-competent individuals. Nieto (2000) called for teachers to be engaged in a “life-long journey of transformation” (p. 184). Nieto prescribed a number of steps for teachers on this journey. Teachers should do the following: “Face and accept their own identities; become learners of their students’ realities; develop strong and meaningful relationships with their students; become multilingual and multicultural; learn to challenge racism and other biases; and develop a community of critical friends” (pp. 184-185).

A program that is imbedded with culturally-competent teachers and instruction creates an educational system that is authentically multicultural.

Bennett (1999) described multicultural education as a system of learning that is based on cultural pluralism and promotes the high levels of academic and personal achievement for all students. Six goals of multicultural education identified by Bennett (1999) were as follows:

1. To develop multiple historical perspectives.
2. To strengthen cultural consciousness.
3. To strengthen intercultural competence.
4. To combat racism, sexism, and all forms of prejudice and discrimination.
5. To increase awareness of the state of the planet and global dynamics.
6. To build social action skills. (pp. 251-252)

Banks and Banks (1993) wrote about the need for all students, regardless of race, ethnicity, culture, and gender, to receive an appropriate education. Providing a quality education for all students is a complex, multi-faceted task. Banks and Banks identified four dimensions of multicultural education. They are as follows:

1. Content integration- meaningful integration of cultural values into content instruction.
2. The knowledge construction process- the analysis of the foundation of knowledge construction within a particular discipline in order to identify possible biases that have influenced its development.

3. Equity pedagogy- the analysis of teaching strategies and techniques in order to ensure that the academic achievement of students from diverse groups is facilitated.
4. Empowering school culture- the analysis of systemic school procedures and structure to ensure that students from diverse groups are supported.

Villegas and Lucas (2007) described six qualities of the culturally responsive teacher. Effective responses to a culturally diverse student population include the following:

1. Understanding how learners construct knowledge.
2. Learning about students' lives.
3. Being socioculturally conscious.
4. Holding affirming views about diversity.
5. Using appropriate instructional strategies.
6. Advocating for all students. (pp. 29-32)

Teachers who incorporate these practices will likely see culturally diverse students as assets to the classroom who bring their own strengths and capabilities. Students who experience culturally responsive teaching will be more likely to value themselves and their cultural backgrounds as well as become engaged in the educational process (Villegas & Lucas, 2007).

Four skills identified by Van Roekel (2008) that contribute to cultural competence include the following: valuing diversity; being culturally self-aware; understanding the dynamics of cultural interactions; and institutionalizing cultural knowledge and adapting to diversity (p. 1). As president of the National Educator's Association (NEA), Van

Roekel's understanding of the need for culturally-competent teachers is crucial and impacts policy formation nationally. The NEA is encouraging all states to include cultural competency standards for their teachers. "The Association understands that the need for culturally-competent educators will continue to grow as the nation's students become more diverse. And it considers cultural competence a key policy issue in the 21st century," wrote Van Roekel (p. 3).

Self-reflection and sharing one's story with others contribute to the growth of cultural competency. Additional opportunities for engaging in these activities are needed. Cultural competency and multicultural education research emphasize the importance of self-knowledge and understanding (Howard, 2006; Kozol, 2005; Ladson-Billings, 2006; Villegas & Lucas, 2007). One tool that may prove to be valuable in preparing educators to engage in transformative thinking for the purpose of providing genuinely multicultural environments is electronic discourse.

Benefits and Limitations of Electronic Discourse

There are numerous factors that commend the use of electronic discourse in the educational setting. Some of the strengths of electronic discourse are summarized here. Reasons for exercising caution in utilizing electronic discourse are also addressed.

Computer technology is accessible and popular. The Pew Internet and American Life Project (2002) indicated that college age students are early adopters of technology and have been engaged in technology utilization since first or second grade. Eighty-five percent of college students own their own computers and seventy-nine percent attest that the internet has enhanced their education. There were more than two million students between the ages of 6 -17 who have their own websites (Oblinger &

Oblinger, 2005). The generation of young people who have grown up with the Internet have been dubbed the “Net Generation” (Oblinger & Oblinger, 2005). Table 2.1 displays the comments of Net Generation members when asked about their relationship with technology.

Table 2.1

Net Generation Comments on the Importance of Technology

High school students explain the significance of technology in education	College students finish the statement, “To me, technology is. . .”
Technology is so embedded in our society, it’s be hard not to know how to use it.	Installing cutting edge software that allows me to do what I want when I want without restrictions, viruses, and the rules of Bill Gates.
It’s part of our world.	The ability to adapt and configure an already established program to [something that] benefits me daily [such as] formatting my cell phone pad to recognize commonly used phrases in text messaging.
Some students at my school who weren’t great students are better ones now thanks to computers.	Any software or hardware alike that gives me the power to do what I need to do faster than ancient methods of conducting things, such as e-mailing versus writing [or] digital research versus traveling to a well-stocked library.

Note. The data in both columns are from *Educating the Net Generation* (pp. 2.3 - 3.2), by D. G. Oblinger and J. L. Oblinger, Eds., 2005, EDUCAUSE, Copyright 2005, www.educause.edu/educatingthenetgen/

This table demonstrates the positive attitudes espoused by both high school and college students. High school student perceptions reflect the concept that computer technology is deeply integrated into their world. College student comments reflect their beliefs that computer technology can be configured to fulfill useful purposes in their lives.

The availability and pervasiveness of computer technology among the fields of business and education made it an attractive tool for educators to use on the college level (Benson, 1997). Predictions for trends in higher education take into consideration the changing face of the student population. Those needs, according to Kasper (2001), were the necessity of a life-long learning philosophy, increased on-line opportunities, and greater flexibility in course design. As instructional delivery becomes a key concern, asynchronous electronic discourse may “likely form the backbone of many connected and virtual classrooms. Threaded discussion will be used more extensively to promote a high level of student-student and student-teacher interactivity,” wrote Kasper (2001, ¶ 10). In spite of the wide ranging possibilities for employing technology, its use in higher education has been limited (O’Hagan, 1998). Studies included in the *Pew Internet & American Life Project* (2002) report that, although higher education institutions have facilitated student access to internet and technology services, colleges and universities are still struggling to find purposeful ways to utilize technology in the classroom. The State Educational Technology Directors Association published a report that indicates that education is lagging behind other industries and organizations in the implementation of technology. “Education is the least technology-intensive enterprise in a ranking of technology use among 55 U. S. industry sectors, according to the U. S. Department of Commerce” (Maximizing the Impact, n.d.). The opportunity to meaningfully incorporate technology into education is like a ripened cherry ready for picking.

Asynchronous aspect is advantageous. Electronic journals and discussion boards of various sorts are being incorporated into higher education classrooms. One of the advantages of electronic discourse is its asynchronous characteristic (Dutt-Doner &

Powers, 2000; Hara et al., 2000; Hawkes, 2000; Killian & Willhite, 2003; Nicholson & Bond, 2003). Asynchronous discussion, ED that does not require all participants to be engaged at the same time, can occur at the convenience of each participant (Hara, Bonk, & Angeli, 2000). This form of communication can enhance a sense of community. Hara et al. report, "Through asynchronous conferencing, each student becomes a regular contributor to the class content, at a time appropriate to him or her" (p.140). Walther (1995) identified electronic discourse as a sort of "electronic water cooler" that provides an opportunity for interaction with others through a convenient, asynchronous format. Electronic discourse also extends class benefits in ways that are not likely possible through FTF meetings. There was evidence that, unlike live discussion, students are less intimidated in EDs and have time to formulate their thoughts before sharing them (Dutt-Doner & Powers, 2000).

Opportunities for enriched participation. There have been conflicting research results that support both impersonal and personal communication outcomes of electronic discourse. "Many fear that electronic communication may be less rich in social cues and, therefore, dehumanize organizations. Walther's analysis and controlled study show that electronic communication can promote some surprising, positive relational communication between people," wrote DeSanctis (as cited in Walther, 1995, p. 186). Walther's (1995) study contrasted FTF (FTF) communication with computer-mediated communication (CMC). He found that CMC groups were rated more highly in immediacy/affection as well as composure/relaxation. Prior to the study, the expectations had been that the FTF groups would score higher in these areas. It was also expected that

FTF groups would achieve greater levels of trust, but the study showed no significant difference in the trust ratings between the FTF groups and the CMC groups.

Killian and Willhite (2003) reported increased student involvement from their use of ED groups in a language arts teaching methods class for elementary grades education students. Student comments confirmed this conclusion, “I think this lets people say things they may not express in a classroom atmosphere. It gets more honest responses” (Killian & Wilhite, 2003, p. 389). In fact, Killian and Wilhite’s (2003) study indicated that 50%-70% of the students participated in the discussion board daily.

Electronic discourse provided a way to extend the time during which students interact with the content of the course (Chickering & Ehrmann, 1996; Nicholson & Bond, 2003). Working in an online setting can increase interactions among students and between students and teachers. Electronic discourse also opens the way for FTF time to be used for other instructional activities (Hara et al., 2000). MacKinnon ((2004) suggested that, although ED may not replace FTF discussion altogether, ED was an effective tool for strengthening student understanding of concepts.

It has been noted that higher levels of participation result in greater degrees of learning. Palmer, Holt, and Bray (2008) conducted a study in which active participation in electronic discourse contributed to the students’ final grades just as significantly as the prior academic ability of the students. The potential to raise student engagement and achievement through electronic discourse participation is promising.

Support for growth in critical thinking. Greenlaw and DeLoach (2003) defined critical thinking, for the purposes of their study, as the ability to make a valid, logical argument. Their evaluations ranged from “unsupported evidence,” the lowest ranking, to

“value judgments based on appropriate disciplinary criteria such as equity and efficiency,” the highest ranking (p. 37). Greenlaw and DeLoach theorized that ED is a strong format for critical thinking development due to the manner in which writing and discussing are combined into one communicative experience.

A study involving veterinary distance learners showed that critical thinking was developed and maintained by the use of asynchronous discussion format (ADF) in combination with Socratic questioning techniques (Yang, Newby, & Bill, 2005). “ADF affords students the time for thoughtful analysis, composition, negotiation, and reflection as their discussion of an issue evolves and allows instructors to model, foster, and evaluate the critical thinking skills exhibited during the discussions,” wrote Yang et. al (2005).

Wegerif (2006) conducted an interesting study to gauge the effect of Computer-Supported Collaborative Learning (CSCL) on the development of thinking skills. In this study students were given a test of reasoning skills individually and in groups of 3. The intervention in the study was coaching on “Exploratory Talk,” a strategy that involves exploring multiple answers or solutions to questions and discussing the reasoning that supports these potential conclusions (Wegerif, 2006). The study revealed that the groups receiving coaching on Exploratory Talk showed improvements on the test of reasoning skills. Wegerif found that individual scores on the reasoning test were also improved by participation in the group discussions

Promoting growth of reflective thinking. A significant finding in the study of electronic discourse is its facilitation of reflection.

A reflective/analytic teacher is one who makes teaching decisions on the basis of a conscious awareness and careful consideration of the assumptions on which the decisions are based, and the technical, educational, and ethical consequences of those decisions. The end result of critical reflection for the individual is cognitive change. (Yost, Sentner, & Forlenza-Bailey, 2000, p. 41)

Developing the skill of reflection was a primary goal for teacher education programs because it is the tool that allows teachers to engage in creative problem-solving (Yost et al., 2000).

Thoughtful, insightful discussion board contributions are a sign of the internalization of concepts due to reflection (Hara et al., 2000). In regard to student learning through electronic discourse, Chickering and Ehrmann (1996) wrote, “They must talk about what they are learning, write reflectively about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn a part of themselves” (p. 5). The use of electronic discourse for the purpose of developing a learning community within an educational psychology course produced positive results. Hara et al., (2000) reported that student reflection on course content was one of the primary benefits of the ED board.

The student teacher interns in the Nicholson and Bond (2003) study wrote reflectively as they discussed the limitations of the reading program in which they were participating. They identified problems and suggested solutions. Van Manen (1977) suggested that reflection was a way of situation or orienting oneself in the world. He wrote, “The concept of orientation may function as a device for making visible how each

subject matter or knowledge area constitutes a way of making sense of the world” (Van Manen, 1977, p. 9).

Support for constructivist strategies. Underlying and supporting the practice of electronic discourse is a constructivist view of learning. Although there are a variety of perspectives regarding the meaning of constructivism, most would agree it is a process of learning that stems from social interactions (Schunk, 2004). Hsiao (2006) explained, “This model of learning emphasizes meaning-making through active participation in socially, culturally, historically, and politically situated contexts” (p. 3). Electronic discourse provided an avenue for learners to come together for the purpose of building knowledge together. In a study involving an early practicum with an accompanying ED board, Edens (2000) found that students attained an interactivity that contributed to individual knowledge building. Through dialogue about shared experiences, students established a professional learning community. Edens asserted, “An online discussion group is indeed a viable tool for promoting the social construction of meaning, by promoting communication and collaboration, and encouraging potentially valuable feedback from teachers at the field site” (p.21). Similar results were found in Nicholson and Bond’s (2003) study involving teaching interns in a Professional Development School. Even as early as the halfway point in the study, evidence showed that the interns were forming a learning community. At the conclusion of the study Nicholson and Bond (2003) wrote,

Interns sought and found both cognitive and emotional support on their discussion board, and did so when they had sufficient time to reflect. Thus, the discussion board provided a place and a time away from class where they could talk, help

one another, and collaboratively reflect on students and the practice of teaching.
(p. 271)

Research by Dutt-Doner and Powers (2000) provided evidence that the successful amalgamation of dialectical constructivism, the position that knowledge-building emerges from peer collaboration and interaction with one's environment (Schunk, 2004), and electronic discourse, verbal/textual communication through an electronic medium (Arnseth & Ludvigsen, 2006) are compatible concepts. They grouped their findings into the following four themes:

1. Self-directed discussion created an environment for active participation.
2. Students began to rely on each other for support and guidance.
3. Students shared ideas with classmates in order to help them develop their professional knowledge about teaching.
4. Students used high level reflection skills to integrate new information to expand their knowledge. (Dutt-Donner & Powers, 2000, p. 157)

Wegerif (2006) argued that the constructivist nature of sharing and building knowledge must work both directions for optimum results. Not only do those engaged in dialogue construct understandings, but it is crucial that they engage in the process of deconstruction as well. Wegerif concluded,

It is even more important . . . that students in the networked society learn how to listen to other voices and how to suspend assumptions and dissolve previous construction in order to enter into dialogue and to be open to the creative emergence of something genuinely new. (p. 156)

The research data reviewed here share a common finding. They demonstrate the strong connection between the relational, knowledge-building principles of constructivism and the relational knowledge-building potential of electronic discourse (Chickering & Ehrmann, 1996; Dutt-Doner & Powers, 2000; Edens, 2000; Hara et al., 2000; Hsiao, 2007; Nicholson & Bond, 2003; Wegerif, 2006).

Cautions for electronic discourse use. Cautionary concerns also surfaced in the electronic discourse literature. Dorman (1998) found that electronic communication through email could present difficulties with confidentiality and misunderstandings rooted in email etiquette. Babuik et al. (2004) noted a lack of depth in the pre-service teacher chat room. Edens (2000) also found that, although the discussion groups made progress toward developing a learning community, “substantive and meaningful dialogue was quite sparse and students tended to draw incorrect inferences” (p. 21). Difficulties with Internet availability from schools and home were noted and appeared to be a relatively common problem (Babuik et al., 2004; Dutt-Doner & Powers, 2000).

Hara et al. (2000) discovered disappointing results in the emotional investment of the student contributions to the discussion board. They recommended strengthening results through development in pedagogical practices that motivate student interest and investment to mitigate this concern. The issue of electronic discourse guidelines and structure are a concern for achieving the best quality of student interaction (Greenlaw & DeLoach, 2003; Moore & Mara, 2005). Greenlaw and DeLoach (2003) emphasized the need to align the objectives of the discussion board assignments with the structure of the assignments. The facilitation of discussion board topics and the pace at which the topics

are addressed drew concern from Moore and Mara (2005). They recommended careful consideration of these variables to elicit the best results.

Utilizing the best technological strategy in the appropriate time and place is essential for effective results. Chickering and Ehrmann (1996) wrote,

Any given instructional strategy can be supported by a number of constraining technologies (old and new) just as any given technology might support different instructional strategies. But for any given instructional strategy, some technologies are better than others: Better to turn a screw with a screwdriver than a hammer – a dime may also do the trick, but a screwdriver is usually better (p. 3).

Chickering and Ehrmann (1996) identified 7 principles that should be followed when selecting appropriate ways to utilize technology. Effective technology usage should reflect the following principles:

1. Good practice encourages contacts between students and faculty.
2. Good practice develops reciprocity and cooperation among students.
3. Good practice uses active learning strategies.
4. Good practice gives prompt feedback.
5. Good practice emphasizes time on task.
6. Good practice communicates high expectations.
7. Good practice respects diverse talents and ways of learning. (Chickering & Ehrmann, 1996, pp. 3-6)

The Role of Electronic Discourse in Promoting Cultural Competency

The review of the literature to this point has highlighted the deeply-reflective nature of cultural competency development as well as the reflective capabilities afforded

to users of electronic discourse. The combination of cultural competence building with an asynchronous electronic discourse tool is a potentially complementary union.

Pairing a reflective tool with a reflective purpose. Ladson-Billings (2006) asserted that, “As [pre-service teachers] begin to recognize the cultural underpinnings of their own beliefs, attitudes, and practices, they may become more open to the power of culture to shape the learning and experiences of the students they will teach,” (p. 109). Ladson-Billings recommended a seamless integration of cultural awareness into teacher education.

The primary tenets of cultural competency development include instruction, experience, and reflection (Crumpler et al., 2005; Ladson-Billings, 2006; McCallister & Irvine, 2000;). Utilizing electronic discourse as a tool to facilitate reflective writing and conscious-raising discussion that leads to the development of cultural competency is a logical step toward accomplishing Ladson-Billings’ (2006) hope that beginning teachers will “see the commonalities in human learning coupled with the specifics of culture in various settings,” (p. 109). Electronic discourse research paves the way for investigating its use in the area of cultural competency development. Additional research “may further the communities’ understanding of how to promote more meaningful learning through online forums,” wrote Moore and Mara (2005, p. 208). Hara et. al (2000) suggested that pushing forward with research on electronic discourse will lead to meaningful and fulfilling electronic communications that will benefit both student and professor. Researchers are encouraged to find additional discussion applications for electronic discourse and new ways to link with learning outcomes (Dutt-Doner & Powers, 2000). Killian and Wilhite (2003) confirmed that the benefits of their study sanction further

experimentation to assess the value of electronic discourse in teacher education.

Research, according to Resta and Laferriere (2007), should also be focused on the variables that enhance “higher-order thinking, deep understanding, and knowledge creation,” (p. 77).

A study with inservice teachers demonstrated positive results from the use of electronic discourse with small groups for professional development. Teachers participated in a course that employed the Cultural Inquiry Process (CIP) to help teachers conduct action research in their classrooms (Maher & Jacob, 2006). The CIP requires teachers to identify a student about whom the teacher is “puzzled.” In the process of attempting to resolve the puzzlement, teachers are encouraged to explore the background of the student and consider alternate cultural perspectives that may assist the teacher in providing an instructional intervention. Maher and Jacob (2006) found that electronic discourse supported the small group interactions and assisted teachers as they re-conceptualized solutions to perplexing classroom situations. “Their interactions . . . offered emotional and intellectual peer support and fostered reflective thinking related to cultural perspectives on the teachers’ classrooms, students, and teaching practices,” they conclude (Maher & Jacob, 2006, p. 147).

Tettegah (2002) extolled the valuable connection between electronic discourse and social justice. Electronic discourse has the potential to facilitate freedom of expression that will allow educators the ability to engage in self-examination leading to a better understanding of their own cultural identity. Tettegah argued that this kind of self-knowledge, gained through dialogue with others, is essential for educators as they attempt to address the educational needs of their students through culturally-competent practices.

A study conducted by Sernak and Wolfe (1998) utilized email partners to facilitate discussion that would help to bridge the gap between cultural competency in theory and cultural competency in action. Research findings showed students were able to develop an appreciation for multiple perspectives by encountering differences through the electronic dialogue.

A final example of pairing a reflective purpose with a reflective tool in teacher preparation is related to the concept of developing social justice through the use of a blog. Preservice teachers worked on projects that explored significant issues connected to teaching in diverse classrooms. Positive benefits from the use of the blog as a sounding board were noted. (Pitre, Curtis, Golash, Kuzmanich, & Wenzl, 2008). Students expressed appreciation for the blog as an opportunity to share their experiences and get support. Many of the students reported their intentions to extend their use of the discussion blog beyond the study parameters (Pitre, et. al, 2008).

This pairing of a reflective purpose with a reflective tool is consistent with Kozma's (1991) perspective on research that investigated direct connections between media and learning. He wrote, "Whether or not a medium's capabilities make a difference in learning depends on how they correspond to the particular learning situation- the tasks and learners involved- and the way the medium's capabilities are used by the instructional design" (p. 4). The advantages of electronic discourse such as accessibility; asynchronous communication; and promotion of participation, critical thinking, and reflective thinking suggest the promise of a harmonious connection to the development of cultural competency.

Summary of Findings from Literature

The review of teacher preparation literature relating to cultural competency and electronic discourse reveal several common threads. First, there is the underlying need for culturally-competent teachers to educate a population of students that is growing increasingly more diverse (Howard, 2006; Kozol, 2005; Ladson-Billings, 2006). Second, there is ample evidence that self-awareness is a necessary part of the journey toward cultural competency development (Van Roekel, 2008; Villegas & Lucas, 2007; Nieto, 2000; Paley, 2000; Schulte, 2000; Bennett, 1999; Ladson-Billings, 1994; Takaki, 1993). Although the theme of cultural consciousness is well-represented in the literature, it is possible that this point of view is over-represented. The lack of alternate perspectives is evident. Third, there are a multitude of findings that suggest electronic discourse facilitates the development of critical thinking and reflection (Wegerif, 2006; Yang, et. al, 2005; Garmon, 2004; Greenlaw & DeLoach, 2003; Nicholson & Bond, 2003; Dutt-Doner & Powers, 2000; Edens, 2000; Hara, et. al, 2000; Yost, et. al, 2000). It appears that the instructional design benefits of electronic discourse, critical thinking and reflection, are well-matched with the instructional goals of cultural competency development.

Finally, although there is some evidence that teacher educators are beginning to experiment with combining cultural competency goals with electronic discourse strategies (Sernak & Wolfe, 1998; Tettegah, 2002; Maher & Jacob, 2006; Pitre et. al, 2008), there are still many unanswered questions. Resta and LaFerriere (2007) recommended that future research is needed in regard to the use of computer-supported collaborative learning (CSCL) in higher education. They listed higher-order thinking and deep understanding as outcomes that bear investigation. Maher and Jacob (2006) reported

that peer computer conferencing “offered emotional and intellectual peer support and fostered reflective thinking related to cultural perspectives on [teaching]” (p. 147). They also indicated that this medium has not reached its full potential and research is needed to determine additional instructional applications. Further research that confirms the use of electronic discourse to facilitate cultural competency growth is merited.

Chapter 3: Methodology

Overview of Methods

The purpose of the study reported here is to arrange an experiment whose data will help to assess the effectiveness of electronic discourse as a tool for cultural competency development. More specifically, electronic discourse (ED) and face-to-face (FTF) discussion are compared to find out if ED is more effective in helping students to grow in their cultural competence. To address these needs, the study included activities and data collection designed to address the following research questions:

1. When college freshmen participate in discussions for the purpose of developing their cultural competency, do freshmen in asynchronous ED groups demonstrate higher average levels of self-reflective discussion contributions, as measured by responses to self-reported Likert-scale statements, than do freshmen participating in FTF discussions?
2. Do college freshmen participating in asynchronous ED groups demonstrate more equally-distributed discussion contributions, as measured by the number of student postings in each electronic group session, than students participating in the FTF groups, as measured by the number of student contributions in each live discussion?
3. Do students participating in ED demonstrate evidence of more growth in cultural competency, as evidenced by pre-post differences in *SEE* scores, than students participating in FTF discussions?

Setting

This research was conducted at a small Christian college in the southeast founded in 1955. The motto of the college on its letterhead, “In all things Christ preeminent,”

communicates the school's mission to provide an educational experience within the context of the Christian faith. Students sign a statement of faith indicating their personal faith as a part of the enrollment process. The Philosophy of Education Statement (2008) asserts,

The College's principal aim is to explore and express the preeminence of Jesus Christ in all things, inspiring and equipping God's people faithfully to fulfill their part in the grandest story of all, God's history-encompassing project of bringing glory to himself through exalting Jesus Christ and summing up all things in him. Covenant College's Statement of Purpose articulates this aim in terms of three goals for Covenant College in all its efforts: to build a community of people responding to their identity in Christ, to develop programs designed and operated from a biblical frame of reference, and to provide educational experiences which foster life-long and Christ-honoring service. (Covenant College, p. 1)

The freshman orientation course, *The Christian Mind*, was the particular setting for this study. The course is designed to help students formulate a view of the world that reflects a Christian perspective on social, economic, political, and ecological issues. The college catalog states, "This course is designed to introduce newly enrolled students to the general scope and distinctive emphases of a Covenant College education" (College website). The course is designed around eleven lectures and small group discussions that assist students in thinking critically about current issues facing today's citizens. Each lecture is given by a different faculty member in her/his area of expertise. Discussion groups of twelve to fifteen students are also faculty-led. This particular study will focus

on three of the discussions that focus on issues of cultural competency. These lectures and discussions cover topics that include gender, culture, and social justice.

Study Participants

The approximately one-thousand students enrolled in the college reflect representatives from the eastern states with a smaller representation of national and international students. In 2008, students represented 44 states and 15 countries. Students from outside the state represent 75% of the student body and 21% of the students were home schooled. The gender ratio was 44% male and 56% female. The high school grade point average of the middle 50% of the incoming freshmen ranged between 3.3 and 3.98 (Department of Institutional Research, 2009). The gender ratio of the faculty is less balanced. Males represent 83% of the teaching faculty while females represent 17% of the teaching faculty (College Web site, 2009).

Ethnically-speaking, the school is fairly homogenous, with White students representing a little more than 90% of enrollees. The student statistics show that the student body is also represented by the following: Hispanic (2%), American Indian (<1%), Asian (2%), Black (3%), and International (2%) (College Web site, 2009). The faculty statistics provided by the college's Department of Institutional Research are not broken down by race. The report shows that .06% of the faculty members are from a minority race, indicating that more than 99% of the faculty members are white. Because of the lack of diversity among the college's students and faculty, a Quality Enhancement Plan (QEP) has been initiated to measure "positive changes in critical thinking, cultural empathy, cross-cultural adaptability, and campus climate as it relates to diversity" (QEP,

College Web site, 2007, p. 4). The lectures and discussions represented by the freshmen orientation course are a part of that QEP.

Research Design

This study used a quasi-experimental research design to examine differences in the development of cultural competency between ED groups and FTF discussion groups. Primarily quantitative measures were used. Quantitative methods were used to analyze the data gathered through the two instruments selected for use in the study. Quantitative methods were also used to analyze the proportion of discussion contributions during the small group meetings. Student responses to open-ended survey questions were included to illustrate data trends found in the statistical analyses.

Instrumentation

Two instruments were used in this study. The first is the *Scale of Ethnocultural Empathy (SEE)*, which is a self-report instrument that utilizes Likert-scale questions to assess levels of ethnocultural empathy. The second was a Likert-scale questionnaire written by the researcher, *Assessment of Student Reflection*, used to gather data regarding student perceptions of self-reflection.

The Scale of Ethnocultural Empathy. This instrument was used to assess the growth of cultural competency development among all of the research participants. Evidence of its reliability is established through an exploratory factor analysis conducted by Wang, et al., (2003) that yielded a four-factor solution. The four factors that explained 47% of the variance are Empathic Feeling and Expression (EFE); Empathic Perspective Taking (EPT); Acceptance of Cultural Differences (ACD); and Empathic Awareness (EA). Test reliability was assessed by deriving an alpha coefficient. Favorable

Cronbach's alpha ratings are generally accepted as .70 and higher with a 1.0 being the highest level of relationship (Frankel & Wallen, 2003; Hinkle, Wiersma, & Jurs, 2003). Satisfactory alpha ratings found for the four scales were .91 (EFE); .90 (EPT); .79 (ACD); .71 (EA). The alpha rating for the four scales combined is .74.

Reliability for the *SEE* was also established through a test-retest method which involves giving the test to the same group of participants with a particular amount of time occurring in between the two tests. This process renders a reliability coefficient that demonstrates the stability of the test participant responses (Frankel & Wallen, 2003; Hinkle, Wiersma, & Jurs, 2003). The reliability statistic for the *SEE* was based on a two-week interval. The scores on the four factors ranged between .64 and .86 demonstrating acceptable stability (Wang, et al., 2003). A Cronbach's Alpha was calculated on the results of the *SEE* to assess its reliability in the context of this study, and these results are given in Chapter 4.

Construct validity for the *SEE* was supported through a team of six members. A thorough examination of the empathy literature and in-depth team discussions led to the identification of three theoretical domains of empathy. They include intellectual empathy, empathic emotions, and communicative empathy (Wang et al., 2003). Three judges were selected to evaluate each question in relation to the three empathy subscales. After being given a definition for each of the subscales, the judges read each question and assigned a score between one and six that reflected the strength of the question's expression of the subscale to which it was being assigned. The inclusion of a question was based on inter-judge agreement. A question receiving a four or higher was determined to be acceptable.

The overall mean of the inter-judge acceptable ratings was 5.27; the standard deviation was .49 (Wang, et al.).

Wang et al. gathered evidence of discriminant validity through correlation analyses on the four factors and the *Balanced Inventory of Desirable Responding (BIDR)*. The *BIDR* measures the extent to which answers reflect impression management or self-deception. Therefore, lack of correlation with the *BIDR* is desirable in this case. There were no significant correlations found between the *BIDR* and three of the subscales. One correlation was found between the *BIDR* and the Acceptance of Cultural Differences subscale ($r = .17, p < .01$). There was no correlation found between the *BIDR* and the total *SEE* score (Wang, et al., 2003).

Wang et al. (2003) reported that responses to diversity will continue to be a strong research focus that is important in the development of society. They believed the *SEE* is useful in both psychological and educational settings and that “pre and post measures of ethnocultural empathy may be an excellent tool for the evaluation of future programming” (p. 232). The authors conclude that “The *SEE*, as a unique measure of cultural empathy toward individuals from racial and ethnic backgrounds other than one’s own, can be a valuable tool to aid such efforts” (p.232). The *Scale of Ethnocultural Empathy* may be found in Appendix A.

Assessment of Student Reflection. A second instrument used in the study was a Likert-scale questionnaire created by the researcher to assess the student perceptions of self-reflection. Six Likert-scale questions were posed with three corresponding open-ended questions. These questions assessed levels of self-reflection based on changes the students perceive in their thoughts and actions. “We also began to stress the fact that

reflection was not merely an intellectual activity, but was one moment in a larger process of strategic action,” wrote Liston and Zeichner (1988, p. 16). Scholars writing on the topic of reflection indicated that self-reflection among preservice teachers is for the purpose of developing philosophical viewpoints and spurring action (Liston & Zeichner, 1988; Adler, 1990). The *Assessment of Student Reflection* may be found in Appendix B.

Formative evaluation was conducted on the *Assessment of Student Reflection* in two ways. The assessment was shared with four teacher education professors to gather feedback on the clarity of the meaning and intention of the questions. The assessment was administered to a group of seven adults, who were not participating in the research study, to assess their responses and reactions to the test questions. This information was used to clarify the wordings on several questions and changes were also made to the survey formatting before it was used in the study.

Study Procedures

To carry out this study, the researcher met with the professors serving as small group leaders for the six discussion groups for training. Professors for the FTF groups conducted the discussion as usual, with the addition of an assistant making an audio recording of the three identified discussions and taking notes during the sessions.

The professors for the ED groups were trained prior to the beginning of the semester in the use of Nicenet and received the same instructions that the student participants received regarding discussion guidelines. Professors were instructed to select a student to function as an “opener” and a “wrapper” for each session (Edens, 2000). The “opener,” the person who begins the discussion, was instructed to post on the first day of the week-long discussion period. The “wrapper,” the person who wraps up and

summarizes the discussion, was instructed to post on the last day of the week-long discussion.

The assistants to the researcher, three upper classmen who had previously completed the same freshman orientation course, met prior to the beginning of the semester to be trained in operating the tape recorder and in note-taking for the three FTF discussions. The assistants worked with the student groups in multiple capacities prior to the discussion times which well-acquainted them with students. The note-taking was completed in a two-column format in which the speaker is identified in one column and the first few words of the comment that identify the comment will be recorded in the adjacent column. The form for taking notes is in Appendix D. All verbal comments were recorded.

Each of the discussion group leaders provided instruction to the students in her/his discussion groups describing the responsibilities of the student participants. The discussion group leaders received training in how these instructions should be delivered. The students were sent the discussion group information by email that described the ED board operations and the students' responsibilities. A copy of the researcher's guidelines and instructions may be found in Appendix C.

The three lectures took place in three consecutive months beginning in August, 2009. The professors sent reminder emails to the starters and wrappers prior to each of the scheduled EDs. Following the last lecture and discussion, the students re-took the *SEE* through the Survey Monkey website. See Table 3.1 for an overview of the data collection schedule.

Table 3.1

Data Collection Schedule

August 2009	Training session with the professors leading the discussion groups
August 2009	Training session with the assistants to the researcher
August 2009	Professors of both FTF groups and ED groups provided instruction for the student participants regarding their responsibilities
August 2009	Students in the six discussion groups took the <i>SEE</i> through Survey Monkey
August 25 & 27, 2009	Lecture and Discussion #1
September 22 & 24, 2009	Lecture and Discussion #2
October 19 & 21, 2009	Lecture and Discussion #3
November 2009	Students in the six discussion groups re-took the <i>SEE</i> through Survey Monkey
November 2009	A Likert-scale questionnaire was administered to all students through Survey Monkey

Data Collection Procedures

Six small groups of 14 to 15 students who were a part of the freshmen orientation course participated in this study. All participants took the *Scale of Ethnocultural Empathy (SEE)* before the course lectures and discussions began. The *SEE* was given electronically through the Survey Monkey website. Survey Monkey is a site designed to administer surveys and allow collection and analysis of the data gathered. All students in the college's orientation course are required to take the *SEE*. All of the groups participating in this study attended the lectures and discussions as scheduled by the freshman orientation course. The three lectures and discussions that address issues of cultural competency were the focus of this study. Cultural empathy is measured by the *SEE* and is operationalized by the authors as “intellectual empathy, empathic emotions,

and the communications of those two” (Wang, et al., 2003, p. 222). The authors defined intellectual empathy as “the ability to understand a racially or ethnically different person’s thinking and/or feeling” (p. 222). The empathic emotions facet is the ability to grasp the emotional perspective of those from a different culture than oneself. The communicative aspect was simply the ability to express intellectual empathy and empathic emotions (Wang et al., 2003).

Three of the freshmen orientation groups were assigned to the experimental group and control group based on decisions by college staff. The experimental group conducted their discussions in an asynchronous ED format through the Nicenet website (<http://www.nicenet.org/>). Nicenet is a website that is free to users and allows teachers to arrange asynchronous electronic discussion sites for use in discussion outside of the classroom. Students were trained in use of the Nicenet website and received an email with step-by-step instructions for logging onto the discussion sites. A discussion board protocol (Moore & Mara, 2005) that outlines discussion board participation guidelines was shared with each student. A copy of the discussion board instructions and guidelines may be found in Appendix C. A transcript of the ED discussions was generated from the Nicenet website in order to determine participation levels for each group member.

Three of the groups were assigned to the control group. They had their discussions in the traditional FTF setting, as is the usual practice. For the purposes of this study, the FTF discussions were audio recorded by the researcher and assistants. The researcher assistants took notes during the discussion in order to connect the discussion contributions to the group members for later analysis. A copy of the form used by the

note-takers may be found in Appendix D. Transcripts for the FTF discussions were generated and used to determine participation levels for each group member.

Following the last of the lectures and discussions, all of the study participants re-took the *SEE* through the Survey Monkey (an online survey system) website. In addition, students will be given a questionnaire to assess their perceptions of their levels of self-reflection. Like the *SEE*, the *Assessment of Student Reflection* was given electronically through the Survey Monkey website. This questionnaire may be found in Appendix B.

Data Analysis Procedures

Data collected for this study were primarily quantitative, but the type of data ranged from ordinal to interval, requiring both parametric data analysis methods. Statistical analyses used in this study included the *F*-ratio analysis of frequency distribution, *t*-test, and analysis of variance (ANOVA).

A *t*-test was employed to analyze the data from the Likert-scale questionnaire. A *t*-test is generally used to compare the means of two samples to determine if a significant difference exists (Fraenkel & Wallen, 2003). The data from this analysis provided evidence regarding which of the groups, electronic or FTF, reported higher degrees of self-reflection during the discussion.

A frequency distribution was used to display the number of contributions made to discussion groups by each member. The data from the frequency distribution will be analyzed by an *F*-ratio to assess significant statistical differences in the distribution of discussion contributions between the ED groups and the FTF discussion groups. The *F*-ratio test is a “test of the null hypothesis of no differences between population variances for independent samples,” wrote Hinkle et al., (2003). This test enabled a comparison of

the variances found from both groups. The data from this analysis provided evidence regarding whether or not significant differences exist between the distributions of discussion contributions of the ED groups and the FTF groups.

The ANOVA was used to analyze the results of the pre-testing and post-testing on the *SEE*. The ANOVA is used to measure differences in the dependent variable that are the result of the independent variable (Hinkle, Wiersma, & Jurs, 2003). In this case, the outcome of the participant testing on the *SEE* was the dependent variable. The independent variable was the type of discussion format being used. Half of the groups were employing a FTF format while the other half used an ED board. The ANOVA yielded a within-groups variation that expressed the variation that exists within the FTF groups and the ED groups (Hinkle et al., 2003). The ANOVA also provided a between-groups variation that expresses the differences, if any, between the group means and the grand mean, the mean of all the groups combined. This statistic is of particular interest because, if differences exist, it will indicate if they may be attributed to the independent variable: discussion format (Hinkle et al., 2003).

Study Assumptions and Delimitations

The data collected through the *SEE* and the *ASR* required self-reporting, therefore, it was assumed that the student responses were truthful and genuine. Although the groups could not be randomly assigned, the assumption was that the groups were relatively similar in regard to background and academic ability.

There were also several delimitations of this study. The purpose of this study was to examine the value of ED in developing cultural competency. The objective was not to assert that electronic discourse is more effective than FTF discussion, but to explore the

particular advantages that electronic discourse might provide for the purpose of cultural competency development. Data gathered provided evidence regarding the following: ED board participation compared to FTF discussion; participant impressions about the reflective aspect of ED; and general effectiveness of ED.

The actual content of the discussions did not undergo evaluation for the purpose of comparing the quality of ED with the quality of FTF discussion. A content-analysis would have provided valuable information that is pertinent to this discussion, but this analysis was not feasible in this study due to its time-consuming nature and the fact that this study was the work of a solo researcher.

A final delimitation was in related to the scope of inferences to be drawn about electronic discourse. This study spoke specifically to the value of electronic discourse in relation to cultural competency development. The implications of the findings from this study will not address the value of electronic discourse in other settings.

Chapter 4: Results

Overview of Results

This study evaluated the use of electronic discourse (ED) as a substitute for face-to-face (FTF) discussion for the purpose of developing cultural competency among college freshmen. A computer-based strategy for holding discussions is of particular interest to the sphere of teacher education where the development of cultural competency is crucial for healthy classroom environment and student learning (Frankenberg, et al., 2003; Howard, 2006; Schulte, 2000). The study employed a quasi-experimental research design to compare the development of cultural competency between electronic discourse (ED) discussion groups and face-to-face (FTF) discussion groups. The research questions addressed in this study are as follows:

1. When college freshmen participate in discussions for the purpose of developing their cultural competency, do freshmen in asynchronous ED groups demonstrate higher average levels of self-reflective discussion contributions, as measured by responses to self-reported Likert-scale statements, than do freshmen participating in FTF discussions?
2. Do college freshmen participating in asynchronous ED groups demonstrate more equally-distributed discussion contributions, as measured by the number of student postings in each electronic group session, than students participating in the FTF groups, as measured by the number of student contributions in each live discussion?

3. Do students participating in ED demonstrate evidence of more growth in cultural competency, as evidenced by the pre-test and posttest SEE scores, than students participating in FTF discussions?

Preliminary Findings

Data were gathered by monitoring six discussion groups, three of which held face-to-face discussions and three held electronic discussions. Each group was led by a college professor after a whole-group presentation on three topics related to cultural competency. Two assessment instruments were used. The *Scale of Ethnocultural Empathy (SEE)* was used in a pre-test and posttest model to evaluate any growth in cultural competency. A self-report survey constructed by the researcher, *Assessment of Student Reflection (ASR)*, was administered at the same time as the *SEE* posttest to analyze student perceptions of their reflective experiences. The discussion group contributions were recorded and counted to analyze the level and distribution of individual participation. The lens for presenting and examining the results of these analyses will be the research question.

There are approximately 1,000 students enrolled in the college, and they reflect a strong representation from the eastern states with a smaller representation of national and international students. The gender ratio is 44% male and 56% female (Department of Institutional Research, 2009). The population of the freshmen orientation group equals 253 students with 43% of the population representing males and 57% females. The sample of students from the orientation participating in the study included 88 students. Of this group, 40% were males and 60% females. The sample is basically similar to the population regarding gender.

Participants were also similar to the college population in age categories. Table 4.1 summarizes the participant and population characteristics.

Table 4.1

Summary of Participant and Population Characteristics

Group	N	17 or Under	18 or Older	Male	Female
Population	253	22 (.09%)	231 (91%)	109 (43%)	144 (57%)
Sample	88	7 (.08%)	81 (92%)	35 (40%)	53 (60%)

Research Question 1 Results

Overview of study activities: Research question 1. Research question 1 asks, “Do students participating in asynchronous ED report higher levels of self-reflective discussion contributions than those participating in face-to-face (FTF) discussions?” This question focuses on the perceptions of participants regarding their degree of self-reflection through ED participation. When developing cultural competency, it is essential that students engage in self-reflection about their belief systems and worldview. Greater self-reflection will promote deeper understanding of their current perspectives and how these may need to change to make them better able to teach in today's classrooms. Past studies have hypothesized that the advantages of the asynchronous ED medium promote more in-depth and therefore, more useful reflection than do in-person discussions (Hara, et al., 2000; Wade, Fauske, & Thompson, 2008).

The formalized version of research question one is posed as follows, “When college freshmen participate in discussions for the purpose of developing their cultural

competency, do freshmen in asynchronous ED groups demonstrate higher average levels of self-reflective discussion contributions, as measured by responses to self-reported Likert-scale statements, than do freshmen participating in FTF discussions?”

Six small groups of 14-to-15 students who were a part of the freshmen orientation course participated in this study. Three of the groups participated in asynchronous electronic discussions and three of the groups participated in face-to-face discussions. After participating in the discussion group experiment, students were given the Assessment of Student Reflection (*ASR*) to evaluate their perceptions of their levels of self-reflection. The *ASR* is an instrument constructed by the researcher to evaluate student perceptions about the reflection that occurred as a result of the discussion group experience. The *ASR* was administered electronically through the Survey Monkey website.

***ASR* instrument validity and reliability: Research question 1.** Formative evaluation was conducted on the *ASR* in two ways. The assessment was shared with four teacher education professors to gather feedback on the clarity of the meaning and intention of the questions. Each of the professors responded with positive feedback and with suggestions for improvement. These suggestions were incorporated into the final version of the survey used in the study. The assessment was administered to a small group of 7 adults who are not participating in the research study in order to assess their responses and reactions to the test questions. This information was also used to assess the clarity of the questions and improve the *ASR*.

A Cronbach's alpha coefficient was calculated to determine the reliability of the *ASR*. The total number of cases for this calculation was 57. The $\alpha = .69$ which

demonstrates a fair degree of reliability. Research standards prefer a score of .70 or higher, but .69 indicates that the ASR can be considered moderately reliable (Fraenkel & Wallen, 2003).

Findings: Research question 1. A *t* test was used to compare the means of the two discussion groups and determine if there were any differences between them (Hinkle, Wiersma, & Jurs, 2003). In a comparison of the FTF groups and ED groups on the ASR, the data showed no significant difference between the scores of the FTF groups and the ED groups. The test was not significant, $t(58) = .629, p > .05$. The null hypothesis, there is no significant difference in levels of self-reflection between the FTF and ED groups, cannot be rejected. It must be concluded that there was no significant difference in the self-reported levels of self-reflection between the FTF and ED groups.

Students from both the FTF and ED groups reported on the *ASR* open-ended questions that the discussion groups facilitated reflective thinking. Jen (all names here are pseudonyms), a FTF student participant, commented, “The discussion group caused me to have a much less restrictive viewpoint, and to realize how extremely biased my own was. Overall, I have learned that it really is important as Christians to hear what others have to say, and to appreciate them and their comments, whether we agree totally with them or not.” Another FTF student, Clay, stated, “My classmates would bring up ideas, beliefs, or issues that I had not thought about before. I was then able to consider my own beliefs or viewpoints and decide whether my own needed to be modified, thrown out completely, or kept the way that they were.” An ED student participant, Rebecca, reported, “These times really helped me reflect and sometimes revise where I stand on certain issues, looking at things from different angles than I was used to, and sometimes

things that were new to me.” Derek, another ED participant, commented, “When I had to give an opinion or defend my opinion in the electronic discussions ... I was forced to think about what I actually believed and held to be true and why that was. Participating in discussions always leads to self-reflection. Moreover, hearing others' takes on things forces me to consider whether or not my own idea is actually correct.” The majority of student comments indicated the discussion group in either format is perceived as an effective means of promoting self-reflection.

Research Question 2 Results

Overview of study activities: Research question 2. Research question 2 asks, “Are student participation levels more equally-distributed in ED groups in comparison with FTF groups?” This question addresses the issue of group member participation. Prior research indicates that ED opens the door to reticent participants (Hara, Bonk, & Angeli, 2000; Killian & Willhite, 2003; Walther, 2003). This question probes at the concept of equalized or more evenly-distributed participation in ED.

The formalized version of research question two asks, “Do college freshmen participating in asynchronous ED groups demonstrate more equally-distributed discussion contributions, as measured by the number of student postings in each electronic group session, than students participating in the FTF groups, as measured by the number of student contributions in each live discussion?”

A total of six groups participated in the discussion groups for this study. Three of the groups were assigned to the experimental group. These groups conducted their discussions in an asynchronous ED format through the Nicenet website

(<http://www.nicenet.org/>). A transcript of the ED contributions was generated from the Nicenet website in order to determine discussion contributions for each group member.

Three of the groups were assigned to the control group. They conducted their discussions in the traditional FTF setting. The FTF discussions were audio-recorded by three research assistants. The assistants took notes during the discussion that connected the discussion contributions to the individual members of the group. The recordings and the research assistants' notes were used to determine discussion contributions for each group member.

Findings on research question 2. An *F*-ratio was used to compare the amount of variance in the amount of discussion comments contributed by each member (Hinkle, et al., 2003). The null hypothesis, that there was no difference in the variance between the two groups, was tested using an *F*-ratio. Table 4.2 shows that the variance score for the ED groups was 12.462, while the variance for the FTF group was 37.061. The variances indicate the $F(43, 43) = 2.97, p < .01$. Since the *F*-value exceeded the critical value, the null hypothesis was rejected. The notion that there was significantly greater variance in the FTF groups than in the ED groups is supported. Figure 4.2 demonstrates the variance between the groups in graph format.

The researcher read all of the ED discussions and listened to all of the FTF recordings, with the exception of one discussion in which the recorder malfunctioned and only the notes of the research assistant were available. During the process of tabulating all of the participant responses, the researcher noted that the professors who led the discussions were more dominant in the discussions than the professors in the ED discussions. The professors in the FTF groups tended to interject a response to each

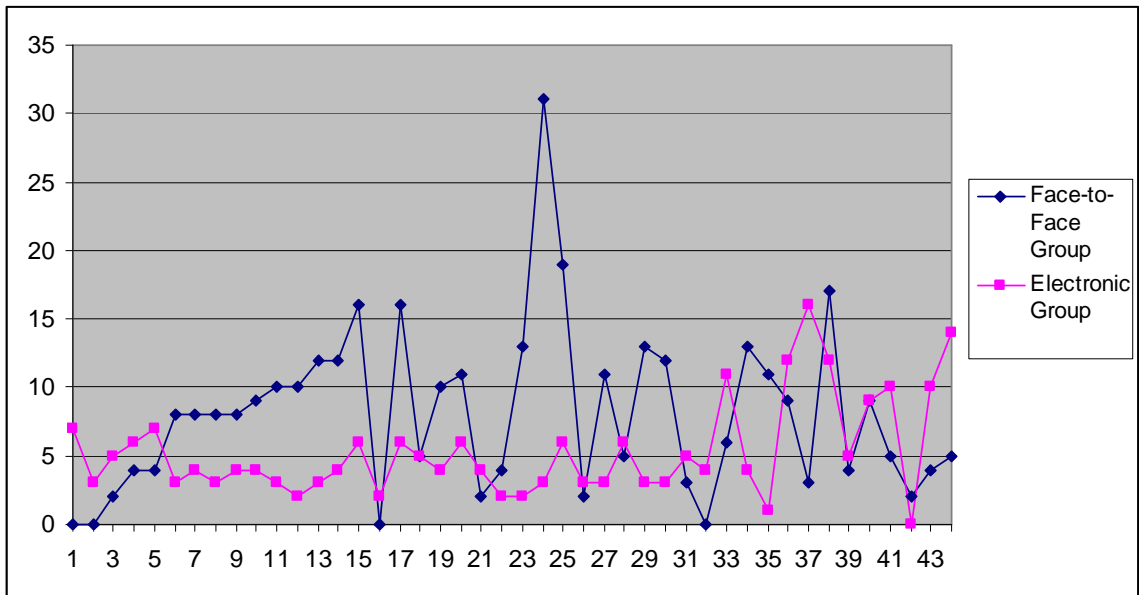
student contribution. After posing the initial question, the professors in the ED groups tended not to interject as often.

Table 4.2

Summary of Variance in Discussion Contributions between Face-to-Face and Electronic Discussion Groups

Group	N	Minimum	Maximum	Variance
FTF	44	.00	31.00	37.061
ED	44	.00	16.00	12.462

Figure 4.1. Line graph displaying discussion group contributions



The researcher also noted that the students in the ED groups tended to interact with the discussion questions posed by the discussion leader, but had limited responses to

peer comments. The participants in the FTF groups interacted with both the discussion leader questions and the comments of other students in their discussion groups.

Research Question 3 Results

Overview of study activities: Research question 3. Research question 3 asks, “Do students involved in ED demonstrate evidence of more growth in cultural competency, as evidenced by the SEE scores, than students involved in FTF discussions?” The objective is to find out if college freshmen participating in asynchronous ED groups demonstrate greater levels of growth than students participating in the FTF discussions due to the advantages considered by some to be inherent strengths of ED such as the accessibility and popularity of computer technology (Oblinger & Oblinger 2005; Maximizing the Impact, n.d.); flexible participation (Hara, Bonk, & Angeli, 2000; Dutt-Doner & Powers, 2000); greater honesty and vulnerability (Killian & Willhite, 2003); and deep levels of self-reflection (Chickering & Ehrmann, 1996; Yost, Sentner, & Forlenza-Bailey, 2000). The formalized version of research question 3 asks, “Do students participating in ED demonstrate evidence of more growth in cultural competency, as evidenced by the pre-test and posttest *SEE* scores, than students participating in FTF discussions?”

The six groups participating in the study were administered the *Scale of Ethnocultural Empathy* before the course lectures and discussions began. The *SEE* was given electronically through the Survey Monkey website. All of the groups participating in this study attended the lectures and discussions as scheduled by the freshman orientation course. The three lectures and discussions that address issues of

cultural competency were the focus of this study. Following the last of the lectures and discussions, all of the study participants re-took the *SEE* through the Survey Monkey website.

***SEE* validity and reliability.** While the *SEE* was reported in previous studies as having high reliability in terms of internal consistency, a Cronbach's alpha coefficient was calculated on both the pretest and posttest results of the *SEE* to assess its reliability in the context of this study. All subjects who took either the pre-test or posttest were included in this calculation. The alpha coefficients for the *SEE* including all four subscales showed high levels of reliability with an overall pre-test score of .90 and an overall posttest score of .91. The weakest of the subscale alpha levels was the subscale entitled, Acceptance of Cultural Differences, with an alpha of .69 on the pre-test only. This was the only coefficient that did not reach an alpha level of .70, the widely accepted minimum for a favorable reliability score (Fraenkel and Wallen, 2003). However, the coefficient was very close to the minimum acceptable level and was over .70 on the posttest indicating the subscale on its own is moderately reliable in terms of internal consistency. Table 4.3 shows the summary of all of the reliability coefficients in this study.

Findings on research question 3. A *t*-test was used to compare the growth reflected in the pretest and posttest *SEE*. Although 253 students took the pretest and 185 students took the posttest, 55 students took both the pre-test and the posttest and gave permission for data to be included in this study. These students' scores were analyzed for gain scores (posttest score – pre-test score) and were included in this portion of the study.

Table 4.3

Summary of Cronbach's Alpha Coefficients for SEE Pre-tests and Posttests

Subtest Scales	Pre-test Alpha N= 253	Posttest Alpha N= 185
Empathic Feeling and Expression	.88	.91
Empathic Perspective Taking	.71	.73
Acceptance of Cultural Differences	.69	.74
Empathic Awareness	.71	.85
All Subscales Combined	.90	.91

In a comparison of the FTF groups and ED groups on the four subscales of the test, there were no significant differences on the gains between the pre-test and posttest. The gains scores for each subscale were analyzed for differences between the FTF and ED groups. Using a two-tailed *t*-test for independent samples, no significant differences were found on any of the four subscales. There were also no significant differences between the combined scores for each group. Table 4.4 displays the detailed results of the *t*-test for the four subscales and the combined total. This analysis indicates that the null hypothesis, there is no difference between the FTF and ED gains scores, cannot be rejected. The data do not support the research hypothesis that students in the ED groups showed greater growth in cultural competency based on the *SEE* pre-test and posttest outcomes.

An ANOVA was also used to look for any differences that may have occurred within the six individual groups (3 FTF and 3 ED). Although each of the groups had a minimum of 14 members, matching students who took both the pre-test and posttest reduced these numbers significantly. Participants ranged from 5 to 11 in each group. The

ANOVA indicated no significant differences within the FTF or ED groups, $F(20, 33) = .63, p > .01$. Therefore the null hypothesis, that there are no significant differences within the groups, cannot be rejected. Table 4.5 summarizes the data for the six groups.

Table 4.4

Summary of Results for t tests Conducted on the SEE (N=55)

Subscale/Total Test	FTF-N	ED-N	Sig	t
Empathic Feeling and Expression	28	22	.364	.917
Empathic Perspective Taking	30	21	.589	-.543
Acceptance of Cultural Differences	29	24	.817	.233
Empathic Awareness	29	23	.780	-.281
All Subscales Combined	26	19	.592	.540

Table 4.5

Summary of Means and Standard Deviations for Discussion Group SEE Scores

Group Type	Group	N	Mean	SD
FTF	1	7	131.86	19.68
	2	10	136.90	21.51
	4	11	135.18	15.25
ED	5	6	154.17	16.99
	6	5	137.60	14.12
	7	6	132.50	15.39

Through the examination of all of the discussion data and SEE data, the researcher observed a mismatch in the alignment of instruction with assessment. Many learning theories acknowledge the importance of aligning objectives and instruction with

assessment (Marzano, 1992; Popham, 2006). The lectures and discussions were related to the concepts assessed by the *SEE*, but there were many gaps. Much of what was assessed in the *SEE* was not directly addressed or discussed in the small groups. On the *ASR* open-ended questions, Eric, a student participant from one of the ED groups commented, “I sometimes found myself slightly dissatisfied with some of the discussion taking place, though it was not the fault of the supervisor. Sometimes our groups would have very little to say on the topics at hand, and I could not help but feel slightly frustrated in not being able to lend helpful words or thoughts in these situations. Perhaps we did not pay close enough attention, but perhaps the subjects at hand were above our heads.”

Summary of Study Findings

In summary, the analysis of the *ASR* demonstrated that the students in the FTF and ED groups did not have significantly different reports about their levels of reflection. Based on the participant responses to the open-ended questions on the *ASR*, the discussions did help to facilitate reflection on one’s held beliefs and actions. The data show that the groups reported similar levels of reflection regardless of which type of discussion group assignment.

Next, the analysis of the discussion group contributions demonstrated that ED groups show evidence of more evenly-distributed participation by discussion group members. The variance of contributions in the FTF groups was significantly higher than in the ED groups. The *F*-ratio showed that the variance between the FTF and ED groups was significant.

Finally, the pre-test and posttest results of the assessment show that the FTF and ED groups posted similar student outcomes. Results of the *t* tests showed there were no

significant differences in the pre-test to posttest gains on the SEE between the FTF and ED groups. Finally, an ANOVA to compare differences among the sub-groups showed there were no significant differences within the groups.

Researcher observations included some differences in levels of discussion leader participation between the FTF and ED groups as well as differences in peer interaction. Also noted by the researcher was a mismatch between the executed curriculum and the SEE assessment tool. The interpretation and implication of these findings will be explored in the upcoming and final chapter of this study.

Chapter 5: Discussion

Overview of Study Discussion

The cultural climate that characterizes the United States and its schools is in conflict. In a summary of these issues, Frankenberg, Lee, and Orfield (2003) reported, “Our schools are becoming steadily more nonwhite, as the minority student enrollment approaches 40% of all U.S. public school students, nearly twice the share of minority school students during the 1960s” (p. 4). At the same time, this increasingly diverse student population is being met by a decreasingly diverse teacher population. The African American teaching force has diminished and the percentage of white teachers dominating the teaching force has grown (A Public Education Primer, 2006).

Culturally-competent teachers are needed to address the numerous issues that exist in a society that is culturally divided. English language learners need to be recognized as capable learners (Delpit, 2006); low academic achievers need to be valued and challenged to work to their highest potential (Villegas & Lucas, 2007); and all students need to be enriched by an educational system in which all learners are valued (Bennett, 1995.)

Because culturally-competent teachers are needed to meet the educational needs of all students, it is the task of colleges of education to prepare them. Teacher education programs are charged with the responsibility to prepare pre-service teachers for a variety of diverse teaching experiences. The National Educator’s Association (NEA) identified the development of culturally-competent teachers as a 21st century need and goal (Van Roekel, 2008).

Numerous programs and studies are being conducted to find effective ways to facilitate the growth of cultural competency. The research of Crumpler, Lenski, and Stallworth (2005) focused on the use of ethnography to prepare student teachers to respond intelligently to cultural differences in the classroom. Fine (1997) identified student reflection on their own personal stories of cultural identity and acceptance as crucial in developing authentically cultural competence. Multiple researchers and curriculum designers have worked from a variety of angles to resolve the need for culture competence growth among our teachers and preservice teachers (Banks, 1993; Guyton & Weshce, 2005; Howard, 2006; Kozol, 2005; Ladson-Billings, 1994; Sleeter, 2001; Turner, 2007; Villegas & Lucas, 2007; Wang et al., 2003).

Electronic discourse targeted for the development of cultural competency.

Cultural competency and multicultural education research emphasize the importance of self-knowledge and understanding (Howard, 2006; Kozol, 2005; Ladson-Billings, 2006; Villegas & Lucas, 2007). One tool being used to prepare educators to engage in transformative thinking for the purpose of providing genuinely multicultural environments is electronic discourse. There are numerous factors that commend the use of electronic discourse in the educational setting. Some of the advantages of electronic discourse include the accessibility and popularity of computer technology (Oblinger & Oblinger, 2005); the freedom and flexibility of asynchronous electronic discussion (Hara, Bonk, & Angeli, 2000); opportunities for enriched participation (Killian & Willhite, 2003); and the promotion of critical and reflective thinking (Wegerif, 2006; Yost, Sentner, & Forlenza-Bailey, 2000).

Overview of the methodology. This study focused on the use of electronic discourse in cultural competency development in college students. A quasi-experimental research design was used to examine differences in the development of cultural competency between ED and FTF discussion groups. Data were gathered by monitoring the six discussion groups, three of which held face-to-face discussions and three held electronic discussions. Each group was led by a college professor after a whole-group presentation on three topics related to cultural competency. Two assessment instruments were used. The *Scale of Ethnocultural Empathy (SEE)* was used in a pre-test and posttest model to evaluate any growth in cultural competency. A self-report survey constructed by the researcher, *Assessment of Student Reflection (ASR)*, was administered at the same time as the *SEE* posttest to analyze student perceptions of their reflective experiences. The discussion group contributions were recorded and counted to analyze the level and distribution of individual participation. This chapter focuses on the interpretation of the results of the data gathering and analyses.

Interpretation of Findings

Research question 1 findings and interpretations. Research question 1 asked, “When college freshmen participate in discussions for the purpose of developing their cultural competency, do freshmen in asynchronous ED groups demonstrate higher average levels of self-reflective discussion contributions, as measured by responses to self-reported Likert-scale statements, than do freshmen participating in FTF discussions?” A *t*-test was used to compare the means of the two discussion groups and determine if there were any differences between them (Hinkle, Wiersma, & Jurs, 2003). In a comparison of the FTF groups and ED groups on the *ASR*, the data showed no

significant difference between the scores of the FTF groups and the ED groups. The test was not significant, $t(58) = .629$, $p > .05$. The null hypothesis, there is no significant difference in levels of self-reflection between the FTF and ED groups, cannot be rejected. It must be concluded that there was no significant difference in the self-reported levels of self-reflection between the FTF and ED groups.

Although the ED groups did not show greater levels of self-reflection than the FTF groups, it is noteworthy that there were no significant differences between the two groups. The FTF groups did not show greater levels of self-reflection than the ED groups. These data support the conclusion that the participants experienced equivalent reflective benefits as a result of the FTF and ED discussion groups. Unlike the face-to-face format, the asynchronous electronic format allowed participants to engage in discussion away from the classroom setting (Nicholson & Bond, 2003). The electronic format also allowed participants to engage in dialogue on their own timetable (Hara et al., 2000). In fact, one of the ED group leaders in this study requested to have an additional online discussion arranged (unrelated to cultural competency content) because of his plans to be away on professional development.

Student responses on the open-ended questions contained on the *ASR* from both the FTF and ED groups supported the conclusion that the discussion groups equally facilitated reflective thinking. Pseudonyms are used to protect individual student identities. Jarrod, a FTF student participant commented, “Because I was able to hear from such a wide variety of perspectives, I was able to challenge the views I have been forced my entire life. Rather than only accepting what I am used to, I have learned to be open-minded and listen to what others have to say.” Another FTF student, Brandon,

stated, “There were many articles that we had to read that I agreed with, and some that I strongly disagreed with. However, during our group time, people presented different view points, and sometimes this caused me to think twice. Maybe I did not need to be so opposed to something, or possibly my thought process was incorrect.” An ED student participant, Liz, reported, “By hearing people's views and their experiences from their life I could see how they would have the view that they had and it opened me up to see it in their way and to see where they were coming from.” Antoine, another ED participant, commented, “The group discussions taught me how to clearly and thoughtfully communicate my personal views and how to remain open minded to others' views.” Regardless of whether the discussions were conducted face to face or electronically, the majority of student comments indicated the discussion group is perceived as an effective means of promoting self-reflection.

Research question 2 findings and interpretations. Research question 2 asked, “Do college freshmen participating in asynchronous ED groups demonstrate more equally-distributed discussion contributions, as measured by the number of student postings in each electronic group session, than students participating in the FTF groups, as measured by the number of student contributions in each live discussion?”

An *F*-ratio was used to compare the amount of variance in the amount of discussion comments contributed by each member. The null hypothesis, there is no difference in the variance between the two groups, was tested using an *F*-ratio. Table 2 shows that the variance score for the ED groups was 12.462 while the FTF group variance was 37.061. The variances indicate the $F(43, 43) = 2.97, p < .01$. Since the *F*-value exceeds the critical value, the null hypothesis that there was no difference in the

variances was rejected. The notion that there is significantly greater variance in the FTF groups than in the ED groups is supported. It appears that the discussion contributions in ED groups are more evenly-distributed among group members than the discussion among FTF groups. These data support the findings of Dutt-Doner and Powers (2000) which conclude that students are less intimidated in electronic discussion and feel empowered to contribute to the discussion when more time is available to formulate thoughts and ideas before stating them.

The researcher read all of the ED discussions and listened to all of the FTF recordings, with the exception of one discussion in which the recorder malfunctioned and only the notes of the research assistant were available. During the process of tabulating all of the participant responses, the researcher noted that the professors who led the discussions were more dominant in the discussions than the professors in the ED discussions. The professors in the FTF groups tended to interject a response to each student contribution. After posing the initial question, the professors in the ED groups tended not to interject as frequently. Although the participation of the discussion leaders was not the focus of any of the research questions, it is an interesting pattern that was noted and appears to be related to student participation levels. The researcher also noted that the students in the ED groups tended to interact with the discussion questions posed by the discussion leader, but had limited responses to peer comments. The participants in the FTF groups interacted with both the discussion leader questions and the comments of other students in their discussion groups. The observations made by the researcher appeared to confirm the equalizing nature of ED. The students who contributed the most in FTF discussions tended to dominate the discussions in an obvious manner. There were

also more students in the FTF groups who never contributed at all than there were in the ED groups. These researcher observations will be discussed further when implications for practice and future research are addressed.

Research question 3 findings and interpretations. Research question 3 asked, “Do students participating in ED demonstrate evidence of more growth in cultural competency, as evidenced by the pre-test and posttest SEE scores, than students participating in FTF discussions?” A *t* test was used to compare the growth reflected in the pre-test and posttest SEE. The two separate administrations of this assessment were analyzed for gain scores (posttest score – pre-test score = gains) and were included in this portion of the study.

In a comparison of the FTF groups and ED groups on the four subscales of the test, there were no significant differences on the gains between the pre-test and posttest. The gains scores for each subscale were analyzed for differences between the FTF and ED groups. Using a two-tailed *t* test for independent samples, no significant differences were found on any of the four subscales. There were also no significant differences between the combined scores for each group. This analysis indicates that the null hypothesis, there is no difference between the FTF and ED gains scores, cannot be rejected. The data do not support the research hypothesis that students in the ED groups showed greater growth in cultural competency based on the *SEE* pre-test and posttest outcomes.

Similar to the outcome of the *ASR*, it should be noted that although the ED groups did not show greater growth on the *SEE* than the FTF groups, neither did the FTF groups show greater growth on the *SEE* than the ED groups. These data support the conclusion

that the FTF participants and the ED participants benefited equally and showed similar levels of growth in cultural competency. Group results demonstrate that ED and FTF discussions are equally effective in facilitating student reflection.

Implications for Practice

Interchangeability of electronic and face-to-face discussion formats. The data on student reflection gathered through the *t*-tests performed on the *ASR* and the data on cultural competency growth gathered through the *t*-tests performed on the *SEE* pre- post gains suggest that the FTF and ED groups showed equivalent levels of reflection and growth. This data suggests that electronic discussion may be used as an option for face-to-face discussion without sacrificing student growth or progress.

Electronic discourse used for its unique strengths. Resta and Laferriere (2007) suggest that research should cease to focus on determining whether the face-to-face or the electronic learning environment is superior. Instead, they suggest that the electronic environment be examined for particular strengths that it brings to the educational setting. Equal outcomes in self-reflection and cultural competency growth may also be an indicator that electronic discussion could be used to address potential barriers of time and place. Since face-to-face discussion requires class time to be set aside for it, an alternative might be to utilize electronic discussion outside of class in order to preserve class time for alternate instructional activities (Hara et al., 2000). Equivalent outcomes in reflection and growth in cultural competency suggest that the relative advantages of electronic discourse, such as time independence and place independence (Hawkes, 2000) may be utilized without compromising student outcomes. An emergent theme from the research of Nicholson and Bond (2003) stated the following, “The use of computer-mediated-

communication allowed the interns to overcome the barriers of time and distance as they developed their reflective thinking and sense of membership in a professional community,” (p. 264).

The *F*-ratio that was calculated on discussion group contributions showed not only that the variance of the FTF group exceeded the variance of the ED groups, but that the variances are statistically different. Therefore, when particular students show a tendency to dominate face-to-face discussion, electronic discussion might be a useful alternative. Students who are reticent to contribute in face-to-face discussions may be more likely to participate in the asynchronous electronic format in which discussion comments can be well-planned and then posted with ease (Hara, Bonk, & Angeli, 2000; Killian & Willhite, 2003; Walther, 2003). Benson (1997) reported, “Students who were once too timid to speak in class became almost verbose when contributing to electronic discussions” (¶ 7). The results of this study support the use of ED in order to encourage more equal discussion participation by all students.

Training needed for ED leaders and participants. Researcher observations indicated that ED participants had fewer peer interactions than the FTF participants. The ED participants tended to respond to the questions posted by the discussion leaders, but they had fewer responses to peer comments. For most of the ED group leaders, this was their first experience with the online discussion format. “Online interaction is sensitive to the ways the teacher plans, structures, and supports the interaction,” wrote Resta and Laferriere (2007, p. 72). Additional training for these group leaders would provide them with the skills needed to guide meaningful electronic discourse.

The implementation of a rubric would be useful to both instruct and require appropriate online discussion interactions (Roblyer & Wiencke, 2003). The presence of a rubric would help to identify the required types of interactions and would hold students accountable for carrying out those requirements. Roblyer and Wiencke (2003) wrote, “When rubrics are combined with descriptions and examples of effective performances for each component quality, they become a powerful way to clarify expectations and guide performance” (p. 79).

The researcher also noted that there seemed to be a mismatch between the discussion content and the assessment tool (*SEE*). The content of many questions included on the *SEE* were not specifically included during the discussions. It is essential that electronic discussion leaders create discussion board activities that are well-aligned with learning objectives (Greenlaw & DeLoach, 2003; Moore & Mara, 2005). “Our results indicate that in designing discussion board activities and protocols for participation, instructors must try to ensure that the participation protocol is in alignment with the task and intended objections of the discussion board task,” stated Moore and Mara (2005). Hara et al. (2000) indicated that well-designed discussion board assignments assist students to better accomplish course objectives. For more effective integration of subject matter, it was crucial that discussion content be adequately aligned with assessment.

Study Limitations

This study was conducted at a small Christian college in the southeast. The sample size is small; the number of participants varied from 55 to 88 college students. Therefore, findings of this study may not be generalizable to other college populations.

Several other characteristics of the study limit the conclusions that may be drawn from the findings. The first is the non-random assignment of student participants to discussion groups. This sample might be described as a convenience sample, a sample that is easy to access (Frankel & Wallen, 2003). For the purpose of the orientation class, students are grouped by majors to facilitate community-building. The group leaders also were not able to be randomly-assigned. Professors who were interested in participating in this research project volunteered. Most of those who volunteered agreed to be placed in the FTF groups or the electronic groups. This may help to avoid biases toward one discussion style over another.

A third limitation is that the discussion leaders did not rotate. The characteristics of the discussion leaders may impact the post-test scores (Frankel & Wallen, 2003). In an effort to address this problem, the researcher gave training to all of the professors engaged in discussion leadership. During the training each leader received instructions for the discussion group structures. (See Appendix C for the Discussion Board Instructions and Guidelines). All of the groups heard the same lecturer at the same time in a large lecture hall. This provided homogeneity of instruction at the large group level. This concern was further alleviated through the outcome of the ANOVA. This analysis showed no significant differences within the six small groups that defined the FTF and ED groups, which indicates that the effect of the instructors was not a significant influence on the outcomes of this study.

A fourth limitation to this study is the researcher-designed tool, the *Assessment of Student Reflection*. Although formative evaluation will be completed, the tool is not a standardized, validated research instrument. However, the *ASR* was shown to have a

moderate reliability coefficient demonstrating that the evaluation had a moderate degree of internal consistency and was a reliable instrument (Hinkle, Wiersma, & Jurs, 2003).

The length of the study is another significant limitation that bears addressing. The 3 lectures and discussions took place in 3 consecutive months, however, a greater difference in progress on the *SEE* or the *ASR* may have been more easily detected if the experiences had been more numerous. The space of a month between discussions may also have had an impact on the electronic discussion due to lack of familiarity with the electronic format. More frequent discussions with less time in between them may have fostered more familiarity and comfort with the electronic format.

The self-reporting nature of the *SEE* is the final limitation of the study. Response distortion may impact the accuracy of student report because of the desire to create an overly positive impression of oneself (Razavi, 2001). The *SEE* utilizes a six-response Likert scale with the two inner choices of “slightly agree” and “slightly disagree”. This type of scale creates a forced choice and may help to reduce the social desirability bias (Razavi, 2001). The reliability testing following the *SEE* data collection showed strong alpha coefficients demonstrating the assessment’s internal consistency (Hinkle, Wiersma, & Jurs, 2003). In review, the limitations were:

1. The small sample size and lack of random assignment of participants and group leaders.
2. The researcher-created survey, the *ASR*
3. The relatively short length of three discussion comparisons.
4. The self-reporting nature of data collection.

These characteristics have the effect of limiting the generalizability of the findings to other settings. Conclusions from this study must be viewed as tentative, pending findings of future research.

Implications for Future Research

There are three primary recommendations for further research that grow out of this study. The first is the need to re-examine the match between the goal of cultural competency development and the tool of electronic discourse. This study's outcome was clouded by the lack of alignment between the taught curriculum and the assessment. The development of cultural competency is reportedly the fruit of self-knowledge and reflection (Howard, 2006; Ladson-Billings, 2006; Nieto, 2000). Killian and Willhite (2003) maintain that ED facilitates conversation that is more honest and vulnerable than FTF conversation. A study that clarifies the connection between the potentially beneficial combination of a reflective objective (cultural competency development) and a reflective tool (electronic discourse) is needed.

A second recommendation for further research is similar to the first recommendation except the focus is shifted to the training needed for both discussion leaders and participants. A study that utilizes discussion leaders who are trained in designing appropriate discussion questions and provides a rubric that fulfills the dual function of defining and assessing appropriate discussion board contributions would provide further insight into the value of ED in facilitating cultural competency growth. Tettegah (2002) asserted that when teachers engage in dialogue through computer-mediated-communication they begin to address the problems that arise out of a mismatch between the culture of educators and their students. "Dialogue, speech genres, and social

identity embedded in online or web-based environment through computer-mediated-communication can result in what we refer to as electronically mediated cultural consciousness, “ wrote Tettegah (2002, p. 31). Additional research to verify the relationship between a well-executed electronic discussion and cultural competency growth is needed.

A final recommendation for further study is related to the assessment of cultural competency development. The assessments used in this study utilized self-report data. Additional research that collects a variety of evidence of cultural competency growth is desirable. A content analysis of the quality and type of discussion that evolves may potentially shed light on how well students incorporate and articulate cultural competency concepts. Maher and Jacob (2006) found that electronic discourse supported small group interactions and assisted teachers as they re-conceptualized solutions to perplexing classroom situations. Maher and Jacob report, “Their interactions . . . offered emotional and intellectual peer support and fostered reflective thinking related to cultural perspectives on the teachers’ classrooms, students, and teaching practices” (p. 147). Evidence of this potential use of ED needs to be verified through a variety of data types and should not rely on self-report alone.

Summary of Study Discussion

The development of cultural competency is important in teacher preparation because the diversity of student populations is quickly growing while the diversity of teacher populations is more static (A Public Education Primer, 2006). The purpose of this study was to assess the value of ED in comparison to FTF discussion in the growth of cultural competency. Although the findings of the research project did not demonstrate

that ED groups engaged in greater reflection on the ASR or higher levels of cultural competency growth on the *SEE* than FTF groups, the findings also did not show that FTF groups out-performed the ED groups. Equivalent levels of reflection and cultural competency development between the two groups supports the assertion that the discussion styles are interchangeable and equally effective.

The relative advantages of ED in regard to time independence, place independence, and the extension of discussion opportunities outside of class time were examined. It was suggested that ED might be selected over FTF if one of these advantages is needed.

The primary study finding in which the research hypothesis was supported is related to the presence of more equal participation levels from discussion group members in the ED groups. The variance of participation levels was greater in the FTF groups. Therefore, an ED format might be selected to avoid a FTF discussion in which particular students tend to dominate the conversation or if equal discussion needs to be encouraged in general.

The study findings and interpretations suggest a variety of implications for practice. In review, they are as follows:

1. Electronic discussion and face-to-face discussion may be used interchangeably without compromising student learning and growth in cultural competency.
2. Electronic discussion may be particularly suitable for achieving equitable participation by group members.
3. Electronic discussion has the unique ability to extend the benefits of class discussion outside of class time.

4. The implementation of a rubric would be useful to both instruct and require appropriate online discussion interactions.
5. Student growth must be scaffolded by discussion board activities that are well-aligned with learning objectives.

Future research was recommended in three areas. The first recommendation is to conduct further study on the match between ED and cultural competency development. The second recommendation is for further exploration of the relationship between a well-designed electronic discussion experience and student growth. The last recommendation spelled out need for research that utilizes a variety of data that goes beyond self-report evidence.

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Appendices

Appendix A

Scale of Ethnocultural Empathy (SEE)

Check one: I participated in _____ ED _____ FTF discussion

DIRECTIONS: Please circle the number of the one answer that best describes how much you agree or disagree with each statement. There are no right or wrong answers.

Please just give the responses that best describe you.

1	2	3	4	5	6
Strongly Disagree	Disagree Moderately	Disagree Slightly	Slightly Agree	Moderately Agree	Strongly Agree

1. When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial or ethnic group.	1 2 3 4 5 6
2. I don't care if people make racist statements against other racial or ethnic groups.	1 2 3 4 5 6
3. I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted.	1 2 3 4 5 6
4. When other people struggle with racial or ethnic oppression, I share their frustration	1 2 3 4 5 6
5. I feel supportive of people of other racial and ethnic groups, if I think they are being taken advantage of.	1 2 3 4 5 6
6. I share the anger of those who face injustice because of their racial and ethnic backgrounds.	1 2 3 4 5 6
7. I share the anger of people who are victims of hate crimes (e.g., intentional violence because of race or ethnicity).	1 2 3 4 5 6
8. When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them.	1 2 3 4 5 6

9. I get disturbed when other people experience misfortunes due to their racial or ethnic backgrounds.	1	2	3	4	5	6
10. I am touched by movies or books about discrimination issues faced by racial or ethnic groups other than my own.	1	2	3	4	5	6
11. When I see people who come from a different racial or ethnic background succeed in the public arena, I share their pride.	1	2	3	4	5	6
12. I am not likely to participate in events that promote equal rights for people of all racial and ethnic backgrounds.	1	2	3	4	5	6
13. I seek opportunities to speak with individuals of other racial or ethnic backgrounds about their experiences.	1	2	3	4	5	6
14. When I interact with people from other racial or ethnic backgrounds, I show my appreciation of their cultural norms.	1	2	3	4	5	6
15. I express my concern about discrimination to people from other racial or ethnic groups.	1	2	3	4	5	6
16. It is easy for me to understand what it would feel like to be a person of another racial or ethnic background other than my own.	1	2	3	4	5	6
17. It is difficult for me to relate to stories in which people talk about racial or ethnic discrimination they experience in their day to day lives.	1	2	3	4	5	6
18. It is difficult for me to put myself in the shoes of someone who is racially and/or ethnically different from me.	1	2	3	4	5	6
19. I know what it feels like to be the only person of a certain race or ethnicity in a group of people.	1	2	3	4	5	6
20. I can relate to the frustration that some people feel about having fewer opportunities due to their racial or ethnic backgrounds.	1	2	3	4	5	6
21. I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me.	1	2	3	4	5	6

22. I don't know a lot of information about important social and political events of racial and ethnic groups other than my own.	1	2	3	4	5	6
23. I feel irritated when people of different racial or ethnic backgrounds speak their language around me.	1	2	3	4	5	6
24. I feel annoyed when people do not speak standard English.	1	2	3	4	5	6
25. I get impatient when communicating with people from other racial or ethnic backgrounds, regardless of how well they speak English.	1	2	3	4	5	6
26. I do not understand why people want to keep their indigenous racial or ethnic cultural traditions instead of trying to fit into the mainstream.	1	2	3	4	5	6
27. I don't understand why people of different racial or ethnic backgrounds enjoy wearing traditional clothing.	1	2	3	4	5	6
28. I am aware of how society differentially treats racial or ethnic groups other than my own.	1	2	3	4	5	6
29. I recognize that the media often portrays people based on racial or ethnic stereotypes.	1	2	3	4	5	6
30. I can see how other racial or ethnic groups are systematically oppressed in our society.	1	2	3	4	5	6
31. I am aware of institutional barriers (e.g., restricted opportunities for job promotion) that discriminate against racial or ethnic groups other than my own.	1	2	3	4	5	6

(Wang et al., 2003)

Appendix B

Assessment of Student Reflection (ASR)

Check one: I participated in _____ ED _____ FTF discussion

Please circle the answer that best expresses your perceptions.

Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
6	5	4	3	2	1

❖ Self-reflection- deep thought focusing on one’s personal perspective, values, and/or beliefs.

<p>1. Participating in the discussion group helped me to engage in self-reflection related to the discussion topics.</p>	<p>1 2 3 4 5 6</p>
<p>2. The discussion group experiences did not motivate me to re-examine my personal views.</p>	<p>1 2 3 4 5 6</p>
<p>3. Please comment on your experiences with self-reflection during group discussions.</p>	
<p>4. The self-reflection in which I engaged helped to change my thinking about the issues being discussed.</p>	<p>1 2 3 4 5 6</p>

<p>5. I did not notice any changes in my personal views as a result of participating in the group discussions.</p>	<p>1 2 3 4 5 6</p>
<p>6. Please comment on the impact of group discussion on your personal views.</p>	
<p>7. My behavior has changed as a result of self-reflection prompted by the discussions.</p>	<p>1 2 3 4 5 6</p>
<p>8. I did not notice that my behavior has been impacted as a result of my participation in the group discussions.</p>	<p>1 2 3 4 5 6</p>
<p>9. Please comment on how group discussions have impacted your behavior or actions.</p>	

Appendix C

Christian Mind Discussion Board Instructions and Guidelines

There will be three discussion topics during The Christian Mind course in which your discussion will be held electronically. The “opener”, the person who begins the discussion, will post on the first day of the week-long discussion period. The “wrapper”, the person who wraps up and summarizes the discussion, will post on the post on the last day of the week-long discussion.

Dates for Postings of Topics	Dates for Discussion Completion
August 25, 2009 (#1)	September 1, 2009
September 22, 2009 (#2)	September 29, 2009
October 19, 2009 (#3)	October 26, 2009

NICENET Instructions:

1. Locate the NICENET website. www.nicenet.org
2. Select the “join a class” option
3. Class key (please keep confidential- for discussion group members only)
XXXXXXXX
4. Complete form
5. Select “Finish registration”
6. Complete login
7. Under “Conferencing” select “view topics”
8. Select discussion topic for posting
9. Post a new message and/or reply to another posting

If you have any problems, please contact me at dophillips@covenant.edu .

ED Guidelines:

1. Respect the opinions of others. Posts may represent multiple points of view.
Please be kind and courteous while agreeing or disagreeing.
2. Keep posts to a reasonable length (maximum 250 words per single post)
3. Align posts with discussion board topic assignment.
4. Connect posts to the content of lectures and reading assignments.
5. Maintain complete confidentiality of the discussion board content.
6. Report any inappropriate postings to Mrs. Phillips immediately.

Vita

306 Dawn Street
Signal Mountain, TN 37377
423 886 7199
findphillips@gmail.com

Donna Alley Phillips

Education

Doctoral Candidate at the University of Tennessee at Chattanooga
Ed. D. in Learning and Leadership, ABD 2008

Master of Arts in Education
School Guidance and Counseling
The University of Tennessee at Chattanooga, 2000

Bachelor of Arts
Music Education
Covenant College, 1982

Professional Experience

2004 to 2009	Covenant College Assistant Professor and Director of Field Placement
2000-2004	Chattanooga Christian School Middle School Guidance Counselor
1996-2000	Chattanooga Christian School Music Teacher, Middle Grades
1982-1986	Naples Christian Academy Classroom Teacher, 6 th Grade Music Teacher, K-12

Description of Director of Field Placement Responsibilities (2004-2009)

Administrative: Coordinated all field placements for the education department including both part-time practicum experiences and full-time clinical practice.

Instruction: Taught seminar courses that accompanied the full-time clinical practice.

Director of Student Teaching: Supervised all clinical practice placements; assigned faculty with student teachers; collaborated and communicated with the adjunct supervisors; collaborated with K-12 principals for student teacher placements; coordinated seminars and conferences in between student teaching placements; and was responsible for all grade submissions.

Collaboration with Georgia Professional Standards Commission: Attended Georgia Association of College Educator (GACE) meetings and conferences annually; served on the board of the Georgia Directors of Field Experiences; and was trained as a college examiner by the Georgia Board of Examiners in 2009.

K-12 Partnerships: Collaborated with local schools for the purpose of creating higher education partnerships with K-12 institutions; partnerships reflected work with schools in the areas of school leadership and after-school tutoring.

Description of Middle School Counselor Responsibilities (2000-2004)

Academic Committee: Served as one of three members of the middle school Academic Committee. Together we worked with each student and family to establish a plan for academic improvement.

Admissions Committee: Analyzed applicant files for recommendations to the Admissions Committee.

Individual Counseling: Counseled with students in grades sixth through eighth as needed or as recommended by teacher or principal.

Group Counseling: Counseled with groups of students when they were connected by a common problem or concern.

Academic Support Committee: Served on this committee of nine members to establish a program that supports students who need more help than can be provided by the classroom teacher alone.

Career Education: Organized an annual career fair in the middle school which involved 12-15 speakers who share information about their particular careers. An interest inventory was administered as a follow-up activity to the 8th grade to promote career planning.

Scheduling: Assisted in the creation of the middle school master schedule.

Institutional Service

2005-2006	Library Committee
	Maclellan Scholarship Selection Committee
2006-2007	Library Committee
	Maclellan Scholarship Evaluator
2007-2008	Library Committee
	Social Committee
	Maclellan Scholarship Evaluator

Professional Memberships

American Educational Research Association
AERA Special Interest Group: Online Teaching and Learning
American Counselor Association

Professional Activities

Discussant for American Educational Research Association (AERA)
National Conference, New York, NY – March 2008

AERA Special Interest Group (SIG) Online Teaching and Learning
Newsletter Editor June 2007- May2009

Presentor for Association of Christian Schools International (ACSI)
Teacher Convention, Birmingham – January 2006

Seminars:

*Best in Show: Successful Teaching Methods of
Chattanooga Area Teachers*

*The Fried Green Classroom: Creating a Comfortable
Classroom Environment*

Presenter for Association of Christian Schools International (ACSI)

Teacher Convention in Birmingham – January 2008

Seminar:

*The Teacher as Counselor: Utilizing
Solutions-Focused Theory*

Livertext Training Seminar Presenter:

For UTC doctoral students – November 2007

Panel Member – Doctoral Student Orientation, UTC – June 2007

Member of Leadership Re-design Committee for Dade County Schools in
Trenton, Georgia – Spring 2008

Courses Taught at Covenant College

EDU 489 Student Teaching Seminar: Early Grades

EDU 490 Student Teaching Seminar: Middle Grades

EDU 491 Student Teaching Seminar: Secondary Education

EDU 492 Student Teaching Practicum: Adult Learner Program

EDU 495-496 Student Teaching Practicum: Elementary Education

EDU 497-498 Teaching Practicum I and II Secondary Education

Professional Growth and Development

To date, the following courses have been completed as part of the Ed D program at UTC, totaling 54 hours.

ABD status was attained November 10, 2008. The projected date for graduation is May 2010.

EdD 710	Leadership Perspectives and Reform
EdD 720	Ethical and Moral Bases of Education
EdD 730	Research
EdD 760	Program Evaluation
EdD 740	Contemporary Visions for Human Learning
EdD 750	Curriculum Models and Instructional Design
EDAS 613	Teaching and Learning
EdD 751	Curriculum Implementation and Governance
EdD 761	Assessment in Professional Organizations
EdD 731	Quantitative Analysis
EdD 733	Qualitative Research Methods
EdD 797	Individual Studies in Urban Education
EdD 711	Organizational Theory
EdD 725	Organizational Development
EDUC 575	Educational Technology
EdD 703	Special Topics: Educational Technology Research
EdD 762	Program Evaluation II
EdD 770	Learning and Leadership Seminar