UNDERSTANDING PRESERVICE EDUCATORS' MULTICULTURAL IDENTITY DEVELOPMENT

BY

AUDREY GREEN ROGERS

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Chair, Dissertation Defense

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Carol Langeher
Committee Member

Mary E Member

Mary McNeil
Committee Member

John Moody
Committee Member

Sr. Therese Larochelle, p.m.
Academic Vice President

Abstract

This study explored undergraduate teacher candidates' multicultural identity development. Forty—three participants were in two sections of the course Introduction to Education. The research questions investigated the ways in which candidates examine their cultural awareness, knowledge of diverse learners, and effective practices for 21st century classrooms. Participants in Group 1 experienced face-to-face instruction on issues of diversity. Group 2 engaged in a blended format with an educational online social networking site that extended class discussions on issues of diversity.

Quantitative and qualitative approaches were used to collect and analyze data. The findings revealed that instruction on multicultural awareness, knowledge, and skills in a one semester course had an effect on participants. Both groups demonstrated increased cultural self-awareness, appreciation of cultural differences, and knowledge of diverse cultures. There is evidence to suggest that the use of an online social network made a significant difference in the changes in Group 2 participants who evidenced greater changes in attitudes and beliefs in both the quantitative and qualitative data and analyses.

Understanding how candidates learn about and develop cultural competence extends research literature on educator preparation for diverse classrooms. The implications for teacher educators suggest a focus on the identity transformation process of teacher candidates and reexamination of the ways candidates are prepared for the multicultural realities of schools and society.

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Chapter I. Preparing Educators for Diverse Classrooms

Teaching is a complex profession. It is a profession that has been the object of reform efforts since the early 20th century. Decades of research has led to a vision of teaching and learning that outlines the components of effectiveness (Darling-Hammond & Bransford, 2005; Feiman-Nemser, 2001; National Research Council, 2000). Scholars and researchers of education often assert that effective teachers know their students and employ a variety of ways to assess their learning. Educators are subject matter experts who understand the social importance of their work in its larger social context. They facilitate achievement for all students.

While educational reform has centered on defining, attaining, and supporting the construct of effectiveness, the role of preparation in achieving the goal of effectiveness warrants further examination. Darling-Hammond, Pacheco, Michelli, LePage, Hammerness, and Youngs (2005) asserted:

Many analysts have argued that reform efforts that have ignored the preparation of teachers have been doomed to fail, as they have assumed change could be achieved without attention to the knowledge, skills, and dispositions of the primary change agents without whom little transformation is possible.

(p. 442)

The journey to becoming an effective educator, a change agent as Darling-Hammond et al. (2005) argued, begins with preparation. Educator preparation programs in colleges and universities have served as a pathway to the teaching profession in the United States (Darling-Hammond, 2000). For the most part, first year teacher candidates arrive at their education programs with a conceptual understanding

of what they think it means to be a teacher based on their lived experiences in school. High School graduates who have chosen a teaching career enter college with 12 years of "apprenticeship through observation" (Lortie, 1975, p. 61). Through years of direct contact and experience in the educational system students imagine the role of a teacher from their vantage point. Education faculty seek to understand candidates' preconceptions and have the opportunity to re-frame their understanding of the profession. First-year college courses offer faculty an opportunity to introduce teaching and learning through a research-based conceptual framework.

School of education faculty facilitate candidates' novel understanding about the current nature of the K-12 classroom that includes recognizing their students as individuals beyond stereotypes or perceptions. Teacher candidates learn that classroom realities are complex in addressing students' differing perspectives, learning, and ways of collaborating. Scholars and policy-makers emphasize attention to diverse student needs and learning-styles as a prerequisite to effective content instruction (Council of Chief State School Officers, 2011; National Council for Accreditation of Teacher Education, 2008; National Education Association, 2008).

Diagnosing individual capabilities, preferences, and requirements is predicated on an awareness of students' cultural, racial¹, and linguistic backgrounds (Gay, 2010). Students' frame(s) of reference influence how they learn and function in the classroom. To effectively interact with students, teachers need to know them. In the

¹ In this study, "race" carries no biological meaning, rather it is a "socially constructed classification system based on physical characteristics that has historically served as a tool to explain human diversity, justify exploitation, and advance privileged groups' interests" (Hays, Chang, & Havice, 2008, p.235).

process of teaching and learning, they need to know themselves and examine the ways in which they address the curriculum, classroom, and student. The challenge for teacher educators is to assist preservice teacher candidates in knowing themselves and in planning ways to know their students. Teacher candidates need to understand their own culturally derived perspectives and worldview² in order to accurately perceive the same in their students.

Becoming Multicultural

Over the last several decades, leaders and faculty in educator preparation programs have recognized the urgency to prepare teachers for increasingly diverse K-12 students (Castro, 2010; Sleeter, 2001). Darling-Hammond (2010) noted "Our schools are more diverse today than they have been since the early 1900s, when a flood of immigrants entered the United States" (p. x). Characterized by a rise in racial and ethnic minority populations, this demographic shift has made classrooms rich in linguistic, cultural, and racial differences (Aud et al., 2011). The increased diversity of students has intensified the need for cultural competence in the teacher preparation process (Banks, 2001; Banks et al., 2001; Gay, 2010). Cultural competence is a set of skills, ways of communicating or constructing curriculum that teachers can draw upon as they interact with culturally diverse students. Teacher educators' approach in addressing cultural competence has been to add a multicultural education course requirement to the curriculum (Sleeter, 2001). They have also infused cultural awareness and learning throughout their education courses. Some teacher preparation

² Guba (1990) defined worldview as "a basic set of beliefs that guide action" (p. 17).

programs require field experience placements that bring preservice teacher candidates into direct contact with racially and ethnically diverse student populations.

Statement of the Problem

Of teacher preparation, Nieto (2000, 2005) has been critical of the efforts to address cultural competence. She argued that more emphasis has been placed on promoting candidates' cultural knowledge rather than achieving a deeper understanding of their multicultural identity in the context of promoting equity. An accumulation of knowledge and content expertise do not necessarily translate to changed beliefs, acceptance, or understanding. A cultural knowledge approach does not critically examine the socio-economic contexts of schools and institutional inequities. Nieto (1992) asserted, "Becoming a multicultural teacher, therefore, first means becoming a multicultural person. Without this transformation of ourselves, any attempts at developing a multicultural perspective will be shallow and superficial" (p. 275).

For preservice teacher educators this transformation of self begins with an examination of their own multicultural identity (Langelier, 1996). Becoming multicultural requires that educators examine their own cultural beliefs, racial identity, and implicit assumptions as a prerequisite to increasing their awareness and knowledge of other cultures and gaining the skills for effective interaction with diverse students. Langelier suggested that becoming multicultural is an identity transformation process that can be facilitated through targeted instruction on diversity.

Since the majority of prospective teachers are predominantly White, middle class, and of European descent, their process of becoming multicultural begins with an

interrogation of their own color and a critical examination and the tacit assumptions they hold about Whiteness (Aud et al., 2011). Researchers discovered that when teacher educators engage preservice candidates in self-examination to reveal their implicit associations, many react with anger, guilt, or refuse to discuss issues of diversity, racial identity, or cultural pluralism³ in the face-to-face setting (Case, 2007; Mazzei, 2008; Zygmunt-Fillwalk & Clark, 2007). Gay (2010) described their reaction as "denial, silence, and confusion" (p. 148). Other researchers characterize this response as resistance (Brown, 2004a; Clarke & Drudy, 2006; Thomas & Vanderhaar, 2008).

Examining Implicit Assumptions

The vast majority of preservice teachers have not been asked to examine their Whiteness or consider racial and cultural dynamics in schools and classrooms prior to their college experience. Re-framing teacher candidates' perspective to encompass a broader worldview in their first year is challenging in that it is a new and often difficult topic. When teacher educators take a social justice approach and situate the conversations in the context of racial and cultural equality, the process is complex. It involves uncomfortable⁴ conversations about White privilege and implicit

³ Pluralism is defined as the appreciation of differences. A pluralistic classroom environment is characterized as one in which all learners feel equally valued and able to contribute. Pluralism acknowledges that there are multiple, equally valid ways of being and perceiving (Ponterotto, Utsey, & Pedersen, 2006).

⁴ The terms comfortable and uncomfortable are subjective. Individuals derive their own definitions often in context of a situation. For the purpose of investigating the construct of "comfortable" in class discussions in this study, Langelier's (2006) definition is utilized. She described

associations. Few teacher educators engage preservice candidates in these discussion, even though the self-examination process is a foundational step towards a multicultural perspective and cultural competence (Swartz, 2003). DeFreitas and McAuley (2008) argued that these difficult discussions constitute a "pedagogy of discomfort" that promote teacher candidates' identity development (p. 429). Self-awareness of one's own culture and implicit assumptions is a prerequisite to reducing or regulating its influence. Teacher educators search for ways to engage preservice candidates in the self-analysis process. Researchers have emphasized the need to conduct these culturally sensitive discussions in a safe environment (Gutierrez-Gomez, 2002).

Since these conversations on diversity are difficult in the face-to-face setting, teacher educators have utilized the recent innovation of online or blended⁵ educational formats (Hsu, 2009; Wassell & Crouch, 2008). Virtual communication formats offer a means for teacher educators to overcome the face-to-face barriers engaging preservice candidates, promoting their becoming multicultural, increasing their cultural awareness, knowledge of diverse cultures, and skills for effective teaching (Wassell & Crouch, 2008). Teacher educators have an essential role in effectively implementing virtual conversations on the topics of social justice, White privilege, and equity (Henry et al., 2007). They have an opportunity to create the environment conducive for discussion and structure assignments that facilitate introspection and learning.

comfortable as students feeling safe to articulate their opinions and viewpoints, not expecting that everyone will think or perceive issues in the same way.

⁵ A blended format refers to instruction that is face-to-face and has an online component.

To the current generation of students, social networking tools show promise as a means of increasing communication and social connectedness among students for educational purposes (Brady, Holcomb, & Smith, 2010; Hung & Yuen, 2010; Ryman, Burrell, & Richardson, 2009). Social networks can be used to promote a community of learners, reflection, ⁶ and self-examination in the preparation of teachers (Hsu, 2009; Ke & Hoadley, 2009; Makinster, Barab, Harwood, & Andersen, 2006; Merryfield, 2006; Schrum, Burbank, & Capps, 2007). Rocco (2010) found that an online community experience promoted collaborative interaction and valuing of multiple perspectives. Social networks are a current phenomenon. Research on their use for educational purposes is emerging (Brady et al., 2010; Hung & Yuen, 2010; Yang, 2009). Understanding the ways that preservice candidates experience participation in an educational online social network may help teacher educators facilitate discussion on race and diversity. Investigation on the how online interaction in a blended format promotes preservice candidates' construction of a multicultural identity will inform teacher educators in their efforts to prepare teacher candidates for 21st century classrooms.

The purpose of this study is to investigate the conditions that contribute to teacher candidates' multicultural identity development in their education course(s).

Analyzing changes in their attitudes and beliefs before and after they engage in

having an open-minded and responsible attitude establishing a readiness for the reflective process.

⁶ Rodgers (2002) clarified Dewey's concept of reflection by delineating four criteria. One is that reflection is a "meaning-making process" (Rodgers, 2002, p. 845). The second is that reflection is systematic and rigorous. The third is that reflection occurs in a community context. The fourth includes

diversity instruction in a traditional⁷ and blended course identifies and explains the process of becoming multicultural. Participants engage in three modules of instruction. The first module explores issues of White privilege, implicit racism, and prompts participants' self-examination of their own racial and cultural identity. The second module centers on increasing participants' knowledge of other cultures and provides a historical examination of schools. The third module exposes them to the demographic realities of the K-12 classroom and the skills needed to promote learning in all students. A review of the research approaches in the field of teacher preparation informs the organization and structure of this investigation.

Research Traditions

Creswell (2009) argued that mixed methodology combined the philosophical assumptions and worldviews of both quantitative and qualitative inquiry so that the "overall strength of a study is greater than either qualitative or quantitative" alone (p. 4). For research in teacher preparation, Sleeter (2000) argued for a complementary approach. Sleeter highlighted the benefits of a positivist approach combined with complementary phenomenological or narrative data to reveal the experiences of participants in context. In her review of research on the efficacy of preparing teacher candidates for diverse schools, she advocated for a mixed methods approach to examine the effect of preparation on preservice teachers' multicultural awareness. Utilizing combined methods of data collection, analysis, and interpretation, this study

⁷ A traditional course refers to instruction that is delivered solely in a face-to-face format without an online component.

allows for themes to emerge from quantitative and qualitative forms of analysis and interpretation.

Multicultural awareness can be gauged through quantitative measures (Ponterotto, Baluch, Greig, & Rivera, 1998). This study utilizes an instrument with established validity and reliability that measures attitudinal changes of teacher preparation candidates before and after they experience instruction on diversity. This statistical analysis presents a quantified representation of the development of participants' thinking over the course of the semester.

To complement this approach, a qualitative inquiry allows for the discovery and inductive analysis of preservice candidates' expressed attitudes, beliefs, and perceptions. Grounded theory (Glaser & Strauss, 1967; Strauss & Corbin, 1998) offers a rigorous method of exploring the meaning participants make of their lived experience. Through inductive analysis, interpretations of the data identify patterns. Patterns in the phenomenon are the basis for the explanation. The findings are synthesized through the constant comparative method. Analysis of patterns in the experiences of the participants become the basis of theory development. This research tradition provides a method for examining of how preservice teacher candidates experience instruction intended to increase their cultural awareness, knowledge, and skills.

The complementary methodology in this study incorporate positivist and constructivist approaches in order to provide a more complete understanding to how preservice educators interpret their experiences in an education course designed to

increase their multicultural awareness, knowledge, and skills. Diverse forms of data provide a fuller understanding of the answers to the research questions.

Assumptions

This research investigates preservice teacher candidates' racial selfexamination and their awareness and knowledge of other cultures. There are two assumptions connected to the research questions and design of the study.

The first assumption is that multicultural identity development is a desirable outcome of teacher preparation (Cochran-Smith, 2004; Langelier, 1996, 2006). Understanding others is predicated on self-awareness of one's own cultural dimensions (Dimaggio, Lysaker, Carcione, Nicolò, & Semerari, 2008; Weigl, 2009). Preservice teachers need to know themselves, their tacit assumptions, and self-perceptions in order to fully understand their students. Situating their identity as an individual in the context of becoming a professional educator facilitates teacher candidates' development and allows for increased multicultural awareness, knowledge, and skills (Nieto, 2000). The demographic mandate in K-12 schools heightens the need for multicultural awareness and an understanding of students' racial, ethnic, and linguistic differences.

The second assumption is that integrating technology in the curriculum is a progressive pedagogical approach in teacher training. Researchers discovered that technology use in the classroom can be engaging and motivating for students at any level (Chandra & Lloyd, 2008; Kingsley & Boone, 2008; Waxman, Lin, & Michko, 2003). One way to integrate technology is naturally through constructivist means rather than as an inauthentic, extracurricular event (Roblyer & Doering, 2010). In this

way, educational technology becomes a tool that may serve to promote student understanding rather than used for its own sake. The field of educational technology has matured sufficiently that educators are looking beyond the digital tool itself and engaging students in technology-rich experiences that promote learning and achievement according to intended outcomes (Greenhow, Robelia, & Hughes, 2009).

Limitations

This study focused on multicultural identity development in an introductory course and its facilitation through an online social network.

Scope. The participants in the study were limited to a small subset of teacher candidates from one private northeastern university in the United States. The participants were predominantly White first year students whose maturation levels were not addressed. Every effort was made to keep the course separate from the research study in terms of evaluation or grading. The pretest may have sensitized teacher candidates to the issue of race and culture in education.

Measurement. A Likert scale is a quantitative measure that relies on participants' accurate self-reporting of their attitudes and beliefs. Participants may have wanted to be perceived in a certain way and answered accordingly. The statistical analysis is cautiously accepted.

Design. The study would have benefited from more and/or larger groups as part of the design. This would have increased the number of participants and strengthened the quantitative analysis. A comparison group(s) would have provided comparative data from students in other classes with different instructors.

Further Research. The behavior of preservice teacher candidates once they

begin teaching in the classroom is beyond the scope of this study. More research is needed on how increased multicultural awareness is sustained through the candidates' educator preparation program and into their first year of teaching.

Conclusion

This study seeks to understand how teacher candidates experience the process of interrogating their own cultural identity, knowledge, and awareness in the context of their introductory education course. This study expands a current line of research on the preparation of teachers for cultural competence and in the use of computer mediated communication to promote discussions of race and culture. Understanding the ways in which preservice teachers' experience discussions of race in a face-to-face class and in a blended format contributes to current understanding of multicultural identity development. This increased understanding informs the ways teacher educators can promote candidates' preparedness for diverse classrooms and promote equitable practices in K-12 schools.

Chapter II. Literature Review

Few studies have examined multicultural identity development or its facilitation through an online social network community (Hsu, 2009; Wassell & Crouch, 2008). This chapter reviews the research literature related to how teacher preparation program faculty have prepared preservice teacher candidates for diverse classrooms. The key constructs of the study are multicultural identity development, racial identity development, and computer mediated communication, including the use of educational social networks for addressing issues of race and culture.

The first section of the chapter reveals the trends in teacher preparation related to prospective teacher training for an increasingly diverse student population. The second section provides the theoretical explanation of multicultural identity development and grounds the research in how teachers can become multicultural. This section includes a discussion of the ways racial identity development is linked to multicultural identity development. The third section examines the growth of technology use in teacher preparation for culturally, racially, and ethnically diverse classrooms. The fourth section reviews research studies that examine the use of computer mediated communication in order to promote candidates' cultural awareness, knowledge, and skills. The last section provides the theoretical basis that shaped the online social network community that was developed for this study.

Cultural Competence and the Preparation of Teachers

A review of the literature from 1985-2007 reveals that few changes have occurred in the quantity or approach of diversity training in teacher preparation

programs (Castro, 2010; Trent, Kea, & Oh, 2008). Zeichner (1983, 1993) suggested there are multiple paradigms, matrices of beliefs and assumptions that have guided the preparation of teachers for diverse classrooms. The dominant approaches in diversity training are either on cultural awareness and knowledge or developing candidates' views, perceptions, and beliefs. Banks and Banks (2004) noted that most educator preparation programs view multicultural instruction of preservice candidates as part of curriculum reform. In this way the solution is to insert content about race and ethnicity into the curriculum for the course. Diversity instruction has focused on gaining cultural knowledge by infusing topics throughout the teacher education program or isolating multicultural learning to a course.

The most common approach to promoting cultural competence is cultural knowledge through a single course on multicultural education; most school of education faculty do not specifically address the racial and/or multicultural identity development of their predominantly White teacher candidates (Castro, 2010; Jennings, 2007; Sleeter, 2001; Trent et al., 2008). Jennings (2007) gathered data from 142 teacher preparation programs. He found that topics on race and ethnicity were emphasized. Jennings argued that there is a common commitment by teacher educators to prepare candidates to teach racially diverse learners, noting the need for more research on the attitudes of teacher educators and the fact that "resistance or discomfort still register as challenges to overcome" (p. 1266). Mazzei (2008) examined the implications of preservice candidates' silence and the need for transformative experiences. Mazzei noted "silence is often encountered in work with White students who have not examined their identity in the context of a racial

discourse" (p.1125).

Trent et al. (2008) synthesized findings from reviews by Banks and Banks (2004), Cochran-Smith, Davis, and Fries (2004), and Grant, Elsbree, and Fondrie (2004) highlighting the need for substantive changes in teacher education programs to prepare prospective teachers to be culturally responsive instructors that will benefit all learners. They also included 46 recent research studies on how preparation programs are addressing multicultural education. They found that 61% of the studies focused primarily on candidates' cultural awareness. The themes from their reviews demonstrate that teacher preparation programs focus on (a) candidates' attitudes, (b) the curriculum and instruction of the program, and (c) the effects of programs on candidates' multicultural awareness. They found that efforts to incorporate multicultural education were hindered by faculty apprehension, limited commitment, or attrition. They concluded that more research was needed, especially ones that addressed the issue of "resistance among White preservice teachers when they are enrolled in courses that address issues of equity, privilege, and oppression" (p. 345). The authors encouraged researchers to examine the types of multicultural content that evokes resistance and to find ways in which candidates would be willing to "engage in more open and honest discourse about diversity and equity issues" (p. 345). This study addresses that gap by exploring the effect of extending discussions on diversity to an online format.

Castro (2010) called preparing preservice candidates to be culturally competent teachers the "most daunting task facing teacher education today" (p. 198) and explained how researchers have shown the deficits in preservice candidates' thinking.

He argued that, in general, White preservice candidates fail to recognize the pervasiveness of racial inequality, adopt a mistaken colorblind approach to teaching, lack a sense of themselves as cultural beings⁸, and hold lower views and expectations for students of color. Many preservice candidates leave their teacher preparation programs without the necessary skills to effectively address the diverse needs of their students.

Castro (2010) traced the themes of preservice teachers' perspectives regarding cultural diversity through 55 research studies over three distinct time periods: 1986–1994, 1995–1999, and 2000–2007. In the first time period, studies revealed that "preservice teachers held uncritical, shallow, and inaccurate perspectives on important societal issues" (p. 200). Candidates held no notion of White privilege and ignored culture and race as relevant factors in student learning. These research studies demonstrate that preservice candidates held negative views of minorities and felt unprepared to teach in a racially or culturally diverse setting. Studies in the second time period continued the theme of the lack of complex understanding of multicultural education on the part of preservice candidates. Researchers revealed that candidates held negative stereotypes and deficit views of minority populations characterized by lower expectations based on race. Researchers in this time period found that experience and interaction with culturally diverse populations were associated with preservice candidates' increased openness to the objectives of multicultural education.

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⁸ Asking the question "who are you as a cultural being" assesses one's self-concept (Kanagawe, Cross, & Markus, 2001). The term cultural being directs participants to examine specifically their racial, ethnic and cultural attitudes, attributes and characteristics.

Participants in the third time period represent the "millennial generation" (p. 206), those students who grew up with digital technology and entered college around the year 2000. Researchers found contradictory feelings in participants. Some candidates continued stereotypical thinking toward minorities, yet felt positive about teaching in diverse settings. A theme from this set of research studies is the examination of instructor practices, such as establishing a safe environment that facilitated multicultural awareness. This awareness did not extend to an examination of preservice teachers' racial and cultural identity. The candidates' increase in positive attitudes toward diversity may instead conceal a lack of understanding of multicultural issues, recognition of a system of White privilege, and societal inequities. Castro concluded that research on the specific teaching practices and course experiences that shape candidates' attitudes and beliefs is necessary. Research that examines the process of White self-examination informs teacher educators as they prepare candidates for diverse classrooms. This study seeks to address that issue by investigating preservice teacher candidates' experiences as they discuss their cultural and racial identity.

Gay (2010) and Banks and Banks (2004) noted that, while there is consensus that faculty in preparation programs may promote multicultural education in the preparation of teachers, a gap exists between developing theoretical understanding and knowledge and practicing culturally competent behaviors and skills in their own classrooms. The cultural knowledge approach has not resulted in changes in widespread culturally competent teaching and behaviors once preservice teachers enter the classroom (Gay, 2010). Given the racial, cultural, ethnic, and linguistic diversity

characterizing today's schools and society, Gay (2010) noted the need for a "transformative" (p. 147) approach in educator preparation to address this gap. She advocated for deep structural changes in the ways teacher preparation faculty and administration in schools of education address the attitudes and beliefs of teacher educators, preservice candidates, and attend to promoting racial, cultural, and ethnic understanding and competence. The "mandate" (p. 143) she outlined necessitates a rethinking of the cultural knowledge approach and consideration of an identity examination model. Rather than increasing candidates' awareness about the history, customs, and learning styles of their racially and ethnically diverse students, an increased focus on cultural identity development in candidates can help candidates to develop their own multicultural and racial identity. Nieto (1992) asserts that one must become multicultural as a prerequisite to cultural competence, a move toward multicultural identity development would represent a transformational shift in the preparation of teachers. Swartz (2003) argued that "Becoming aware of self is an ongoing and essential journey for teachers. Knowing who one is individually and culturally helps one to consciously design interactions with students. For example, an individual's power as a teacher in relation to children can be used to design instructional practices that empower students or overpower and control them. Selfawareness related to culture informs teachers about their knowledge, expectations, and level of connection to students depending on students' group identities" (p. 262). This study seeks to understand the process of preservice teachers' self-examination and elucidate the conditions that promote their sharing of views and increasing their cultural awareness, knowledge, and skills.

Developing a Multicultural Identity

The construct of multicultural identity development serves as the theoretical approach for understanding how preservice teachers can become multicultural (Nieto, 1992). Banks (1988, 1998) defined becoming multicultural as a self-transformation process of developing the ability to function and view situations in multiple ways. For teacher educators, attention to multicultural identity development means addressing the worldviews of preservice candidates rather than simply adding to their awareness and knowledge of cultural diversity issues. It involves moving candidates from color blindness⁹ to cultural consciousness, racial awareness, and identity development (Cochran-Smith, 2000; McIntosh, 1990). In this approach, preservice candidates gain a pluralistic worldview accommodating multiple perspectives rather than simply expanding their knowledge of diverse cultures. The end result is cultural competence defined by Sue, Arredondo, and McDavis (1992) as the active process of "becoming aware of his or her own assumptions about human behavior, values, biases, preconceived notions, personal limitations, and so forth. They understand their own worldviews, how they are the product of their cultural conditioning" (p. 481). Ford and Dillard (1996) argued that educators "cannot even begin to understand the needs from the cultural perspectives of the students who enter our classrooms until we critically examine and account for our own worldview" (p. 237).

Few studies research the process of becoming multicultural or examine the process from the preservice teacher candidates' perspective (Ford & Dillard, 1996;

⁹ Color blindness refers to statements such as, "I don't see color; I see children" and reveals unintended racism and protection of White privilege (Cochran-Smith, 2004; Gordon, 2005).

Langelier, 1996; Zygmunt-Fillwalk & Clark, 2007). Langelier's (1996) research study and her multicultural identity continuum offers a coherent framework for examining the process of becoming multicultural. She investigated the construct of multicultural identity development and found that teachers' worldview could be shifted as a result of training and instruction in cultural awareness, knowledge, and skills. Taking an identity approach to facilitating cultural competence, Langelier argued that multicultural identity development is a transformational change process of self-awareness leading to an appreciation of multiple perspectives and pluralism (Table 1).

Table 1

Multicultural Identity Development Continuum

Monocultural Worldview	Multicultural Worldview
Singular view of reality	Multiple views of reality
Lacks multicultural awareness,	Multicultural awareness,
knowledge, and skills	knowledge, and skills
Culturally insensitive	Culturally Sensitive
Negative attitudes toward diversity	Positive attitudes toward diversity
Limited cultural flex	Cultural flex
Limited cognitive flex	Cognitive flex
Ethnocentrism	Pluralism

Note. Reprinted from "Multicultural Identity Development: Preparing to Work with Diverse Individuals," by C. Langelier, 1996, p. 7. Copyright 1996 by the American Educational Research Association. Reprinted with permission.

Langelier's multicultural identity continuum represents a range of worldviews characterized by one's view of reality, cultural sensitivity and awareness, knowledge, and skills, appreciation of differences, and the ability to make intellectual and cultural

adjustments to differences. A lack of those characteristics reflects ethnocentrism¹⁰ and an adherence to one's own culture. Undeveloped multicultural identity is characterized by exclusive involvement in one's own culture and a single worldview emphasizing one's own cultural orientation. Increased awareness and skills in those areas represent more cultural competence. A developed multicultural identity recognizes there are multiple, equally valid perspectives and ways of perceiving and doing. This study examines preservice teacher candidates' development of their multicultural identity and explores if the use of technology promotes their racial and cultural awareness, knowledge, and appreciation of diversity.

Langelier based her continuum on the theoretical models of Pedersen (1988), Wurzel (1988), and Ramirez (1991). Each theorist argued that multicultural identity development is a learned process that can happen as a result of instruction. The continuum of characteristics of multicultural identity from low to high development represents a combination of their three frameworks.

Pedersen (1988, 2000) outlined competencies of cultural awareness, knowledge, and skills. In his model, individuals move along the continuum by demonstrating awareness, recognizing their own attitudes, opinions, and assumptions, and accurately comparing their cultural perspective with those of another culture. In terms of knowledge, individuals who receive instruction are able to identify similarities and differences between their own and others' cultures, cite relevant literature, and identify resources in the other culture. Individuals who demonstrate

¹⁰ Ethnocentrism is the belief that "mine is best" (Pedersen, 1988, p.102); that one's values and beliefs represent the right way of thinking.

increased skill are able to accurately assess the needs of a person from the other culture, to observe, understand, and accurately report culturally learned behaviors and interact, advise and appropriately manage their assigned task in the setting of the other culture. Pedersen (2000) argued that multicultural identity is learned through training that proceeds from the awareness of the attitude stage, through knowledge of information, to the skill of taking appropriate action.

Wurzel (1988) offered a seven stage model of multicultural identity development where individuals move from monoculturalism to multiculturalism. The first stage, monoculturalism, is marked by cultural encapsulation and a view that other ways of doing things are not only different but inferior. In the second stage, crosscultural contact, an individual comes in contact with other cultural groups or is exposed to alternative cultural patterns. The third stage, cultural conflict, is marked by conflict as the individual develops a dichotomy between his or her own culture and someone else's. The conflict is ameliorated in the fourth stage, educational intervention, as a result of instruction. Through training the individual increases his or own awareness and gains knowledge about other cultures that begin to break down stereotypical views and perceptions. In the fifth stage, disequilibrium, the individual begins to question long-held views that comprise his or her cultural identity. A balance is re-established in the sixth stage, awareness, as the individual begins to integrate the belief that there are multiple perspectives. In the final stage, multiculturalism, Wurzel argued that the individual has achieved cultural pluralism and acknowledges multiple perspectives and views of reality. Wurzel's framework helps describe characteristics of Langelier's continuum from monocultural to multicultural worldview.

Ramirez (1991) examines multicultural identity development through the flex (one's ability to adjust) theory of personality. His theory centers on the person's thinking as they receive instruction or and interact with people with cultural differences. On the continuum, an individual with a monocultural orientation to life exhibits limited ability to adjust his or her cognitive and cultural styles, whereas one with a multicultural perspective demonstrates greater capability to adapt thinking and behavior. Ramirez described cognitive style as either a preference for working alone, termed field independent, or a desire for groups and relationship-building, called field sensitive. Well-developed cognitive flex is the ability to shift between field independent and field sensitive depending on contextual demands. Combining elements from both styles represents a multicultural cognitive style.

One's cultural style is defined by adherence to either a traditional or modern belief system. For example, a traditional orientation emphasizes customary gender roles, focus on family, and spiritualism. A modern style focuses on individual accomplishments, revised gender roles, and science. One's ability to adjust between these orientations allows one to adapt more easily to a variety of cultures and settings. Combining values and beliefs from both styles engenders a multicultural perspective. This ability can be influenced by instruction, but Ramirez argued that the individual must be willing to learn. Learning can increase the individual's ability to accommodate differences.

Langelier's (1996) research suggests that teachers can learn to become multicultural. Research is needed to examine the ways preservice teacher candidates move along the continuum of multicultural identity development as a result of

instruction on multicultural awareness, knowledge, and skills. This study examines preservice teacher candidates' attitudes and beliefs before and after multicultural instruction to reveal how candidates experience development according to the characteristics in the continuum. Exploring the conditions that promote multicultural characteristics demonstrate effective ways teacher educators can engage teacher candidates during their preparation program.

Link to Racial Identity Development

Racial identity development is an important facet in multicultural identity development (Villegas & Lucas, 2002). Models of racial identity development are closely tied to multicultural identity development (Atkinson, Morten, & Sue, 1989; Helms, 1984, 1990, 1995). White racial identity attitudes correspond to Langelier's continuum in that ethnocentric behaviors often reflect racist attitudes while more developed racial identity stages correspond to cultural pluralism and a valuing of diverse perspectives (Hays et al, 2008; Pope-Davis & Ottavi, 1994). There are several models of White Racial Identity development (Atkinson, et al., 1989; Helms, 1995; Ponterotto, 1988; Sabnani, Ponterotto, & Borodovsky, 1991). Helms's (1984) theory on White Racial Identity Development is the earliest and most researched model to date. Helms's model has been widely referenced and researched and was used for the open-ended questions in this study (Hays et al., 2008). The open-ended questions for the pretest and posttest were drawn directly from Helms's measure. Each phase is marked by attitudes and behaviors commensurate with the level of identity development in the individual. Twelve questions were selected, two per stage, that reveal one's attitude and behavior at each of Helms's stages.

Helms's (1984, 1990, 1995) framework of White racial identity development provides a way of thinking about how race shapes and operationalizes the attitudes and behaviors of the multicultural identity continuum construct. Helms describes six racial identity statuses: contact, disintegration, reintegration, pseudo-independence, immersion/emersion, and autonomy. She divided her model into a two phase process where an individual develops in an overlapping and nonlinear way. The first phase includes the first three statuses of contact, disintegration, reintegration, and is marked by an internalization of racism. The second phase includes the last three schemas of pseudo-independence, immersion/emersion, autonomy, and indicates an evolution to a nonracist identity. Helms's progression of statuses functions as a dimension of the multicultural identity continuum in that the first phase corresponds to a monoculture worldview, whereas the second phase reveals multicultural appreciation. As one develops racial identity, one demonstrates the characteristics of developing along the multicultural identity continuum.

Helms's first phase parallels early stages in the multicultural identity continuum. Individuals exhibit a lack of awareness about the issues of culture and race often not noticing race. They feel there is nothing they can do to prevent racism. In their view, Western civilization or White culture is the most sophisticated. Individuals at this level lack an understanding of racism and have minimal experiences with people of color. These characteristics correspond to the descriptive characteristics from Wurzel's (1988) early stages and undeveloped levels in Pedersen's (1988) and Ramirez's (1991) models.

Helms advocated educational intervention as a strategy to move an individual

toward a more developed identity. Through learning, intercultural experiences, or diversity training individuals enter the second phase of Helms's model. Individuals in this phase demonstrate movement along the continuum in terms of increased awareness and a rethinking of previously held beliefs. Attitudes they may hold are that policies such as affirmative action should be used, White culture must be restructured, and their Whiteness is an essential part of their identity. Behaviors in this phase may include attending events that support rights for all, seeking educational experiences that combat racism and speaking up to verbally stop racism as it is occurring.

Computer Mediated Communication in Preparation Programs

Teacher educators recognize the importance of cultural identity development in candidates (Castro, 2010; Hammerness et al., 2005). A review of studies on preparing teachers for diverse classrooms revealed many programs do not take a cultural identity development approach (Jennings, 2007; Trent et al., 2008). Lowenstein (2009) argued, "There is a need to research how learning experiences are interpreted and given meaning" (p. 164) during multicultural training by White preservice candidates. As Gay (2010) noted, issues of race and multicultural development are difficult for predominantly White preservice educators to examine. Research is needed to explore the lived realities of candidates as they experience training to become culturally competent. Given the resistance and silence of teacher candidates observed in the research, an indirect approach of computer mediated communication to preservice candidates' development of their multicultural identity is taken in this study (Gay, 2010; Lowenstein, 2009; Mazzei, 2008).

The lives of digital-age learners are infused with technology aided socializing,

access to information, and creative opportunities. In teacher preparation programs, teacher educators are increasingly utilizing online tools to supplement face-to-face classroom instruction. Typical mediums are the threaded discussion feature in course management systems such as Blackboard or WebCT. A review of the literature reveals that in recent years there has been a trend toward integration of web 2.0 tools such as blogs, wikis, and social network sites (Baltaci-Goktalay & Ozdilek, 2010). In 2004, the term Web 2.0 appeared referring to a new, interactive nature of the Internet (Maloy, Verock-O'Loughlin, Edwards, & Woolf, 2011). Web 2.0 access and tools are characterized by an open and collaborative atmosphere and, unlike traditional software products, are frequently free (Krasne, 2005; Nelson, Christopher, & Mims, 2009).

Gunawardena et al. (2009) defined social networking as "the practice of expanding knowledge by making connections with individuals of similar interests" (p. 4). Engaging students in online interaction is referred to as computer mediated communication (CMC). CMC may occur in real time, but frequently happens at irregular intervals (asynchronous) where participants exchange text, upload images, and share audio or video files. Hawkes and Romiszowski (2001) noted that CMC facilitates person-to-person or person-to-group online exchange.

The use of technology with preservice candidates is not without critics. Cuban (1986, 2001, 2006) argued that in the history of education, technological advances are promoted for the classroom. Then obstacles prevent full usage, the technology is blamed for lack of increased achievement and the cycle starts again with another new

¹¹ A threaded discussion is a set of online postings (comments). Participants' comments are listed chronologically next to their name and subject line.

invention. He argued we have seen technological fads for education with the advent of motion pictures, radio, television, laserdisc, and now computers. Others have argued that the debate has moved beyond *if* technology should be used to how and when it should be integrated (Goudy, 2002).

Empirical Studies on Using CMC to Promote Cultural Competence

Eight empirical studies have centered on using online communities in the preparation of teacher candidates for the purpose of increasing their cultural awareness, knowledge, and skills using an online interactive tool (Brown, 2004a; Calandra, Brantley-Dias, & McNeal, 2007; Hsu, 2009; Makinster et al., 2006; Merryfield, 2006; Schrum et al., 2007; Wade, Fauske, & Thompson, 2008; Wassell & Crouch, 2008). Five out of the eight studies utilized a wholly qualitative approach while three used mixed methodology. In the qualitative studies, many researchers employed the case study method to collect and analyze students' online postings. Two studies added a pretest and posttest survey to conduct a quantitative analysis in addition to their qualitative methods (Hsu, 2009; Schrum, Burbank, & Capps, 2007). The third study used descriptive statistics of students' postings to provide a picture of student participation (Makinster et al., 2006). These studies demonstrate emerging attention in the research literature to increasing preservice teacher candidates' multicultural understanding by engaging them in online discussions beyond the faceto-face classroom. Social media affords a web-mediated means of communicating that may facilitate discussion and self-examination on issues of cultural identity and diversity that may promote cultural competence in educators. This study extends research on how preservice teacher candidates experience an online social network in

learning and discussing race and culture.

Several themes emerged from the studies. One theme was that computer mediated communication promoted critical examination of ideas. The empirical studies reviewed confirm the assertion that web-based interaction among prospective teachers supports their participation and analysis of assumptions and topics (Wassell & Crouch, 2008). The studies also reveal a shift away from using threaded discussions on Blackboard to more open formats, for example, to current web 2.0 tools such as social networks.

In the earliest study, Brown (2004a) reported the effect of infusing technology into a multicultural education course by collecting online reflective journals and threaded discussions that supplemented the discussion in a face-to-face course. Each week pairs of students discussed a topic online and submitted a journal reflection to the instructor. Guest speakers in class had access to the Blackboard discussions for one week after their presentation. Brown found that using technology provided students "time to connect multicultural theory to classroom practices and to incorporate some social justice pedagogy into their cognitive structures" (p. 552). Another finding was that use of Discussion Board 12 served to "stimulate guided inquiry, [and] engage those who were reluctant to participate" (p. 553). These claims were based on observation and course evaluations. An analysis of students' postings 13 through discourse analysis would have been beneficial.

¹² In Blackboard the commenting feature where students posts comments is called "Discussion Board."

¹³ A posting is an individual's comment submitted in an online format.

Wade et al. (2008) researched how teacher educators utilized an online threaded discussion to promote critical analysis of issues of language, culture, and race. In this study, participants engaged in peer led discussions that did not include the instructor. The online component served as an adjunct to the face-to-face setting; class time was set aside for the online groups "to foster community building" (p. 411). To analyze students' online reflections the authors utilized Gee's (1999) model of validation that included "convergence, agreement, coverage, and linguistic details" (p. 413). The researchers discovered that groups adhered to a "business-as-usual" (p. 407) approach meaning that participant's viewed cultural differences as a deficiency and discourse about sociopolitical factors was missing. They summarized that preservice teachers held on to their deficit views of minority students, for example, that a student's culture and language were obstacles to be overcome. The researchers acknowledged that it was a self-study whose primary purpose was to assist the authors in shaping their own practices with preservice candidates.

Merryfield (2006) also examined the effect of putting candidates' conversation into a similar tool to Blackboard, this time WebCT. In the context of a Professional Development School and partnership with teachers, this study found that use of WebCT promoted candidates' "abilities to examine their own progress and articulate what they are learning and what they need to learn" (p. 82) especially in terms of diversity and culturally relevant teaching. While large samples of students' postings were provided, the article was unclear about the theoretical framework used to analyze these responses.

In a case study, Calandra et al. (2007) investigated the use of an electronic tool

for lesson planning constructed initially for preservice candidates and implemented with new teachers. Called IDnt (Instructional Design for Novice Teachers) this tool is designed to promote reflection and culturally relevant teaching for today's diverse learners. The authors described three levels of reflection: (a) reflection-in-action, (b) reflection-for-action, and (c) reflection-on-action. They argued that reflection-inaction constitutes problem solving and is "the ability of the teacher to analyze a learning situation in progress, select appropriate strategies or interventions, and make corrections while teaching" (p. 105). The process of reflection continues when teachers make meaning of the event once the experience has passed and decide what to do differently next time. The authors utilized an online format to engage participants in examining their tacit assumptions and to increase their cultural and socio-economic awareness of their students. They argued this process of self-analysis is an important component in preservice candidates' development of a culturally relevant pedagogy. To engage participants in the reflective process, participants viewed video clips of culturally-based critical incidences and responded to them through the IDnt system. The researchers stated that the IDnt model "supports teachers' reflective practice" (p. 108), but it was unclear whether or not participants could discuss or share their postings with each other.

Wassell and Crouch (2008) engaged participants in interactive blogging as a supplement to a course. Blogs, or weblogs, are online journals which the authors describe as "web pages that allow authors to quickly and easily post commentaries and links to other websites" (Wassell & Crouch, 2008, p. 214). They studied the efficacy of using this tool to engage prospective teachers in topics and issues critical to

multicultural education. Their research questions focused on the benefits of the tool specifically the ways in which participation in the tool facilitated prospective teachers' analysis of their own viewpoints and the multicultural topics. Their study was informed by the "spiral of reflection and action" (p. 225) model described by Kemmis and McTaggart (2005). The authors found that the tool provided "opportunities to extend the candidates' thinking about the course content beyond the classroom setting. The project fostered student voice in a significant way; individuals who may have felt uncomfortable voicing their opinions in class were able to articulate their thoughts on the blog" (p. 224). Using grounded theory (Strauss & Corbin, 1998), the authors found two patterns. One pattern was that blogs promoted contact with new ideas and information that preservice candidates previously lacked. In the second pattern candidates moved from defining issues based on personal experience to a more sophisticated critical analysis that connected to larger issues of equity and social justice. Their findings suggest that blogs increase dialogue and engage teacher candidates in critically examining issues related to multicultural education. Hsu (2009) confirmed that the use of weblogs served to increase candidates' diversity awareness and "deepen... [and] widens their discussion in a way in which limited class time cannot" (p. 178). In a text analysis of students' postings, Hsu found that an online community was established and facilitated candidates' exploration of diversity issues in connection with field experience.

Makinster et al. (2006) compared the effect of three online social contexts on 12 senior secondary science candidates' writings and perceptions dealing with students' diverse abilities and behaviors. The primary focus was not on racial,

linguistic or cultural topics. One group of four participants engaged in private journaling 14 where only the instructor had access to students' journals. Another group of four participated in an asynchronous private discussion forum where other students had access to each other's comments. The third group of four was part of a larger inquiry learning forum (ILF) open to 583 members including other teacher candidates, inservice teachers, and professors. Using a grounded theory approach (Glaser & Strauss, 1999), the authors coded 2441 sentences of online postings from the three groups and used descriptive statistics. They discovered that "the student reflections were clearly effected by the online social context in which they were shared" (p. 560). They used a constant comparative method (Glaser & Strauss, 1999) to identify relevant themes from the postings and interviews. They found that candidates participating in the private discussion forum had the longest posts describing the situation they were asked to consider. The researchers concluded that while students in the private journal and inquiry learning forum analyzed their thoughts, they did not consider what they would do differently next time. They noted that students in the private journal group did not find any value in the traditional, most common approach of submitting a reflective statement to the professor. Students in the private journal and discussion group felt that they missed out on the feedback from inservice teachers that their classmates in the ILF group received. They concluded, "we are only beginning to understand how to use these web-based tools effectively in the context of web-supported communities" (p. 569) to support identity formation in prospective

¹⁴ Journaling is a process of "self-exploration, self-discovery, and self-disclosure" (Pewewardy, 2005, p. 42) where students write out their thoughts and insights.

teachers.

Schrum et al. (2007) also used mixed methodology to examine the effect of an online format on 38 junior and senior preservice teachers' dialogue around issues surrounding learner diversity. Wenger's (1998) community of practice framework provided a theoretical perspective for the analysis of the data. In Wenger's social learning theory, participation in a social community is the essential process by which one learns and forms self-identity. Their research questions focused on both the instructor and students as they asked "What does the instructor report regarding her perspectives and her students' experiences specifically related to topics addressing learner diversity? [and] In what ways did an online format impact students' discussions of issues related to learner diversity?" (p. 206). The authors used surveys, open-ended questions and interviews to collect data. They used open coding and descriptive statistics to analyze the results. The instructor was "astonished" at how comfortable the students were "discussing their unease or unwillingness to respond to the diversity issues [such as linguistic, religious, or special needs] they might find in the public schools" (p. 208). She attributed the increased honesty to students' decreased sense of personal accountability in an online format. The theme that arose from their responses was that they liked how everyone's voice was heard, not just those students who habitually participate in class discussions. According to Wenger's model, the authors argued that the study did not reveal an ideal community of practice, because the most benefit results from student to teacher interaction rather than student to student exchanges. They concluded that "the best online teacher preparation courses may be those that blend virtual and face-to-face interaction" (p. 204) and include field

experiences in diverse settings in order to prompt preservice candidates to rethink their understandings. The authors called for further research on how an online format affects candidates at the start of their preparation program through their entrance into the profession.

Online Social Network Community

This study extends research on both theory and practice by examining preservice teacher candidates' multicultural identity development. Identifying and explaining the conditions in which they experience increased awareness in their introductory education course and participation in an online social network adds to the research. Teacher educators are beginning to utilize social network sites to promote teacher candidates' cultural awareness, knowledge, and skills needed for diverse classrooms. Online learning communities represent "one of the most promising means of teachers' development" (Delfino & Persico, 2007). Reich (2010) questioned the premise of a virtual community and warned that every social network site does not meet the criteria of a community. She argued that care needs to be taken when categorizing a site as a community.

Noting these factors and cautions, the online social network experienced by participants in this study was modeled after Garrison, Anderson and Archer's (2000) Community of Inquiry (CoI) framework. Communities of inquiry in the online environments are social networks that provide an opportunity for personal expression and social connections in a structured educational setting. Garrison et al. (2000) provided a conceptual framework for using CMC in higher education. Their model for a CoI comprised three interdependent features: social presence, cognitive presence,

and teaching presence (Figure 1).

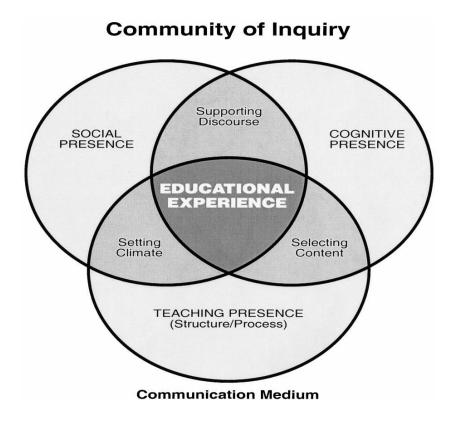


Figure 1. Community of Inquiry model. Reprinted from "Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education," by D. R. Garrison, T. Anderson, and W. Archer, 2000, *The Internet and Higher Education*, 2, p. 88. Copyright 2000 by Elsevier. Reprinted with permission.

Social presence is characterized by the participants' ability to personalize their online presence and present themselves to other members of the community. This factor contributes to the coherence of the group and the level of importance each member feels in participating. Indicators of social presence include the expression of emotion by participants. Garrison (2009) defined social presence as "the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities" (p. 352). It is a key element that

promotes cognitive objectives. Cognitive presence is defined as the extent to which participants construct meaning through their online discussion. Indicators of this include information exchanges among members that represent application of new ideas, making connections, and asking questions. The role of the teacher is the third element in the model. The instructor designs the educational experiences of the group members by selecting content and framing questions. The instructor facilitates communication among members and encourages interaction.

Since the model was proposed over a decade ago, researchers have analyzed how the framework was employed and its effectiveness in facilitating learning (Akyol, Garrison, & Ozden, 2009). Akyol et al. (2009) argued that "a community of inquiry is a personal and public search for meaning and understanding" (p. 66). They found that participants in a CoI revealed higher perceptions of social presence in a blended course when compared to one totally online. They argued that face-to-face interaction has "significant advantages for the development of social presence in the early stages of establishing group identity and trust" (Akyol et al., 2009, p. 76). In their study, participants noted a comfortable environment created by a strong social presence facilitated cognitive outcomes. Rourke and Kanuka (2009) questioned the amount of learning that happens through a CoI and called for more substantive investigations of the construct. Akyol et al. (2009) responded to Rourke and Kanuka's critique by claiming that they misrepresented the CoI model where the context of the educational interaction is as important as the learning outcomes.

The CoI model informed this study's online social network supplement. Each of the three structural elements of social, cognitive, and teaching presence was

integrated into the social network supplement in which participants engaged.

Investigation into the experiences of preservice candidates as they receive training in cultural awareness, knowledge, and skills will extend the literature on effective practices for multicultural identity development.

Conclusion

Cultural competence for the K-12 classroom is a goal of teacher educators as they prepare candidates for increasingly diverse students (Gay, 2010). A prerequisite to cultural competence is becoming multicultural, an identity transformation process (Langelier, 1996; Nieto, 1992). The stages in multicultural identity development require "difficult dialogue" (Watt, 2007, p. 116) that often engender silence in teacher preparation classrooms (Mazzei, 2008). Researchers are investigating the transformative nature of self-examination and identity development (Weigl, 2009). Online social networks are a recent innovation that builds connections and community among students and promotes critical examination and introspection of preservice teacher candidates' cultural awareness, knowledge and skills (Hsu, 2009). Researchers found the potential for online interaction to increase preservice teacher candidates' discourse on issues of race and diversity (Makinster et al., 2006; Oikonomidoy 2009; Schrum et al., 2007). This study proposes a mixed method approach in examining the experiences of candidates during instruction in a traditional course and one with an online social network extending and adding to existing research. This study addresses how preservice educators experience movement along the multicultural identity continuum as a result of their coursework and experiences in a teacher preparation program. No study has asked students directly about the role of a virtual social

network in their multicultural identity development process or compared that experience with a traditionally taught course.

Research is needed to investigate more comprehensively the lived realities of preservice candidates who engage in face-to-face and online discussions of race, cultural awareness, knowledge, and skills. Lowenstein (2009) recently noted a trend of teacher educators examining their efforts promoting cultural competence, "systematic studies of teacher candidates' perceptions of their learning about issues of diversity continue to remain largely absent...and there is a need to research how learning experiences are interpreted and given meaning by teacher education participants" (p. 164). This study addresses the need for exploration into teacher candidates' development toward cultural competence.

Chapter III. Methodology

Mixed Methods Approach

This chapter identifies and explains the research methodology, design, data collection, and analytic methods to answer the research questions. A combination of research methods is utilized to investigate participants' experiences and the extent to which their attitudes changed over the course of a semester in two sections of an introductory course to education. Participants' experiences are investigated by a quantitative analysis of their cultural awareness through a Likert scale measure and a qualitative analysis of open-ended questions and interviews. The design was selected to provide an understanding of preservice educators' multicultural identity development in a traditional course and in a blended course as they participate in training modules for cultural awareness and identity development.

Research Questions

This study has two quantitative and two qualitative research questions. The complementary approaches provide a greater understanding of preservice teacher candidates' experiences and the ways they change over the course of the semester.

The quantitative questions are:

- 1. What are the changes in preservice teacher candidates' cultural awareness and attitudes as measured by an inventory in a traditional introductory education course?
- 2. What are the changes in preservice teacher candidates' cultural awareness and attitudes as measured by an inventory in an introductory education course

with an online social network component?

The qualitative questions are:

- 1. What are the ways preservice teacher candidates experience multicultural identity development in a traditional introductory education course?
- 2. What are the ways preservice teacher candidates experience multicultural identity development in an introductory education course with an online social network?

Participants

In the fall of 2011, approximately 126 entering first year students selected and registered for a section of EDU 200: Introduction to Education. Forty-five students chose two sections taught by the same instructor (Table 2). Since registration was completed at home during the summer, participants chose their course section for their own reasons.

Table 2

Class Times and Number of Students for Groups 1 and 2

Group	Class Time		Students	
1	Tuesday Thursdays	12:30-1:45p.m. 9:30-10:45a.m.	20	
2	Wednesday Fridays	12:30-1:45p.m. 12:30-1:45p.m.	25	

The section that met on Tuesdays at 12:30PM and Thursdays at 9:30AM was randomly selected to be Group 1 and was taught in a traditional face-to-face format.

The section that met on Wednesdays and Fridays at 12:30PM was designated as Group

2. One participant from each group did not take the pretest (or posttest) due to extensive absences. The demographic and survey information was not obtained from these two students. Group 2 participated in the online social network as part of the course. Each class session was 75 minutes in duration. The syllabi for the two groups were the same except for the fact that Group 2 engaged in an online social network site that extended their class discussions of cultural awareness, knowledge of diverse learners, and skills needed for the classroom.

The two groups had similar demographic characteristics (Table 3). Each section had four male students. Participants in each group had very little prior instruction in diversity or multicultural education. A total of 38 of the 43 participants, had either a small amount, very little, or no training. Only two students from Group 1 and three students from Group 2 indicated that they had two or more courses in diversity training or extended life experiences that exposed them to diverse cultures. The ages of the groups were similar. All but one participant in each class indicated that they were between 17-19 years old. In terms of types of education majors, elementary education ranked first in both groups. Secondary certification was the second most popular major in both groups. Early childhood was the third most popular major in both groups. Seventeen participants from both groups characterized the amount of racial and ethnic diversity in their hometown or school as a small amount, very little, or none. Seven participants in Group 2 characterized their home town as having a high amount of diversity compared to only two from Group 1. There was one participant from Group 2 who answered that his or her hometown was so diverse that Whites were in the minority. The racial composition of the two groups was markedly

similar with all of the participants indicting that they were White except for one participant in Group 2.

Table 3

Demographic Information for Groups 1 and 2

Demographic Information	Group 1	Group 2
,	(Traditional)	(Social Network)
Gender		
Female	15 (79%)	20 (83%)
Male	4 (21 %)	4 (17%)
Education Major		
Elementary/Elem w	9 (47%)	12 (50%)
SPED	5 (26%)	6 (25%)
Secondary	3 (16%)	4 (17%)
Early Childhood	0	1 (4%)
Child Development	2 (11%)	1 (4%)
cima Beveropinent	2 (1170)	1 (170)
Age		
17	2 (10.5%)	1 (4%)
18	14 (74%)	16 (67%)
19	2 (10.5%)	6 (25%)
20	0	0 (2370)
21 or older	1 (5%)	1 (4%)
21 of older	1 (3/0)	1 (4/0)
Divorgity Training?		
Diversity Training?	14 (740/)	20 (020/)
Very little or none	14 (74%)	20 (83%)
Small amount	3 (16%)	1 (4%)
A lot	2 (10.5%)	3 (13%)
**		
Hometown racial diversity	1 (21 0 ()	• (00()
Very little	4 (21 %)	2 (9%)
Small amount	13 (68%)	15 (62%)
A lot	2 (11%)	6 (25%)
Whites are minority	0	1 (4%)
Race		
White	19 (100%)	23 (96%)
Non-White (Black)		1 (4%)
Total number	19 (100%)	24 (100%)

Note. Demographic data was collected during the pretest.

The two groups had similar experience with online social networks (Table 4). All but two participants in Group 2 had little or no experience using Ning, while the reverse was true of social networking sites such as Facebook and MySpace. Most students in both groups indicated that they had "a lot" [of experience using a social network] or "so much that I consider myself an expert" using social network sites such as Facebook.

Table 4

Experience with Online Social Networks for Groups 1 and 2

Demographic Information	Group 1 (Traditional)	Group 2 (Social Network)	
Experience with Ning			
Very little or none	19 (100%)	22 (91%)	
Small amount	0	2 (9%)	
Online educational social network			
Yes	3 (16%)	2 (9%)	
No	16 (84%)	22 (91%)	
Experience with Facebook			
Small amount	1 (5%)	1 (4%)	
A lot	7 (37%)	8 (33%)	
Expert	11 (58%)	15 (63%)	
Total number	19 (100%)	24 (100%)	

The participants signed informed consent agreements and were free to withdraw from the research study at any time without penalty (Appendix A). No participant chose to withdraw. Participants understood that their responses were anonymous and confidential and not related to their course grade. The research project had no immediate known risks.

Setting

The participants were enrolled in a small northeastern university in the United States. This university is situated in the largest and most racially, ethnically, and linguistically diverse city in the state. The city also serves as a refugee resettlement site for displaced international populations (New Hampshire Office of Energy and Planning, n.d.). Preservice candidates' field experiences occur in racially and ethnically diverse school settings. No stand-alone multicultural course is required in their education program; the issues of diversity and cultural awareness are embedded in selected courses. For EDU 200: Introduction to Education a strand of multicultural teaching focuses on three modules of cultural awareness, knowledge, and skills constitutes the instructional period.

Instructional Period

The instructional period began in week three of the course and went through week twelve. During those weeks both sections of the course had similar assignments focused on the themes of cultural awareness, knowledge, and skills. The cultural awareness module included readings and assignments that engaged participants in examining the concept of White privilege and implicit assumptions. Participants read McIntosh's (1990) article "White Privilege: Unpacking the Invisible Knapsack." They took Harvard's Implicit Association test on race¹⁵. Discussions centered on participants' racial identity. Participants presented their self-conceptualization as a cultural being to the class. Module two increased participants' awareness and knowledge of the demographic diversity currently in schools. They read and discussed

15 This test is found at https://implicit.harvard.edu/implicit/demo/.

Nieto's (2005) overview of public education during the past 75 years and how "Differences in race, ethnicity, social class, language, gender, sexual orientation, religion, and exceptionality, among others, have all defined inequality in public education" (p. 44). Module three exposed participants to the skills educators utilize to promote learning for all students. Participants read Langelier's (2006) article on the need for cultural competence in educators.

The primary difference between the two groups was that Group 2 participants engaged in an online social network extending their class discussions, posting their assignments, and exchanging peer feedback. The online community format chosen for this study was a Ning site¹⁶. This researcher chose Ning because it is explicitly a network for educators and has the hallmarks of community¹⁷. Facebook or other popular sites were not selected as an appropriate choice since they are students' private, social tool. The use of Ning makes the instructor's intent clear that the online social network is being used to achieve educational goals and objectives. Brady et al. (2010) and Hung and Yuen (2010) found Ning promotes interaction and the creation of new knowledge among students and was effective in creating a community of practice with college-age students.

The Ning online format allowed preservice teacher candidates in this study to enter into the virtual community on various levels of personal comfort increasing the personal investment in learning and development of their cultural competence.

¹⁶ The Ning website can be found at http://www.ning.com.

¹⁷ The definition of community was derived from Garrison et al., 2000. Their three-part definition includes students' social and cognitive presence as well as the teacher's presence.

Participants in Group 2 each established their social presence (Garrison, 2009; (Garrison et al., 2000) in the first two weeks on the class Ning site by building their profile page. The assignment stated:

Build your profile on your My Page tab that represents who you are as a cultural being. Be creative. Suggestions include using images (photo, video). Take advantage of free web 2.0 tools such as MovieMaker, Prezi, or Voicethread.

Participants' cognitive presence (Garrison et al., 2000) on the site was established through a series of blogs they were asked to post. In each of the three modules, participants read an article or chapter, formulated a response, and posted their learning on the site as an extension of class discussion. Participants shared their beliefs and articulated their understanding of issues related to topics of racial identity, White privilege, equity, and diversity in the curriculum and K-12 students.

Participants commented on each other's postings. The instructor responded to individual postings. The blog questions were:

Module 1:

1. What is your response to the reading "Unpacking the Invisible Knapsack"? How does this reading connect to our discussions of being unaware of racism or of the importance of race whether you are White, Black or any race?

Module 2:

- 1. What forms of diversity among students do you believe will present you with the greatest challenges?
- 2. How are issues of diversity relevant in the classroom? How do schools foster educational equity/inequity and justice/injustice?

Module 3:

1. What are the characteristics of a culturally competent person? What does that look like in the classroom? What role do educators play in creating an equitable society?

The instructor established a teacher presence in the class's online social network (Garrison et al., 2000). The instructor's role during the instructional period was to determine the content questions and readings to which participants responded. The instructor responded to posts and facilitated interaction between participants. The instructor utilized the Interaction Analysis Model to guide her facilitation of participants' computer mediated communication (Appendix B).

For Group 1, students engaged in two online threaded discussions utilizing the course management site. At the end of the instructional period in weeks 11 and 12, students posted their responses to the articles they read and responded to the questions:

- 1. How are issues of diversity relevant in the classroom? How do schools foster educational equity/inequity and justice/injustice?
- 2. What are the characteristics of a culturally competent person? What does that look like in the classroom? What roles do educators play in creating an equitable society?

The reason the instructor engaged students in this online discussion was a Group 1 student requested online discussion because people were not free to discuss their opinion in a dorm discussion on whose responsibility it is to correct "that's so gay" and use of "retarded". This student requested that the instructor put questions on the readings onto the course Blackboard site as a Discussion Board forum to see if the

class was freer to share their opinion. The instructor noted that at no time did anyone mention or indicate awareness of the other section's use of a social network site as part of the class.

Procedure

Data Collection and Measurement

To examine participants' experiences and responses to instruction on race and diversity, data was collected in five ways (Table 5). First, an initial pretest measure on cultural awareness and attitudes included demographic data (Appendix C). The first part of the pretest was the Teacher Multicultural Attitude Survey (TMAS), (Appendix D). The survey provides an empirical measure of changes in participants' attitudes on diversity. The second part of the pretest was a series of open-ended questions (Appendix E). The open response questions allow for participants to express their feelings, thinking, and learning. The pretest was administered to participants in two sections of an Introduction to Education course prior to the instructional period for multicultural awareness (See Appendices F and G for syllabi). Second, the posttest repeated the TMAS and the past tense format of the open response questions (Appendix H). Third, a semi-structured interview with the instructor examined her observations (Appendix I). Fourth, a content analysis of the instructor's journal of participants' discussions during the instructional period provided data for additional analysis of comparison between the two groups (Appendix J). Fifth, semi-structured interviews with participants from both sections of the course explored preservice teacher candidates' experiences and change of attitudes (Appendix K).

Table 5

List of Methods and Dates of Data Collection

Data Collection Method	Date of Collection	
Pretest (TMAS, Open Response, Demographic Data)	Week 2	
Posttest (TMAS, Open Response)	Weeks 11 and 12	
Instructor Interview	Week 13	
Review of Instructor Journal	Week 13	
Participant Interviews	Weeks 14-16	

Data was collected from a total of 43 participants from both groups. All of the pretest and posttest survey data is anonymous. Participants were assigned a unique identifier so their results could be compared from pretest to posttest. The participant source for direct quotes cited in the study is found in Appendix L. In the text of this study, all direct quotes were paired with the participant or participants who made the comment on the survey. The appendix shows that each participant was assigned a number. Their gender and TMAS difference score is indicated.

Participants answered open-ended questions and took attitude surveys in a pretest that was administered during Week 2. The researcher administered the survey during class time by explaining the project, providing the option of signing the consent form, and directing participants to the online survey link. Using their own laptops, participants connected to Qualtrics online survey tool¹⁸. Surveying students at the start of the course captured preservice candidates' beliefs and attitudes at the time of their arrival on campus and before instruction on cultural diversity occurred.

The researcher administered the posttest during class time providing the online

¹⁸ The website for the online survey tool is found at http://www.qualtrics.com/.

survey link to both groups. Participants connected for the second time to the Qualtrics online anonymous survey tool. An interview with the instructor, and a discussion of her weekly account of assignments, discussion topics, and description of the events of the class from her journal¹⁹ followed. Face-to-face interviews were conducted in December with seven participants from Group 1 and seven from Group 2.

Instruments

Teacher Multicultural Attitude Survey

To provide a quantitative analysis of self-reported changes in preservice teacher candidates' attitudes, Ponterotto et al.'s (1998) Teacher Multicultural Attitude Survey (TMAS) was utilized. The TMAS is a 20-item measure of multicultural attitudes pertaining to educators and the classroom. The instrument is designed for use with educators and is aligned with the learning outcomes for courses related to promoting multicultural awareness. Using a labeled 5-point Likert scale (1 = strongly disagree, 2=disagree, 3= uncertain, 4=agree, and 5 = strongly agree), this tool measured participants' multicultural awareness defined as "awareness of, comfort with, and sensitivity to issues of cultural pluralism in the classroom" (Ponterotto et al., 1998, p. 1003). In the pretest and posttest, the TMAS Likert scale was arranged horizontally for each question. The response levels were anchored with labels and consecutive integers connoting approximately even gradations. Possible scores on the TMAS ranged from 20-100. Higher scores on the TMAS indicated increased

¹⁹ The instructor journal consisted of a protocol to guide the instructor's weekly note-taking after class sessions.

awareness and appreciation of cultural diversity. In order to compute the TMAS score, the scores for items 3, 6, 12, 15, 16, 19, and 20 were reversed.

The TMAS was chosen because of its reported validity and reliability. Developed by a racially and ethnically diverse team, the TMAS items underwent a content validity check for clarity and domain appropriateness to the multicultural awareness construct through pilot testing, focus group research, and revisions in two studies (Ponterotto et al., 1998). Due to the fact that items are both positively and negatively worded on the measure to avoid a "response set" (Cronbach, 1950, p. 3), the authors used Chang's (1995) test. Cronbach (1950) reported in the results of his studies that response sets were a minor factor "since so great a selection of cases was required in order to demonstrate any evidence of bias" (p. 10). For reliability, the TMAS coefficient alpha was .86 and the theta coefficient was .89 (Ponterotto et al., 1998, p. 1012). The TMAS authors utilized a principal components method to verify that their focus on a single factor, teacher's sensitivity to cultural diversity, was "a robust and useful model" (Ponterotto et al., 1998, p. 1007). The criterion validity of the TMAS "was assessed using the group differences approach" (1013) through four univariate tests on the basis of race, gender, attending a multicultural workshop, and prior multicultural course training. Using a Bonferroni correction by dividing the traditional significance .05 value by the number of tests, the authors found a statistically significant difference for the participants who had prior multicultural training.

To test for convergent validity, the authors administered the Multigroup Ethnic Identity Measure (MEIM) (α = .74) and Quick Discrimination Index (CDI) (α = .83) to

determine a correlation. As predicted by the authors, the TMAS was positively correlated to the MEIM and the QDI, but negligibly correlated to the Social Desirability Scale showing no "contamination" (Ponterotto et al., 1998, p. 1013). The authors concluded that the levels of TMAS internal consistency were in acceptable ranges for this research purpose. When combined with content reliability and score reliability the TMAS could "discriminate between teachers' high and low multicultural awareness" (p. 1015). Ponterotto et al. (2006) reported "satisfactory score internal reliability (coefficient alpha = .86) and test-retest stability (.80 at 3-week interval), as well as promising factor-analytic and criterion-related validity support" (p. 254) of the TMAS.

Open Responses

Embedded in the pretest and posttest were 18 open-ended questions. One question asked participants to describe what defines them as a person to explore their perspective on the importance of race, culture, and ethnicity. Another question asked participants to identify and describe critical issues facing the educational system at the present time to discern their own priorities and views of schools. Three questions prompted students to comment on the role of the format of the course in hindering or helping the sharing of their ideas related to issues of race and culture. Participants noted their willingness to share their thoughts regarding diversity and to listen and value the input of their peers on these issues. Another question, asked participants if they had any thoughts about the survey or research topic.

The remaining 12 open-ended questions were used with permission of Helms (2008) so that participants could explore their White identity development. These

open-ended questions corresponded to Helms's six conditions of White racial identity development (Table 6). The six stages are: contact, disintegration, reintegration, pseudo-independence, emersion, and autonomy. Each level in Helms's model is represented by two open-ended questions. One question explored attitudinal thinking while the other asked about behavior indicative of that status. For example, the autonomy level question corresponding to attitude asked participants, "How strongly do you agree or disagree with the following statement: My Whiteness is an important part of who I am." The companion question relating to behavior for that status stated, "How strongly do you agree or disagree with the following statement: I speak up in a White group situation when I feel that a White person is being racist." These questions explore participants' beliefs and attitudes. They do not serve as a comprehensive measure of their White racial identity as Helms's full White Racial Identity Attitude Scale (WRIAS) is intended.

Table 6

Helms' Stages of White Racial Identity Development

Helms's Level	Corresponding Statements	
Contact	A: I personally do not notice what race a person is.B: If I am asked to describe a person, I would not or do not mention the person's race.	
Disintegration	A: There is nothing I can do to prevent racism. B: I do not discuss "touchy" racial issues.	
Reintegration	A: I believe that White culture or Western civilization is the most highly developed, sophisticated culture to have ever existed on earth.B: When a Black male stranger sits or stands next to me in a public place, I move away from him.	
Pseudo-independence	A: I believe that affirmative action programs should be	

used to give minorities opportunities

B: For Martin Luther King's birthday, I attend or would voluntarily attend a commemorative event.

Emersion A: White culture and society must be restructured to

eliminate racism and oppression.

B: I have voluntarily participated in activities to help me

overcome my racism.

Autonomy A: My Whiteness is an important part of who I am.

B: I speak up in a White group situation when I feel that

a White person is being racist.

Note. The open-ended questions correspond to Helms's model where A is Attitude and B is Behavior indicative at that level.

The open-ended questions on racial identity development were adapted for students of color since Group 2 had one African-American (Appendices M and N). Questions on Black racial identity development replaced the ones on White racial identity development. The open-ended questions for students of color were taken with permission from Helms's Black Racial Identity Attitude Scale (BRIAS) (1990). These questions paralleled White students' set of questions in that they corresponded to levels of Black racial identity development except that there was only one question per stage. In Helms's model, the five levels of Black racial identity development are: pre-encounter, post-encounter, immersion, emersion, and internalization. For example, for the internalization status, the question asked, "How strongly do you agree or disagree with the following statement: I involve myself in causes that will help all oppressed people."

The pretest included nine demographic questions. Participants were asked to identify their gender, race, age, education major, and level of racial and ethnic diversity in their hometown or school. Other questions measured the amount of

training participants have had on multiculturalism and their familiarity with Ning, an educational social network, the amount of experience participants have had using popular social network site (i.e. Facebook and MySpace), and educational online forums in general. The posttest repeated the open-ended questions without repeating the demographic questions.

The concurrent data collection method provided complementary data for the investigation of multicultural identity development in preservice teachers. Creswell (2009) argued that a mixed methods approach allows for fuller understanding of the research problem because in the analysis data is qualitatively and quantitatively analyzed for convergence in patterns. By using both forms of data collection and analysis the construct of multicultural identity development is studied more comprehensively (Patton, 2002). Nesting the qualitative questions within the pretest and posttest augmented the quantitative data and provided a fuller understanding of changes in teacher candidates' cultural awareness and attitudes before and after the instructional period. It allowed for a comparison between groups.

Instructor Journal and Interviews

The instructor's journal chronicled discussions and participants' comments elaborating on the cultural awareness, knowledge, and skills demonstrated by the students during the instructional period. At the end of each week, after the two class sessions, the instructor wrote down her observations about such things as the topic of discussion, the tone and flow of discussions, and interactions between students. She noted student quotes and interesting behavior. Indicators of cultural awareness, knowledge and skills demonstrated by the participants were recorded. Each entry in

the journal was analyzed by the researcher for conceptual themes identifying the ways in which preservice candidates experienced multicultural training. The instructor's reactions to the experience and insights on teaching with an online social network were analyzed.

A semi-structured interview was conducted with the instructor. Several questions established the instructor's interest in participating in the study and her prior experience with diversity training. The primary goal of the interview was to gain the instructor's perspective on the participants' cultural awareness, knowledge, and skills for each group of participants. The instructor was asked about the quality of in-class discussions, use of the Ning site, and differences and similarities between the two groups. To gain a deeper understanding of the similarities and differences between Group 1 and Group 2, the instructor was asked to elaborate on her observations and notes from the semester. The instructor often referred to several complicated entries in her journal to clarify and support her points.

The interview and document analysis of the instructor's journal and results from the pretest and posttest shaped the participant interview questions at the end of the semester. Patton (2002) argued that the purpose of interviewing is "to allow us to enter into the other person's perspective" (p. 341).

Thus, a semi-structured research protocol was utilized for the interviews with participants from both groups. The questions were designed to further explore the concepts that arose from the pretest and posttest. For example, Group 1 students were asked about their learning with regards to multicultural understanding. They were asked to describe class discussions, their participation, and in what ways the course

changed their attitudes. Participants were asked to articulate changes in terms of the dimensions of the multicultural identity continuum. Participants from Group 2 were asked the same questions. Additional questions centered on the class online social community. For example, participants were asked the role Ning played in their learning and change of attitudes.

Analysis

The analysis examined changes in participants as a result of the instruction on multicultural awareness, knowledge, and skills. The design combined an analysis of participants' quantitative inventory with an analysis of the qualitative data (Corbin & Strauss, 2008). Using the survey allowed the researcher to measure changes in outcomes as a result of the experience (Patton, 2002). The pretest and posttest survey revealed the relationship between students' thinking on cultural awareness at the beginning of the research period and changes at the end. A qualitative analysis was particularly appropriate for this topic since participants' descriptions about the experiences were essential to understanding their development; also, the use of technology is a new approach in promoting multicultural understanding and allowed the themes to unfold and be deductively analyzed (Lincoln & Guba, 1985). A qualitative analysis allowed the researcher to "get at the inner experience of participants, to determine how meanings are formed" (Corbin & Strauss, 2008, p. 12).

Combining the two as a mixed methods approach provided analyses at different levels and strengthens the findings of the study (Patton, 2002). Patton (2002) argued that analysis is both an art and a science. Qualitative research promotes interpretation of the concepts that are grounded in the data. This study systematically

developed concepts about participant's experiences and changes in attitudes through a constant comparative approach allowing for interpretation through both quantitative and qualitative methods.

Quantitative Analysis. TMAS data from the traditional group and the social network group were analyzed for the amount of self-reported change in attitudes from the beginning to the end of the semester. To test for reliability, a Cronbach's alpha was computed for the pretest and posttest, shown in Table 7. Cronbach's Coefficient Alpha of the Teacher Multicultural Attitude Survey (TMAS) reveals "moderate" or "satisfactory" levels at the .60-.69 range; while .70-.79 is "extensive" and .80 or above is "exemplary" (Ponterotto & Ruckdeschel, 2007, p. 999).

Table 7

Interitem Reliability Coefficient

Group	Pretest	Posttest	
Traditional	.87	.93	
Social Network	.70	.73	

Note. Cronbach's Coefficient Alpha of the TMAS pretest and posttest

The results indicate the reliability coefficients of the pretest are at acceptable levels of reliability (Ponterotto et al., 1998). The construct, criterion, and face validity and reliability were established by the authors of the instrument (Ponterotto et al., 1998; Ponterotto & Ruckdeschel, 2007).

The TMAS survey data was exported directly to PASW Statistics software (SPSS version 19) for analysis. Descriptive statistics were calculated for the data of each group. The change in attitude within each group from pretest to posttest was measured. The difference score within each group was compared. Results are

explained and discussed in Chapters 4 and 5.

Qualitative Analysis. The inductive analysis of the pretest and posttest began by establishing a case for each participant. Individual results were printed for underlining and highlighting. The results of analysis of the open-ended questions were then uploaded to NVivo 9 software program. In a microanalysis, the details from each participant's responses were carefully read. Through the use of memos, initial concepts were developed based on their common properties and dimensions of those details. Memos were a written record of the analysis process (Charmaz, 2006). Memos included this researcher's thinking about the data and emerging concepts. The metacognitive analysis involved in the act of writing memos and during the coding process revealed overarching themes and connections across cases.

The next step was a cross-case analysis. Descriptive concepts across individual experiences were noted. Categories representing these concepts were established. In a macro analysis, each individual was reviewed for data that fit the overarching categories. Categories were refined during the comparative process and rereading of participants' posttest results.

In NVivo, nodes²⁰ were created in the software program that represented the concepts evident in the data from participants. When data matched a concept it was coded into that node. One example is the concept of "seeing color." Many individuals revealed that they noticed someone's race or color. Most participants disagreed with the open-ended statement, "If I am asked to describe a person, I would not or do not

²⁰ In NVivo, "nodes" are created by the researcher and are a place to store categories of data. They can be created at the start of the project or added as they emerge.

mention a person's race." Reviewing answers across each of the cases revealed the concept of "seeing color." For example, individual statements from the anonymous survey were, "everyone is going to notice; every race looks a certain way and you definitely notice that;" "I believe you will always notice what race they are;" and "I disagree strongly with this statement. When you see a person, you obviously know what race they are. People may say that they do not notice, but I believe everyone notices" (See Appendix L for participant sources of quoted data). Each concept established as a node in NVivo was reviewed and refined as the data from individual cases was compared. The cases were read and reread to determine if data fit into overarching categories. Categories get at the essence of what is being said. Subconcepts referred to as axial coding were used as needed (Corbin & Strauss, 2008).

Another step in the analysis process was to run queries in NVivo. For example, word frequency queries revealed the most frequently used terms that participants used. A comparison of key words on the pretest and posttest were made. This information was then displayed visually in a word tree where the phrases used just before and just after the key word were evident. The tree map below shows phrases used before and after the word "race" in the pretest (Figure 2). This figure represents a small snapshot of the actual tree map. Note that in NVivo, when a phrase on the left it clicked the rest of the sentence on the right side of the queried term is highlighted, so one sees the entire sentence.

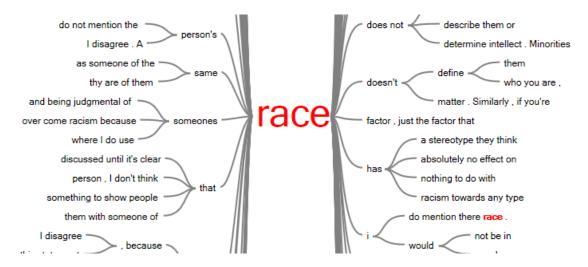


Figure 2. Tree map of the word race on the pretest.

A final step analyzed the results of the coding and memoing process. Patterns emerged. Participants' voices became clear. Differences between the responses from Group 1 and Group 2 were evident. These results from the interpretation of the coding process shaped the interview questions for the instructor and participants.

Document Analysis

A document analysis of the instructor journal was conducted. A similar coding process was utilized. The first step was an examination of the journal. Descriptive codes were generated for each week. Memos were written during the process.

Conceptual categories emerged from comparing and analyzing the instructor's notes for each week of discussions and class activities. The instructor clarified and expanded upon her journal entries during the interview.

Interview Analysis

Similar to the process of coding open-ended responses, data from the instructor's and participants' interviews were uploaded into NVivo for analysis. An audio file for each interview was established. The words were transcribed and coded for underlying concepts. Memos were developed and reviewed during the coding

process based on an analysis of data. Several categories were established from the analysis of the pretest and posttest data. These categories were verified during the analysis of the interview data. New categories emerged as a result of the interviews.

The qualitative analysis used in this study was a systematic and rigorous inductive analysis of data using established protocol of generating descriptive coding and conceptual categories (Corbin & Strauss, 2008; Glaser & Strauss, 1967).

Summary

The approach used in this study included a mixed method design that allowed for an inductive, constant comparative analysis. Preservice teacher candidates' experiences and changes in attitudes and beliefs were examined. The learning outcomes of the instruction were cultural self-awareness, knowledge of diverse learners, and skills for culturally competent classroom interactions. The syllabi for the two sections were the same except for Group 2's participation in the online social network.

Data was collected in five ways. A pretest and posttest included an established quantitative measure used to examine changes in cultural attitudes and awareness that corresponded to the learning outcomes of the course (Ponterotto et al., 1998).

Embedded within the pretest and posttest were open-ended questions, interviews, and document analysis. The qualitative data provided for thick description and analysis of the themes of participants' inner experiences and reaction to the instruction. The mixed method design allowed for varying types and levels of analyses in order to examine preservice teacher candidates' multicultural identity development during a first semester education course. The process of analysis was concluded with a

synthesis of the findings describing preservice teacher candidates' experiences during multicultural instruction in two courses (Patton, 2002).

Chapter IV. Results

In this chapter, quantitative and qualitative data collection results and analyses demonstrate the ways in which preservice teacher candidates experienced self-examination and instruction on race, culture, and White privilege. Participants' viewpoints and the changes that occurred after instruction on diversity were examined and analyzed. Participants' attitudes and beliefs over the course of the semester are revealed through analyses of the surveys, open responses, and interviews.

The first part of the chapter examines the data and analysis of participants' Teacher Multicultural Attitude Survey scores. The quantitative representation of the data and its analysis frame the presentation of results. The visual depictions of the survey results highlight the similarities and distinctions between the groups.

The second section of the chapter examines the open-ended questions and semi-structured interviews of participants. Thick, rich description establishes participants' voice and presents the complex ways they responded to the instruction.

The third section of the chapter explores the words and perspective of the instructor. Her observations of the two groups and the ways she was influenced by the study increases understanding of the experiences of participants. This section includes a document analysis of the instructor's journal that served as a chronicle of the weekly discussions and events throughout the semester.

Pseudonyms are used to protect the identity of all participants.

Quantitative Data and Analysis

The Teacher Multicultural Attitude Survey measured participants' beliefs

about teaching and their appreciation of culturally and linguistically diverse students in the K-12 classroom. The purpose of the measure was to examine any changes in how strongly participants agreed or disagreed with the statements on teaching diverse groups of students and the importance of multiculturalism. The TMAS discriminates between high and low multicultural awareness, where high scores on the TMAS indicate an awareness and appreciation of cultural diversity (Ponterotto et al., 1998).

In Group 1, 19 out of the 20 students in the course took the pretest. One student was absent for personal health reasons throughout the semester and for the posttest. In Group 2, 23 out of the 24 White students took the pretest. One student in that course was also absent for both the pretest and the posttest. In total, results were analyzed for 19 Group 1 participants and 23 Group 2 participants. The results of the adapted survey for the student of color were analyzed and can be found in Appendix O.

Participants took the pretest and posttest during class. The amount of time it took participants in both groups to complete the pretest survey was similar. Table 8 below shows that the ranges and average times from both groups were parallel. There were participants in each group who finished very quickly and others who took approximately an hour.

Table 8

Amount of Time Taken on the Pretest and Posttest

Group	Pretest Range	Average Pretest Time	Posttest Range	Average Posttest Time
Traditional	14-45 min	31 min	12-50 min	26 min
Social Network	15-59 min	34 min	10-55 min	25 min

Descriptive Statistics

In this section TMAS scores are reported for each group. Urdan (2010) suggested averaging all the responses in a Likert scale survey for statistical analysis and presentation of data. Miller and Salkind (2002) concurred, acknowledging that there is disagreement on interpreting the level of measurement for Likert scales, and stated:

Still others have taken the position that although most of the measurements used do not go beyond ordinal scales, little harm is done in applying statistics to them that are appropriate for use with interval scales. The result is that statistics appropriate to interval scales continue to be widely used in the analysis of social data, whether the assumptions of interval scaling are met or not (p. 450).

Thus, total TMAS scores are presented here and in the next chapter while recognizing the ordinal characteristics of the measure²¹.

Pretest. The TMAS pretest median for Group 1 was 72. Group 1 scores on the pretest ranged from 64-92. A visual analysis of histograms of the pretest averages revealed that Group 1 was skewed toward lower scores (Figure 3). Participants' average scores clustered around 70.

²¹ Norman (2010) researched the controversy of interpreting Likert scales and argued,

[&]quot;Parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions, with no fear of 'coming to the wrong conclusion'. These findings are consistent with empirical literature dating back nearly 80 years. The controversy can cease (but likely won't)" (p. 631).

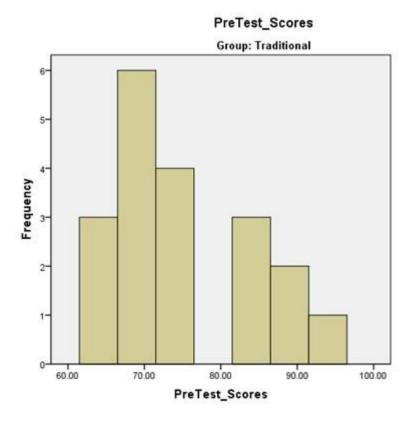


Figure 3. Histogram of Group 1's score distribution on pretest.

The pretest median for Group 2 was 74. Group 2's distribution was relatively normal (Figure 4). Participants' average scores clustered around 73. Group 2 scores on the pretest ranged from 65-88.

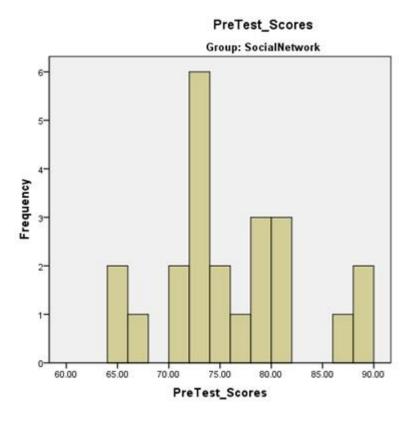


Figure 4. Histogram of Group 2's score distribution on pretest.

The results of the pretest demonstrated that Group 1 and 2 had commonalities such as similar medians and ranges in scores. A difference was noted in the distribution of participants' scores.

Posttest. Changes from the pretest to the posttest were analyzed. Posttest TMAS data revealed that the median scores for Groups 1 and 2 increased at different levels. Within each group, the amount of change in TMAS scores between pretest and posttest was investigated.

Group 1

The posttest median for Group 1 (Traditional) increased from 72 to 78. Group 1 scores on the posttest ranged from 63 to 95. A visual analysis of the distribution of

scores revealed that seven participants continued to score 70 or below on the pretest and the posttest (Figure 5). In the 70-90 range there was a shift where participants' scores increased. One fewer participant scored in the highest range on the posttest.

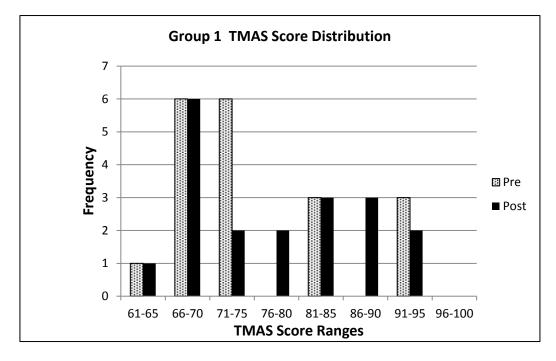


Figure 5. Bar graph of Group 1's distribution of TMAS scores on the pretest and posttest.

The difference scores from pretest to posttest for Group 1 participants ranged from -5 to +12 (Figure 6). Six participants had a negative score and 13 demonstrated a higher score. Nine of the 19 participants in Group 1 gained between 1-5 points in their mean score. Two participants increased 10 points and one increased 12 points.

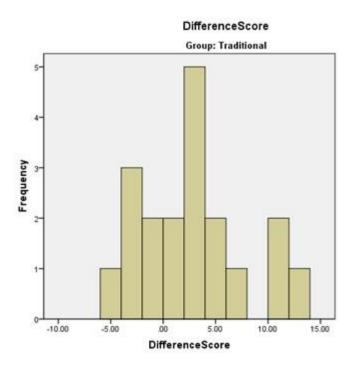


Figure 6. Histogram of the difference scores from pretest to posttest in Group 1.

Group 2

The posttest median for Group 2 (Social Network) increased from 74 to 81. Group 2 scores on the posttest ranged from 66 to 91. A visual analysis of the distribution of scores revealed a shift where a larger number of participants scored in higher ranges (Figure 7).

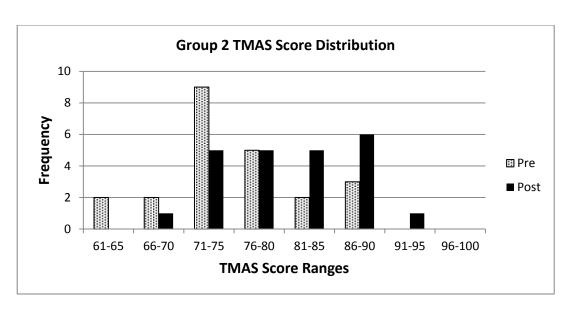


Figure 7. Bar graph of Group 2's distribution of TMAS scores on the pretest and posttest.

The difference scores for Group 2 participants ranged from -7 to +17 with one participant having no change (Figure 8). Five participants had a negative score and 17 demonstrated a higher score. Five of the 17 increased between 10 and 17 points.

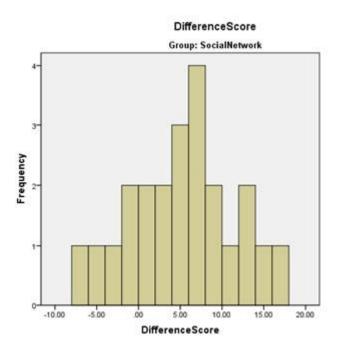


Figure 8. Histogram of the difference scores from pretest to posttest in Group 2.

Summary. Participants from both groups increased their multicultural awareness according to the TMAS measure (Table 9). In both groups, there were participants whose scores increased and those whose scores decreased. TMAS median averages in Group 2 increased to a greater extent. These results begin to explain how participants responded to the instruction on race and diversity. To confirm and more fully explain the experiences of participants with each group, their responses to the open-ended questions were examined.

Table 9
Summary of TMAS Pretest and Posttest Median Data

Group	Pretest	Posttest	Change	Difference Score
				Range
1	72	78	6	-5 to +12
2	74	81	7	-7 to +17

Qualitative Data and Analysis

The open-ended questions were organized around three categories: self-description, White racial identity, and course interaction. In the pretest, commonality between the groups was evident in that they answered in a similar manner and with similar expressions or descriptions. Change was evident in analyzing participants' posttest responses in all three categories. Sources for all participants' quotes are found in Appendix L.

Who Am I?

The first question explored the theme of identity and how participants described themselves. The first open-ended question asked, "What defines who you are? What describes you? What is it about you, your life, and your background that

have shaped who you are today?" Asking students to describe their self-perceptions reveals the ways in which they described their identity. Participants from both groups reported similar themes that defined who they were. Most participants defined themselves externally, by indicating the influence of others in their lives. For example, family members, such as parents, siblings, and grandparents were most frequently mentioned in 13 Group 1 and in 20 Group 2 responses as determining a candidates' definition of self. Participants also cited friends and teachers as having an effect on what made them who they are today. Typical responses were, "The things that help define me are family, friends, and the way I have been brought up throughout my childhood;" "My parents and my family is the most important thing in my life;" "I would not be the person I am today without my parents, family, and friends guidance and support over my elementary and high school years;" and "My family and friends have shaped me into the person I am today."

Twenty one of 43 participants responded that their personality traits defined them. Some stated: "My personality describes me the best. I have a fun personality and I know when I need to be serious and in control;" "My personality defines who I am on the inside and on the outside;" and "Some things that define me are my personality, how friendly I am, and how comfortable I am meeting new people."

Another common theme in participants' answers to this first question was the inclusion of difficult experiences from their past that shaped who they have become. For example, they cited divorced parents, the death of a parent, siblings with special needs, and struggles in school. One participant answered:

My background has definitely shaped who I am today. My dad had cancer for

most of my childhood so I spent a lot of time in and out of the hospital to visit him and be with him. I wouldn't consider myself to have had a normal childhood. I had to realize at a young age to be very appreciative for everything you have because one day it could be gone.

A final category of responses to this question included activities that the participants engaged in as a determining factor of who they were. One participant's response was:

My extracurricular activities and sports defined who I was in high school, and I hope to continue that same philosophy in college. I have participated in various activities, including basketball, softball and soccer, student council president, class vice president and secretary, world language club, key club, SADD, and many more activities. In college, I have signed up for the soccer club, CAPE, Human and Animal rights, I am running for the student government, I am actively involved in Zumba, and many more.

Absent from all answers was the issue of race, ethnicity, or culture. This demonstrates participants' lack of awareness of the importance of racial identity as a descriptor in how they define themselves. They did not include their race or culture, because it is not how they traditionally defined themselves. Important to participants at this stage in their lives is their family and friends. What they have done for activities or accomplished has also defined who they are.

Changes in Self-descriptions

The most noticeable area of change on the posttest in both groups was the inclusion of race and ethnicity in participants' responses to "what defines who you

are?" For example, terms relating to race, culture, or ethnicity were used by six participants in Group 1 and seven in Group 2. Their answers shifted to recognize the role of their background in shaping who they have become. In this new category, respondents connected their new vision of self to their learning from the course. For example, the participant in Group 1 who defined herself through extracurricular activities now stated:

I like to think of myself as a culturally competent individual that likes to learn and do everything to the best of my ability...this course has helped me better understand what it means to be culturally competent and I feel much more comfortable working with people that have differences.

Family and personality continued to be factors shaping what defines them. The other new category for this answer was the inclusion of physical features. Two participants from Group 1 and three from Group 2 listed physical traits or disabilities they had not indicated in the pretest.

This change in their self-perception and definition demonstrates participants' emerging awareness of their racial and cultural characteristics. It represents the beginning process of defining themselves from cultural attributes and not solely from external forces such as family, friends, and activities.

Perceptions of Education

Question two in the open-ended responses asked participants to "describe what you think are the top three most important or critical issues facing our educational system today." Asking participants to identify critical issues reveals their priorities and what they believe is important to address in schools. It provides an understanding of

their perspective and frame of reference in terms of their view on the educational system and issues that need to be addressed. Answers across both groups were similar. The majority of participants in both groups described a range of answers all of which were outside the category of race or diversity. Three respondents in Group 1 and six in Group 2 identified culture or diversity as a critical educational issue. For example, one participant from each group cited the "lack of diversity" among teachers. Another participant noted, "Cultural diversity inside and outside of the classroom."

The most prevalent category of responses related to issues regarding teachers. Participants cited low teacher quality, questionable disposition, lack of differentiated pedagogy, low expectations, and lack of knowledge for special education. Participants stated, "Teachers who don't care about their students" and "Teachers who just lecture." Participants also answered in defense of teachers. Two participants from Group 2 stated that there is a lack of respect for teachers. Two from each group noted that there is too high of a student-teacher ratio in terms of class size. One participant from Group 1 and four from Group 2 cited low teacher pay as a critical issue facing education.

Another category of responses related to the area of curriculum. Three participants from Group 1 and one from Group 2 cited a lack of the use of technology in the classroom. An overemphasis on standardized testing, especially the No Child Left Behind Act and the new Common Core Standards, were themes noted by 11 participants. Four participants noted the need for a more "hands-on" or relevant curriculum. One response was:

I find one issue to be the lecturing and less hands-on activities for certain

learners. Some students need different types of teaching to grasp some concepts and actually retain information or ideas. Another is the lack of technology being used; kids need to learn with "real-world" technology so they are more aware of everything outside of the classroom.

Ten Group 1 and eight Group 2 participants described student-related topics as the most critical issues facing our educational system. Four Group 1 participants and one Group 2 cited the problem with bullying in today's schools. Six participants described critical needs relating to special education ranging from the necessity of more supportive programs to more mainstreaming and understanding of students' various disabilities.

Another common category of responses was school and system related.

Participants noted that budget cuts, the school building itself, accountability systems for the teachers and students, unions, and even the state of the economy were all critical issues facing our educational system.

These answers reveal that participants did not rank race or diversity as critical issues in our educational system today. The identification of teacher, curriculum, student, and systemic issues in today's schools demonstrated the priorities and K-12 experiences of participants. They used personal examples to describe the problems they witnessed in their schools. In some answers, these were personal disclosures about situations they endured. They shared what they considered important. In Group 1, only two participants provided a simple list of three items, the rest of the respondents expanded their answers. The lengthier responses revealed the passion in the participants, with their use of adjectives and exclamation points, about their view

on what is wrong with schools. In Group 2, nine students identified a list of critical issues while the rest wrote longer descriptions (11-13 sentences) explaining their assessment of education and their top three critical issues. Similar to Group 1, the participants' passion and personal sharing permeated the responses.

Seeing Schools Differently

On the posttest, participants' descriptions of the top three critical issues facing our educational system changed. The most popular category of responses now centered on issues of culture. Fifteen participants from Group 1 and 16 participants from Group 2 answered that important issues were race, diversity, and teachers understanding of students' diverse needs and backgrounds. These respondents described that there is a lack of understanding of students' diversity and issues of racism and equality in the classroom. One participant noted, "I think the biggest issue is becoming culturally competent and moving away from the issues of racism is the biggest thing we need to work on." One participant identified the implicit assumptions of some teachers stating:

I think discrimination is a big one. When someone is a different race, has a disability, or is gay people tend to treat them differently. Some teachers will not try as hard with a student of color because of the stereotype that they aren't smart or a teacher may not try as hard with an Asian student because they are stereotyped as very smart.

For the 31 participants who now perceived discrimination and cultural competency as an issue, their answers revealed a new conceptualization of K-12 schools and the role of the teacher. One participant made the connection to cultural

understanding and learning stating, "The lack of understanding that cultural differences can make a difference in how students learn is an issue." Participants revealed a growing understanding of the need to personalize education taking into consideration the context of students' race and culture. One participant stated that a critical issue was, "Educating all kids no matter what their background to the fullest extent."

Participants' responses on the posttest continued to include other issues related to teachers. Change was evident in that answers now included the problem of teachers creating a "safe" and "comfortable" environment in the classroom. Five participants in each group articulated the importance of classroom culture and the student-teacher relationship or connection in their responses. For example, a Group 1 respondent stated:

The first [important issue] is teachers understanding students. I don't think there are enough teachers that understand and can relate to their students, to the point where the students feel 100% comfortable around their teachers. I also think teachers who are teaching in multi-cultural classrooms need to find an effective way to teach their students.

A Group 2 participant emphasized the need for community stating:

Also, the teacher. I say this because it's [up to] the teachers to make a sense of community within the classroom. The teacher needs to be able to be unbiased and care for each student equally. It is sad to see teachers who don't pay attention to a Black student or will give only attention to the female. Or the rare cases when the teacher is very inappropriate. The teacher needs to be

someone the students can trust.

These participants revealed the influence of the instructor's modeling in creating a class environment conducive to difficult conversations on race and culture. A concrete example of that was evident in a participant's response that "what to teach and who decides" was a critical issue facing education. This phrase was an enduring question from the instructional period, as indicated in the instructor's journal.

White Racial Identity Development

The next set of questions explored participants' racial identity development. Twelve open response questions were drawn from Helms's (2008) White racial identity model and were meant to explore participants' beliefs relevant to their White racial identity development. Helms's six stages of White racial identity development reveal levels of racial conceptualization within an individual that are either conscious or unconscious. These levels represent one's attitudes and behaviors and their cognitive sensitivity to race and racism. The levels are not linear. For each stage participants were asked two questions in the pretest, one corresponded to attitude and one to behavior. A table representing this was presented in Chapter 3 (Table 6, p. 54-55). Participants were asked to indicate how strongly they agreed or disagreed with the statements and explain why.

Helms's levels are divided into two phases where the first phase includes the first three statuses of contact, disintegration, and reintegration. Each indicates an internalization of racism. A discussion of each follows.

Contact. Helms's first status is contact, defined as a lack of awareness of racial or cultural issues. A person at this stage typically articulates a color-blind perspective

in that he or she claims not to see race. This stage is also marked with a general naiveté or ignorance about the impact of racism in society. To explore participants' attitudes in the contact stage, the pretest question asked how strongly participants agree or disagree with the statement, "I personally do not notice what race a person is." Participants' responses from both groups were similar. A majority from both groups, 9 from Group 1 and 19 from Group 2, disagreed with the statement.

Participants described how people always notice race, that it is obvious. Typical responses included, "Of course I notice a person's race. When you look at someone you know whether they are White, Black, Asian etc. It's not bad to notice race;" and:

Strongly disagree. The only person who does not notice would be someone who is blind. Everyone notices if someone is a different race than them. What it comes down to is how they view that person or how quick they are to judge that person.

Participants in Groups 1 and 2 who agreed with the statement described how they do not notice a person's race. One Group 1 participant gave the response that, "Everyone is a human being no matter what color their skin is." Similarly, one Group 2 participant stated, "We are all equal."

One respondent, arguing that if someone "agreed" with the statement they are really trying to argue that they are nondiscriminatory, stated:

When a person says they don't "notice" what race a person is, to me it means they don't care whether what skin color they have, a person is a person. But most people would notice that another person looks different than you, it's in our nature to notice difference, but not in our nature to judge. I don't think it

matters whether a person has "Black", "White", or even pink skin for that matter, each person may be different in their own way but they still deserve the same amount respect that you would expect to receive from them.

This comment reveals a progression just beyond a color blind attitude where the participant is seeing color, but not acknowledging differences in lived experiences.

Participants' qualified answers confirmed that perspective. Participants in both groups who agreed included explanations. For example, four Group 1 participants agreed, but noted that other factors were important to notice in people. For example, one participant stated:

I kind of agree with that statement. I will not lie when I first look at a person and they are of a different race than me I will notice, but I will not treat them differently. A race doesn't define who you are, it is the person inside of you that defines who you are.

Four Group 2 participants agreed with qualifications. One stated:

I agree with this statement, because race is such a small factor in today's world. What is more important, in my opinion, is the personality that a person has. I could care less if you're Black or White, if you're a total snot who is mean to everyone. Race doesn't matter. Similarly, if you're the nicest, sweetest, most considerate person I've ever met, I don't even notice what race you are. Color doesn't mean anything in today's world, because we were raised to look past the color of someone's skin to reveal who they really are as a person.

The next open-ended question explored participants' behavior at the contact stage. The question asked: "If I am asked to describe a person, I would not or do not

mention the person's race." Eighteen of 42 disagreed with this statement, seven from Group 1 and 11 from Group 2. This shows that a majority of participants may notice race, many do not use racial descriptions in discussing people. Those who stated they would use race described the reasons why. For example, one participant expressed, "I would mention their race, just like I would mention there [*sic*] gender or hair color." Those who stated they would use race to describe someone qualified their answers. For example, one participant explained:

There are times where I do use someone's race to describe them. I don't mean it in an offensive way; I just am describing all their features to someone else to give them a picture in their head of what this person looks like.

Participants' answers showed the importance they placed on being respectful of everyone, acknowledging their race, and focusing on personality of individuals.

Contact Changes. In the posttest, the question relating to Helms's contact level of identity revealed differences between the groups. The responses from Group 1 stayed the same between pretest and posttest; approximately the same number agreed and disagreed that they do not notice race. In Group 2, 19 respondents, six more than on the pretest, stated that they notice race, rather than adopting a "color blind" attitude.

Both groups showed little change on the open-ended question exploring participants' behavior at the contact stage which stated that they do not mention race.

These results show an increased awareness in Group 2 participants' acknowledgement of people's race. Admitting they see race means recognizing different cultural perspectives from their own White viewpoint. Participants who acknowledge seeing race indicate development in the first stage of White racial

identity development.

Disintegration. Helms's second status is disintegration which is characterized by confusion in terms of awareness of the socio-cultural implications of race, yet an inability to assume personal responsibility. At this stage, one cannot typically relate to cultures other than one's own. To discover participants' attitudes at this level, the question asked participants their level of agreement with the statement, "There is nothing I can do to prevent racism." On the pretest, a majority of participants, 26 of 42, from both groups disagreed with this statement (10 from Group 1 and 16 from Group 2). Their responses represent optimism and the belief that one could "do something" to combat racism. One response was, "I disagree. Everyone and anyone can do something to prevent racism even if it is just making people aware that racism still exists or defending someone who is being discriminated against." Three participants from each group both agreed and disagreed or stated that the situation is complicated. In that collection of answers, participants recognized their own ability to act, but did not commit to an answer one way or the other.

Those who agreed with the statement represented about 25% of the answers. These responses included the belief that it is not possible to change everyone's attitudes and make them non-discriminatory. This demonstrated their belief that racism will always exist in some people, as well as their personal inability to take responsibility or effect change. A typical response was, "Agree, because everyone has their own opinions, you can't stop them from the way they feel or think."

Or, they expressed the global nature of discrimination. For example, one participant explained, "I agree. I could certainly protest against it or enforce the rules in a

classroom. However, racism occurs globally, so I could not prevent it all together. It is a worldwide phenomenon and will unfortunately never be eradicated completely."

To explore participants' behavior at the disintegration level, the statement that participants agreed or disagreed with was "I do not discuss 'touchy' racial issues." Half in each group agreed and half disagreed. Of those who disagreed, one participant in Group 1 and two in Group 2 cited that difficult issues "need" to be discussed. Two participants in Group 1 and one in Group 2 described discussing difficult subjects in their courses in high school. Half of the participants agreed with this statement. A common response was "I agree with this just because I wouldn't want to offend anyone." The theme of not offending or disrespecting anyone was common between both groups.

Disintegration Changes. On the posttest question about preventing racism, both groups answered similarly as on the pretest. Differences were evident in respondents' explanations accompanying the answers. Nine participants made a connection to their behavior as a future educator. In Group 1, three participants articulated their role as a future educator in preventing racism. In Group 2, six participants referenced their actions in their future classroom or as a future teacher in battling racism. One participant noted:

I strongly disagree, when I am a teacher I plan on teaching diverse groups of students and making sure to teach my students that we are all different, but the differences are good. I hope to incorporate all cultures into my learning environment, which will prevent my students from being racist.

This dimension of future teacher responsibilities was not evident in the results from

the pretest.

On the posttest, both groups demonstrated no change on the question about discussing touchy racial issues. Participants answered the same as they did on the pretest.

Reintegration. The next pair of open-ended questions explored the status of reintegration. This level determines if there is conscious or unconscious idealization of White culture or White people and disparagement of other races. The statement exploring participants' attitudes was, "I believe that White culture or Western civilization is the most highly developed, sophisticated culture to have ever existed on earth." Participants in both groups overwhelmingly disagreed with this statement, 17 from Group 1 and 18 from Group 2. Responses ranged from knowledgeable explanations about other cultures to ones that disagreed, but could not support their opinion with details or had admitted not learning about other cultures. Some responses included specific examples from other cultures. One participant stated, "Disagree. What about the Mayan Indians? They were pretty awesome." Other participants disagreed with the statement, but admitted their own lack of education on other cultures. For example, one noted:

I disagree, however this is how our textbooks have always taught us. They are all mostly from a very White, American point of view so I wouldn't know what culture is actually the most highly developed or sophisticated culture to ever exist due to the fact that I haven't learned a lot about other cultures.

Only two participants in Group 1 and one participant in Group 2 agreed with the statement that White culture is the most highly developed.

The statement to which participants responded to explore their reintegration behavior was "When a Black male stranger sits or stands next to me in a public place, I move away from him." The overwhelming majority of responses from both groups expressed strong disagreement, 18 in Group 1 and 22 in Group 2. In many answers participants articulated the issue of "stranger danger" regardless of race, and vehemently argued that deliberately moving away from a Black male would be a discriminatory and "rude" act. One respondent summed it up, by stating, "Disagree. I do not even feel the need to explain this. Who would?"

Reintegration Changes. On the posttest, participants' results in terms of agreeing or disagreeing with the reintegration questions had changes. Both groups provided more concrete explanations and/or examples in their disagreement that White culture is the most highly developed. Four participants from Group 1 and four from Group 2 agreed that White culture is the most highly developed representing an increase in both groups from the pretest.

On the question of moving away from a Black male stranger, the responses from Group 1 reflected more "strongly disagree" while Group 2's responses remained as strong as in the pretest.

Responses from both groups were similar on the posttest indicating more developed and informed answers regarding highly developed cultures other than White. The number of participants agreeing that White culture is the most highly developed increased by 2 participants in Group 1 and three participants in Group 2. Participants in both groups demonstrated a strong negative reaction to the statement about moving away from a Black male.

Pseudo-Independence. The next three pairs of open response questions represent the second phase in Helms's identity model. The second phase includes the last three levels of White racial identity development and indicates an evolution to a nonracist identity. The three levels are pseudo-independence, immersion/emersion, and autonomy.

Pseudo-Independence is defined as an intellectual understanding of structural racial inequalities in society. The statement to discover participants' attitudes at the pseudo-independence level was "I believe that Affirmative Action programs should be used to give minorities opportunities." On the pretest, six participants in Group 1 and nine in Group 2 answered that they did not know what affirmative action was. A large percentage of the remaining answers, nine in each group, agreed that Affirmative Action should be utilized. One commented, "There are a lot of minorities that don't have opportunities, and that's not always their fault." Another respondent stated, "I agree because everyone deserves to have opportunities." Four Group 1 and 5 Group 2 participants disagreed with Affirmative Action. Those responses were based on personal knowledge or experience. For example, one cited White male firefighters recently being denied promotions.

The statement exploring Pseudo-Independent behavior was "For Martin Luther King's birthday, I attend or would voluntarily attend a commemorative event."

Differences between Group 1 and 2 were evident in their responses to this question.

Almost half of the Group 1 participants agreed that they would attend. Their reasons included how it would be a great experience, respectful, and would acknowledge King's contribution to American history. Seven participants were neutral or disagreed.

One participant stated, "This holiday is not of great importance to me."

In Group 2, 17 participants in Group 2 answered that they would attend the event with three stating that they strongly agreed they would attend. One articulated his explanation, "He helped change the world, it's the least I could do." Three Group 2 participants disagreed that they would attend an MLK event citing reasons similar to those of Group 1.

Pseudo-Independence Changes. On the posttest the groups had divergent results. Group 1's answers on the Pseudo-Independent question on Affirmative Action were the same. In Group 2, 13 participants agreed that programs that help minorities should be supported. That represents an increase of 4 participants compared to the pretest responses.

In stating whether or not they would attend a commemorative event honoring Martin Luther King Jr., the groups revealed opposite results on the posttest. In Group 1, 8 participants indicated they would not attend a commemorative event for MLK. This represents three more who would *not* attend than in the pretest. In Group 2, 20 participants agreed that they would attend such an event; where 17 had indicated they would attend on the pretest. The additional three participants were most likely from the pool of answers who indicated they were unsure or did not know if they would attend since the number who stated they would not attend stayed the same at three.

Group 2 responses at this level demonstrate development in participants' White racial identity. The results show a change in Group 2 answers toward more participants' recognition of societal inequalities by their increased support of

Affirmative Action. Increased agreement that participants would attend an MLK event represents their acknowledgement of his efforts in the Civil Rights movement.

Immersion/Emersion. The next pair of questions corresponded to Helms's immersion/emersion status. Representing a more complex and sophisticated cognitive level in the White racial identity model, this status represents an attempt to redefine one's White racial identity from a nonracist perspective. The statement examining participants' attitude at this level was, "White culture and society must be restructured to eliminate racism and oppression." In the pretest, results on this question were very similar for both groups. About half of the respondents, 9 in Group 1 and 11 in Group 2, agreed with the statement acknowledging that there is a lot of racism in White culture and it needs to end. One respondent noted, "Yes. I agree. We need to relearn how to like people based on their personality or if they are just nice and generous. We need to stop racism." Participants who agreed revealed the importance they placed on the goal of eliminating racism.

The other half of the respondents either disagreed or gave a mixed answer. Those who disagreed cited that restructuring is not necessary, since it is only a small minority who are racist. Four participants from Group 1 expressed that there is really nothing anyone can do to totally eliminate racism. Two participants in Group 2 expressed confusion over what restructuring meant. Two participants from Group 1 and four from Group 2 disagreed because they did not view racism as solely a White issue. They responded, "I disagree. It is not only the White culture that deals with racism. The White culture may have more prevalent racism issues however every society and race has racism towards any type of ethnicity;" and "I disagree. Why do

you have to define it as White culture and society? Why can't it be a universal culture and society that takes charge in eliminating racism and oppression?"

To explore participants' immersion/emersion behavior the pretest statement to which participants agreed or disagreed was, "I have voluntarily participated in activities to help me eliminate racism and oppression." Almost every participant, except for three in each group, disagreed with the statement. The phrase utilized in nine of the answers was that they have not participated in these activities because they stated, "I am not racist." This response indicates a lack of awareness of White privilege or any tacit assumptions that participants may have.

Immersion/Emersion Changes. Responses on the posttest reveal a more negative reaction to the statement that White culture needs to be restructured. After instruction three more participants in Group 1 and two more in Group 2 disagreed than before learning about society inequalities. Of those who disagreed, six Group 1 participants and five in Group 2 included more complex and sophisticated explanations than in the pretest. For example, one participant argued:

I disagree with this statement because I feel that the restriction of any culture or race is what leads to racism and oppression. America practiced slavery and from that grew racism towards blacks when they finally got equal rights and were expected to be treated the same as whites. Suppressing any culture or group of beings will only lead to the hatred of others from that group being suppressed and therefore a new spout of racism emerges.

A view offered by another participant was, "I don't think it should be reconstructed, but rather it should be reconsidered. The question that should be asked is what are the causes of inequality and what changes can we make to eliminate racism and oppression." Three participants from each group expressed the global nature of racism and that the issue goes beyond White culture or even the United States. They indicated that this reality complicates agreeing or disagreeing with the statement that White culture and society must be restructured.

For the statement revealing one's behavior at the immersion/emersion level, four more participants in each group revealed agreement that they engaged in activities that helped overcome their racism. The experiences of college life were evident in the responses. One participant from each group cited service learning experiences during the semester on campus or work study jobs that brought them into contact with diverse populations in the local urban area. One Group 1 participant and four from Group 2 acknowledged their willingness to engage in an activity to overcome their racism. For example, one Group 2 participant stated, "I have not specifically participated in any voluntary activities, but I try to keep an open mind as I go through school and life to help me learn more so I will be less ethnocentric." Twelve participants in Group 1 and 15 in Group 2 continued to disagree with the statement. The phrase "I am not a racist" was used by 8 Group 1 and 13 Group 2 participants. This reveals that the majority of students continued to lack acknowledgement of their tacit assumptions and their position within the dominant group.

Autonomy. The final pair of questions corresponds to Helms's level of autonomy in the White racial identity model. This status represents the highest level and is marked by pluralism and flexibility in attending to racial issues. At this stage, a

person has internalized a nonracist White identity, rejecting the benefits of White privilege and acknowledging diverse frames of reference beyond the White experience. To explore participants' attitudes at the autonomy level, the pretest statement was, "Whiteness is an important part of who I am."

On the pretest, a majority of respondents in each group, 11 in Group 1 and 14 in Group 2, disagreed with this statement. Those who disagreed expressed that their skin color had very little to do with who they were. Other factors such as personality were more important to them. For example, one noted that "It doesn't make me who I am. I would rather someone describe me as a good person, or a caring person, or even a dancer before they described me as 'White'." Another respondent stated, "Disagree. I don't see me as being 'white'." Participants who disagreed expressed that the color of their skin did not affect who they were. In their answers 6 participants in Group 1 and 4 in Group 2 stated that their Whiteness was not important and cited other characteristics such as beliefs in describing who they were and what defined them. For example, one participant stated:

My Whiteness is a part of who I am. I wouldn't say it is important, because it just gives you another descriptive word to describe of how I look. Being White doesn't make me who I am. Who I am on the inside is what makes me, me.

To discover participants' behavior at the autonomy level, the statement was, "I speak up in a White group situation when I feel that a White person is being racist."

On the pretest, the majority of participants in both groups, 14 in Group 1 and 17 in Group 2, agreed with this statement. Their answers revealed that their agreement was on an intellectual level in that they would speak up if they were in the situation. Those

participants who expressed stronger agreement tended to cite personal examples of times in their past when they were in this situation and did speak up. One participant in each group did not answer the question admitting that they have not been in a situation where someone is making racist remarks. Disagreeing with the statement, two participants in Group 1 and four in Group 2 explained that they have never been in the situation before and probably would be too shy or not comfortable enough to speak up.

Autonomy changes. Results on the posttest revealed differences between the groups. Three additional participants from Group 1, increasing the number from 7 to 10, agreed that their Whiteness was an important part of who they were. In Group 2 the number from pretest to posttest increased from three to 15 participants agreeing that their Whiteness was important. One Group 2 participant explained, "Yes I actually do agree with this statement. If I was a different race, I believe my life would generally be a lot different." A larger number of Group 2 participants demonstrated increased awareness of their Whiteness and acknowledged its importance in who they are and how it helps define them.

On the question of speaking up in a White group situation when someone is being racist, results were similar for Group 1 in that 14 on the pretest and 15 in the posttest agreed they would. More participants in Group 2 demonstrated nonracist attitudes, because the number of participants who agreed that they would speak up increased from 17 to 20. This reveals an increased willingness of participants, to a smaller extent in Group 1, to act on behalf of social justice and combating racist remarks.

These open response questions explored participants' White racial identity development utilizing Helms's model of White racial identity development. Answers on the pretest demonstrated participants' thinking at the start of the semester before any educational intervention. The posttest analysis revealed participants' experiences in their introductory education course through changes in their racial identity development and multicultural awareness.

Format of Course

Three open-ended questions asked participants about the course's format, their willingness to share their ideas on race and culture, and how willing they will be to listen to their classmates about issues of diversity in education and society. Asking these three questions explores participants' expectations and preconceived ideas about the course and their interaction with peers. The questions establish the preferences and any anticipated concerns of students and allows for an examination of their experiences in the context of the course.

On the pretest, the majority of participants, 16 in Group 1 and 22 in Group 2, responded that the course format will affect their willingness to share openly their ideas and insights about race and culture. Five participants in Group 1 and two in Group 2 indicated a preference for small group discussions as opposed to large, whole class discussions. One participant noted that it was easier to speak in that setting because she was "nervous" and "shy" in a large group setting. One participant in Group 1 and two in Group 2 noted that they would prefer online discussions. For example, one respondent explained, "If we do large group discussion, I might not speak up very much. If it was an online discussion, I would be more apt to sharing

more openly."

All participants from both groups stated that they were "willing" or "very willing" to share their thoughts and listen to their peers.

Influence of Course Format

Results from both groups on the posttest revealed changes represented by two primary themes: that participants felt "comfortable" and "open" in the course and that it was easy to express themselves "online."

Feeling comfortable. In analyzing posttest results from participants in both groups the responses were positive about the format of the course and the way it made them feel. Five Group 1 and eight Group 2 participants expressed that they felt comfortable in the course. One Group 1 response was, "I felt very comfortable sharing my ideas and thoughts in our large group discussions because everyone in the class was very open and we had great conversations." A typical Group 2 response was:

Everyone was very comfortable with each other and was able to voice their opinions and that is really important. It allowed everyone to see how their peers view the issues on race and culture in the classroom and allow them to re-evaluate how they feel about the situation.

Three Group 1 participants and two from Group 2 directly attributed the comfortable feeling to the efforts of the instructor. For example, one Group 1 participant responded, "Dr. Krasinski made the classroom a very comfortable environment so I feel that it made me more open to sharing my ideas in front of my classmates." One Group 2 participant stated, "Dr. Krasinski made the classroom a very comfortable environment so I feel that it made me more open to sharing my ideas in

front of my classmates."

Expressing Oneself Online. On the posttest, participants described how they experienced the online component of their classes. Results from Group 1 participants' responses revealed the departure from the format described on the syllabus and the design of the study. Participants in Group 1 experienced two online discussions using a threaded Discussion Board in Blackboard. The instructor extended class discussions online at the request of students in the class. One student in Group 1 specifically requested that the class be able to comment on the readings through an online forum. This participant shared her feelings that in the face-to-face setting she felt not everyone could answer honestly with their opinion. The class agreed that they wanted to do an online discussion. The instructor responded by putting up two questions over the last two weeks of the instructional period. This researcher was unaware of this change from the research design until after it happened.

One Discussion Board forum asked students to respond to Nieto's (2005) article on public education and the other on Langelier's (2006) article on cultural competency. In the results on the posttest, two participants in Group 1 expressed their preference for discussing issues of race and diversity online. For example, one participant explained, "I really like the discussion online because it's much easier to share your thoughts. Sometimes in a classroom, people feel like they are being looked at or judged when they say something, so it's easier to do it online." The other commented:

When we were in the classroom it was somewhat harder for me to voice my opinion because I'm not the most outgoing person. However, when we moved

our discussion to the online discussion board, it really helped me feel more comfortable about expressing my opinions and challenging others' opinions in a healthy way.

Those who were engaged in the face-to-face discussions acknowledged that the online forums provided an opportunity for others. For example, one participant stated, "We also had some online discussions that also helped draw in the quiet people who didn't normally talk into the discussions to also see their points of view." An analysis of these results from Group 1 revealed a serendipitous²² confirmation of the findings for Group 2 participants' participation in the online social network.

Participants in Group 2 engaged in the Ning online social network community and results on the format question on the posttest revealed their reaction to that experience. Some of the responses aligned with the comments in Group 1 in that Group 2 participants believed it was easier to discuss ideas online. For example, one participant stated, "It was easier to share my ideas online because it is easier to write than it is to talk because you can think about it while you do it."

Participants in Group 2 also recognized that the online format allows all types of learners to participate and for people to give their honest feedback. For example, one participant explained:

I think it is easier for a wider variety or personality types and students to answer questions on Ning. It allows one to say their full and true opinion without having everyone concentrated right on them and it also allows

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²² Fine and Deegan (1996) referred to unplanned events in the qualitative research process as serendipitous that offer insight and understanding of patterns in the data.

everyone to take in and really think about everyone else's opinions before it is time to move on to a new question/topic.

Both self-described active and quiet students described how participation in Ning facilitated their ability to relate to other students and express their opinion. As one participant stated, "Personally, in class I like to sit back and listen, but I think the website Ning has helped me a lot, with interacting with other students."

Three participants used the terms "comfortable" or "safe" environment with the Ning site. For example, one explained:

This class always gave me a very warm and welcoming feeling. I always felt comfortable getting up in front of the class to talk about my personal life because everyone seemed very accepting and willing to be part of this class. The Ning site was a great way to get to know about the others in my class and have interactions with them outside of our classroom.

Another participant made the connection between expressing oneself online regarding issues of diversity that are difficult to express in the face-to-face format. She stated, "The online discussion and small class discussion allow me to share my ideas on race and culture in a safe environment. I know that if I don't want to mention something in class I can just post it online."

One Group 2 participant repeatedly used the word "community" in her answers, a term that was not found in the data from Group 1. She made the connection between everyone participating online and the connectedness between students, stating, "This course had a feel of a close community so I was able to share my ideas openly. I didn't feel like I would be judged for my answers because everyone always

had an input." In connecting face-to-face discussions and participation on Ning, she stated:

I was very willing to share my thoughts with my classmates, because the feeling of community and closeness in the classroom made it much easier to speak up. The open discussions with the entire class and the postings on Ning made it much easier for my voice to be heard.

Four participants in Group 2 expressed how the course format changed their thinking. One participant stated, "I learned a lot and was actually persuaded by many of my peers in this classroom." Another participant stated that her beliefs were changed as a result of interacting with their peers through discussion. She explained, "[Ning] allowed everyone to see how their peers view the issues on race and culture in the classroom and allow them to re-evaluate how they feel about the situation."

Two participants connected their personal change in thinking on diversity with the need to become a culturally competent educator. One participant explained:

On many issues we discussed, I was actually persuaded to think the way they do. I have realized throughout the journey of this course that cultural competency is something all teachers need to be aware of today, and acceptance is so important.

One Group 2 participant connected their participation in Ning with their future classroom, stating, "It taught me how to get involved in the classrooms for the future and how to really make sure I understand my students when I become a teacher." Participants in Group 2 also expressed personal changes they would need in order to become an educator. One participant noted, "I'm going to have to learn to be more

open with the people around [me] if that's the profession I want to stick with."

Another participant made a strong connection between his rethinking of multicultural issues and his future classroom. This participant explained:

I absolutely loved this course and I feel that it helped me change my mind on many racial and multicultural issues. In the classroom, as a future teacher, it is important that I strive to make all my students not only aware but comfortable with their peers' cultural diversity. I never thought about the fact that I would need to do this in my classroom someday, but now I am aware of how diverse our classrooms really are today. It's important for teachers to think about their students' differences culturally and strive for equallness [sic], but always help them remember and love their cultures and their differences.

The theme of changed thinking was not evident in Group 1 responses who did not articulate that they changed their beliefs.

Willingness to Share Ideas and Listen to Peers

In the open-ended question that asked students to describe their willingness to share on issues of race and culture, Posttests results revealed that 16 Group 1 participants and 22 Group 2 participants were "willing" or "very willing". Participants noted that the environment was established through their peers who were not judgmental and the instructor who did not "lecture" at them, but rather engaged them in "intimate" and "deep" discussions. A Group 1 participant qualified her willingness by stating, "I was very willing, sometimes I disagreed but I never spoke out about it."

Every participant in each group indicated that they were "willing" or "very willing" to listen to their peers on issues of race and diversity. Their responses

revealed an appreciation of diverse perspectives. One Group 1 response was, "I was very open about listening to everyone and their thoughts because I feel as though to learn we must listen to our peers and figure out different points of view from all angles" A Group 2 participant commented, "I was very willing to listen to everyone's thoughts and ideas about the issues. I valued everyone's opinion and compared them with my own to better develop my view on the issues."

Summary. As the TMAS and posttest scores indicated, respondents in both groups demonstrated an increase in their multicultural awareness and knowledge. In some answers there were more negative responses, i.e., that White culture needs to be restructured. The increase in awareness and multicultural appreciation as indicated by the open-ended responses supports the changes in TMAS scores. There were observable areas of difference in participants' racial and cultural awareness and knowledge.

In the pretest, participants' answers from both groups did not reveal a high level of awareness of their own racial or cultural identity. They did not perceive racism or cultural competence of educators to be critical issues in education. The posttest revealed changes in participants' words and descriptions of themselves and issues facing schools.

Similar to the TMAS results, Group 2 participants demonstrated a larger change. Their responses revealed more developed White racial identity development on three levels. At the contact stage, more Group 2 participants indicated that they noticed race. At the pseudo-independence level, more Group 2 participants agreed with Affirmative Action programs and indicated they would attend an event honoring

MLK. At the autonomy level, Group 2 participants had a larger increase agreeing that their Whiteness was an important part of who they were.

The themes that emerged from the complementary analysis of the TMAS data and open response questions centered on the learning participants' gained in the course, discussions on race and diversity, especially their examination of their Whiteness, perceived changes from the beginning of the semester to the end, and the role of the course format in influencing participants' attitudes and beliefs. The interview protocol was designed to further explore and describe participants' experiences around these themes.

Interviews

The interviews provided the opportunity for further exploration into the themes from the pretest and posttest changes. All interviews with participants were conducted either in the researcher's office or in a conference room on campus. Permission to audiotape the interviewees was granted by all participants. The Livescribe pen was utilized for this purpose. A total of 14 interviews were conducted – seven from Group 1 and seven from Group 2. The average length of time for interviews with participants in Group 1 was 17 minutes and for Group 2 was 19 minutes.

The interview protocol allowed participants to discuss the themes generated from data analysis to that point. Questions established basic demographic information pertaining to where participants grew up and the amount of racial diversity in their hometown and high school. All interviewees were White traditional day students 18 or 19 years old, with no multicultural training prior to the semester, representing a variety of education majors. Six of the seven participants in each group described their

hometown as "not racially and ethnically diverse" and found the college campus demographics more diverse than what they have experienced. One participant from each group described their hometown as racially diverse. Two participants from Group 1 described their private high school as racially and culturally diverse.

Participants were asked about their learning in the course related to cultural awareness, knowledge, and skills. Questions probed participants' reaction to assignments, discussions, and the format of the course. These questions were derived from an analysis of the posttest results that indicated the assignments and format of the course affected participants' experiences. Participants were asked about the relationship between their multicultural development and becoming an educator.

Participants' answers to the questions were analyzed in an initial line-by-line coding (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967). Data was compared between interviews and subsequent coding identified categories across participants. A critical analysis of the results yielded insights about participants' common and singular expressions of their experiences in their Introduction to Education course. Similar to the analysis of the TMAS and open response data, the groups revealed commonalities and differences in the ways they increased their multicultural awareness, knowledge, and skills.

Group 1

Of the Group 1 participants, four were women and three were men. Interviews lasted an average of 17:30 minutes with a total of 122 minutes (Table 10). A careful review of the interview transcripts generated descriptive codes. Five thematic categories were derived from what the participants said.

Table 10

Group 1 Interview Participants

Name	Major	Length of Interview
Barb	Early Childhood	15 min
Cathy	Secondary English	17 min 46 s
Carl	Elementary	21 min
Dave	Secondary Social Studies	20 min 42 s
Erica	Elementary with Special Educ.	16 min 38 s
Kayli	Elementary with Special Educ.	11 min 06 s
Ned	Elementary	19 min 48 s
	-	

Becoming an Educator. The first category, "becoming an educator," developed from the insights participants gleaned from the multicultural teaching of the course relevant to their future classrooms. The major learning from EDU 200 expressed by this group was that they gained understanding about becoming an educator in today's society and what it will be like with their future students. This learning manifested itself in two ways: (a) one was the need to establish a "comfortable" environment and (b) the importance of developing cultural competency.

The data revealed that one issue all Group 1 participants learned was that it was important to make their future classroom "comfortable" for all students, especially diverse ones, just as their instructor made them feel comfortable. Every Group 1 interviewee used the term "comfortable" in the interview to describe how they felt during the course. Each one was asked to explain what comfortable meant to him or her. The answers ranged from Kayli who said it meant "not being judged" to Carl who described it as a "bond." Ned's answer was similar in that to him comfortable meant building a "trust and relationship" with the instructor and peers

through personal sharing. Erica explained that comfortable meant she could "be open, that all opinions were accepted." While their words were different, their sentiment was similar in that they all expressed a positive feeling about the culture established and how they all felt that the classroom environment promoted their learning about multiculturalism.

Participants translated this feeling to an understanding that they needed to provide the same environment for their future students. Kayli stated that the "open" classroom of EDU 200 facilitated her learning and provided a model for her future classroom. This course "definitely changed" what she thought about becoming a teacher; she never realized the cultural diversity she may experience in the future and the diverse cultures she may have to address. She stated that she learned that teachers should not ignore that there is cultural diversity, but make everyone feel comfortable. Erica made the connection that a way to make students comfortable was to have them talk about themselves. Ned offered that the class "was not an eye-opener since my service learning experience exposed me to a lot of diverse students." The participants recognized the potential diversity of their future classroom and the necessity of establishing a safe environment to promote students' learning.

Related to this learning, participants expressed the importance of becoming a culturally competent educator. As each participant defined what cultural competency meant to them, the overriding theme of awareness, understanding, and acceptance was evident. They viewed that the next step after establishing a safe and comfortable classroom culture was to be open and accepting of diverse students. Four participants stressed the importance of being "judgment free" (Barb) with "no bias" (Carl, Erica)

in order to "promote equality" (Chris) so "all" (Chris) students will be successful.

When asked what preparation programs and faculty should do to promote this, participants connected back to their experiences in EDU 200. Cathy stated that there needs to be more discussions, difficult, "raw" ones that prompt a change in thinking and a multicultural awareness in preservice candidates. Ned stated that "once you're exposed or aware it sticks with you." He expressed that a person cannot become unaware of White privilege or implicit racism after reading about and discussing it.

Reacting to Resources. The second category, "reacting to resources," related to participants' responses to key readings, videos or projects related to increasing their multicultural awareness, knowledge, and skills. Participants stated that assignments in the course that made a difference in increasing their multicultural understanding were the ones mentioned by the instructor among others. The "Who Am I" presentation and discussions on Whiteness and White privilege were frequently referenced. Carl stated, "The Who Am I assignment where we stood in front of the class and students talked about themselves had an impact on me. It was eye opening." Four (Cathy, Carl, Barb, Erica) of the participants credited the Who Am I assignment in making them comfortable with each other after sharing their personal stories. Erica suggested that education faculty should require that all courses start with this assignment, so that "new students talk about themselves so people are more comfortable. I just know that when I got to share with eveyone about myself it was easier to talk about things because they knew where I was from."

Other readings and assignments affected participants. Barb commented, "We watched a video on ethnocentrism. I remember that the most. It was eye opening. It

opened my mind more since I never thought about it. It's never been brought up before." Barb revealed in her interview that she had entered the class with an "open mind" and that in third grade upon learning about the civil rights movement she cried and "hated being White." She remembers doing "every book report and project" on the movement from third to sixth grade. Yet she revealed that the idea of ethnocentrism was never raised during her K-12 experience.

The reaction to resources in the course was frequently described as "uncomfortable" or "awkward". Cathy described the documentary on the American educational system as:

Intense, it was on racial stereotyping... Discussions on White privilege were awkward at first, no one wanted to speak up and say this is how I feel about it. I know for myself I was uncomfortable forming an actual opinion about it because I don't really have an opinion...As a White middle class person I don't have to deal with the negative effects of it, so I can't personally form an opinion. It was mostly Dr. Krasinski talking through the class discussions just because everyone was uncomfortable.

Kayli concurred, "Discussions on White privilege and implicit racism were really intense and emotional. I remember a few classes where, literally people left the room with tears in their eyes because it was so emotional because people were close with other cultures having difficulties."

Becoming Aware. In the third category, "becoming aware," each participant noted the changing nature of class discussions from the beginning to the end of the semester and the role discussion played in increasing their multicultural

understanding.

The common theme across participants' descriptions was that class discussions were awkward, but as the semester progressed the comfort level and honesty increased. Kayli explained, "At the beginning people were scared to talk, but once we got more comfortable with each other they felt they could say their opinion without people judging them." Barb and Cathy concurred that discussions were "awkward at first" and Dave admitted to feeling "nervous" in the beginning to open up to his classmates. Participants explained that it did not take the instructor long, answers ranged from a week to a month, to establish the comfortable environment needed to promote discussion and learning on diversity and culture. The change in classroom culture was also facilitated by students getting to know each other on campus and living together in the dorms. Participants noted that once there was a safe environment discussion promoted their learning, because classmates learned from each other's experiences on issues related to race and culture.

Carl also felt "uncomfortable" with discussions at first. He observed that a consistent pattern throughout the semester was that, "In the face-to-face discussion in every class there's five to eight people that will speak and will tell you how it is. Some people beat around the bush on their feeelings and not say exactly how they feel; and some people just didn't tell how they felt."

After the increased sharing and openness, participants expressed how affected they were by the interaction with their peers in the discussions. Kayli commented that the discussion with peers was a "big help" in her understanding of multiculturalism and she asserted, "The students and my professor taught me diversity. Hearing about

the experiences first hand - you can't get that from a textbook." Carl explained, "You don't really feel comfortable talking about race, but once we started getting comfortable it was really beneficial, because you could see and hear what other people are going through compared to what you go through." Dave felt that he was better understood by his peers through the interaction. He stated:

Once people started realizing we're all trying to become teachers of tomorrow, it got easier or we realized we lived in the same dorm or saw people around campus. It got easier for them to pay attention and understand what I was saying. Hearing others' experiences and their thoughts and beliefs on topics that I had my beliefs helped me realize different things I had never heard.

A theme in the participant's answers was that the increased understanding on multicultural issues was a new experience. Reading about implicit racism or hearing their peers during discussion raised awareness for participants. It "never occurred" to Kayli that she would have students from different cultures. On this new understanding about the demographics of today's classroom, Barb commented, "I never thought about it before. It's opened my eyes to a lot of things."

Group 1 participants expressed how they experienced the online discussion at the end of the instructional period and how they liked the interaction. Kayli explained that, "The biggest help of the online discussion was responding to other people's answers. That helped because you could see everyone's point of view. In class about 75% actively participated all the time. Online, everyone participated." Barb and Ned noted that it was interesting to see other classmate's points of views and emphasized how the online discussions allowed someone who is shy to really get their thoughts

out. Dave expressed specific personal benefits from the interaction, stating:

I liked Discussion Board. It's very direct. I liked answering the question with the work right out in front of me seeing what I've highlighted. I feel I could open up a bit more on discussion board and then get feedback when people would post comments and I could take those comments into consideration.

Perceiving the Instructor. The fourth category, "perceiving the instructor," embodied the comments made by participants about the ways in which they were affected by the instructor. Comments on the instructor from participants in Group 1 surfaced during their answers to other questions, since there was no specific interview question about the instructor. No question asked about the instructor directly, because her actions did not emerge as a strong theme in the posttest data. Allowing participants' perceptions to surface during the interview ensured that their comments were not prompted. On their own, participants made the connection between the instructor's actions and their learning and how they felt during class. Cathy shared:

The way Dr. Krasinski presented everything allowed me to form my own opinions, especially on cultural diversity. She approached ways to approach it with students - you have to do it on your comfort level. The way Dr. Krasinski laid everything out there and said have at it that was a really good in your face approach. With such a sensitive subject you need that. It needs to be raw and out there. Discussion helps for that. You can break down the uncomfortablemenss and awkwardness. If the professor is comfortable then we're more comfortable talking about it.

Ned emphasized the trust that he felt by stating, "Of all my classes, it was

easily the most interactive, because Dr. Krasinski knows how to make a class come together. She was a teacher not just a professor. Everyone was pretty comfortable and open. Everyone's opinions were accepted. It took one or two classes to read Dr. Krasinski's body language; you could tell she was a caring person and the trust was there." Dave concurred, "Dr. Krasinski was so passionate that I felt I could really open up in class. She took everything I said to heart and took everyone for who they were." Carl noted how the classroom interaction facilitated his learning. He stated, "The professor was very upbeat. You could clearly tell she didn't have any biased opinions. She had a ton of experience. She taught it, but didn't lecture. There was a lot of interacting. You learn from everyone in the class including the teacher."

Erica made the connection between the instructor's modeling and her role as a future teacher. She commented, "I feel like it was really comfortable. Dr. Krasinski was great. She wanted us to talk more. I wrote in my philosophy of education [statement] how I wanted my class to be a conversation and not the teacher feeding the information to students." All of the participants expressed their positive feelings and perceptions about the instructor, the important role she played in creating a classroom culture, and how she served as a model to them.

Wanting More. The fifth category, "wanting more," revealed specific ideas participants had for teacher preparation program faculty to continue the learning and promote multicultural awareness, knowledge, and skills in preservice candidates. All participants expressed the importance of faculty in facilitating teacher candidates' multicultural understanding. They described events or experiences that they would attend or want to engage in to increase their multicultural understanding and growth.

One type of suggestion was that preservice teacher candidates be required to engage in field experience with local diverse populations.

Ned sent this researcher an unsolicited email after the interview in order to further share his ideas. He said "I do believe it [the course] made my classmates a lot more aware and open to it [multiculturalism]. Also, on my point of needing to experience cultural diversity to completely understand it. It is kind of like baseball. Someone might know a lot about baseball, the facts, rules, history, etc., but until they play baseball and experience it, they don't truly understand how a ball might bounce off the ground or how a curveball really looks" (personal correspondence, December 19, 2011). He may have been considering his own work study job at the Salvation Army which brought him in direct contact with young students from diverse races and cultures. He talked a lot about his work during the interview, the impact it has had on him in understanding other races, and how rewarding it is.

The other suggestion Cathy and Kayli had was to have the kind of discussions they experienced in their EDU 200: Introduction to Education class. Dan suggested a formal "panel" to discuss race and diversity. Erica expressed the desire for more conversations on race and culture to be embedded in her other classes.

Group 2

There were seven volunteers from Group 2 who agreed to an interview; six females and one male. Interviews lasted an average of 19:10 minutes with a total of 134:14 minutes (Table 11). Interview transcripts were coded and analysis revealed similarities and differences with Group 1 in the themes that emerged.

Table 11

Group 2 Interview Participants

Name	Major	Length of Interview
Ann	Elementary	24 min 07 s
Cynthia	Elementary with Special Educ.	25 min 48 s
Karen	Elementary with Special Educ.	16 min 35 s
Laurie	Elementary with Special Educ.	19 min 56 s
Lynn	Child Development	11 min 54 s
Mary	Elementary	15 min 08 s
Martin	History and Social Studies Educ.	20 min 46 s

Similarities. The categories outlined in the previous section were evident in the answers from Group 2 participants. For example, they made statements that revealed their new conceptualizations about "becoming an educator." Participants in Group 2 expressed new knowledge about working effectively with students in the classroom. They also expressed their realization of the ways in which they need to accommodate and be flexible regarding K-12 students' cultural differences. Similar to Group 1, six Group 2 participants described the need not only to be aware, but understand and accept students' differences. The term "comfortable" was used by every Group 2 participant, like their Group 1 counterparts, to describe how they felt in class and how they want their future classrooms to feel. Establishing a safe environment where students of diverse backgrounds feel accepted was an evident theme. Group 2 participants credited the "openness" and encouragement of the instructor in promoting the "comfortable" class culture that increased their ability to share their feelings and insights and to arrive at these new understandings.

Group 2 participants "reacted to resources" in a similar fashion in that some of

the videos and readings were described as "mind blowing" (Martin) and "shocking" (Lynn). Like their peers in Group 1, examining their Whiteness made them feel uncomfortable, "weird" (Mary), and was something all participants said they had never done before. Similar to Group 1, many Group 2 participants referenced their reaction to the Who Am I? project as a memorable event that promoted closeness among classmates.

Group 2 participants indicated that through resources and discussions they "became aware" of issues and classroom realities that they had never considered, especially in terms of the racial and cultural diversity of their future students.

Specifically, all the participants described how they learned the ways in which a teacher's multicultural awareness and knowledge affects the classroom and student-teacher interaction. All of the participants expressed a new awareness about their future role. Three (Ann, Cynthia, Karen) used the phrase their "eyes were opened" to differences in students and their need as future educators to address those differences.

Participants in Group 2 expressed "wanting more" integration of multicultural awareness, knowledge and skills into their program of studies. Some of their similar suggestions to Group 1 included more class discussions and direct contact with teachers in the field. Different suggestions included having a required course dedicated to multiculturalism and cultural knowledge and specific events celebrating cultures to increase people's understanding.

Differences. A difference in the data and analysis between the groups was Group 2's expressions about how they experienced the online social network through the class Ning site. Unsolicited statements about Ning permeated the categories shared

with Group 1. For example, data in the "becoming an educator" category included three (Ann, Karen, Martin) participants' recognition that Ning was a good way to integrate technology into the classroom. Every participant claimed that they would engage in an educational social network again and Karen stated "I plan to integrate some form of this [online social network] into my classroom." Participants' "perceptions of the instructor" included how she encouraged exchanges online, talked about Ning in class, and used the site as a tool to generate class discussion and tie course concepts together. All of the participants noted that they "wanted more" use of Ning or some form of social media in their other classes, especially to discuss issues of race and diversity. They expressed this preference over Discussion Board, the typical online supplement used in classes.

Data about Group 2 participants' experiences with the Ning online social network was collected and analyzed through additional interview questions. For example, participants were asked what it was like to be part of the Ning site. They answered questions about their participation on Ning and what, if any, affect that had on them. Group 2's answers to these questions generated categories not found in the data from Group 1, because they had not participated in Ning. Group 2 participants' responses about their experiences fell into two principal categories: (a) Feeling a sense of community and (b) being changed.

Sense of Community. All of the Group 2 participants explained that the Ning site promoted connections between classmates and the class as a whole. All of them expressed the feeling that they felt connected or part of a community. They expressed that this cohesiveness felt different from their other courses.

The dimensions of this community were categorized in three parts. The first part was the common description of feeling "connected" to their peers. A self-described quiet student who "sits in the back," Ann explained, "Ning allowed me to see everyone's views on stuff, because there are other quiet students who don't talk much in class. You can see their opinions and how they make the page their own. You can connect why they say what they do. You can see their personality, whereas in class they're quiet so you don't get to see that."

A common factor explaining the feeling of connection was seeing everyone's pictures. Pictures helped participants put a face to the name of the person they were posting to online. Viewing pictures made the experience personal and helped participants feel close to their peers, on a deeper level than what is usually established in the classroom, especially in a freshmen class. Martin stated, "Ning was awesome. Because going to the class two weeks after, I had nobody's name. You're in a whole different situation. I didn't know anybody. But seeing their pictures and learning about their experiences online and in the classroom, and viewing their opinions more indepth, it was very good. I was impressed." Cynthia explained why she liked seeing everyone's pictures, "It puts a face to what people are saying. It has a different feel like you're more connected. It's really similar to facebook. The difference is you're writing things that are important. The format of the site is the same."

Four participants compared Ning to Facebook with qualifications. Laurie explained, "I really liked it because a lot of us spend so much time on the computer on social networking sites, this was tied in. It felt good that you were on a social networking site that meant something more than just Facebook." Ann shared her

experience with friends outside the class. She stated, "I would say to my friends, we have an educational Facebook and show them; they would think it was so cool. It was a great way to get everyone involved because it was like Facebook and Facebook is such a big thing with everyone."

The second part of the sense of community on Ning was expressing oneself. Four (Ann, Cynthia, Lynn, Mary) participants explained that providing their opinion after viewing videos and doing readings related to multiculturalism was "easier" on Ning. Time was the most popular factor mentioned. Participants explained how they crafted their opinions and responses to peers in their rooms, in their own timeframe. In the classroom, they described how a question would be asked by the instructor and they would have a very short time in which to respond. Mary noted that when classmates do respond in the face-to-face setting there is usually only time for feedback from a few people. Taking time to write a response also strengthened several participants' answers, because they said they could have the materials out in front of them and reference important quotes to support their argument. Lynn said this is not something she's able to do during class, but does when participating on Ning. She elaborated, "Online it's easier to say your opinion than it is to speak out in class. So online I could form an argument and reread it and proofread it. It was easier to write all my thoughts down and have it flow."

The counterpart to expressing oneself is viewing everyone's responses. As a result of the ease in using Ning, all the participants commented that they were able to view how all of their classmates' responded, as opposed to limited class discussions. Five (Alicia Karen, Lynn, Mary, Martin) participants contrasted the idea of viewing

everyone's opinion online to typical classroom dynamics. Two (Cynthia, Karen) participants expressed that this was particularly important for their shyer classmates. Karen explained, "Ning played a huge role in my willingness to share my ideas and for everybody. Social media sites give everyone a voice, especially people who are more quiet which doesn't apply to me. You might be more likely to say things that are riskier online, because you're not actually saying them outloud, not everyone's not staring at you." Martin commented similarly by stating that people's "true opinions" came out online. Mary provided additional insight on why her classmates' true opinions were expressed on Ning. She stated, "I learned a lot about what other people think. In class we'll have a discussion and it seems like everyone thinks the same way. Whereas on Ning everyone has time to develop their answers and you can read how everyone sees it differently."

Karen described another dimension to hearing everyone's views in the face-to-face setting. She explained, "I got to see everyone's point of view and what they thought and actually take it in. Normally in class, yeah, you're listening to people, but sometimes you're thinking about what you want to say because your hand is raised. You're busy thinking about what the next question is going to be. You're not really concentrating on what the other person is saying and you're not able to retain it. As opposed to Ning, you're able to sit there and be like I never thought of that and retain that information, instead of just thinking about what you want to say."

Participants expressed that Ning was an integral part of the class that affected discussions. Ann expressed how Ning influenced her participation in class conversations. She stated, "Being able to express it on the Ning site made it easier to

express during class instead of coming up with it on the spot. Sometimes I get nervous coming up with something on the spot and I don't know what to say. Having already thrown it out there for everyone to read made it easier to say it out loud in class."

The third aspect was that Ning was viewed as a learning community where everyone's work was public. All of the participants commented that their postings were public, where everyone could read everyone's work. Posting their work for the entire class community to read and respond to was very different than the closed loop of handing in a paper and receiving only instructor feedback. Cynthia clarified, "You put it on Ning and it's there for the semester. Prof. Krasinski [and peers] responded back to it. I thought that made it a community rather than handing in work and getting grades; then it's like a grade competition. Because if we just had to write papers, we never would have known what everybody else had to say. I really liked that." Six (Ann, Cynthia, Karen, Lynn, Mary Martin) participants expressed how individual voices became clear on Ning. In class, people are usually in small groups and the group's response is what gets reported out, whereas on Ning everyone is able to view individual opinions. Individuals become accountable to the class for their opinion and their work.

Being Changed. The other category that emerged from an analysis of Group 2 responses is represented by their expressions of "being changed." All of the participants described how they changed through the course as evident in their answers to the interview questions. Descriptions about how their thinking and beliefs changed corresponded to their experience with Ning and in the course in general.

Participants described the specific ways that their participation on Ning

influenced their thinking. Through interaction with peers in the online environment, four (Ann, Cynthia, Karen, Laurie) participants described how they revised their posts based on new information from peers. Their alternative perspective made them think in new directions. Ann described the process, "Instead of just writing something and getting graded on it, you are writing something, talking about it, having other people influence what you're thinking, and then getting graded on it." Cynthia expressed how the Ning interaction influenced her thinking; "I really think it was seeing everyone's ideas and seeing the feedback from other students that impacted me the most.

Someone would make a good point about what we'll have to do as teachers. We are all going to be in the same position later on. Since everybody got to put their stuff up I got to learn what other people said so I wasn't being biased about my own opinion. I realized how someone else viewed it. It helped me to learn there's so many different opinions. It would influence what I thought. I would be like 'Oh I never thought about it that way'."

All the participants described how they read what other classmates had to say, what they shared, and how it increased the ways in which they understood diversity and how to handle situations. Laurie explained, "The course definitely influenced my thinking. It made me bring in my knowledge of diversity, what it is, and how to go about it. Even changed people's opinions about it. I taught others, friends, family, what I learned in the class like not saying certain words. We all paid attention to each other. It affected my learning in a good way. It helped broaden our opinions and knowledge more."

Participants in Group 2 described ways in which they changed through their participation in the course. In Group 1 all participants interviewed stated that their answers from the pretest to posttest did not change. This is in contrast to how Group 2 interviewees answered the same question. All of the Group 2 participants except Martin expressed that they believed their answers changed from pretest to posttest. In a typical response, Ann explained, "I feel like there were changes from my pretest to posttest. I feel like I gained a more open view on the subject. I hadn't had the training for the pretest, but after learning about it, I had a more open view of what I need to have if I want to be an educator." Laurie described the similar experience of opening up. She stated, "For some of my pre to post answers they definitely changed. [On the pretest] we were defending ourselves where we talked about do you consider yourself racist. I was defending myself, then I opened up more the second time around." Lynn's new focus on the issue of diversity in schools typifies participants' responses. She stated, "Yes, my answers changed. In the beginning I was a lot more like this is the way I see it, the end. The more I learned in the class, the more my answers were totally different. I went from the biggest issue in school was money, then the biggest issue in school was diversity and how children see each other and how teachers deal with that rather than it being about money. I think that happened from all the discussions we had, the readings we did and the videos."

Another change expressed by two Group 2 participants, was their new found desire to work in a diverse school setting. Participants described how they came into the program wanting to teach in a school similar to the one they grew up in and having that goal change as a result of what they learned in the class. Mary shared, "We

learned about how teachers won't really pay attention to all kids. That kind of hit me, because I want to be that teacher that gives everybody the same opportunity. I was planning on working somewere like my own elementary school, but after learning that, I want to work in a diverse school and give kids something to trust and care about...I want to work in a lower income part of the state. I want to be the teacher who makes sure everyone understands what they are learning. I'll have to have the kids trust me." Cynthia expressed a similar effect, "Everything in this class made me want to teach in a school that's really diverse. Students don't get the opportunities they should. It gave me a stronger viewpoint."

Four (Ann, Cynthia, Karen, Laurie) Group 2 participants described how examining their Whiteness prompted a rethinking about how they saw themselves and how they viewed themselves as future educators. Several students connected their own racial identity to the potentially diverse backgrounds of their future students. Ann described, "This course changed my thinking in that I've never really thought about my Whiteness. Now that I have, it makes me think about the model student, as you would call them. You would think that would be the perfect student, but you need to be there for everyone and pay attention to all the students. I need to keep an open mind about why students act differently and a complete look about what I can expect as a teacher. I had an idea from my experience as a student, but this class opened my eyes to the teacher perspective of the classroom." Responses such as these made Group 2 participants' conceptions about "Becoming an Educator" different from the Group 1 answers that described needing increased multicultural awareness, knowledge, and

skills, but lacked the connection to the participant's own racial identity and implicit assumptions.

Five (Ann, Karen, Laurie, Lynn Mary) Group 2 participants described their changing self-identity in terms of their worldview. Karen shared, "The course changed my thinking. The whole ethnocentrism thing, we all have it. My answers changed. My answers did change." Ann extended her changing view of self to suggest that preparation program faculty should promote that in all teacher candidates. She argued, "You need a better view of the world. It's usually US history only. Preparation programs should have a specific class on cultures so we know more."

The male participant in Group 2 shared how his view of women was changed by the course. Matt shared, "In high school it was the boys who talked. I've never been in a class with that many girls. In my high school the boys talked and maybe two outgoing girls. Now it was like the girls were talking...It was different, because I never had that outlook. It was good, it was really good, because becoming a teacher I want to know that girls have a voice. I don't want them shied down because this boy keeps talking all the time. Now I understand they do have input. You just got to give them to opportunity to speak."

Interviews from participants in Groups 1 and 2 confirmed their increase in multicultural awareness and knowledge from the start of the semester. Similarities between the groups were evident and differences were analyzed. Group 2 participants' experience in a blended environment was qualitatively different from Group 1 participants' experience. New themes emerged as a result of engaging in an online social network that revealed their multicultural development, awareness, and attitudes.

Instructor

The instructor provided a different perspective from the participants. The instructor experienced both groups concurrently and naturally compared the groups and her interactions with students. An analysis of the interview with the instructor resulted in four conceptual categories. The interview was held during week 14 and lasted 65 minutes in duration.

Transforming Experience. The first category of responses revealed that this was a "transforming experience" for the instructor. She was changed at a personal level. She described the evolution of her feelings toward a renewed commitment in equity and social justice during the semester. The instructor commented several times during the interview that being involved in this project was "life changing." She reflected, "This has been a life changing experience. No question. I plan on being much braver, I am much braver or feel freer, to talk about the issues of cultural differences and institutional racism in all my classes. I grew through this project." Her pedagogical approaches improved because she gained a deeper understanding of the material and discovered ways to engage participants. She noted how she "grew" from the experience in terms of learning new resources related to multicultural training, for example, the readings and video from the modules. She observed that "As a result of my interaction with [Group 2] and the Ning experience I was actually a much better teacher in the face-to-face only group. That learning transferred for me. I grew as a professor and was much more comfortable. When you're blogging you pay attention to [the course resources and posts] more. I read it more. It enhanced my teaching in [Group 1]."

Her "growth" was revealed in her pedagogical changes in both classes. She observed of her own classroom behavior, "As a result of the Ning experience, I was more comfortable with the subject matter, definitely taking some risks. And definitely my response time and waiting was better in both classes, because I could see them reflecting on Ning, so I tried to offer in our discussions that same experience. We all talk about 'wait time.' I let them massage it. I let them think about it and sometimes I prompted them more, because I knew there was more there, because I saw it on Ning."

This increased learning helped the instructor solidify her own beliefs about "social justice and diversity" and she stated "the resources have helped me articulate to my students concepts that are central to social justice." The instructor expressed that as a result of this semester, she felt "safer" addressing issues of race and diversity. She explained, "Sometimes I question myself. Am I making too much out of it? How do I make a dfiference without people saying 'there she goes again.' Now I feel freer."

Observable Differences. The second category of responses from the instructor was that there were "observable differences" between the groups. In terms of class discussions, the instructor noted the depth and length of feedback during discussions and between peers. She stated, "[Group 1] became engaged in class discussions, but did not have the opportunity to massage their thoughts, meaning their answers in class were not nearly as lengthy as [Group 2's], two to three words or a sentence. But in the blogs it was longer and much more meaningful."

As a result of her involvement in the Ning community discussion, the instructor gave Group 1 more time to process their thoughts during class. She stated that she knew they had reduced time to process because of the difference she noted

when she gave the online assignment at the end. She stated that students in Group 1 "expressed how much they liked that. They said they enjoyed being able to have time with their thinking as opposed to class when all the hands go up."

Once she had experienced Group 1's online discussion, the instructor was able to directly compare it with Group 2's discussions on Ning. She stated, "In comparing Blackboard and Ning, Ning was much more personal than the Blackboard forum. I knew exactly who was talking. Blackboard responses were shorter. I really wasn't sure sometimes who was commenting. I had two students with the same name and four gentlemen, I would get them mixed up. As opposed to the Ning group their pictures were right there, it was outstanding. I felt like I was being more intimate with them."

The instructor also observed a difference in the face-to-face classes of the two groups. Specifically, she recounted:

In the Who Am I presentations in the Ning group, students were much more comfortable and the issues and descriptions they presented were much more personal and sensitive. Several students were able to talk about things like losing their parent. Normally these presentations can be "I'm someone who likes pizza." The Ning students' presentations were much more heartfelt and personal. They passed around their objects, totally unsolicited, they wanted to see each others. I got "people bumps," some people call them goose-bumps, the presentations were so outstanding. Students called up their Ning pages as part of their presentation. [Group 1] presentations were briefer, much more standard, and not as thoughtful. They did not pass around their objects [that

represented them culturally]. It felt more like a show and tell.

Sense of Community. The idea of "sense of community" with students was the third category of the instructor's responses. The instructor believed that as a result of the feeling of "connectedness" in Group 2, when they came together in the face-toface class, they had a "bigger sense of community, bigger sense of relationships and a safety that we could answer and talk to each other." She expressed that the feeling emanated from the Ning community, because "as a result of us being able to interact online in the safety of our room knowing no one is going to judge it, and having the pictures made it so much more personal." The instructor felt a strong connection with Group 2 participants and "they led me to believe they felt the same way." She explained that "Students commented on each other's blogs and they knew who they were commenting to because a lot of times in class you don't really know everyone's names. But it made it more sensitive, closer, and more personal to be able to react to someone who's picture they saw so they know who that individual was." The instructor felt positive about the Group 1 class, but expressed a stronger feeling of relationship with Group 2 participants.

At the foundation of the relationship with Group 2 was exploring participants' sense of identity. She remarked, "One thing I will always remember and will always use is the idea that you are developing a personal identity for each person through their use of pictures and what they are telling you. Seeing their face, I was able to get to know them immediately through their pictures on Ning as opposed to the other group." This affected the classroom, because the class knew each other through their online pictures and profiles. There was an "enhanced feeling of closeness." This

became evident during the Who Am I presentations "because when the person stood up there they already knew who they were visually. It made us closer."

The insight that the instructor gained in reflecting on the semester was that the discussion may have been on race and culture, but it was really about the students. Ning served as a relationship builder. She noted that utilizing the Ning community served as an example of technology integration. It also established a sense of community where everyone felt comfortable and safe to participate. These factors allowed her to model effective practices and enabled students to focus on their own personal development and "to get into themselves."

Meeting Course Objectives. The fourth category of her responses pertained to "meeting course objectives." The instructor taught this course last year, but emphasized the component on multiculturalism this semester. She noted that she emphasized it more in all her classes this semester. In the EDU 200: Introduction to Education course specifically the instructor felt that the course objectives of increasing students' awareness of multicultural issues, expanding their knowledge of cultures, and exposing them to some of the skills needed by practicing teachers were achieved. She based her perception on the implementation of the syllabus through discussions and assignments.

The weekly journal confirmed what the instructor discussed according to the syllabus and listed the resources utilized each week and how students reacted to them. Two assignments that the instructor highlighted were McIntosh's (1990) article "White privilege: Unpacking the Invisible Knapsack" and the video on Ethnocentrism. Discussions began with participants describing how they were not discriminatory and

that their parents raised them to treat everyone equally. Of the participants in Group 2, the instructor noted, "The seven minute video changed everyone's perception. Without question. They all had re-examined their thinking. After that, the Ning group referenced White privilege on their blogs." Another "eye opening" assignment was engaging participants in Harvard's Implicit Association Test which was shocking for some whose results showed that they preferred Whites. Participants engaged in discussions on Whiteness and White privilege expressing that these were new realizations and learning. They discovered that they have assumptions about people of color that they did not realize were there.

A critical task of the course is the development of a statement of philosophy of education. In the process of writing the philosophy of education statements, the instructor stated that the students brought up how the discussions on multiculturalism throughout the semester "ties right into what you believe about children and how your beliefs influence your philosophy and how your philosophy influences your actions." In reading the statements, the instructor reported that about half the students in Group 1 and a majority of students in Group 2 included the importance of cultural competence. Specific references in their statements to culture and diversity ranged from minor inclusion of one or two sentences to extensive integration of why it is important to understand students' backgrounds and cultural competence.

An example from Group 1 of a participant with well-articulated integration of the need for cultural competence revealed how the learning from the class translated into the participant's conceptions on becoming an educator and the specific need for multicultural awareness, knowledge and skills. For example, the Group 1 participant

wrote:

In my classroom, there will be no bias or special treatments for certain kids based on their gender, race, religion, etc. We spent ample amounts of time in my Introduction to Education class discussing how to become a culturally competent professor, which I believe is an important part of having an effective classroom. However, being aware of a child's background does not mean you need to treat them different because of it. It simply means you need to understand their way of learning and adjust your teaching styles to accommodate their needs. As it said in the book "Those Who Can, Teach," we need to move towards 'culturally responsive teaching,' in which the teachers respond to the needs and expectations of the children (Ryan & Cooper, 2010). This would make for a more developed and comfortable classroom in which the students would feel like they are all important, because they are.

A participant from Group 2 wrote into her philosophy of education statement the importance of knowing one's own cultural identity, being aware of diverse backgrounds in the classroom, and making an effort to move one's own students along the multicultural identity continuum in the future as a teacher. The participant articulated:

All educators should be culturally competent. Being a culturally competent teacher means that one must evaluate themselves to understand themselves as a cultural being, knowing where you come from, where you fit, and what you believe. I believe that all facilitators of learning should be aware of diversity in one's environment, to be perceptive—taking notice of the differing races and

ethnicities around oneself—and to be open-minded and respectful of those differences. Culturally competent educators can help their students become more aware and open-minded, moving them from an ethnocentric perspective to one that is more respectful and inclusive. It is important that both the students and the teacher recognize diversity in the classroom and expand the knowledge upon it.

The instructor noted that some participants who did not explicitly mention cultural competence did include the idea that they needed to create a "safe" and "comfortable" environment and/or the need to establish a personal connection with students. A dominant theme expressed by participants in both groups was their explicit need of creating an environment conducive to promoting learning for all of their future students.

She concluded the interview by stating, "I would definitely use a Ning site again in teaching this course. It was really life changing. I grew. People bumps again."

Summary

The quantitative and qualitative results and analyses reveal similarities and differences between Group 1 and Group 2 participants in the ways in which they experienced multicultural instruction in an EDU 200: Introduction to Education course. TMAS data and analysis demonstrated that both groups increased their multicultural awareness and appreciation for diversity in K-12 students. Group 2 participants experienced a larger median increase on the TMAS than Group 1.

TMAS survey results are supported by the qualitative analysis in both groups.

Analysis of the open-ended questions from the pretest and posttest revealed that

participants' answers changed to include diversity and culture. In defining who they were, or in describing critical educational issues, participants' answers referenced race and culture unlike in the pretest responses. Participants revealed changes according to Helms's questions exploring their White racial identity. The format of the course influenced participants' willingness to share and feel at ease interacting with peers. Participants revealed that the use of an online component, both a threaded discussion and educational social network, promoted their participation and facilitated their learning on multicultural awareness and knowledge of diverse learners.

Interviews with participants from both groups resulted in mutual categories revealing common learning outcomes and shared experiences. All participants expressed new understanding about the multicultural awareness, knowledge, and skills needed to become an educator. Participants reacted similarly to videos and readings in the course, such as McIntosh's (1990) article "White privilege: Unpacking the Invisible Knapsack" in a similar manner. They were uncomfortable and in some cases shocked to learn about White privilege and implicit racism. Many admitted to never having thought about their Whiteness or issues of race in the classroom before this course. The instructor was perceived by both groups to be a positive factor in establishing an open and inviting class culture that facilitated discussion and sharing. All participants expressed wanting more multicultural understanding as they progressed through their educational program.

Key differences between the groups were revealed through data collected and analyzed from Group 2 participants on their experiences in the Ning online social network. Group 2 participants emphasized the community and connectedness they felt

in the class. They offered specific examples on how their thinking was influenced or changed as a result of their peers and the course.

An analysis of the instructor's experience and journal revealed differences between the groups. The instructor observed a stronger sense of community and connection with Group 2 participants. She described the positive and transforming effect engaging in Ning had on her personally and pedagogically.

Quantitative and qualitative data from the two groups revealed their common and diverse experiences in participants' introductory education course. Similarities and differences in the emergent categories were identified and explained. A discussion of the significance and meaning of these findings is presented in Chapter V.

Chapter V. Discussion of Findings

This chapter interprets the data and explains how participants experienced the process of interrogating their own cultural identity, knowledge, and awareness. The data analysis revealed the results of participants' introspection and examination of their own identity development in the context of their introductory education course. The preservice teacher candidates in this study learned about themselves. They learned about each other and the instructor.

The first principal finding frames the chapter by explaining the significance in the change of each group's increase on the TMAS score from the beginning to end of the semester. The increases for each group from pretest to posttest were analyzed for their statistical significance and the results are discussed.

Five primary findings are derived from the analysis of the qualitative data that serves to complement and support the quantitative findings. Discussion on the first finding centers on the change in preservice teacher candidates' multicultural identity as evidenced by four areas of development. The next finding is that technology makes a difference in how participants experienced multicultural identity development. Another finding is the essential role of classroom culture in supporting students' growth and development in terms of their cultural awareness, knowledge, and skills. The importance of faculty in promoting the multicultural identity development of participants is discussed. A new vision of preservice teacher candidates is presented.

In discussing and interpreting the findings relevant connections to the literature on promoting multicultural identity development (Langelier, 1996; Pedersen, 1988)

and using technology to promote multicultural education (Oikonomidoy 2009; Wassell & Crouch 2008) are made. The themes from the data analysis are the primary findings and are compared and contrasted with previous research on utilizing technology to increase preservice candidates' multicultural awareness, knowledge, and skills. The findings from this study add to the current literature for understanding the ways in which preservice teacher candidates experience growth in their multicultural identity development during their educator preparation program.

TMAS Statistical Significance

Statistical analysis determined the significance in the change in Teacher Multicultural Attitude Survey scores from beginning to the end of the semester in each group. As a Likert scale, the TMAS was interpreted as ordinal data for inferential statistical analysis, thus a Wilcoxon Signed Ranks Test was conducted on the 20 TMAS items to compare within group changes from pretest to posttest (Green & Salkind, 2008). A two-tailed test was utilized to examine changes in responses to individual test items in either a positive or negative direction. This analysis revealed both groups indicated an increase in multicultural sensitivity through increased TMAS scores where positive ranks were higher than negative ranks (see Figure 9 for a summary of difference scores).

While both groups had increased TMAS scores from pretest to posttest, Group 2 participants' increase was statistically significant, Z = -3.00, p = .003. For Group 1, results indicated that the changes in scores were not significant, Z = -1.45, p = .146.

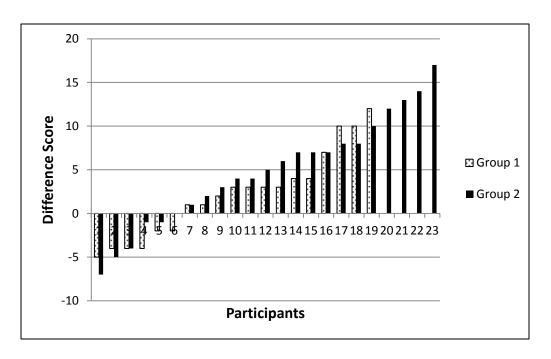


Figure 9. Bar chart of difference scores for Group 1 and 2

As discussed in Chapter IV, Likert scale data may be averaged for statistical analysis. Blaikie (2003) noted that interpreting Likert scales as interval data has become common practice. When Likert scales are considered approximately interval and treated as both ordinal and interval scales the sum or total of item responses is used for inferential statistical analysis ("Statistics and Research Methods," 2005). From this perspective, while the TMAS scale is considered ordinal, the sum of participants' scores may be statistically analyzed as roughly interval data. For comparative purposes, a paired sample t-test was conducted to compare within group changes by analyzing the average of the differences between the pretest and posttest (Bock, Velleman, & DeVeaux, 2004). The results of this analysis confirmed that while both groups had increased TMAS score from pretest to posttest, for Group 2 there was a significant difference in the TMAS scores from the pretest (75.57, SD=6.48) to posttest (M= 80.35, SD=6.94); t(22) = 3.699, p = .001, d = .71. For Group 1 there was

not a significant difference in the TMAS scores from the pretest (75.32, SD= 9.31) to the posttest (M=77.53, SD=10.04); t(18) = 1.916, p=.071, d=.23. Muijs (2004) argued that knowing a relationship is significant is not sufficient; it is necessary to calculate the effect size to determine the strength of the relationship. The effect size for the difference score within Group 1 is a Cohen's d of .23 considered "modest". The effect size for the change in Group 2 is .71, considered "strong" (Muijs, 2004, p. 126).

This finding revealed that participants who engaged in the Ning online social community reported significantly higher gains in multicultural awareness as measured by the TMAS than their peers in the traditionally taught group. The significant increase in awareness that Group 2 demonstrated may indicate that the online social network provided the safe environment needed for preservice candidates to gain awareness on cultural diversity in education. Participation in Ning created a community where members of the class were invested in each other's perspectives and stories. On Ning, participants' exchanges about the readings and topics addressing White privilege, implicit racism, diversity in the classroom promoted their awareness and appreciation for a pluralistic classroom.

This finding contradicts research that found that a one semester course does not make a difference on participants' multicultural awareness as measured by the TMAS inventory (Anderson & Szabo, 2007). Anderson and Szabo (2007) found that TMAS scores of their 144 preservice candidate participants did not significantly increase after a semester long multicultural education course. In their study, preservice teacher candidates' mean score was 77.32 (SD=7.49) on the posttest, up from a mean

of 76.23 (SD=8.83) on the pretest.

Change in Participants' Perceptions and Beliefs

From the analysis of the open responses and interview data, the significant theme derived from the data analysis was that participants experienced change in their perceptions and beliefs on race and culture as a result of the course. This change occurred in four areas for some participants: increased awareness, more open class participation, altered pretest to posttest answers, and more developed White racial identity development. Not all participants demonstrated change in all four areas. Participants' responses on the posttest and data from the interviews revealed one or more of the four ways identified in which they changed their beliefs, attitudes, or views of themselves. Langelier's (1996) construct of Multicultural Identity Development Continuum was applied to the findings to examine participants' movement along the continuum as a result of the course.

Participants experienced increased self-awareness and knowledge of multicultural issues such as White privilege, racism, and cultural identity. Pedersen (1988) argued that "awareness is the beginning of change" (p. 1). Through readings, discussions and assignments, participants became more aware of implicit racism, cultural knowledge of diverse groups, and the multicultural diversity of students in today's classroom. The course's three modules of study on multicultural awareness, knowledge, and skills increased participants' awareness of their own racial identity and helped them to connect that understanding to the needs of their future students. In the posttest's open responses and in the interviews from both groups, participants expressed how through the course they learned about their own cultural identity and

new ideas about culture. They were exposed to issues such as White privilege and implicit racism that they had not considered. Many participants described how much they learned about multiculturalism, often having no idea that issues of race, equality, and cultural identity were important in teaching and school settings.

Participants described how their ability to discuss during class changed as they learned about their own racial identity and issues such as implicit racism and White privilege. The readings and discussions made participants uncomfortable. Some were defensive while most expressed shock. DeFreitas and McAuley (2008) describe this approach as pedagogy of discomfort. In their research, they studied preservice teacher candidates' uncomfortable reaction to McIntosh's (1990) inventory from "White privilege: Unpacking the invisible knapsack." They discovered identity development in preservice teacher candidates was promoted through assignments that required them to examine their own Whiteness. In their study on cognitive dissonance, McFalls and Cobb-Roberts (2001) concurred. Their examination of preservice teacher candidates' reaction to McIntosh's article revealed the value of open discussions in changing participants' attitudes. Zygmunt-Fillwalk and Clark (2007) learned that Harvard University's Implicit Association Test (IAT) prompted preservice teacher candidates' process of becoming multicultural. They describe the multicultural development process as an "inside-out phenomenon" where self-knowledge leads to understanding and appreciation of other cultures (p. 289). McDiarmid and Price (1990) argued that the difficult process of self-examination and rethinking of assumptions is an important technique for multicultural awareness of self and others. Their study revealed that preservice candidates "are unlikely to reconsider their deeply held beliefs and

unconscious assumptions unless these are deliberately confronted and challenged" (p. 21). In this study participants revealed growth as a result of the difficult readings, assignments, and discussions on White privilege and implicit racism. A finding from the analysis was that participants processed this new learning through continued discussions and exchanges with classmates. Their "eyes were opened" through such readings and assignments as McIntosh's article and taking the IAT. Participants agreed with her points. An important factor in their learning was the ability to discuss their tacit assumptions and associations with classmates.

Participants who were interviewed all described how their discomfort decreased as the semester progressed as the culture and nature of the class shifted. According to participants in both groups, the class conversation shifted rapidly, within a few weeks, to an open environment where participants felt safe and comfortable. They felt comfortable enough to express their opinion and participate in the discussion. Many indicated that the exchanges with their peers changed their view and shaped their responses. Participants cited the efforts of the instructor and the connected feeling they felt with peers as factors that promoted the environment that facilitated their participation. The role of a comfortable class culture in discussing multicultural issues is discussed later in the fourth primary finding.

Researchers have investigated preservice educators' reaction to new knowledge of White privilege and racism and have characterized it as resistance to an examination of their Whiteness in a face-to-face setting (Brown, 2004a; Mazzei, 2008; Mueller & O'Connor, 2007; Oikonomidoy, 2009; Thomas & Vanderhaar, 2008).

Participants in this study revealed an initial shock, but an eventual acceptance of the

idea of ethnocentrism and White privilege as indicated by their responses on the posttest and in the interviews. Both groups credit the efforts of the instructor in creating the open environment; participants in Group 2 also cited the online social network in promoting a connectedness between classmates.

Group 2 participants expressed the ways in which they changed their perceptions and beliefs to a larger extent than their Group 1 counterparts. This was evident in the analysis of the participants' perceptions about their changes on their answers from pretest to posttest. Participants were asked during the interview if they felt that their answers changed. Six out of the seven Group 2 participants interviewed believed that their responses from pretest to posttest changed. This contrasts with Group 1 interviewees who uniformly answered that their survey answers did not change. Group 2 articulated how they changed their thinking and their responses as shown by their inclusion of race and culture in their answers for the first time. They described the increased importance they placed on the role of race and cultural diversity in understanding themselves and their future students. They described how their view of themselves as a cultural being was different after learning about ethnocentrism and White privilege.

Group 2 participants demonstrated change in perceptions and beliefs in the analysis of their answers on the posttest. Group 2 participants showed change in their racial identity development according to Helms's White racial identity model. Group 2 had significant changes in their answers to four of the questions that corresponded to Helms's model. On Helms's first level of contact, there was an increase from 13 to 19 Group 2 participants who revealed that they notice race. This demonstrated

participants' increased recognition of the importance of race and its role in forming one's identity, as opposed to claiming that they did not see race. Several Group 2 participants also expressed how the course made them want to teach in a demographically diverse school specifically to work with children from different cultures as opposed to their original plans of returning to a school similar to one in their hometown.

Helms's question exploring participants' attitudes at the pseudo-independence level revealed that there was an increase from nine to 13 Group 2 participants who agreed with affirmative action. This demonstrated a change in attitude and recognition of institutional racism and the need to address it through governmental programs.

Group 2 participants showed significant change on Helms's question exploring participants' behavior at the pseudo-independence level. From pretest to posttest, a higher percentage of Group 1 participants disagreed, while a higher percentage of Group 2 participants agreed that they would attend a commemorative event honoring Martin Luther King. In their explanations many participants in Group 2 expressed how they have not had a chance to attend such an event, but would. Others made emphatic statements about Dr. King's importance in society and in bringing about change.

On Helms's attitude question at the autonomy level, participants in Group 2 demonstrated a more significant shift than their Group 1 counterparts. On the pretest seven Group 1 and three Group 2 participants agreed with the statement "My Whiteness is an important part of who I am". On the posttest, Group 1 participants who believed their Whiteness was important increased by three, whereas in Group 2 the number increased by 12. These changes in participants' responses revealed a more

developed racial identity. These open-ended response questions were intended to explore participants' attitudes and expressed behaviors related to their White racial identity development. These changes reveal Group 2 participants' growth of White racial identity development in terms of their movement toward a non-racist identity. Changes in participants' attitudes from pretest to posttest were confirmed during the interviews.

Langelier's (1996) theory of multicultural identity development was applied to the finding that participants' attitudes and beliefs changed during the semester.

According to the Multicultural Identity Development Continuum, participants demonstrated movement in that they articulated increased awareness, knowledge, and skills. They expressed a new found value of cultural pluralism. They described the mandate to view their future environment from the diverse perspectives of their students and their need to respond appropriately and acceptingly to alternative viewpoints. Participants referenced their need for flexibility and the ways in which they became more aware of their ethnocentrism, cultural and racial identity, and the connection to becoming an educator able to facilitate all students' success.

It is unclear how much movement along the continuum of multicultural identity development occurred for each participant in this study. Clarification of what constitutes signposts in the continuum will identify and explain multicultural attitudes and behaviors. For example, early stages are recognizable by participants demonstrating ethnocentrism, lack of awareness and knowledge. Highly developed stages are indicated by valuing pluralism, deep awareness, knowledge, and skills (Pedersen, 1988). The middle section of the continuum where instruction can make a

difference is an opportunity for teacher educators to structure programs and experiences for teacher candidates that will promote multicultural identity development.

This change in participants' multicultural awareness, knowledge, and skills supports research that training makes a difference (Brown, 2004b; Correa, Hudson, & Hayes, 2004; Keim, Warring, & Rau, 2001; Langelier, 1996). This finding is contrary to research that found a one semester course does not make a significant difference on participants' multicultural awareness (Colville-Hall, MacDonald, & Smolen, 1995; Weisman & Garza, 2002). Cho and DeCastro-Ambrosetti (2005) found that preservice candidates in their study demonstrated increased awareness as a result of a course, but still felt unprepared to become an educator of students with diverse backgrounds. Participants in this study were not directly asked if they felt prepared to teach diverse students.

The effect of the study on the instructor provides a critical understanding of the context of participants' experience and a vantage point from which to view the two groups holistically. Participating in the Ning online social network transformed the instructor. She stated the experience was "life changing" and has altered her teaching and her sense of mission within the department. The instructor adapted her pedagogy as a result of her participant in Ning. She increased her wait time during face-to-face discussions because she knew participants had more to offer, because she had seen it on Ning. As a part of the community, the instructor felt a close bond with Group 2 participants through their personal sharing and uploading of images and pictures to the

Ning site. She plans to continue to use an online social network in her teaching because of the benefits she perceived and its positive effect on participants.

Technology Made a Difference

Online discussions in both groups made a positive difference on participants' ability to share their ideas and interact with each other. The online discussions were not bounded by time and place; rather participants could read and respond to each other at their own pace. This finding supports research that online discussion facilitated preservice teacher candidates' communication, increased the amount of time spent thinking before responding to readings and posts, and allowed for expanded expression of divergent opinions (Makinster et al., 2006; Merryfield, 2006; Oikonomidoy 2009; Wassell & Crouch 2008).

At the end of the instructional period, Group 1 participants had asked the instructor to set up online discussions in the course management site. Not remembering that the parameters of the study did not allow for online engagement for Group 1, the instructor had responded to the request by posting two forums in Blackboard for participants to discuss the readings (Langelier, 2006; Nieto, 2005) on educational equity and becoming culturally competent. The findings from Group 1's posttest responses and interviews revealed how much they enjoyed these online discussions. They said that it was easier to express themselves, especially when it came to talking about race issues in the classroom. They liked how everyone had input in the discussion, unlike the face-to-face classroom. They especially benefited from reading each other's feedback and gaining new perspectives on diversity. Participants' responses extend Nicholson and Bond's (2003) research on utilizing online discussion

boards which found that their use extended class discussions. It was not evident in the data that the discussion board forums promoted class cohesion as Nicholson and Bond (2003) found.

Group 2 participants experienced an online social network purposefully designed with the aspects of community outlined in research studies (Garrison et al., 2000). The result was significant. Both participants and the instructor were affected by their participation in the online component of the class.

Garrison et al.'s (2000) Community of Inquiry (CoI) framework was applied to the experience of Group 2 participants. Integrating the use of Ning promoted a learning community in all three areas outlined by CoI framework. The CoI model comprised three interdependent features: social presence, cognitive presence, and teaching presence. Characterized by the ability to personalize their online presence and present themselves to other members of the community, participants established their social presence on Ning by creating profile pages that included pictures and text. Seeing the images of each classmate had an effect on participants and the instructor. They believed that the pictures allowed them to feel closer to each other and get to know one another at a deeper level. When exchanging posts online, the pictures enabled participants to see exactly who they were talking to as opposed to Blackboard where only names appear. The pictures added a dimension of understanding so that participants felt more connected to each other and able to express themselves more easily, because everyone felt they knew who they were and their backgrounds.

Participants' cognitive presence was expressed through the meaning they derived from the online modules and their ability to construct meaning through

communication exchanges. Participants shared their responses with their classmates, often modifying their view of diversity based on another's perspective in the community. Participants learned new ideas from each other about the role of race, White privilege, and implicit racism. Participants discovered that Ning brought out the nuances and difference of opinion between classmates, unlike the face-to-face classroom experiences where limited time resulted in general agreement rather than indepth examination of concepts. Ning allowed for all voices to be heard as opposed to the classroom setting where not everyone has the time or inclination to participate. In comparing Ning to Facebook, participants expressed how meaningful the communication exchanges were as opposed to the personal social network exchanges. They indicated that having meaningful sharing on such an important topic was a worthwhile experience.

The role of the teacher is the third element in the model. The instructor maintained a consistent teaching presence on the Ning site during the three modules. She uploaded her own personal images to Ning posting pictures of her children and grandchild on her profile page. She commented on participants' posts giving feedback on their comments and making connections between classmates. She promoted awareness to other readings or resources. She allowed students to show their Ning pages during class time, for example during their Who Am I presentations. By doing this the presentations were qualitatively different from the presentations in Group 1. The instructor observed that participants shared more personal stories and wanted each other to hold and pass around their cultural identity objects. The instructor talked about the Ning posts and exchanges in class, sometimes using them as discussion

starters for the face-to-face setting.

The efforts of the instructor in both groups, combined with Ning interaction in Group 2, created an environment conducive to teaching and learning about race, White privilege and implicit racism, issues new and uncomfortable to preservice candidates. The safe learning environment was sustained through all three modules of instruction allowing for participation and sharing of ideas.

Culture and Community Promoted Multicultural Learning

The fourth significant finding was the ways in which class culture and sense of community promoted participants' multicultural identity development. A significant connection revealed in this study was the participants' expression of feeling comfortable in the class to their being able to discuss issues of race and diversity. The culture of the face-to-face classroom and the feeling of community among classmates produced and environment that fostered participants' ability to grapple with concepts of White privilege or implicit racism, nurtured an open atmosphere for discussions and promoted learning about race and culture from a personal perspective and in the classroom. Differences between the groups were revealed by their participation in the Ning online social network. In Group 2, the class climate, face-to-face and on Ning, produced an explicit connectedness that facilitated the exchange of new ideas that changed participants' perspectives.

Every participant interviewed described how comfortable they felt in the class. Participants described the feeling as being free to express their opinion without fear that peers or the instructor would make fun of them, condemn them, or misunderstand them. Participants said they felt safe to open up during discussion about race and

culture. Researchers support the idea that when students feel safe their learning increases (Garmon, 2005; Immordino-Yang & Damasio, 2007; Langelier, 2006; Vare & Miller, 2000). The construct of comfortable does not refer to a lack of conflict. Langelier (2006) defined the term comfortable as "an environment that fosters a mutual exchange of ideas where each student feels safe in expressing his or her worldview, while realizing that not everyone holds the same values and beliefs that he or she holds" (p. 3). Other researchers (Allen & Hermann-Wilmarth, 2004; Swartz 2003) found that when challenging concepts are introduced in a safe environment, students are less likely to resist and more likely to be willing to discuss and reconsider their attitudes and beliefs.

Group 1 respondents expressed feeling safe and comfortable. A majority revealed that this feeling allowed for open discussions. Providing an alternative perspective on the openness of class discussions, one participant (Carl) did not believe everyone was honest during class discussions. He felt that in the face-to-face setting it is difficult to admit to ethnocentrism or to recognize White privilege so some may have gone along with the class with statements like "I agree" with no details or elaboration. He felt that the same was true of the online exchanges in Blackboard. This runs counter to research by Schrum et al. (2007) who found increased honesty in an online format due to students' decreased sense of personal accountability and the "faceless" (p. 210) nature of discussion board forums. This research helps explain the request for an online forum from a participant in Group 1 who did not feel everyone was contributing freely to class discussions. The instructor honored the request because the student and the instructor wanted to promote discussion on the topic of

equity. The consensus of the class was that they were very willing to extend class discussion to the online environment. According to the demographic data, all of the participants engaged in personal online social networking (Facebook). Therefore, they felt at ease in the online environment. Results from having participants engage in the online discussions were positive. Participants were able to express themselves and recognize that the quieter students were able to provide their opinion more readily in an online format.

For Group 2, Ning enhanced the feeling of connectedness and served as a community-building tool. With the Ning social network, Group 2 participants revealed a more comprehensive level of connectedness between classmates. They articulated that they felt "connected" because they knew them through their online profiles and exchanges. They described how the Ning component to the class affected how they felt about classmates in the face-to-face setting. The strong connections participants felt with one another strengthened the feeling of "community" within the class.

The sense of community was a product of the connectedness among Group 2 participants. Unlike their Group 1 counterparts, Group 2 participants used the term "community" to describe their EDU 200: Introduction to Education class. From the analysis, it is evident that Ning fostered relationships and served as a community-building tool. Utilizing online forums in Blackboard did not produce the same descriptors or expressions of community in the Group 1 participants.

The fact that Ning increased the sense of community in class corresponds to researcher's findings that online social networks promote community in the educational setting (Reich, 2010). Reich (2010) cautioned that not all online groups

constitute a community. She outlined four characteristics of an online community. The first one is membership. Membership is characterized by clear boundaries, where people can identify themselves as part of the community. Participants in this study expressed how they felt part of a class community through Ning, something that other class assignments did not engender. Reich's second feature is influence. Influence is where members are able to influence and are influenced by each other. Participants in this study admitted to changing their responses and opinion based on what they read from their peers on Ning. Classmates affected each other's thinking and broadened the perspective on any given reading, video, or assignment.

The third characteristic according to Reich is the integration and fulfillment of needs as demonstrated by shared resources and values. Without a line-by-line analysis of Ning postings, it is unclear how much participants shared resources. On the posttest responses and during the interviews participants revealed that they discovered shared values. For example, one student was surprised to learn that she shared the same opinion as one of her shyer classmates who came from a much smaller state. Without the exchange through Ning she had no knowledge of that common connection.

The fourth feature is a shared emotional connection represented by positive contact, the opportunity to share, and a sense of investment. Participants demonstrated their emotional connection, especially during the "Who Am I" presentations. The instructor stated that they passed around the objects that represented them as cultural beings. They wanted each other to hold them and see them up close. Three (Ann, Cynthia, Laurie) participants in Group 2 during the interviews talked about their experience as having an important impact on them during the course. It brought the

class closer together. Participants expressed that seeing the Ning pages in advance of the presentations allowed them to know the person at a deeper level before they even presented. When pictures and images from the Ning site were explained, classmates felt even more connected to each other through this deeper understanding of who they were beyond the classroom. Participants talked about "hanging out" with classmates and having conversations about how things are going that is not typical in other classes. Pictures and images facilitated the shared emotional connection felt by participants and the instructor.

Thomas and Vanderhaar (2008) argued that community-building facilitates learning about multiculturalism. They found that in a community environment preservice candidates more readily examine their notions of multicultural education. By establishing a community, the instructor modeled for future educators the need to promote community in their own classrooms. Community and an open class culture are intertwined. A supportive class culture is possible without the online social network, as demonstrated by the analysis from Group 1. However, a community was formed through the help of the Ning site in Group 2. Through Ning the class heard from everyone, saw images and pictures from everyone. Learning was made public through posts and comments throughout the three modules. Rocco (2010) researched the important role of making learning public through online posts and found it promoted higher quality, allowed more time for responses, and exposed participants to a range of ideas.

Importance of Faculty

The instructor served as the architect of the face-to-face and online experiences. An analysis of the themes emerging from participants' data revealed the important role that the instructor played in their learning about multicultural issues during the semester. The instructor was instrumental in making participants feel safe and comfortable during class in order to participate in exercises and conversations about implicit racism and White privilege. Participants trusted her. They appreciated her shared personal stories. They felt her approach was open and non-judgmental. She structured class and online discussions as open conversations, not ones in which she believed there was a right or wrong answer. Participants positively responded to this approach by describing how comfortable they felt even during difficult discussions on ethnocentrism and other issues. They defined being comfortable as not having fear of judgment from the professor and participants. They expressed that the way the instructor approached discussions on race allowed them to express the opinions they held without fear of feeling wrong.

The instructor's actions and disposition facilitated participants' learning on race and culture and is supported by researchers (Gordon, 2005; Harris, 2003). Harris (2003) identified self-disclosure as one means in which instructors may create a class culture conducive to addressing multicultural issues. Harris (2003) outlined that teacher educators of multicultural issues are moderators and nurturers that need to actively develop trust among classmates. Approaching multiculturalism this way is conducive to developing students' conceptions and perspectives on race, diversity, and culture.

New Vision of Preservice Candidates

The sixth finding derived from the analysis is understanding preservice teacher educators. Common in the research literature is the pairing of a demographically homogenous population of preservice candidates with a deficit perspective (Lowenstein, 2009). This includes candidates' lack of cultural awareness, color blind attitude (Cochran-Smith, 1995, 2000) and resistance (de Freitas & McAuley, 2008; McFalls & Cobb-Roberts, 2001) to learning about White privilege, institutional racism, and ethnocentrism. The participants in this study reflected the larger national demographic trend of white, European descent, mostly female, middle-class teacher candidates (Aud et al., 2011). A significant finding from the analysis is that while participants arrived at the class largely unaware of racial issues, they did not claim to color blind or overtly resistant to learning about their own ethnocentrism.

The lack of demographically diverse communities and high schools do not present participants with opportunities to interact with people of color nor with an urgency to address issues of White privilege or race. Although participants have been culturally isolated (Howard, 2006) they expressed a willingness to participate in cultural activities or in speaking out against racism. Many noted the lack of opportunities to do so in their lives at this point. They recognized the lack of diversity in their schools and hometowns. On the posttest, while fewer Group 1 participants agreed that they would attend an event honoring Martin Luther King, all participants interviewed said they wanted more infusion of multiculturalism and more direct exposure of diversity in their education programs. Participants in both groups increased their level of agreement that they would participate in activities to overcome

their racism. Many referenced experiences or jobs they had on campus during the semester, such as having a Black roommate or working at the Salvation Army, as examples of their openness and willingness to adopt other cultural and racial perspectives.

The participants in this study see color. They consistently said that they noticed the race of another person. What they considered important was the thinking that came after noticing race. Many talked about the importance of observing someone's race or background, but not being judgmental, making assumptions, or forming preconceptions about it. Participants commented that while everyone has distinguishing physical characteristics there are common human emotions, feelings, and ways of thinking that are more important. Participants talked about connecting to other people based on common value systems, regardless of color. Participants' admitting to seeing color is a finding that reflects a potential shift in the attitudes of current preservice teacher candidates. Connecting color blind attitudes to continued inequity and prevention of addressing racism, deFreitas and McAuley (2008) argued that color blind educators do:

A disservice to their students by ignoring the political and historical forces that shape educational access, opportunity and advantage. Adopting such a position may feel comforting and safe, but denying local and global histories of oppression and exclusion ultimately serves to perpetuate existing inequities. (p. 431)

Further research is needed to examine the attitudes and perceptions of the current generation of students as they enter educator preparation programs.

Demographically the national corps of preservice teacher candidates is relatively homogenous. The participants in this study are homogenous in terms of race and lack of diversity training. They revealed differences as they shared their personal stories. Participants expressed how diverse each other's experiences were in the various high schools they attended. Many of the differences among classmates became evident through their life experiences, for example, losing a parent, having a special needs sibling, or admitting a learning disability and struggling during their school experiences. Garmon (2005) argued that "even a class composed entirely of young, white female students from mostly white suburban communities can still manifest considerable diversity" (p. 275). The Ning site served as a vehicle for sharing personal stories and perceiving differences.

Laughter (2011) called for a rethinking of today's preservice teacher candidate. He argued, "Many teacher educators engaged in the preparation of WPTs [White preservice teachers] for diverse classrooms may rely on generalized assumptions that will inevitably lead to failure. Instead, teacher educators might recognize each student teacher as diverse both within and across multiple communities" (p. 50). The findings in this study support the call for re-evaluating how preservice teacher candidates are perceived recognizing their potential for valuing pluralism and bridging cultural divides.

Combined with the qualitative findings, the results of the survey confirmed that the online social network component significantly affected the development of Group 2 participants' multicultural identity development (Langelier, 1996). Group 2 candidates experienced more significant development along the multicultural identity

continuum when their class community was facilitated by a social network component. They gained greater cultural awareness of themselves in terms of their White racial identity development and increased their appreciation and understanding of the diverse cultures of their future students and the skills needed for effective teaching in a diverse classroom. Participants gained a new understanding of the need for educators to be flexible, accommodating, and accepting of students different cultural needs.

The story of preservice teacher candidates' experience during coursework is one in which the participants' changing sense of themselves became the basis for increasing their multicultural awareness, knowledge, and skills. Participants' accounts centered on their identity development. Inductive analysis revealed significant themes that identify the ways in which participants developed their multicultural identity. Schwartz (2001) concurred that questions such as "Who Am I?", as asked by the instructor in this study, facilitate identity development. The importance of feeling comfortable, their trust in the instructor, and feeling part of a community evolved naturally during the study as an essential prerequisite to participants' self-examination. Awareness of their racial and cultural identity, and ability to share insights and connect with peers followed. Understanding themselves and the differences between classmates' varied perspectives and experiences served as a catalyst to learn the skills needed for teaching in the diverse K-12 setting. The construct of identity has its roots in Erikson's theory that identified three dimensions of development – ego identity, personal identity, and social identity (Erikson, 1980). Ego identity is defined as having internal and social-contextual dimensions in that it is one's awareness of "selfsameness and continuity" (Erikson, 1968, p. 50). As first year university students, participants in this study demonstrated that the online component enabled their willingness and ability to engage in self-examination and increased their multicultural awareness, knowledge, and skills needed for teaching in diverse classrooms.

Summary

This study answered the quantitative and qualitative research questions exploring the experiences of preservice teacher candidates' multicultural identity development and investigating the effect of an online social network component. The findings revealed the ways in which participants experienced increased multicultural awareness, knowledge, and skills during an EDU 200: Introduction to Education course. The findings demonstrate that a semester long course with embedded multicultural learning can increase preservice teacher multicultural awareness, knowledge, and appreciation for their own cultural identity. Participants in both groups experienced multicultural identity development in an EDU 200: Introduction to Education course according to six primary themes. The themes were derived from the quantitative and qualitative analyses to reveal the effect the course and significant difference that the use of an online social network had on preservice teacher candidates' multicultural identity development.

Participants revealed movement along Langelier's (1996) multicultural identity continuum by demonstrating changed attitudes and beliefs. Both groups demonstrated increased multicultural awareness as measured by TMAS with Group 2 participants demonstrating a statistically significant increase. Technology and the opportunity to express oneself online facilitated sharing of ideas and a feeling of connectedness

among classmates. The sense of safety and freedom from judgment promoted participants' sharing of perspectives which in turn shaped participants' viewpoints. The instructor was essential in establishing a comfortable environment and in setting the tone of class conversations. A new vision of preservice teacher candidates was evident in their assertion that they see color and are open to multicultural experiences and learning.

Supporting the quantitative findings, Group 2 participants revealed significant differences in the qualitative findings. They discussed their own White racial identity and felt increased importance of the role of being White had on their identity and an increased recognition that a person's race is an important society factor. Participants demonstrated more cultural sensitivity and positive attitudes toward diversity. By emphasizing the need to establish a comfortable environment for all their students they adopted multiple ways of viewing the classroom and curriculum that valued pluralism and flexibility. In courses where there is a focus on self-examination and having classmates get to know each other personally through the familiar medium of a social network, significant change may occur.

The results enhance our current understanding on how preservice teacher educators develop their multicultural identity in becoming culturally competent through their preparation program. It is necessary to further investigate how preservice teacher candidates' multicultural awareness, knowledge, and skills can continue to be developed throughout their education program and to examine how effectively candidates address the needs of diverse students in their own K-12 classrooms as teachers. The implications of these findings are discussed in Chapter VI.

Chapter VI. Implications

Implications suggest the importance of the findings (Creswell, 2008). In this study, preservice educators experienced an increase in their multicultural awareness and knowledge during a one semester course. Half of the participants engaged in a new means of communicating their ideas and beliefs about issues often difficult for them to discuss in the traditional classroom setting. The findings of this research have implications for teacher educators and academic communities in higher education.

Understanding Transformation. The primary implication for teacher educators is a deeper understanding of the process of transformation for preservice teacher candidates. Becoming multicultural (Nieto, 1992) is an identity transformation process. Given the findings of this study, the process of transformation may be initiated by engaging the majority of our preservice teacher candidates in a critical examination of their own identities through the lens of White racial identity development. First year teacher candidates arrive with varying degrees of direct contact with diverse populations and levels of awareness of the socio-cultural context of schools and their structural inequalities. This provides teacher educators with the opportunity to address preconceptions and introduce candidates to the concepts of White privilege and the hidden assumptions embedded in media. This self-awareness may increases teacher candidates' ability to adopt alternative perspectives and ways of perceiving the world.

New Paradigm. An implication for the field of teacher education is that teacher educators may want to rethink the ways preparation programs are structured so

that they promote personal transformation in preservice teacher educators as they prepare them for diverse classrooms. This extends the research on teacher preparation that found few programs address the issue of candidates' self-examination, including discussions of White privilege and candidates' implicit assumptions about race (Jennings, 2007; Trent et al., 2008). To effect change in preparation programs so that preservice teacher candidates become multicultural (Nieto, 1992) school of education faculty may want to focus on candidates' development of their multicultural identity in the context of transformation and social justice rather than a cultural knowledge approach.

Nieto (2000) argued that educator preparation programs "need to (a) take a stand on social justice and diversity, (b) make social justice ubiquitous in teacher education, and (c) promote teaching as a life-long journey of transformation" (pp. 182-183). Teacher educators are positioned to model a social justice approach. Colbert (2010) asserted that "although teachers may not be solely responsible for transforming an educational system, they are placed center-stage in achieving such transformation" (p. 16). For this shift to occur, teacher educators may want to re-envision previous approaches for preparing candidates for diverse classrooms and promote candidates' multicultural identity development to facilitate understanding of their future students in the broader social context. The development of multicultural identity may provide the foundation for candidates' to adopt a pluralistic worldview that is accommodating and accepting of diverse students' cultures.

Multicultural Identity Continuum. The goal of cultural competence through multicultural identity development is an outcome that teacher educators have struggled

with over the last several decades. The findings suggest that Langelier's (1996) multicultural identity development continuum may provide a framework for understanding this process. The multicultural identity development continuum encompasses multiple aspects of the identity transformation process, including White racial identity development, and may serve as a measure of teacher candidates' growth. Candidates who participated in this study experienced explicit instruction and discussion on multicultural identity development and its connection to equitable teaching practices. Both traditionally taught participants and those who engaged in a blended format with computer mediated communication increased their cultural awareness. The findings suggest that the paradigm for facilitating teacher candidates' multicultural identity development encompasses multiple elements.

Starting with Self. The findings imply that it is necessary to start the process by addressing stereotypes, implicit associations, and White privilege. Brown (2004b) argued that having candidates analyze their own cultural beliefs, although a difficult process, is a prerequisite first step to gaining knowledge of other groups and sound pedagogical skills. Upon arrival to their education programs, few preservice teachers have engaged in this self-examination process, a prerequisite to understanding the cultural differences in others. White preservice teacher candidates may learn to view themselves as cultural beings understanding their societal privileges and poised to bring about needed change (Gay, 2010). Given the increasing diversity of students, it is critical that prospective educators are well prepared to facilitate learning for all students (Aud et al., 2011). For the participants in this study, the need is immediate since their university is situated in the largest and most diverse city in the state. In

their education programs, they will be engaging in multiple hours of field experience in local schools

Environment. The findings imply that an essential condition to engaging teacher candidates in this process is establishing a "comfortable" classroom environment. Participants themselves defined what this term meant to them. They characterized it as a judgment free zone, one in which they were able to express their true feelings. Comfortable did not mean there was no disagreement or variation in perspectives. To the contrary, it meant increased diversity of opinion, because participants did not feel obligated to agree with their peers. They could express themselves and felt safe to do so. Teacher educators may want to attend to establishing a comfortable environment as perceived and defined by the current generation of students. The significant differences experienced by Group 2 participants has implications for teacher educators who are finding ways to promote cultural competence in their prospective teachers. Leaders in Schools of Education might further investigate the role online social networks can play in promoting cultural competence.

Role of Social Networks. The findings suggest that online discussion and sense of community increase teacher candidates' multicultural awareness and appreciation of diversity for themselves and future students. A majority of 18-22 year olds and 100% of the participants in this study participate in private online social networks (Bennett & Maton, 2010). Educators have the opportunity to translate that familiarity of social networks to helping students connect with each other and with faculty in an educational online environment. The bonds that students form through

their online interaction may engender a safe and comfortable environment in face-to-face format. The implication for teacher educators is that they may want to establish an online social network so that every student's voice is heard. In the online format, all students have access and engage more readily in the discussion. Students' perspectives are viewed and considered. Time constraints in the face-to-face classroom may prevent the quieter students from participating. In class discussions, student extraverts often make their opinion heard, while other students do not participate. Those who do participate in class may be focused on what they want to contribute instead of fully listening to their peers. An online component may allow each student the time to process difficult questions, refer to the readings, and think about their responses before they post their input. This allows them to evaluate their own perspectives more thoroughly and to read and appraise the insights of all of their classmates.

The findings in this study suggest that the online social network may have provided the needed time for teacher candidates to critically examine and adjust their thoughts and attitudes during a one semester course. The online exchange allows for diversity of opinion to arise and be openly expressed. Teacher candidates' worldview may have been expanded and include a commitment to equity for all students and a personal investment in needed social action for reform. Pewewardy (2005) argued that "In order for teachers to be effective with diverse students it is crucial that they recognize their own worldviews; only then will they be able to understand the worldviews of their students" (p. 41).

The findings add to the research that an educational social network facilitates candidates' process of self-awareness and analysis through exchanges with peers on

issues of race and racism (Hung & Yuen, 2010; Oikonomidoy, 2009). Guerrero and Fernández Batanero (2008) argued that "Virtual communities offer a whole new framework to think about the human identity in the Internet era" (p. 113). Establishing a comfortable environment in education classes through an online social network may promote the process of identity formation in teacher candidates.

Role of Faculty. The findings suggest that faculty may play a key role. The instructor in this study experienced transformation of the ways in which she related to her students and the pedagogical approaches she utilized. Systemic change will require different thinking and a different approach to preparing educators to meet the needs of diverse students. Faculty may want to take a critical approach of the ways in which they integrate educational online discussions and consider utilizing an educational social network that promotes community. Conditions for fostering community, its effect on students and content become integral to course construction. The central purpose of the course may shift from information transfer on a topic to facilitation of discussion and exchange with a focus on all students' thinking and participation as members of a learning community.

MacDonald, Colville-Hall, and Smolen (2003) argued that teacher educators are in a position to create a "transformative agenda" (p. 11). This includes a focus on candidates' self-examination and the creation of a comfortable environment in which to share honest attitudes. Given the findings of this study, academic leadership may want to address professional development needs for teacher educators on ways to promote candidates' self-examination and development of multicultural awareness, knowledge, and skills. Colbert (2010) argued that teacher educators must examine

their own cultural assumptions and biases in order to recognize and value the diverse qualities in their students. This process will require skilled instruction and differentiated training for faculty. In turn, this models the importance of self-examination and increased socio-cultural consciousness.

Further implications relate to the faculty's ability to foster students' participation in meaningful educational online social networks and not to adopt technology for technology's sake. Teacher educators in particular have the opportunity to examine the ways in which students make meaning from their online interactions in the educational context because their actions serve as a model for preservice teachers. Faculty may want to take a critical approach of the technology in terms of understanding the benefits of technological tools and in perceiving the diverse skills of the millennial generation (Bennett & Maton, 2010; Cunningham, 2009; Marshall, 2001). Faculty may want to attend to the ways in which community is fostered through online interaction and structure the tool and students' experiences according to research-based practices (Garrison et al., 2000; Garrison, 2009; Reich, 2010). Teacher educators may want to review their courses or experiences that would benefit from an online component to promote discourse on race. This effort has financial and social ramifications as the integration of technology may require technical training, modeling, and new pedagogical understandings for faculty to promote students' connection in the face-to-face and virtual environment (Chen, 2011). Leadership in higher education may want to place priority on helping faculty understand not only the technological tools, but the conceptual framework supporting the reasons for their use.

The implications inherent in the study may extend to teacher candidates' future

school districts if the changes are sustained and translate into culturally competent behavior. The considerations derive from giving voice to all students, valuing their diverse experiences and perspectives. Candidates' began their program examining perceptions and biases, developing their multicultural identity, and gaining a pluralistic perspective. Individual candidates were asked to engage in a process of selfexamination and interrogation of their fundamental beliefs, values, and attitudes as a professional expectation that educators promote equity in an increasingly diverse educational system. As a result of the experience, candidates advanced their multicultural identity development along the worldview continuum by increasing their awareness of self and others, knowledge, skills, and appreciation of a pluralistic classroom (Langelier, 1996). A multicultural worldview may lead them to become culturally competent shaping their professional practices in the classroom that may lead to equitable instruction, curriculum, and policies for all learners (Gay & Kirkland, 2003). If preservice candidates become culturally competent educators, then the dynamics of the K-12 classroom may shift as a result of their change efforts toward a multicultural curriculum and pluralistic classroom environment. Long-standing trends in which minority students achieve less and are overrepresented in lower level courses may be reversed. K. M. Brown (2004) reminded us that "Culturally inclusive education is inseparably linked to struggles for social justice" (p. 333). If teacher candidates develop their multicultural identity with help from online community participation, then the effect of their pluralistic worldview may be felt across the education preparation program and into the K-12 setting.

Need for Further Study. The process of becoming multicultural, the

multicultural identity development of prospective educators, is essential for cultural competence (Christensen, 1989; Gay, 2010, Langelier, 1996; Nieto, 1992). Its promotion through an online tool is a new and undeveloped area of research. In this study, change began in a single semester course and will need to be followed over the teacher candidates' program and into the first year of teaching.

This study demonstrated one way to introduce first year preservice candidates to multicultural awareness, knowledge, and skills. More investigation is needed on preservice teacher candidates, including those of color, and their conceptions of their own racial identity and preparedness to address diverse learners. Embedding multicultural learning in an introductory education course represents the start of a systemic emphasis and coordinated effort that may help candidates adopt a multicultural worldview that values pluralism and flexibly accommodates the diverse needs of K-12 students. Starting this process in the first course of a four year program will maximize the time teacher educators have to affect preservice teacher candidates' attitudes and beliefs. Feiman-Nemser (2001) argued that multicultural learning needs to be continued through the education program. Researchers have demonstrated other ways to engage candidates, for example, through direct contact and dedicated courses (Brown, 2004b; Ukpokodu. 2002). More research is needed to examine the components of a systematically integrated program so that early gains are sustained. Further analysis is needed of the essential experiences, attitudes, and skills that preservice candidates transfer to their first years of teaching.

References

- Akyol, Z., Garrison, D. R., & Ozden, M. Y. (2009). Online and blended communities of inquiry: Exploring the developmental and perceptional differences.

 International Review of Research in Open and Distance Learning, 10(6), 65–83.
- Allen, J., & Hermann-Wilmarth, J. (2004). Cultural construction zones. *Journal of Teacher Education*, 55(3), 214–226.
- Anderson, G., & Szabo, S. (2007). The "power" to change multicultural attitudes. *Academic Exchange Quarterly*, 11(2), 26-30.
- Atkinson, D. R., Morten, G., & Sue, D. W. (1989). *Counseling American minorities: A cross-cultural perspective* (3rd ed.). Dubuque, IA: Brown.
- Aud, S., Hussar, W., Kena, G., Bianco, K., Frohlich, L., Kemp, J., & Tahan, K.
 (2011). The condition of education 2011 (NCES 2011-033). Retrieved from http://nces.ed.gov/pubs2011/2011033.pdf
- Baltaci-Goktalay, S., & Ozdilek, Z. (2010). Pre-service teachers' perceptions about web 2.0 technologies. *Procedia Social and Behavioral Sciences*, 2, 4737–4741.
- Banks, J. A. (1988). *Multiethnic education: Theory and practice* (2nd ed.). Boston: Allyn & Bacon.
- Banks, J. A. (1998). Extra, Extra! Dr. James A. Banks on multicultural education.

 Retrieved from http://www.entreculturas.pt/Media/JBanksinterview.pdf
- Banks, J. A. (2001). Citizenship education and diversity: Implications for teacher education. *Journal of Teacher Education*, 52(1), 5–16.

- Banks, J. A., Cookson, P., Gay, G., Hawley, W. D., Irvine, J. J., Nieto, S., . . . Stephan,W. G. (2001). Diversity within unity: Essential principles for teaching andlearning in a multicultural society. *Phi Delta Kappan*, 196–203.
- Banks, J. A., & Banks, C. A. M. (Eds.). (2004). *Handbook of research on multicultural education* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Bennett, S., & Maton, K. (2010). Beyond the "digital natives" debate: Towards a more nuanced understanding of students' technology experiences. *Journal of Computer Assisted Learning*, 26(5), 321–331.
- Blaikie, N. (2003). *Analyzing quantitative data: From description to explanation*. London, England: Sage Publications.
- Bock, D. E., Velleman, P. F., & DeVeaux, R. D. (2004). *Stats: Modeling the world*.

 New York, NY: Pearson Education, Inc.
- Brady, K. P., Holcomb, L. B., & Smith, B. V. (2010). The use of alternative social networking sites in higher educational settings: A case study of the e-learning benefits of Ning in education. *Journal of Interactive Online Learning*, 9(2), 151–170.
- Brown, E. L. (2004a). Overcoming the challenges of stand-alone multicultural courses: The possibilities of technology integration. *Journal of Technology and Teacher Education*, 12(4), 535–559.
- Brown, E. L. (2004b). What precipitates change in cultural diversity awareness during a multicultural course: The message or the method? *Journal of Teacher Education*, *55*(4), 325–340.
- Brown, K. M. (2004). Assessing preservice leaders' beliefs, attitudes, and values

- regarding issues of diversity, social justice, and equity: A review of existing measures. *Equity & Excellence in Education*, *37*(4), 332–342. doi:10.1080/10665680490518948
- Calandra, B., Brantley-Dias, L., & McNeal, K. (2007). An electronic system to support novice teachers' reflective lesson design. *Multicultural Education & Technology Journal*, 1(2), 100–111.
- Case, K. A. (2007). Raising White privilege awareness and reducing racial prejudice:

 Assessing diversity course effectiveness. *Teaching of Psychology*, *34*(4), 231–235.
- Castro, A. J. (2010). Themes in the research on preservice teachers' views of cultural diversity: Implications for researching millennial preservice teachers. *Educational Researcher*, 39(3), 198–210. doi:10.3102/0013189X10363819
- Chandra, V., & Lloyd, M. (2008). The methodological nettle: ICT and student achievement. *British Journal of Educational Technology*, *39*(6), 1087–1098. doi: 10.1111/j.1467-8535.2007.00790.x
- Chang, L. (1995). Connotatively consistent and reversed connotatively inconsistent items are not fully equivalent: Generalizability study. *Educational and Psychological Measurement*, *55*(6), 991–997.
- Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative analysis. London, England: Sage.
- Chen, L.-L. (2011). Improving teachers' teaching with communication technology.

 **Journal of Educational Technology Systems, 40(1), 35–43.
- Cho, G., & DeCastro-Ambrosetti, D. (2005). Is ignorance bliss? Pre-service teachers'

- attitudes toward multicultural education. *The High School Journal*, 89(2), 24–28.
- Christensen, C. P. (1989). Cross-cultural awareness development: A conceptual model. *Counselor Education and Supervision*, *28*(4), 270-287.
- Clarke, M., & Drudy, S. (2006). Teaching for diversity, social justice and global awareness. *European Journal of Teacher Education*, 29(3), 371–386.
- Cochran-Smith, M. (1995). Uncertain allies: Understanding the boundaries of race and teaching. *Harvard Educational Review*, *65*(4), 541–570.
- Cochran-Smith, M. (2000). Blind vision: Unlearning racism in teacher education. *Harvard Educational Review*, 70(2), 157–190.
- Cochran-Smith, M. (2004). Defining the outcomes of teacher education: What's social justice got to do with it? *Asia-Pacific Journal of Teacher Education*, *32*(3), 193–212.
- Cochran-Smith, M., Davis, D., & Fries, K. (2004). Multicultural teacher education:

 Research, practice, and policy. In J. A. Banks & C. A. M. Banks (Eds.),

 Handbook of research on multicultural education (2nd ed., pp. 931–975). San

 Francisco, CA: Jossey-Bass.
- Colbert, P. J. (2010). Developing a culturally responsive classroom collaborative of faculty, students, and institution. *Journal of College Teaching & Learning*, 7(11), 15–24.
- Colville-Hall, S., MacDonald, S., & Smolen, L. (1995). Preparing preservice teachers for diversity in learners. *Journal of Teacher Education*, 46(4), 295–303.
- Corbin, J., & Strauss, A. (2008). Basics of qualitative research (3rd ed.). Thousand

- Oaks, CA: Sage.
- Correa, V. I., Hudson, R. F., & Hayes, M. T. (2004). Preparing early childhood special educators to serve culturally and linguistically diverse children and families:

 Can a multicultural education course make a difference? *Teacher Education*and Special Education, 27(4), 323–341. doi: 10.1177/088840640402700401
- Council of Chief State School Officers. (2011, April). *Interstate teacher assessment* and support consortium (InTASC) model core teaching standards: A resource for state dialogue. Washington, DC: Author.
- Creswell, J. (2008). Educational research: Planning, conducting and evaluating quantitative and qualitative research. Upper Saddle River, NJ: Pearson.
- Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.). Upper Saddle River, NJ: Pearson.
- Cronbach, L. J. (1950). Further evidence on response sets and test design. *Educational* and *Psychological Measurement*, *10*, 3–31. doi:10.1177/001316445001000101
- Cuban, L. (1986). *Teachers and machines: The classroom use of technology since*1920. New York, NY: Teachers College Press.
- Cuban, L. (2001). Oversold and underused: Computers in the classroom. Cambridge, MA: Harvard University Press.
- Cuban, L. (2006). The laptop revolution has no clothes. *Education Week*. Retrieved from http://www.edweek.org/ew/articles/2006/10/18/08cuban.h26.html
- Cunningham, C. A. (2009). Transforming schooling through technology:

 Twenty-first-century approaches to participatory learning. *Education & Culture*, 25(2), 46–61.

- Darling-Hammond, L. (2000). How teacher education matters. *Journal of Teacher Education*, *51*(3), 166–171.
- Darling-Hammond, L. (2010). The flat world and education: How America's commitment to equity will determine our future. New York, NY: Teachers College Press.
- Darling-Hammond, L., & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco, CA: Jossey-Bass.
- Darling-Hammond, L., Pacheco, A., Michelli, N., LePage, P., Hammerness, K., & Youngs, P. (2005). Implementing curriculum renewal in teacher education:
 Managing organizational and policy change. In L. Darling-Hammond & J.
 Bransford, (Eds.), *Preparing teachers for a changing world*. San Francisco, CA: Jossey-Bass.
- de Freitas, E. & McAuley, A. (2008). Teaching for diversity by troubling Whiteness: Strategies for classrooms in isolated White communities. *Race Ethnicity and Education*, 11(4), 429–442. doi:10.1080/13613320802479018
- Delfino, M., & Persico, D. (2007). Online or face-to-face? Experimenting with different techniques in teacher training. *Journal of Computer Assisted Learning*, *23*(5), 351–365. doi:10.1111/j.1365-2729.2007.00220.x
- Dimaggio, G., Lysaker, P. H., Carcione, A., Nicolò, G., & Semerari, A. (2008). Know yourself and you shall know the other. . . to a certain extent: Multiple paths of influence of self-reflection on mindreading. *Consciousness and Cognition*, *17*, 778–789.

- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Erikson, E. H. (1980). *Identity and the life cycle*. New York, NY: W. W. Norton & Company.
- Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record*, *103*(6), 1013–1055.
- Fine, G. A. & Deegan, J. G. (1996). Three principles of Serendip: Insight, chance, and discovery in qualitative research. *Qualitative Studies in Education*, *9*, pp. 434-447.
- Ford, T. L., & Dillard, C. B. (1996). Becoming multicultural: A recursive process of self- and social construction. *Theory into Practice*, *35*(4), 232–238.
- Garmon, M. A. (2005). Six key factors for changing preservice teachers' attitudes/beliefs about diversity. *Educational Studies*, *38*(3), 275–286. doi:10.1207/s15326993es3803_7
- Garrison, D. R. (2009). Communities of inquiry in online learning: Social, teaching and cognitive presence. In C. Howard, J.V. Boettecher, L. Justice, K.D. Schenk,
 - P.L. Rogers, and G.A. Berg, (Eds.), *Encyclopedia of distance and online learning* (2nd ed., pp. 352–355). Hershey, PA: IGI Global.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2–3), 87–105.
- Gay, G. (2010). Acting on beliefs in teacher education for cultural diversity. *Journal* of Teacher Education, 61(1-2), 143–152.

- Gay, G., & Kirkland, K. (2003). Developing cultural critical consciousness and self-reflection in preservice teacher education. *Theory into Practice*, 42(3), 181–187.
- Gee, J. P. (1999). An introduction to discourse analysis: Theory and method. New York, NY: Routledge.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Piscataway, NJ: Transaction Publishers.
- Glaser, B. G., & Strauss, A. L. (1999). *The discovery of grounded theory: Strategies* for qualitative research. Hawthorne, NY: Aldine De Gruyter.
- Gordon, J. (2005). Inadvertent complicity: Colorblindness in teacher education. *Educational Studies*, *38*(2), 135–153.
- Goudy, L. (2002). An examination of required technology course syllabi in elementary teacher preparation programs. Ed.D. dissertation, Florida Atlantic University, United States -- Florida.
- Grant, C. A., Elsbree, A. R., & Fondrie, S. (2004). A decade of research on the changing terrain of multicultural education research. In J. A. Banks & C. A. M. Banks (Eds.), *Handbook of research on multicultural education* (2nd ed., pp. 184–207). San Francisco, CA: Jossey-Bass.
- Green, S. B., & Salkind, N. J. (2008). Using SPSS for Windows and Macintosh:

 Analyzing and understanding data (5th ed.). Upper Saddle River, NJ: Pearson

 Prentice Hall.
- Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Web 2.0 and classroom research: What path should we take *now?Educational Researcher*, *38*(4), 246–259.

- Guba, E. G. (1990). The alternative paradigm dialog. In E. G. Guba (Ed.), *The paradigm dialog* (pp. 17–30). Newbury Park, CA: Sage.
- Guerrero, A. B., & Fernández Batanero, J. M. (2008). New ways to build the identity in cybercultural contexts. *The International Journal of Diversity in Organisations, Communities and Nations*, 8(2), 113–119.
- Gunawardena, C. N., Hermans, M. B., Sanchez, D., Richmond, C., Bohley, M., & Tuttle, R. (2009). A theoretical framework for building online communities of practice with social networking tools. *Educational Media International*, 46(1), 3–16. doi:10.1080/09523980802588626
- Gutierrez-Gomez, C. (2002). Multicultural teacher preparation: Establishing safe environments for discussion of diversity issues. *Multicultural Education*, *10*(1), 31–39.
- Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith,
 M., McDonald, M., Zeichner, K. (2005). How teachers learn and develop. In L.
 Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing*world (pp. 358-389). San Francisco, CA: Jossey-Bass.
- Harris, T. M. (2003). Impacting student perceptions of and attitudes toward race in the interracial communication course. *Communication Education*, 52(3–4), 311–317. doi:10.1080/0363452032000156271
- Hawkes, M., & Romiszowski, A. (2001). Examining the reflective outcomes of asynchronous computer-mediated communication on inservice teacher development. *Journal of Technology and Teacher Education*, 9(2), 283–306.
- Hays, D. G., Chang, C. Y., & Havice, P. (2008). White racial identity statuses as

- predictors of White privilege awareness. *Journal of Humanistic Counseling, Education and Development*, 47(2), 234–246.
- Helms, J. E. (1984). Toward a theoretical explanation of the effects of race on counseling: A Black and White model. *The Counseling Psychologist*, *12*(4), 153–165.
- Helms, J. E. (Ed.). (1990). *Black and white racial identity: Theory, research, and practice*. Westport, CT: Greenwood.
- Helms, J. E. (1995). An update on Helms' White and people of color racial identity models. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 181–198). Thousand Oaks, CA: Sage.
- Helms, J. E. (2008). A race is a nice thing to have: A guide to being a White person or understanding the White persons in your life (2nd ed.). Hanover, MA: Microtraining Associates.
- Henry, W. J., Cobb-Roberts, D., Dorn, S., Exum, H. A., Keller, H., & Shircliffe, B. (2007). When the dialogue becomes too difficult: A case study of resistance and backlash. *College Student Affairs* Journal, *26*(2), 160–168.
- Howard, G. R. (2006). We can't teach what we don't know: White teachers, multiracial schools (2nd ed.). New York, NY: Teachers College Press.
- Hsu, H.-Y. (2009). Preparing teachers to teach literacy in responsive ways that capitalize on students' cultural and linguistic backgrounds through weblog technology. *Multicultural Education & Technology Journal*, *3*(3), 168–181. doi:10.1108/17504970910984853

- Hung, H., & Yuen, S. C. (2010). Educational use of social networking technology in higher education. *Teaching in Higher Education*, *15*(6), 703–714.
- Immordino-Yang, M. H., & Damasio, A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. *Mind, Brain, and Education*, *1*(1), 3–10.
- Jennings, T. (2007). Addressing diversity in US teacher preparation programs: A survey of elementary and secondary programs' priorities and challenges from across the United States of America. *Teaching and Teacher Education*, 23, 1258–1271.
- Kanagawe, C., Cross, S. E., & Markus, H. R. (2001). '"Who Am I?" The cultural psychology of the conceptual self. *Personality and Social Psychology Bulletin*, 27(1), 90–103.
- Ke, F., & Hoadley, C. (2009). Evaluating online learning communities. *Educational Technology Research & Development*, *57*(4), 487–510. doi:10.1007/s11423-009-9120-2
- Keim, J., Warring, D. F., & Rau, R. (2001). Impact of multicultural training on school psychology and education students. *Journal of Instructional Psychology*, 28(4), 249–252.
- Kemmis, S., & McTaggart, R. (2005). Participatory action research: Communicative action and the public sphere. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 559–604). Thousand Oaks, CA: Sage.
- Kingsley, K. V., & Boone, R. (2008). Effects of multimedia software on achievement

- of middle school students in an American history class. *Journal of Research on Technology in Education*, 41(2), 203–221.
- Krasne, A. (2005, December 22). What is web 2.0 anyway? Retrieved from http://www.techsoup.org/learningcenter/webbuilding/archives/page9344.cfm
- Langelier, C. A. (1996, April). *Multicultural identity development: Preparing to work with diverse populations*. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY.
- Langelier, C. A. (2006). The culturally competent professor: Our role in creating community. *Rivier College Online Academic Journal*, *2*(1), 1–7.
- Laughter, J. C. (2011). Rethinking assumptions of demographic privilege: Diversity among White preservice teachers. *Teaching and Teacher Education: An International Journal of Research and Studies*, 27(1), 43–50.
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage.
- Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago, IL: University of Chicago Press.
- Lowenstein, K. L. (2009). The work of multicultural teacher education:

 Reconceptualizing White teacher candidates as learners. *Review of Educational Research*, 79(1), 163–196.
- MacDonald, S., Colville-Hall, S., & Smolen, L. (2003). Program ownership and the "transformative agenda" in colleges of education: Teachers of teachers working towards a more equitable society. *Multicultural Education*, 10(4), 7–14.
- Makinster, J. G., Barab, S. A., Harwood, W., & Andersen, H. O. (2006). The effect of

- social context on the reflective practice of preservice science teachers: Incorporating a web-supported community of teachers. *Journal of Technology* and *Teacher Education*, *14*(3), 543–579.
- Maloy, R. W., Verock-O'Loughlin, R.-E., Edwards, S. A., & Woolf, B. P. (2011).

 *Transforming learning with new technologies. Boston, MA: Allyn & Bacon.
- Marshall, P. (2001). *Multicultural education and technology: Perfect pair or odd*couple. Washington, DC: Eric Clearinghouse on Teaching and Teacher

 Education.
- Mazzei, L. A. (2008). Silence speaks: Whiteness revealed in the absence of voice. *Teaching and Teacher Education*, 24(5), 1125–1136.
- McDiarmid, G. W., & Price, J. (1990). Prospective teachers' views of diverse learners: A study of the participants in the ABCD project. (Research Report 90-6). National Center for Research on Teacher Education.
- McFalls, E. L., & Cobb-Roberts, D. (2001). Reducing resistance to diversity through cognitive dissonance instruction: Implications for teacher education. *Journal of Teacher Education*, *52*(2), 164–172.
- McIntosh, P. (1990) White privilege: Unpacking the invisible knapsack. *Independent School*, 49(2), 31–35.
- Merryfield, M. M. (2006). WebCT, PDS, and democratic spaces in teacher education. *International Journal of Social Education*, 21(1), 73–94.
- Miller, D. C., and Salkind, N. J., (2002). Assessing social variables: Scales and indexes. Handbook of Research Design & Social Measurement. Thousand Oaks, CA: Sage Publications, Inc.

- Mueller, J., & O'Connor, C. (2007). Telling and retelling about self and "others": How pre-service teachers (re)interpret privilege and disadvantage in one college classroom. *Teaching and Teacher Education*, *23*(6), 840–856.
- Muijs, D. (2004). *Doing quantitative research in education using SPSS*. Thousand Oaks, CA: Sage Publications, Inc. doi:10.4135/9781849209014
- National Education Association (NEA). (2008). *Promoting educators' cultural*competence to better serve culturally diverse students (PB13). Retrieved from http://www.nea.org/assets/docs/PB13 CulturalCompetence08.pdf
- National Research Council. (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academies Press.
- Nelson, J., Christopher, A., & Mims, C. (2009). TPACK and web 2.0: Transformation of teaching and learning. *TechTrends*, *53*(5), 80–85.
- New Hampshire Office of Energy and Planning. (n.d.). New Hampshire refugee program: Refugee facts. Retrieved from http://www.nh.gov/oep/programs/refugee/facts.htm
- Nicholson, S. A., & Bond, N. (2003). Collaborative reflection and professional community building: An analysis of preservice teachers' use of an electronic discussion board. *Journal of Technology and Teacher Education*, 11(2), 259–279.
- Nieto, S. (1992). Affirming diversity: The sociopolitical context of multicultural education. New York, NY: Longman Publishing Group.
- Nieto, S. (2000). Placing equity front and center: Some thoughts on transforming teacher education for a new century. *Journal of Teacher Education*, 51(3),

- 180–187.
- Nieto, S. (2005). Public education in the twentieth century and beyond: High hopes, broken promises, and an uncertain future. *Harvard Educational Review*, 75(1), 43–64.
- Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in Health Sciences Education*, 15(5), 625-632, DOI: 10.1007/s10459-010-9222-y
- Oikonomidoy, E. (2009). Conceptual collective online reflection in multicultural education classes. *Multicultural Education & Technology Journal*, *3*(2), 130–143.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.).

 Thousand Oaks, CA: Sage.
- Pedersen, P. (1988). *A handbook for developing multicultural awareness*. Alexandria, VA: American Association for Counseling and Development.
- Pedersen, P. (2000). *A handbook for developing multicultural awareness* (3rd ed.). Alexandria, VA: American Counseling Association.
- Pewewardy, C. (2005). Shared journaling: A methodology for engaging White preservice students into multicultural education discourse. *Teacher Education Quarterly*, 32(1), 41–60.
- Ponterotto, J. G. (1988). Racial consciousness development among White counselor trainees: A stage model. *Journal of Multicultural Counseling and Development*, *16*(4), 146–156. doi: 10.1002/j.2161-1912.1988.tb00405.x
- Ponterotto, J. G., Baluch, S., Greig, T., & Rivera, L. (1998). Development and initial

- score validation of the teacher multicultural attitude survey. *Educational and Psychological Measurement*, 58(6), 1002–1016.
- Ponterotto, J. G., & Ruckdeschel, D. E. (2007). An overview of the coefficient alpha and a reliability matrix for estimating adequacy of internal consistency coefficients with psychological research measures. *Perceptual and Motor Skills*, 105, 997–1014.
- Ponterotto, J. G., Utsey, S. O., & Pedersen, P. B. (2006). *Preventing prejudice: A guide for counselors, educators, and parents* (2nd ed.). Thousand Oaks, CA: Sage.
- Pope-Davis, D. B., & Ottavi, T. M. (1994). The relationship between racism and racial identity among White Americans: A replication and extension. *Journal of Counseling & Development*, 72, 293–297.
- Ramirez, M. (1991). Psychotherapy and counseling with minorities: A cognitive approach to individual and cultural differences. New York, NY: Pergamon Press.
- Reich, S. M. (2010). Adolescents' sense of community on MySpace and Facebook: A mixed-methods approach. *Journal of Community Psychology*, *38*(6), 688–705.
- Roblyer, M. D., & Doering, A. H. (2010). *Integrating educational technology into teaching* (5th ed.). Boston: Allyn & Bacon.
- Rocco, S. (2010). Making reflection public: Using interactive online discussion board to enhance student learning. *Reflective Practice*, 11(3), 307–317. doi:10.1080/14623943.2010.487374
- Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective

- thinking. Teachers College Record, 104(4), 842–866.
- Rourke, L., & Kanuka, H. (2009). Learning in communities of inquiry: A review of the literature. *Journal of Distance Education*, *23*(1), 19–47.
- Ryan, K., & Cooper, J. M. (2010). *Those who can, teach* (12th ed.). Boston, MA: Wadsworth Cengage Learning.
- Ryman, S., Burrell, L., & Richardson, B.(2009). Creating and sustaining online learning communities: Designing for transformative learning. *International Journal of Pedagogies & Learning*, *5*(3), 46–58.
- Sabnani, H. B., Ponterotto, J. G., & Borodovsky, L. G. (1991). White racial identity development and cross-cultural counselor training: A stage model. *The Counseling Psychologist*, *19*(1), 76–102. doi:10.1177/0011000091191007
- Schrum, L., Burbank, M. D., & Capps, R. (2007). Preparing future teachers for diverse schools in an online learning community: Perceptions and practice. *The Internet and Higher Education*, *10*, 204–211.
- Schwartz, S. J. (2001). The evolution of Eriksonian and neo-Eriksonian identity theory and research: A review and integration. *Identity: An International Journal of Theory and Research*, *1*(1), 7–58. doi:10.1207/S1532706XSCHWARTZ
- Sleeter, C. E. (2000). Chapter 6: Epistemological diversity in research on preservice teacher preparation for historically underserved children. *Review of Research in Education*, *25*(1), 209–250.
- Sleeter, C. E. (2001). Preparing teachers for culturally diverse schools: Research and the overwhelming presence of whiteness. *Journal of Teacher Education*, *52*(2), 94–106.

- Statistics and Research Methods. (2005). Stamford, CT: Wadsworth Cengage

 Learning. Retrieved

 http://www.wadsworth.com/psychology_d/templates/student_resources/works
 hops/stat_workshp/scale/scale_01.html
- Strauss, A. L., & Corbin, J. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory (2nd ed.). Thousand Oaks, CA: Sage.
- Sue, D. W., Arredondo, P., & McDavis, R. J. (1992). Multicultural counseling competencies and standards: A call to the profession. *Journal of Counseling & Development*, 70, 477–486.
- Sullivan, M. (2010). *Statistics: Informed decisions using data* (3rd ed.). New York, NY: Pearson Learning Solutions.
- Swartz, E. (2003). Teaching White preservice teachers: Pedagogy for change. *Urban Education*, *38*(3), 255–278.
- Thomas, S., & Vanderhaar, J. (2008). Negotiating resistance to multiculturalism in a teacher education curriculum: A case study. *The Teacher Educator*, *43*(3), 173–197.
- Trent, S. C., Kea, C. D., & Oh, K. (2008). Preparing preservice educators for cultural diversity: How far have we come? *Exceptional Children*, 74(3), 328–350.
- Ukpokodu, N. (2002). Breaking through preservice teachers' defensive dispositions in a multicultural education course: A reflective practice. *Multicultural Education*, *9*(3), 25–33.
- Urdan, T. (2010). Statistics in plain English, (3ed). London: Routledge.

- Vare, J. W., & Miller, K. S. (2000). Integrating caring across the curriculum. *ERS Spectrum*, 18(1), 27–35.
- Villegas, A. M., & Lucas, T. (2002). *Educating culturally responsive teachers: A coherent approach*. Albany, NY: State University of New York Press.
- Wade, S. E., Fauske, J. R., & Thompson, A. (2008). Prospective teachers' problem solving in online peer-led dialogues. *American Educational Research Journal*, 45(2), 398–442. doi:10.3102/0002831207308224
- Wassell, B., & Crouch, C. (2008). Fostering connections between multicultural education and technology: Incorporating weblogs into preservice teacher education. *Journal of Technology and Teacher Education (JTATE)*, 16(2), 211–232.
- Watt, S. K. (2007). Difficult dialogues, privilege and social justice: Uses of the privileged identity exploration (PIE) model in student affairs practice. *College Student Affairs Journal*, 26(2), 114-126.
- Waxman, H. C., Lin, M.-F., & Michko, G. M. (2003, December). A meta-analysis of the effectiveness of teaching and learning with technology on student outcomes. Learning Point Associates. Retrieved from http://www.ncrel.org/tech/effects2/waxman.pdf
- Weigl, R. C. (2009). Intercultural competence through cultural self-study: A strategy for adult learners. *International Journal of Intercultural Relations*, *33*(4), 346–360.
- Weisman, E. M., & Garza, S. A. (2002). Preservice teacher attitudes toward diversity:

 Can one class make a difference? *Equity & Excellence in Education*, 35(1),

28–34.

- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York, NY: Cambridge University Press.
- Wurzel, J. S. (1988). *Toward multiculturalism: A reader in multicultural education*. Yarmouth, ME: Intercultural Press.
- Yang, S.-H. (2009). Using blogs to enhance critical reflection and community of practice. *Educational Technology & Society*, *12*(2), 11–21.
- Zeichner, K. M. (1983). Alternative paradigms of teacher education. *Journal of Teacher Education*, 34(3), 3–9.
- Zeichner, K. M. (1993). *Educating teachers for cultural diversity* (NCRTL Special Report 2/93). East Lansing, MI: Michigan State University, National Center for Research on Teacher Learning.
- Zygmunt-Fillwalk, E., & Clark, P. (2007). Becoming multicultural: Raising awareness and supporting change in teacher education. *Childhood Education*, 83(5), 288–293.

Appendices

Appendix A: Consent Form for Research

Understanding Preservice Educators' Multicultural Identity Development

I have been asked to take part in a research project described below. The researcher will explain the project to me in detail. I should feel free to ask questions. If I have more questions later, Assistant Professor Audrey Rogers (603-668-2211 x2492), the person mainly responsible for this study, will discuss them with me.

I have been asked to take part in the study that investigates the attitudes and beliefs of students enrolled in *EDU 200: Introduction to Education*. The survey takes about 20 minutes to complete. The results of the study will enhance the researcher's understanding of first year students and their attitudes about education and diversity.

If I decide to take part in this study here is what will happen: I will take a survey during class at the beginning and near the end of the semester. I will also be asked to voluntarily participate in an interview with Audrey Rogers at the end of the semester. The study concludes in December 2011.

There are no risks in taking part in this study. My instructor for EDU 200 will not have access to my responses. My participation in the study in no way affects or influences my course grade. A benefit of the study is that I may learn more about my attitudes and beliefs about diversity in education.

This study is concerned with group data and not with individual responses; therefore my responses on the questionnaires will remain anonymous. I will have a unique identifier to be used for the purposes of matching pre and post questionnaires. This identifier will not be connected to my name.

The decision to take part in this study is up to me. I do not have to participate. If I decide to take part in the study, I may quit at any time. Whatever I decide will in no way affect my grade in EDU 200. If I wish to quit I simply inform Audrey Rogers (603-668-2211 x2492) of my decision.

I have read the Consent Form. My questions have been answered. My signature on this form means that I understand the information and I agree to participate in this study.

Signature of Participant	Signature of Researcher
Typed/Printed Name	Typed/Printed Name
Date	Date

Appendix B: Interaction Analysis Model

Five Phases of Interaction Analysis Model and Corresponding Instructional Strategies

Phase of knowledge construction	Online discussion facilitation strategies
(1) sharing/comparing of information	The instructor actively encourages students to share and compare their experiences, observation and opinions. The instructor asks students to clarify their ideas.
(2) discovery of dissonance and inconsistency	The instructor guides students in identifying and analyzing areas of difference or disagreement, prompts students to raise questions to each other in order to gain further understanding of the source and extent of disagreement, and asks students to marshal evidence or literature to support their argument.
(3) negotiation of meaning/co- construction of knowledge	The instructor nudges students to examine assumptions or helps to identify misconceptions influencing students' personal narratives. The instructor helps students synthesize ideas and generate new information, evidence or interpretation. Students then negotiate meanings and propose newly constructed knowledge.
(4) testing and modification of proposed synthesis	The instructor encourages students to test their newly constructed knowledge against existing cognitive schema, previous personal experiences or existing literature. Students continue to modify new knowledge.
(5) application of newly constructed meaning	The instructor encourages students to apply new knowledge to other contexts and then discuss and assess their experiences to discover whether their ways of thinking have indeed changed.

Note. Adapted from "An Examination of Technology-Mediated Feminist Consciousness-Raising in Art Education," by A. Lai, 2010 in C. Maddux, D. Gibson, & B. Dodge (Eds.), *Research highlights in technology and teacher education 2010*, pp. 215–216. Copyright 2008 by SITE.

Appendix C: Demographic Questions

- 1. My major within education is:
 - 1. Elementary Certification and/or Elementary Certification with Special Education
 - 2. Early Childhood Certification
 - 3. Secondary Certification
 - 4. Child Development
 - 5. Other
- 2. I am
 - 1. Female
 - 2. Male
- 3. My age is:
 - 1. 17 years old
 - 2. 18 years old
 - 3. 19 years old
 - 4. 20 years old
 - 5. 21 years old or older
- 4. The amount of training or courses in diversity or multicultural education I have had is:
 - 1. Very little or none
 - 2. A small amount (one course)
 - 3. A lot (two or more courses or extended life experiences)
 - 4. So much that I consider myself an expert (you have given trainings or workshops)
- 5. The amount of training or experience I have in using the Ning educational social network site is:
 - 1. Very little or none (have not heard about it)
 - 2. A small amount (recently discovered it)
 - 3. A lot (been a member for more than one year)
 - 4. So much that I consider myself an expert (I have started my own Ning group(s))
- 6. The amount of experience I have with using Facebook or Myspace is:
 - 1. Very little or none
 - 2. A small amount (started an account within the last few months)
 - 3. A lot (been a member for more than one year and access it several times per week)
 - 4. So much that I consider myself an expert (I access the site everyday)
- 7. In my hometown and/or school I had a lot of contact with many races and ethnic

1. 2.	 Very little or none (there were virtually no people of color) A small amount (there was a small percentage of people of color) 					
	3. A lot (around half my school or town had diverse people)					
4.	4. So much that Whites were in the minority					
8. I have participated in an online forum for educational purposes for at least one semester. 1. Yes 2. No						
	9. Taken from the 2010 Census, please answer this question on your race (you can choose more than one category):					
\square Whi	□ White □ Filipino □ Guanamanian					
□ Bla	☐ Black or African American ☐ Japanese ☐ Samoan					
□ Am	☐ American Indian or Alaska Native ☐ Korean ☐ Other Asian					

☐ Vietnamese

☐ Native Hawaiian

☐ Other Pacific

Islander

 \square Some other race

groups.

☐ Asian Indian

 \Box Chinese

Appendix D: Teacher Multicultural Attitude Survey (TMAS)

Please respond to all items in the survey. Remember, there are no right or wrong answers. The survey is anonymous; do not put your name on the survey.

1	2	3	4	5
Strongly	Disagree	Uncertain	Agree	Strongly
Disagree			_	Agree

TMAS

- 1. I would find teaching a culturally diverse student group rewarding.
- 2. Teaching methods need to be adapted to meet the needs of a culturally diverse student group.
- 3. Sometimes I think there is too much emphasis placed on multicultural awareness and training for teachers.
- 4. Teachers have the responsibility to be aware of their students' cultural backgrounds
- 5. I plan to frequently invite extended family members (e.g. cousins, grandparents, godparents, etc.) to attend parent teacher conferences.
- 6. It is not the teacher's responsibility to encourage pride in one's culture.
- 7. As classrooms become more culturally diverse the teacher's job becomes increasingly challenging.
- 8. I believe the teacher's role needs to be redefined to address the needs of students from culturally diverse backgrounds.
- 9. When dealing with bilingual students, some teachers may misinterpret different communication styles as behavior problems.
- 10. As classrooms become more culturally diverse, the teacher's job becomes increasingly rewarding.
- 11. I can learn a great deal from students with culturally different backgrounds.
- 12. Multicultural training for teachers is not necessary.
- 13. In order to be an effective teacher, one needs to be aware of cultural differences present in the classroom.
- 14. Multicultural awareness training will help me work more effectively with a diverse student population.
- 15. Students should learn to communicate in English only.
- 16. Today's curriculum gives undue importance to multiculturalism and diversity.
- 17. I plan to become aware of the diversity of cultural backgrounds of students in my classroom.
- 18. Regardless of the racial and ethnic makeup of my class, it is important for all students to be aware of multicultural diversity
- 19. Being multiculturally aware is not relevant for the subject I plan to teach.
- 20. Teaching students about cultural diversity will only create conflict in the classroom.
- 21. Do you have any thoughts or comments about this survey, or about the research topic?

Note. Copyright 1995 by Joseph G. Ponterotto et al. Used with permission

Appendix E: Pretest of Open-Ended Questions

In order to compare pretest and posttest scores, please write in the last 4 digits of your cell phone number. Your name will not be connected with these numbers and your responses will remain anonymous.

<u>Directions</u>. Following are open-ended questions. Please be honest, take your time, and write as much as you can; there are no right or wrong answers. Reminder: your instructor will not view these survey results.

- 1. What defines who you are? What describes you? What is it about you, your life, and your background that have shaped who you are today?
- 2. Please describe what you think are the top three most important or critical issues facing our educational system today.

How strongly do you "agree" or "disagree" with the following statements? Explain why.

- 3. I personally do not notice what race a person is.
- 4. If I am asked to describe a person, I would not or do not mention the person's race.
- 5. There is nothing I can do to prevent racism.
- 6. I do not discuss "touchy" racial issues.
- 7. I believe that White culture or Western civilization is the most highly developed, sophisticated culture to have ever existed on earth.
- 8. When a Black male stranger sits or stands next to me in a public place, I move away from him.
- 9. I believe that affirmative action programs should be used to give minorities opportunities.
- 10. For Martin Luther King's birthday, I attend or would voluntarily attend a commemorative event.
- 11. White culture and society must be restructured to eliminate racism and oppression.
- 12. I have voluntarily participated in activities to help me overcome my racism.
- 13. My Whiteness is an important part of who I am.

- 14. I speak up in a White group situation when I feel that a White person is being racist.
- 15. In what ways will the course's format (large/small group discussions, online discussion etc.) affect your willingness to share openly your ideas and insights on issues of race and culture?
- 16. How willing will you be to share your thoughts with your classmates about issues of diversity in education and society?
- 17. How willing will you be to listen to and value the thoughts of your classmates about issues of diversity in education and society?
- 18. Last question, do you have any thoughts or comments about this survey, or about the research topic?

Adapted with permission from Helms, J.E. (2008). A race is a nice thing to have: A guide to being a white person or understanding the white persons in your life (2nd ed.). Hanover, MA: Microtraining Associates.

Appendix F: Group 1 Syllabus

[identifying information redacted]

Class Day: Tuesday and Thursday

Class Time: Tuesday 12:30 and Thursday 9:30

School of Education Mission Statement:

The School of Education is committed to creating a better tomorrow by preparing students to be knowledgeable, reflective leaders, responsive to the needs of a diverse society.

Required Texts:

Ryan, K and Cooper, J. (2010). *Those Who Can, Teach*. Houghton Mifflin Co. Ryan, K and Cooper, J. (2004). *Kaleidoscope: Readings in Education (10/e)*. Houghton Mifflin Co.

• Supplemental Readings as assigned.

Course Description:

This course gives students an overview of American education through analysis of its historical and philosophical roots. Contemporary issues in American education are emphasized. Non-education majors may use this course as a social science elective.

Course Objectives:

The learner will...

- develop an understanding of the philosophy and history that have shaped education in the United States.
- identify practices that create a positive learning climate and that show awareness of potential classroom issues.
- develop an understanding of prevalent legal, ethical, social, and moral issues in education through a critical examination of multiple perspectives.
- understand the role of teacher in today's schools.
- begin to understand and develop cultural competence (awareness, knowledge, and skills)
- develop the habits of reflective practice.
- Access resources to enhance his/her understanding of educational issues and support professional growth.

These objectives will be accomplished through a variety of teaching strategies: class lectures and discussions; online collaboration and discussion, small group activities (including: role playing, simulations, case studies, website activities, etc.); individualized instruction; reading of required texts/materials; student presentations; reflective activities and the completion of all formative assessment assignments and exams.

COURSE EVALUATION CRITERIA:

Homework and attendance	10%
Participation in class	10%
2 short summary & analysis papers	15%
Midterm Exam	10%
Completion of 10 hours field experience, Journal &	15%
reflection on your experience	
Educational Philosophy Statement with defense	20%
Final exam with Final Analysis and Reflection	20%
(includes web research)	
Total	100%

ASSIGNMENTS AND EVALUATION CRITERIA

- 1. Homework and attendance in class are essential. It is expected that you will read critically, take notes, complete homework, and prepare questions for discussion related to the readings prior to class. (10% of grade.)
- 2. Participation is required in class. You will be asked to View, Read, Construct and Participate in class discussions that include a focus on developing your cultural awareness, knowledge and skills as a future educator. (10% of grade.)
- 3. Article Synopsis and Review: In addition to regular required readings, you will write a 2-3 page synopsis and review on two articles. Include at least a paragraph that provides an overview of the content of the chapter/article, followed by an analysis of key issues or discussion points. (15% of grade.) *See posted rubric for grading criteria*.
- 4. Midterm Exam. This test will be a mix of short answer and writing demonstrating knowledge of concepts, issues, and vocabulary from the assigned reading. Course will be tested here. (10% of grade.)
- 5. Journal Reflection and notes on Field Experience (10 hours required) (15% of grade, *see description of task and rubric.*)
- 6. Critical Task Educational Philosophy Statement with defense. Your educational philosophy should include excerpts from you own educational experiences, your classroom exposure this term (journal entries should be considered), and elements of an effective instructional environment from which you would establish your classroom culture. During your preparation of this 4-5 page paper consider the following statements I believe..., I admire..., Full draft process is expected. This is your critical task and will be submitted to Chalk&Wire for assessment. *A rubric for this task will be presented in class.* (20% of grade.)
- 7. Final Exam with Final Analysis and Web Research (will be explained in class). This will be an assessment of course content/objectives. (20% of grade.)

COURSE REQUIREMENTS:

<u>Field Experience</u>: This course requires approximately 10 hours of field experience. Several options for fulfilling this requirement will be presented in class.

<u>Writing:</u> This is a writing intensive course. All work submitted must be exemplary in quality and clarity and must conform to recognized standards. We will discuss MLA and APA and their requirements for our purposes.

All students will utilize "Turn It In" as required for various assignments.

COMPLIANCE STATEMENT FOR ELECTRONIC PORTFOLIOS:

In order meet compliance for accreditation purposes, education students enrolled in an EDU/DEV/SPED/RDG class where a critical task has been identified on their syllabus must upload said task in the appropriate Table of Contents (TOC) location in their Education ePortfolio in Chalk and Wire. Education students enrolled in a class (EDU/DEV/SPED/RDG or other class) where a critical task has not been identified on the syllabus <u>must</u> store all graded work in the Artifact Library of their Education ePortfolio in Chalk and Wire (for assessment at a later date).

COURSE POLICIES

Attendance Policy

It is expected that because students have registered for this course, they agree to attend class according to scheduled dates and times. Students are expected to attend all classes every week. If illness or any other circumstance prevents attendance, students are asked to contact the instructor prior to class through the professor's email. Excused absences include documented illness, family emergency or religious observances that are not university holidays. Absence on the day an assignment is due will not be excused and will result in a loss of grade. Please arrive to class on time. Late arrivals disrupt the entire class and are unacceptable. Two unexcused late arrivals will count as one absence.

Early and Varied Field Experience (EVFE)

The School of Education believes that the theories and methods discussed in the college classroom are best understood in concert with practical experiences. The State or New Hampshire requires that students participate in early and varied field experiences. Therefore, participation in applied learning situations is a required component of many DEV, EDU, and SPED courses. Students seeking certification will be evaluated to confirm that they have met all field experience standards upon applying to student teaching. (We will discuss options in class). Cell phones must be turned off during class.

Grading Scale

93-100 points	A
90-92	
86-89	B+
83-85	В
80-82	В-

76-79	C+
70-72	C-
66-69	D+
60-65	D
<60	F

WEEKLY READINGS/ASSIGNMENTS/ASSESSMENTS.

Week	Торіс	Assignments Due at the start of class:
ONE Sept. 6	Welcome to the world of facilitating learning! i.e. teaching	
Sept. 8	A Place Called School	DUE: Chapter 1
TWO Sept. 13	Schools and Schooling ~Guest: Prof. Rogers – Research Project [Pre-Test Qualtrics]	DUE: One page short auto biography and Recall an early memory of school. Be prepared share and
Sept. 15	The Teaching Profession	hand in. DUE: Chapter 2
THREE Sept. 20	Cultural Pluralism ~Watch: Ethnocentrism Video: http://www.youtube.com/watch?v=zSJFBeVFta & ~Harvard Race Project What were your results on the Harvard Project? Do you think it was accurate or not? Why? What implications does racism have for future educators/for yourself? Discuss: What defines who you are? What is your cultural identity?	DUE: Chapter 3 Construct: a visual page that represents who you are as a cultural being. Be creative. Suggestions include using images (photo, video). Take advantage of free web 2.0 tools such as MovieMaker, Prezi, voicethread, etc. Due 9/29

TENTATIVE COURSE SCHEDULE**any changes will be announced ahead of time in class.

Sept. 22	Sources of Student Diversity	
1	~Field observations/options will be discussed	Due: McIntosh, P. (1990) White privilege: Unpacking the invisible knapsack.
FOUR		
Sept. 27	Culture, Gender, Diverse abilities	DUE: Reading
Sept. 29	The achievement gap	DUE: Reading
FIVE		
Oct. 4	Social Problems that Affect Today's Students	DUE: Chapter 4
Oct. 6	The Power of Curriculum and Standards	Read: NH Professional Educator Standards
SIX		
Oct. 11	Curriculum and Standards Watch The Levels of Multicultural Education video:	DUE: Chapter 5 Construct: A lesson
	http://www.youtube.com/watch?v=NIvmbFKIX vE&feature=player_embedded	idea that is culturally responsive
	Discuss: How are issues of race relevant in the classroom? How do schools foster educational equity/inequity and justice/injustice?	
	Influences on the Content of Schooling	
Oct. 13		
		Due: Nieto, S. (2005) Public Education in the 20 th century
SEVEN		
Oct. 18	Teacher as Facilitator of Learning	DUE: Chapter 6
Oct. 20	Midterm exam	
EIGHT		
Oct. 25	Implications of Technology for 21 st c. Learning	DUE: Chapter 7
Oct. 27	Working Session on Statement of Philosophy	Due: Educational Philosophy Statement rough draft

NINE		
Nov. 1	Technology and Learning for all Students ~Watch Developing Cultural Competency Video: http://www.youtube.com/watch?v=wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ http://www.youtube.com/watch?v=wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ http://www.youtube.com/watch?v=wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ http://wdf.ado.com/watch?v=wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ wd6ksEx3rZ	

Dec. 10	So you still want to be a teacher	DUE: Readings in Kaleidoscope
FIFTEEN Dec. 15	Review Session for Final [Last day of classes = 12/16/11]	DUE: Chapter 15
SIXTEEN	Finals 12/17/11-12/22/11	Final Exam Block

Appendix G: Group 2 Syllabus

[identifying information redacted]

Class Time: 12:30-1:45

Class Day: Wednesday and Friday

School of Education Mission Statement:

The School of Education is committed to creating a better tomorrow by preparing students to be knowledgeable, reflective leaders, responsive to the needs of a diverse society.

Required Texts:

Ryan, K and Cooper, J. (2010). *Those Who Can, Teach*. Houghton Mifflin Co. Ryan, K and Cooper, J. (2004). *Kaleidoscope: Readings in Education (10/e)*. Houghton Mifflin Co.

Supplemental Readings as assigned.

Course Description:

This course gives students an overview of American education through analysis of its historical and philosophical roots. Contemporary issues in American education are emphasized. Non-education majors may use this course as a social science elective.

Course Objectives:

The learner will...

- develop an understanding of the philosophy and history that have shaped education in the United States.
- identify practices that create a positive learning climate and that show awareness of potential classroom issues.
- develop an understanding of prevalent legal, ethical, social, and moral issues in education through a critical examination of multiple perspectives.
- understand the role of teacher in today's schools.
- begin to understand and develop cultural competence (awareness, knowledge, and skills)
- develop the habits of reflective practice.
- Access resources to enhance his/her understanding of educational issues and support professional growth.

These objectives will be accomplished through a variety of teaching strategies: class lectures and discussions; online collaboration and discussion, small group activities (including: role playing, simulations, case studies, website activities, etc.); individualized instruction; reading of required texts/materials; student presentations; reflective activities and the completion of all formative assessment assignments and exams.

COURSE EVALUATION CRITERIA:

Homework and attendance	10%
Participation in class and online	10%
2 short summary & analysis papers	15%
Midterm Exam	10%
Completion of 10 hours field experience, Journal &	15%
reflection on your experience	
Educational Philosophy Statement with defense	20%
Final exam with Final Analysis and Reflection	20%
(includes web research)	
Total	100%

ASSIGNMENTS AND EVALUATION CRITERIA

- 1. Homework and attendance in class are essential. It is expected that you will read critically, take notes, complete homework, and prepare questions for discussion related to the readings prior to class. (10% of grade.)
- 2. Participation is required in class and in our Online Community Network. You will be asked to View, Read, Construct and Participate in three online modules that focus on developing your cultural awareness, knowledge and skills as a future educator. You will be asked become part of our Ning community by posting assignments and engaging in online conversation with other members of the class during each Forum. See the weekly schedule for details. For participation guidelines see the Rubric for participation in an Online Community Supplement below. (10% of grade.)
- 3. Article Synopsis and Review: In addition to regular required readings, you will write a 2-3 page synopsis and review on two articles. Include at least a paragraph that provides an overview of the content of the chapter/article, followed by an analysis of key issues or discussion points. (15% of grade.) See posted rubric for grading criteria.
- 4. Midterm Exam. This test will be a mix of short answer and writing demonstrating knowledge of concepts, issues, and vocabulary from the assigned reading. Course will be tested here. (10% of grade.)
- 5. Journal Reflection and notes on Field Experience (10 hours required) (15% of grade, *see description of task and rubric.*)
- 6. Critical Task Educational Philosophy Statement with defense. Your educational philosophy should include excerpts from you own educational experiences, your classroom exposure this term (journal entries should be considered), and elements of an effective instructional environment from which you would establish your classroom culture. During your preparation of this 4-5 page paper consider the following statements I believe..., I admire..., Full draft process is expected. This is your critical task and will be submitted to Chalk & Wire for assessment. *A rubric for this task will be presented in class.* (20% of grade.)

7. Final Exam with Final Analysis and Web Research (will be explained in class). This will be an assessment of course content/objectives. (20% of grade.)

COURSE REQUIREMENTS:

<u>Field Experience:</u> This course requires approximately 10 hours of field experience. Several options for fulfilling this requirement will be presented in class.

<u>Writing:</u> This is a writing intensive course. All work submitted must be exemplary in quality and clarity and must conform to recognized standards. We will discuss MLA and APA and their requirements for our purposes.

All students will utilize "Turn It In" as required for various assignments.

Ning Educational Social Network Community:

Participation in our Ning community is a required part of this course. You will post assignments and reflections on three forums related to cultural awareness, knowledge, and skills. Interaction and involvement with your classmates through feedback is an essential part of this experience.

COMPLIANCE STATEMENT FOR ELECTRONIC PORTFOLIOS:

In order meet compliance for accreditation purposes, education students enrolled in an EDU/DEV/SPED/RDG class where a critical task has been identified on their syllabus must upload said task in the appropriate Table of Contents (TOC) location in their Education ePortfolio in Chalk and Wire. Education students enrolled in a class (EDU/DEV/SPED/RDG or other class) where a critical task has not been identified on the syllabus *must* store all graded work in the Artifact Library of their Education ePortfolio in Chalk and Wire (for assessment at a later date).

COURSE POLICIES

Attendance Policy

It is expected that because students have registered for this course, they agree to attend class according to scheduled dates and times. Students are expected to attend all classes every week. If illness or any other circumstance prevents attendance, students are asked to contact the instructor prior to class through the professor's email. Excused absences include documented illness, family emergency or religious observances that are not university holidays. Absence on the day an assignment is due will not be excused and will result in a loss of grade. Please arrive to class on time. Late arrivals disrupt the entire class and are unacceptable. Two unexcused late arrivals will count as one absence.

Early and Varied Field Experience (EVFE)

The School of Education believes that the theories and methods discussed in the college classroom are best understood in concert with practical experiences. The State or New Hampshire requires that students participate in early and varied field

experiences. Therefore, participation in applied learning situations is a required component of many DEV, EDU, and SPED courses. Students seeking certification will be evaluated to confirm that they have met all field experience standards upon applying to student teaching. (We will discuss options in class). Cell phones must be turned off during class.

Grading Scale

93-100 points	A
90-92	A-
86-89	B+
83-85	В
80-82	В-
76-79	C+
70-72	C-
66-69	D+
60-65	D
<60	F

TENTATIVE COURSE SCHEDULE*

WEEKLY READINGS/ASSIGNMENTS/ASSESSMENTS.

Week	Topic	Assignments Due at the start of class:
ONE		
Sept. 7	Welcome to the world of facilitating learning! i.e. teaching	
Sept. 9	A Place Called School	DUE: Chapter 1
TWO		
Sept. 14	Schools and Schooling ~Guest: Prof. Rogers – Research Project [Pre-Test Qualtrics]	DUE: One page short auto biography and Recall an early memory of school. Be prepared share and
Sept. 16	The Teaching Profession	hand in. DUE: Chapter 2
THREE		
Sept. 21	Cultural Pluralism	DUE: Chapter 3

^{*}any changes will be announced ahead of time in class.

Sept. 23	~Introduce Ning Community ~Watch: Ethnocentrism Video: http://www.youtube.com/watch?v=zSJFBeVFta k ~Harvard Race Project What were your results on the Harvard Project? Do you think it was accurate or not? Why? What implications does racism have for future educators/for yourself? Sources of Student Diversity ~Field observations/options will be discussed	Ning (9/22-10/7) Module 1: Who Am I? Construct: a profile page that represents who you are as a cultural being. Be creative. Suggestions include using images (photo, video). Take advantage of free web 2.0 tools such as MovieMaker, Prezi, voicethread, etc. Due 9/29
		Due: McIntosh, P. (1990) White privilege: Unpacking the invisible knapsack. Participate (9/22-10/8) Post an initial response by 9/29 and reply to 3 peers by 10/8: Blog: Q – What defines who you are? What is your cultural identity?
FOUR Sept. 28 Sept. 30	Culture, Gender, Diverse abilities The Achievement Gap	DUE: Readings in Kaleidoscope DUE: Readings in Kaleidoscope
FIVE Oct. 5	Social Problems that Affect Today's Students	DUE: Chapter 4
Oct. 7	The Power of Curriculum and Standards	Read: NH Professional Educator Standards
SIX Oct. 12	Curriculum and Standards ~Watch The Levels of Multicultural Education video: http://www.youtube.com/watch?v=NIvmbFKIX	DUE: Chapter 5 Ning (10/13-10/28) Module 2: Multiculturalism

	vE&feature=player_embedded	Construct: A lesson
		idea that is culturally
Oct. 14	Influences on the Content of Schooling	responsive
		Due: Nieto, S. (2005) Public Education in the 20 th century Participate: Post an initial response by 10/22 and reply to 3 peers by 10/29 Blog Q- How are issues of race relevant in the classroom? How do schools foster educational equity/inequity and justice/injustice?
SEVEN		DVE CI (
Oct. 19	Teacher as Facilitator of Learning	DUE: Chapter 6
Oct. 21	Midterm exam	
EIGHT		
Oct. 26	The Implications of Technology for 21 st c. Learning	DUE: Chapter 7
Oct. 28	Working Session on Statement of Philosophy	Due: Educational Philosophy Statement rough draft
NINE Nov. 2	Technology and learning for all students	DUE: Langelier, C.
1,0,1,2	~Watch Developing Cultural Competency Video: http://www.youtube.com/watch?v=wd6ksEx3rZ w	(2006) Culturally Competent Professor and Ford, D. (2005) Welcoming All Students to Room 202
Nov. 4	Current Reform Movements	Ning (11/3-11/18) Module 3: Cultural Competence Construct Universe of

		Obligation Participate: Post an initial response by 11/12 and reply to 3 peers by 11/19 Blog Q- What are the characteristics of culturally competent person? What does that look like in the classroom? What role do educators play in creating an equitable society?
TEN Nov. 9	Philosophical Foundations of American Education ~Phil of Ed Self Inventory	Due: Chapter 9
Nov. 11	Present Article analysis and discussion	DUE: Article Analysis #1
ELEVEN Nov. 16 Nov. 18	Ethical and Legal Issues Facing Teachers Peer Edit on Philosophy of Education ~[Post-test Qualtrics]	Due: Chapter 8 and p.298 in (Kaleidoscope) Due: Educational Philosophy Statement draft
TWELVE Thanksgiving		
THIRTEEN Nov. 30	History of American Education	Due: Chap. 10
Dec. 2	Present Article analysis and discussion ~Review parameters Final	DUE: Article Analysis #2
FOURTEEN Dec. 9	Chalk and Wire Training Session ~upload Philosophy of Education ~Present philosophies	DUE: Philosophy of Education

Dec. 11	So you still want to be a teacher	DUE: Readings in Kaleidoscope
FIFTEEN Dec. 16	Review Session for Final [Last day of classes = 12/16/11]	DUE: Chapter 15
SIXTEEN	Finals 12/17/11-12/22/11	Final Exam Block

Rubric for participation in Online Community Supplement

This class will be using a Ning social network community to extend class discussions and promote community interaction. Participation in the online community discussions includes regularly logging in and actively engaging in the three modules outlined on the syllabus.

Frequency of Blog Postings – Students will be required to submit at a minimum 3 postings per forum. Students will be required to submit at least **one initial post** and a minimum of **two responses** per forum on at least three separate days. Posting three times in one day per forum is not an acceptable frequency. The quality of participation and learning increases when postings are spread out over the course of the forum. Forums run for 2-3 weeks. This method of posting provides a greater ability to synthesize other perspectives, demonstrate and increase student listening skills, and contribute more fully to an evolving discussion.

REQUIRE-	No Entry	Poor Quality	Good Quality	High Quality
MENTS				
Initial Post	No Entry	Entry included	Entry included	Entry fully
	was	minimal ideas to	developed ideas	develops ideas
	submitted	support the prompt.	about the prompt,	about the prompt
			but did not fully	that advances
		Entry was written in	address the	discussion about
		a confusing manner	concepts.	the topic.
		and contained many		
		mechanical errors; it	Entry was written	Entry was
		may not be the	with minor clarity	written in a clear
		required length.	or mechanic errors;	and organized
			it is the required	manner; it is the
			length.	required length.
		If required:	If required:	Entry articulates
		Entry was not	Entry provided at	an individual

		supported by specific examples from the assigned reading.	least one specific example from the assigned reading. There may be some citation errors.	perspective. If required: Entry was well-supported by multiple examples from the assigned reading. Entry cites references and quotes effectively.
Responses	Student does not respond to peers' entries.	Student posts shallow contribution to discussion. Student uses "I agree" or "I disagree" with minimal to no elaboration. Student does not enrich discussion.	Student elaborates on a peer's posting with further comment or observation; does not attempt to synthesize multiple postings.	Student demonstrates thoughtful analysis of two others' posts; extends meaningful discussion by building on previous posts.
Timing of Initial Post	No Posting	Posting was made after the deadline, but student was still able to engage in the Forum	Posting was made before the deadline	
Timing of Response(s)	No response	At least one response was posted before the deadline	Both responses were made before the deadline	
	0	1	2	3

Examples of postings that demonstrate higher levels of thinking:

- "I can generalize the author's conclusions by applying them to my *Who Am I* project..." (application)
- "Connections between the reading and the idea of cultural competence are...."

 (analysis)

- "This passage from the text connects to our class discussion in that...." (synthesis)
- "There seems to be a discrepancy between what the author stated and his findings that leads me to believe ..." (evaluation)

Examples of what to avoid:

- Avoid making all posts in the same day. Students should spread out their postings so that they may reflect on and synthesize other perspectives, respond to points made, and contribute to an evolving discussion.
- Avoid excessive "I agree" responses that do not explain your position.
- Lack of respect for divergent opinions. Please show the respect you want bestowed on you. Our community will function smoothly if everyone follows netiquette.
- Off-topic comments. Going off on a tangent is healthy at times, but try to be mindful of the discussion at hand.

Appendix H: Posttest of Open-Ended Questions

In order to compare pretest and posttest scores, please write in the last 4 digits of your cell phone number. Your name will not be connected with these numbers and your responses will remain anonymous.

<u>Directions</u>. Following are open-ended questions. Please be honest, take your time, and write as much as you can; there are no right or wrong answers. Reminder: your instructor will not view these survey results.

- 1. What defines who you are? What describes you? What is it about you, your life, and your background that have shaped who you are today?
- 2. Please describe what you think are the top three most important or critical issues facing our educational system today.

How strongly do you "agree" or "disagree" with the following statements? Explain why.

- 3. I personally do not notice what race a person is.
- 4. If I am asked to describe a person, I would not or do not mention the person's race.
- 5. There is nothing I can do to prevent racism.
- 6. I do not discuss "touchy" racial issues.
- 7. I believe that White culture or Western civilization is the most highly developed, sophisticated culture to have ever existed on earth.
- 8. When a Black male stranger sits or stands next to me in a public place, I move away from him.
- 9. I believe that affirmative action programs should be used to give minorities opportunities.
- 10. For Martin Luther King's birthday, I attend or would voluntarily attend a commemorative event.
- 11. White culture and society must be restructured to eliminate racism and oppression.
- 12. I have voluntarily participated in activities to help me overcome my racism.
- 13. My Whiteness is an important part of who I am.
- 14. I speak up in a White group situation when I feel that a White person is being

racist.

- 15. In what ways did the course's format (large/small group discussions, online discussion etc.) affect your willingness to share openly your ideas and insights on issues of race and culture?
- 16. How willing were you to share your thoughts with your classmates about issues of diversity in education and society?
- 17. How willing were you to listen to and value the thoughts of your classmates about issues of diversity in education and society?
- 18. Last question, do you have any thoughts or comments about this survey, or about the research topic?

Appendix I: Instructor Interview Questions

- 1. What issues related to multicultural education or multiculturalism were present in your course prior to your involvement in this case study?
- 2. Why were you interested in participating in this project?
- 3. What were the class conversations like in the face-to-face setting for the three modules of diversity instruction?
- 4. What were the class conversations like in the face-to-face setting for the three modules of diversity instruction in the class with blended instruction?
- 5. Did students talk about the online component in class?
- 6. What changes, if any, would you make as the professor if you were to replicate this work? Why?

Appendix J: Protocol for Instructor's Journal

Date:
Class:
Topic of Class/Discussion:
Observation of Discussion:
Student quotes of interest:
Student behavior of interest:
Indicators of awareness, knowledge, skills:

Appendix K: Participant Interview Protocol

Interview with Participants

Opening:

In my research project I am interested in the experiences and attitudes of preservice teacher candidates. My focus is on students in an introductory education course. I am particularly interested in how candidates responded to multicultural awareness, knowledge, and skills. Interview questions will focus on issues of race, culture, and your attitudes about diversity. If you feel uncomfortable at any time, just tell me and I'll move on.

Your responses are confidential and will only be used for purposes of my own research. Your identity will be anonymous.

The purpose of my research is to improve the courses that prepare future teachers. Your complete answers will help to make my research clear, precise, and helpful to students as future teachers.

Your participation is voluntary. In order to accurately transcribe the interview, do I have your permission to record the interview? (If yes, turn it on. If no, continue and take copious notes).

Are you ready to begin?

Demographics:

- 1. Where did you grow up?
 - a. How would you describe the demographics of the city in which you grew up?
 - b. How about your high school? What were the demographics?
 - c. Are this university's students more diverse than your home town?
- 2. Have you had multicultural training in the past?
- 3. What's your major?

Probes:

- 4. What are the ways you would describe what you learned in EDU 200 this semester?
 - a. What specific knowledge, skills, understanding or awareness were an outcome of the course?
- 5. Which of the readings, videos or exercises influenced what you learned?
 - a. In what way?
- 6. Describe what class discussions were like on issues of White privilege and implicit racism.
- 7. What was it like to examine your "Whiteness" during the course?
 - a. How does your personality/characteristics influence the way you view the issue of race and diversity?

- 8. Were there other class discussions on issues of race and diversity that you remember?
 - a. What were the actual ideas shared?
 - b. How did these discussions make you feel? Describe your participation in these discussions.
 - c. If they use "comfortable" or "open": What does being "comfortable" or "open" mean to you?
- 9. What were the changes if any that occurred in your beliefs from the time of the pretest to posttest? For example, did your answers to questions 1 and 2 about "who am I" and top educational issues, change?
 - a. If yes, why do you think you changed some of your answers?
- 10. Did this course change the way you think or what you believe in other ways?
 - d. If yes, in what ways?
 - e. If no, why do you think that is?
- 11. Describe your interaction with your peers in the class.
 - f. What role did that interaction play in your learning and thinking?
 - g. (Group 1) Did you do the Db Forums at the end? How was it different from face-to-face?
- 12. Describe the format of the class and how it affected your thoughts and/or participation.
- 13. In your opinion, how does multicultural awareness, knowledge, and skills relate to becoming a teacher?
 - a. What do you think preparation programs/faculty should do to promote multicultural awareness, knowledge, and skills?
 - b. What would you do, having had this experience?
- 14. What does becoming "culturally competent" mean to you?

For Group 2 (Social Network) participants if Ning did not come up add:

- 15. What was it like to be a part of the class Ning site?
- 16. What role if any did participating in the Ning community play in your willingness to share openly your thoughts on issues of diversity?
- 17. What role if any did participating in the Ning community play in your learning this semester?
- 18. What parts of participating in the online community had the most impact on you?
 - a. What are the other ways that participating in the online community affected you?
- 19. Do you think you would participate in an educational social network in the future (i.e. during student teaching?)
- 20. What are the ways participating in the Ning community is different from other assignments in other course?

Closing:

Thank you for participating in this interview. May I contact you if I have any follow-up questions or require any further clarification for your answers?

Appendix L: Sources for Participant Quotes

The pretest and posttest survey data was anonymous. Each participant had a unique identifier so results could be compared from the pretest to the posttest. Below is the legend of participants for Group 1 and Group 2. Each participant is represented.

Gender and TMAS difference score is provided.

Legend of Participants

Group 1:	Gender	TMAS
Traditional		Difference
		Score
1A	F	1
1B	M	-2
1C	F	10
1D	F	-5 3 -4
1E	M	3
1F	F	-4
1G	M	12
1H	F	-4
1I	F	4
1J	F	1
1K	F	3
1L	F	2
1M	F	4
1N	F	3 2 4 3 -2
10	M	-2
1P	F	10
1Q	F	-4
1R	F	3
1S	F	7

Group 2:	Gender	TMAS
Social Social	Gender	Difference
Network		Score
2A	F	
2B	M	-4 -5
2C	F	4
2D	F	6
2E	F	-1
	F	
2F		7
2G	F	3 2 5
2H	F	2
2I	F	5
2J	F	13
2K	F	8
2L	F	8
2M	F	0
2N	M	-7
20	F	10
2P	F	7
2Q	F	7
2R	M	1
2S	F	17
2T	F	14
2U	F	12
2V	M	-1
2W	F	4

Throughout the text, starting on page 61, the participant source for all direct quotes from the anonymous survey data is provided in the chart below.

Sources of Quotes

Page #	Quote or statement	Participant	Data
Č		Source	Source
61	"Everyone is going to notice; every race looks a certain way and you definitely notice that"	1G	Pretest
61	"I believe you will always notice what race they are"	1K	Pretest
61	I disagree strongly with this statement. When you see a	2E	Pretest
	person, you obviously know what race they are. People may say that they do not notice, but I believe everyone notices.		
74	"The things that help define me are family, friends, and the way I have been brought up throughout my childhood"	1M	Pretest
74	My parents and my family is the most important thing in my life	1L	Pretest
74	I would not be the person I am today without my parents, family, and friends guidance and support over my elementary and high school years	1N	Pretest
74	My family and friends have shaped me into the person I am today	2K	Pretest
74	"My personality describes me the best. I have a fun personality and I know when I need to be serious and in control;"	2E	Pretest
74	My personality defines who I am on the inside and on the outside;"	2M	Pretest
74	Some things that define me are my personality, how friendly I am, and how comfortable I am meeting new people."	1P	Pretest
74	Divorced parents	1K, 1O, 1D, 2P	Pretest
74	Death	1A, 2L, 2U	Pretest
74	Sibling with Special Needs	1L, 2V	Pretest
74	Struggles in school	1P, 1L, 1H	Pretest
74-75	"My background has definitely shaped who I am today. My dad had cancer for most of my childhood so I spent a lot of time in and out of the hospital to visit him and be with him. I wouldn't consider myself to have had a normal childhood. I had to realize at a young age to be very appreciative for everything you have because one day it could be gone."	1F	Pretest
75	"My extracurricular activities and sports defined who I was in high school, and I hope to continue that same philosophy in college. I have participated in various activities, including basketball, softball and soccer, student council president, class vice president and secretary, world language club, key club, SADD, and many more activities. In college, I have signed up for the soccer club, CAPE, Human and Animal rights, I am running for the student government, I am actively involved in Zumba, and many more."	1N	Pretest
76	"I like to think of myself as a culturally competent	1N	Posttest

		1	<u> </u>
	individual that likes to learn and do everything to the best		
	of my abilitythis course has helped me better understand		
	what it means to be culturally competent and I feel much		
	more comfortable working with people that have		
	differences."	47.007	
77	"lack of diversity"	1E, 2M	Pretest
77	"Cultural diversity inside and outside of the classroom."	2M	Pretest
77	Low Teacher Quality	10, 2V	Pretest
77	Questionable Disposition	1S, 1M, 2D	Pretest
77	Lack of Differentiated Pedagogy	1R, 1S, 1F,	Pretest
77	T	2B	D ()
77	Low expectations	1P	Pretest
77	Lack of Knowledge of Special Education	1A, 1E, 1H, 1L, 2L	Pretest
77	"Teachers who don't care about their students"	2D	Pretest
77	"Teachers who just lecture."	2B	Pretest
77	Lack of respect for teachers	2A	Pretest
77	Class size	1H, 1J, 2M	Pretest
77	Low Teacher Pay	1G, 2J, 2M	Pretest
77	"hands on" curriculum	1R, 2N	Pretest
77	relevant curriculum	1F, 2U	Pretest
77-78	"I find one issue to be the lecturing and less hands-on	1R	Pretest
77 70	activities for certain learners. Some students need different	TIC .	Tretest
	types of teaching to grasp some concepts and actually		
	retain information or ideas. Another is the lack of		
	technology being used; kids need to learn with 'real-world'		
	technology so they are more aware of everything outside of		
	the classroom."		
78	Bullying	1A, 1C, 1D,	Pretest
	, ,	1N, 2H	
78	Special Education	1A, 1E, 1H,	Pretest
	•	1L, 2D, 2L	
78	budget cuts	1H, 2O, 2S,	Pretest
		2Q, 2R, 2V,	
		2N	
78	School building itself	10, 1L	Pretest
78	accountability systems for the teachers and students (e.g.	1A, 1G, 1M,	Pretest
	NCLB)	1D, 2C, 2O,	
		2R, 2G, 2I,	
		2Q	
78	unions	2R, 2V, 2A,	Pretest
		2F, 2G	
78	state of the economy	2K	Pretest
79	"I think the biggest issue is becoming culturally competent	1N	Posttest
	and moving away from the issues of racism is the biggest		
	thing we need to work on."		
79	"I think discrimination is a big one. When someone is a	2P	Posttest
	different race, has a disability, or is gay people tend to treat		
	them differently. Some teachers will not try as hard with a		
	student of color because of the stereotype that they aren't		

		1	1
	smart or a teacher may not try as hard with an Asian		
0.0	student because they are stereotyped at very smart."	1D	D 44 4
80	"The lack of understanding that cultural differences can	1P	Posttest
80	make a difference in how students learn is an issue." "Educating all kids no matter what their background to the	1G	Posttest
80	fullest extent."	IG	Positest
80	"safe"	1N	Posttest
80	"comfortable"	1Q	Posttest
80	"The first [important issue] is teachers understanding students. I don't think there are enough teachers that understand and can relate to their students, to the point where the students feel 100% comfortable around their teachers. I also think teachers who are teaching in multicultural classrooms need to find an effective way to teach their students."	1Q	Posttest
80-81	"Also, the teacher. I say this because it's [up to] the teachers to make a sense of community within the classroom. The teacher needs to be able to be unbiased and care for each student equally. It is sad to see teachers who don't pay attention to a Black student or will give only attention to the female. Or the rare cases when the teacher is very inappropriate. The teacher needs to be someone the students can trust."	2P	Posttest
81	"What to teach and who decides"	1F	Posttest
82	People always notice race, it is obvious	1S, 1K, 1C, 1G, 1H, 1L, 2B, 2D, 2E, 2H, 2N, 2Q, 2T	Pretest
82	"Of course I notice a person's race. When you look at someone you know whether they are White, Black, Asian etc. It's not bad to notice race;"	1H	Pretest
82	Strongly disagree. The only person who does not notice would be someone who is blind. Everyone notices if someone is a different race than them. What it comes down to is how they view that person or how quick they are to judge that person.	2N	Pretest
82	"Everyone is a human being no matter what color their skin is."	1J	Pretest
82	"We are all equal."	2F	Pretest
82-83	"When a person says they don't 'notice' what race a person is, to me it means they don't care whether what skin color they have, a person is a person. But most people would notice that another person looks different than you, it's in our nature to notice difference, but not in our nature to judge. I don't think it matters whether a person has 'Black', 'White', or even pink skin for that matter, each person may be different in their own way but they still deserve the same amount respect that you would expect to receive from them."	1M	Pretest

83	"I kind of agree with that statement. I will not lie when I	1F	Pretest
	first look at a person and they are of a different race than		
	me I will notice, but I will not treat them differently. A race		
	doesn't define who you are, it is the person inside of you		
	that defines who you are."		
83	"I agree with this statement, because race is such a small	2I	Pretest
	factor in today's world. What is more important, in my		
	opinion, is the personality that a person has. I could care		
	less if you're Black or White, if you're a total snot who is		
	mean to everyone. Race doesn't matter. Similarly, if you're		
	the nicest, sweetest, most considerate person I've ever met,		
	I don't even notice what race you are. Color doesn't mean		
	anything in today's world, because we were raised to look		
	past the color of someone's skin to reveal who they really		
	are as a person."		
84	"I would mention their race, just like I would mention there	1H	Pretest
	[sic] gender or hair color;"		
84	"There are times where I do use someone's race to describe	1F	Pretest
	them. I don't mean it in an offensive way; I just am		
	describing all their features to someone else to give them a		
	picture in their head of what this person looks like."		_
85	"do something"	1H, 1G, 2C, 2D, 2E, 2P	Pretest
85	"I disagree. Everyone and anyone can do something to	1H	Pretest
0.5	prevent racism even if it is just making people aware that	111	Tictest
	racism still exists or defending someone who is being		
	discriminated against."		
85	"Agree, because everyone has their own opinions, you can't	1C	Pretest
	stop them from the way they feel or think."		
85-86	"I agree. I could certainly protest against it, or enforce the	10	Pretest
	rules in a class room. However, racism occurs globally so I		
	could not prevent it all together, it is a worldwide		
	phenomenon and will unfortunately never be eradicated		
	completely."		
86	difficult issues "need" to be discussed	1L, 2C, 2U	Pretest
86	"I agree with this just because I wouldn't want to offend	1I	Pretest
	anyone."		
86	"I strongly disagree, when I am a teacher I plan on teaching	2L	Posttest
	diverse groups of students and making sure to teach my		
	students that we are all different, but the differences are		
	good. I hope to incorporate all cultures into my learning		
	environment, which will prevent my students from being		
	racist."		
87	"Disagree. What about the Mayan Indians? They were	1D	Pretest
	pretty awesome."		
87	"I disagree, however this is how our text books have	10	Pretest
	always taught us. They are all mostly from a very White,		
	American point of view so I wouldn't know what culture is		
	actually the most highly developed or sophisticated culture		
	to ever exist due to the fact that I haven't learned a lot about		

	other cultures."		
88	stranger danger	1C, 1K, 1N,	Pretest
		1R, 1S	
		2A, 2H, 2I,	
		2K, 2P	
88	"rude" act	1E, 1J, 1K,	Pretest
		1N, 1P	
		2M, 2E, 2F	
88	"Disagree. I do not even feel the need to explain this. Who would?"	2N	Pretest
89	"There are a lot of minorities that don't have opportunities, and that's not always their fault"	1S	Pretest
89	·	2J	Protect
89	"I agree because everyone deserves to have opportunities." White male firefighters recently being denied promotions		Pretest
		2Q	Pretest
90	"This holiday is not of great importance to me."	10	Pretest
90	"He helped change the world, it's the least I could do;"	2B	Pretest
91	"Yes. I agree. We need to relearn how to like people based	1J	Pretest
	on their personality or if they are just nice and generous.		
01	We need to stop racism."	10	Duotost
91	"I disagree. It is not only the White culture that deals with racism. The White culture may have more prevalent racism	10	Pretest
	issues however every society and race has racism towards		
	any type of ethnicity;"		
91-92	"I disagree. Why do you have to define it as White culture	2C	Pretest
71-72	and society? Why can't it be a universal culture and society	20	Tictest
	that takes charge in eliminating racism and oppression?"		
92	"I am not racist."	1C, 1F, 1J,	Pretest
22	Turn not ruest.	1B, 1N, 2G,	Tretest
		2L, 2U, 2W	
92	"I disagree with this statement because I feel that the	1P	Posttest
-	restriction of any culture or race is what leads to racism and		
	oppression. America practiced slavery and from that grew		
	racism towards blacks when they finally got equal rights		
	and were expected to be treated the same as whites.		
	Suppressing any culture or group of beings will only lead		
	to the hatred of others from that group being suppressed		
	and therefore a new spout of racism emerges."		
92-93	"I don't think it should be reconstructed, but rather it should	2V	Posttest
	be reconsidered. The question that should be asked is what		
	are the causes of inequality and what changes can we make		
	to eliminate racism and oppression."		
93	service learning experiences during the semester on campus	1Q, 2U	Posttest
	or work study jobs		
93	"I have not specifically participated in any voluntary	2V	Posttest
	activities, but I try to keep an open mind as I go through		
	school and life to help me learn more so I will be less		
	ethnocentric."		
94	"It doesn't make me who I am. I would rather someone	1I	Pretest
	describe me as a good person, or a caring person, or even a		
	dancer before they described me as 'White'."		

94	"Disagree. I don't see me as being "white."	2O	Pretest
94	"My Whiteness is a part of who I am. I wouldn't say it is	1F	Pretest
	important because it just gives you another descriptive		
	word to describe of how I look. Being White doesn't make		
	me who I am. Who I am on the inside is what makes me,		
	me."		
95	"Yes I actually do agree with this statement. If I was a	2E	Posttest
	different race, I believe my life would generally be a lot		
	different."		
96	"nervous" and "shy"	1B	Pretest
96	Prefer online	1O, 2I, 2K	Pretest
96-97	"If we do large group discussion, I might not speak up very	2K	Pretest
	much. If it was an online discussion, I would be more apt to		
	sharing more openly."		
97	"I felt very comfortable sharing my ideas and thoughts in	1N	Posttest
	our large group discussions because everyone in the class		
	was very open and we had great conversations."		
97	"Everyone was very comfortable with each other and was	2K	Posttest
	able to voice their opinions and that is really important. It		
	allowed everyone to see how their peers view the issues on		
	race and culture in the classroom and allow them to re-		
	evaluate how they feel about the situation."		
97	"Dr. Krasinski made the classroom a very comfortable	1S	Posttest
	environment so I feel that it made me more open to sharing		
	my ideas in front of my classmates."		
97-98	"Dr. Krasinski made the classroom a very comfortable	2H	Posttest
	environment so I feel that it made me more open to sharing		
	my ideas in front of my classmates."		
98	"I really like the discussion online because it's much easier	1S	Posttest
	to share your thoughts. Sometimes in a classroom, people		
	feel like they are being looked at or judged when they say		
	something, so it's easier to do it online."		
98-99	"When we were in the classroom it was somewhat harder	1I	Posttest
	for me to voice my opinion because I'm not the most		
	outgoing person. However, when we moved our discussion		
	to the online discussion board, it really helped me feel more		
	comfortable about expressing my opinions and challenging		
	others' opinions in a healthy way."		
99	"We also had some online discussions that also helped	1N	Posttest
	draw in the quiet people who didn't normally talk into the		
	discussions to also see their points of view."		
99	"It was easier to share my ideas online because it is easier	2N	Posttest
	to write than it is to talk because you can think about it		
	while you do it."		
99-	"I think it is easier for a wider variety or personality types	2Q	Posttest
100	and students to answer questions on Ning. It allows one to		
	say their full and true opinion without having everyone		
	concentrated right on them and it also allows everyone to		
	take in and really think about everyone else's opinions		
I	before it is time to move on to a new question/topic."		

100	"Personally in class I like to sit back and listen, but I think the website Ning has helped me a lot, with interacting with other students."	2F	Posttest
100	"comfortable" or "safe" environment with the Ning site	2G, 2I, 2Q	Posttest
100	"This class always gave me a very warm and welcoming feeling. I always felt comfortable getting up in front of the class to talk about my personal life because everyone seemed very accepting and willing to be part of this class. The Ning site was a great way to get to know about the others in my class and have interactions with them outside of our classroom."	2L	Posttest
100	"The online discussion and small class discussion allow me to share my ideas on race and culture in a safe environment. I know that if I don't want to mention something in class I can just post it online."	2G	Posttest
100- 101	"This course had a feel of a close community so I was able to share my ideas openly. I didn't feel like I would be judged for my answers because everyone always had an input."	2I	Posttest
101	"I was very willing to share my thoughts with my classmates, because the feeling of community and closeness in the classroom made it much easier to speak up. The open discussions with the entire class and the postings on Ning made it much easier for my voice to be heard."	21	Posttest
101	"I learned a lot and was actually persuaded by many of my peers in this classroom."	2T	Posttest
101	"[Ning] allowed everyone to see how their peers view the issues on race and culture in the classroom and allow them to re-evaluate how they feel about the situation."	2K	
101	culturally competent educator	2J, 2O	Posttest
101	"On many issues we discussed, I was actually persuaded to think the way they do. I have realized throughout the journey of this course that cultural competency is something all teachers need to be aware of today, and acceptance is so important."	2T	Posttest
101	"It taught me how to get involved in the classrooms for the future and how to really make sure I understand my students when I become a teacher."	2J	Posttest
101- 102	"I'm going to have to learn to be more open with the people around [me] if that's the profession I want to stick with."	2M	Posttest
102	"I absolutely loved this course and I feel that it helped me change my mind on many racial and multicultural issues. In the classroom, as a future teacher, it is important that I strive to make all my students not only aware but comfortable with their peers' cultural diversity. I never thought about the fact that I would need to do this in my classroom someday, but now I am aware of how diverse our classrooms really are today. It's important for teachers to think about their students differences culturally and	2V	Posttest

	strive for equallness [sic], but always help them remember and love their cultures and their differences."		
102	"lecture"	1P, 2M	Posttest
102	"intimate" and "deep" discussions	2K, 2S	Posttest
102	"I was very willing, sometimes I disagreed but I never spoke out about it."	1R	Posttest
103	"I was very open about listening to everyone and their thoughts because I feel as though to learn we must listen to our peers and figure out different points of view from all angles"	1E	Posttest
103	"I was very willing to listen to everyone's thoughts and ideas about the issues. I valued everyone's opinion and compared them with my own to better develop my view on the issues."	2K	Posttest

Appendix M: Pretest of Adapted Open-Ended Questions

<u>Directions</u>. Following are open-ended questions. Please be honest, take your time, and write as much as you can; there are no right or wrong answers. Reminder: your instructor will not view these survey results.

- 1. What defines you? What describes you? What is it about you, your life, and your background that have shaped who you are today?
- 2. Please describe what you think are the top three most important or critical issues facing our educational system today.

How strongly do you "agree" or "disagree" with the following statement? Explain why.

- 3. I believe that Black people should learn to think and experience life in ways which are similar to White.
- 4. I'm not sure how I feel about myself racially.
- 5. I believe that the world should be interpreted from a Black perspective.
- 6. People, regardless of their race, have strengths and limitations.
- 7. I involve myself in causes that will help all oppressed people.
- 8. In what ways will the course's format (large/small group discussions, online discussion etc.) affect your willingness to share openly your ideas and insights on issues of race and culture?
- 9. How willing will you be to share your thoughts with your classmates about issues of diversity in education and society?
- 10. How willing will you be to listen to and value the thoughts of your classmates about issues of diversity in education and society?
- 11. Last question, do you have any thoughts or comments about this survey, or about the research topic?

Used with Permission from Janet Helms' Black Racial Identity Scale (BRIAS) (1990).

Appendix N: Posttest of Adapted Open-Ended Questions

<u>Directions</u>. Following are open-ended questions. Please be honest, take your time, and write as much as you can; there are no right or wrong answers. Reminder: your instructor will not view these survey results.

- 1. What defines you? What describes you? What is it about you, your life, and your background that have shaped who you are today?
- 2. Please describe what you think are the top three most important or critical issues facing our educational system today.

How strongly do you "agree" or "disagree" with the following statement? Explain why.

- 3. I believe that Black people should learn to think and experience life in ways which are similar to White.
- 4. I'm not sure how I feel about myself racially.
- 5. I believe that the world should be interpreted from a Black perspective.
- 6. People, regardless of their race, have strengths and limitations.
- 7. I involve myself in causes that will help all oppressed people.
- 8. In what ways did the course's format (large/small group discussions, online discussion etc.) affect your willingness to share openly your ideas and insights on issues of race and culture?
- 9. How willing were you to share your thoughts with your classmates about issues of diversity in education and society?
- 10. How willing were you to listen to and value the thoughts of your classmates about issues of diversity in education and society?
- 11. Last question, do you have any thoughts or comments about this survey, or about the research topic?

Appendix O: Results for Adapted Survey

Of the 45 students in Groups 1 and 2, there was one student of color. This participant was a member of Group 2 and took an adapted pretest and posttest. The adapted pretest and posttest questions substituted Black racial identity questions for White racial identity questions. A race appropriate scale was utilized for the student of color because, "Black Americans internalize different racial identities than White Americans, and, conversely, White Americans internalize different racial identities than Black Americans" (Helms, 2007, p. 236). Helms's questions were used with permission. The TMAS survey and open response questions on self-perceptions and format were the same as the one for the other participants.

TMAS Results. On the pretest, the participant's TMAS score was 81. On the posttest it was 83 indicating a difference score of +2. This indicates the participant's appreciation of diversity in the classroom according to the TMAS measure was higher than the class average.

Self-Perceptions. On both the pretest to posttest, the participant noted family and culture as what defines her. Change on the posttest was evident in that the participant's response included "My culture has taught me about my roots and that I should be proud of my skin color, hair texture, and facial features." The participant is similar to her peers in that the inclusion of physical traits was a new category across both groups in the posttest.

Critical Educational issues. On the pretest, the participants identified important issues to be the low pay of teachers, uninvolved parents, and unnecessary tests. On the posttest, she stated, "I believe one of the most important issues facing our

educational system is teachers' judgments, students lack of interest, and schools lack of support systems." This reveals the participants increased awareness of teachers' assumptions and biases.

Course Format. On the pretest, the participant stated that the course format would have no effect on her willingness to share her ideas about race and culture. Her posttest answer stated, "The course format did not affect my willingness to share my ideas on issues of race and culture at all." On both the pretest and posttest the participants stated that she was willing to share openly and to listen to her classmates on issues of diversity in education and society.

Black Racial Identity Development. Helms's model of Black racial identity development was used to explore the racial self-awareness and development of the participant. There are five stages. They are pre-encounter, post-encounter, immersion, emersion, and internalization. At each stage the participant was asked how strongly she agreed or disagreed with the statement.

Pre-encounter. The first stage is pre-encounter, characterized by an individual's idealization of White people and White culture and denigration of Black people and Black culture. The statement at this level was, "I believe that Black people should learn to think and experience life in ways which are similar to White." The participant's pretest response was "I strongly agree. African Americans come from a different culture it's almost like a different world." Her posttest response was, "I feel as though black and whites should experience each other's 'ways of life'. To be more specific I believe everyone with a different culture and way of living should be aware

and learn a little more about each other." This reveals a change in attitude toward valuing Black culture and ways of life.

Post-encounter. The second level, post-encounter, describes the attitudes, behaviors, and emotions that result from a significant racial event or period of learning. The statement exploring this stage was, "I'm not sure how I feel about myself racially." Her pretest response was, "I strongly disagree. I know where I came from and where my parents and their parents came from. My culture is a big part of my life. Many people may look at me and think I'm just a 'BLACK' girl or read my last name, and think I'm Spanish but there is a lot more to me...I know who I am, but others may not; just by looking at me." On the posttest, her response was simply "Disagree." This may demonstrate a change in thinking or an unwillingness to expand on her thoughts.

Immersion. At the immersion level, the individual withdraws into Black environments and may denigrate White people and White culture while idealizing Black culture. The statement to explore this attitude was, "I believe that the world should be interpreted from a Black perspective." Her response on the pretest was, "I strongly agree." On the posttest, this changed to, "I do not even know what that means." This may reveal confusion about the statement or a reluctance to agree as she did on the pretest.

Emersion. The emersion level refers to positive psychological and societal connections with Black culture and people. The statement to which she responded was, "People, regardless of their race, have strengths and limitations." On the pretest she stated, "I strongly disagree. I believe all races have strengths but no limitations. If

we all have the drive and ambition to do what we want and feel then the possibilities are endless." Her answer on the posttest was, "Agree, because no matter your race or culture everyone has something to bring to the table and can always learn more to build their knowledge." This reveals a change in thinking demonstrating a more balanced perspective of cultural attributes and realities.

Internalization. The final level is internalization and is marked by a positive commitment to Black people and culture while valuing other non-dominant groups. The statement at this level was, "I involve myself in causes that will help all oppressed people." On the pretest, the participant stated, "I disagree. I tend to involve myself in causes that I can relate to." Her posttest response was, "Disagree. I would like to think I do or try to, but I don't know if I know any oppressed people" Her expression of willingness reveals a change that was not evident in the pretest. In this way she mirrored her White peers who expressed an openness to learning and participating in activities to increase their cultural awareness and understanding.