Where Cultural Competency Begins: Changes in Undergraduate Students' Intercultural Competency

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Teacher preparation programs and accreditation organizations have acknowledged need for educators to demonstrate intercultural knowledge, skills, and abilities. Teacher educators are responding to emphasis in higher education to assure that graduates achieve intercultural competence (NCATE, 2008). This study compared the cultural competency of university students before and after participation in domestic intensive and intentional cross-cultural undergraduate courses. Data analysis showed that undergraduate students began their classes at the same levels of intercultural competence, with ethnocentric views that minimize cultural differences between themselves and others. Students usually began with over-estimating their intercultural competence. However, their actual developmental orientation toward cultural differences was more ethno-centric. Due to their lack of experience among people of cultures different than their own, they were more likely to minimize cultural differences and emphasize cultural commonalities. During this investigation, after the first semester, data analysis showed no statistically significant change in students' cultural competence. After a semester with higher-impact activities (e.g., cultural partnerships), subjects showed statistically significant positive gains in their orientations to cultures different than their own. Investigators concluded that domestic inter-cultural experiences may encourage university students to not only learn about others, but also learn from and with others.

The United States continues to welcome newcomers, immigrants, and refugees from many regions of the world. As a result, the United States population is increasingly diverse and includes a wide variety of racial, ethnic, language, and religious groups, as well as socioeconomic levels, giftedness, disabilities, gender, and sexual orientation.

This diversity is especially illustrated by changes over time in characteristics among children in public schools (NCES, 2013). Changing student characteristics include home language, participation in English language programs, race/ethnicity, socioeconomic status, and participation in education for students with special needs.

The U.S. Bureau of the Census (Ryan, 2013) reported that more than 26 % of the school-age population in 2011 came from homes where native languages other than English were spoken. According to NCES (2013), participation of students in programs for English language learners increased from 8.7 % in 2002 – 2003 to 9.1 % in 2011 – 2012.

Enrollment in U.S. public elementary and secondary schools shifted from 64.8 % White in 1995 to 51.7 % White in 2011 and from 13.5 % Hispanic/Non-White in 1995 to 23.7 % Hispanic/Non-White in 2011 (NCES, 2013). Given current trends in immigration and birth rates, these numbers will grow. NCES projects that, by 2021, the proportion of students of color will exceed 55 % of enrollments.

Over time, teachers have reported an increase in certain problematic issues (such as poverty and disabilities) in their schools. For example, 29.0 % of teachers reported in 2011 – 2012 that poverty was a serious problem, compared to 19.5 % in 1993 – 1994. At least 17 % of children aged 5 through 17 years old were in poverty in 1990. This proportion increased to 22 % in 2011. The percentage of public school students eligible for free- or reduced-price school lunches grew from 38.3 % in 2000 – 2001 to 49.6 % in 2011 – 2012. Participation of children between 3 and 21 years old in programs under the Individuals with Disabilities Education Act increased from 4.144 million in 1980 – 1981 to 6.429 million in 2012 – 2013 (NCES, 2013). Furthermore, 30.2 % of students came to school in 2011 – 2012 unprepared to learn, compared to 28.8 % in 1993 – 1994 (NCES, 2013).

Meanwhile, diversity among teachers in public elementary and secondary schools has increased in some characteristics and decreased in others. The race/ethnicity of teachers has changed from 86.5 % White in 1993 – 1994 to 81.9 % White in 2011 – 2012, and from 4.2 % Hispanic/Non-White in 1993 – 1994 to 7.8 % Hispanic/Non-White in 2011 – 2012. In terms of gender, 76.3 % of the teachers in public schools were female in 2011 – 2012, increased from 72.9 % in 1993 – 1994.

Educators play one of the most important roles in teaching students to function well within domestic diversity and increasing globalization. The knowledge, behaviors, and attitudes shown by teachers toward students, especially students who are different from themselves, influence the teaching and learning environments (Sleeter, 2001a). The demographic differences in contemporary society create significant social and cultural gaps between the student population and the teacher population. In fact, research suggests

that teachers' beliefs about students lead to different expectations and treatment. Unfortunately, students from cultural and linguistic backgrounds which are different than those of teachers often perform poorly in public education. Students are at risk for achievement gaps, over-representation in special education, high suspension and expulsion rates, and high drop-out rates (Jencks & Phillips, 1988; Losen & Orfield, 2002; Townsend, 2000).

Some investigators (Arthur & Collins, 2010; Solomon & Levine-Rasky, 2003) suggested that, without intervention, pre-service teachers may inadvertently stereotype students and families and respond to them in oppressive ways. Teachers need an understanding of the invisible rules within different social and cultural structures so they may build productive relationships that overcome stereotypes with students.

The demographic differences between student populations and teacher populations mean that responsible teacher education programs (TEPs) will prepare pre-service teachers for the social and cultural contexts in public schools (Bennett, 2004). In 2008, the National Council for Accreditation of Teacher Education (NCATE) included 12 elements of cultural identity in its standards for accrediting teacher preparation programs (i.e., ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geographic region; NCATE, 2008). In 2013, the Council for the Accreditation of Educator Preparation (CAEP) issued new standards embedded throughout with aspects of diversity. The new standards referred to learning disabilities, language learners, gifted students, and students from diverse racial, ethnic, and cultural backgrounds. CAEP Standard 1 and related Interstate Teacher and Support Consortium (Council of Chief State School Officers2011) standards referred to cultural competence, individual differences, and working with families and communities. Standard 2 referred to diversity in field and practicum experiences (CAEP, 2013). CAEP documents conclude that teacher education programs must embed diversity experience and cultural competence throughout all teacher preparation courses and experiences:

- Incorporation of multiple perspectives to the discussion of content, including attention to learners' personal, family, and community experiences and cultural norms.
- A commitment to deepening awareness and understanding the strengths and needs of diverse learners when planning and adjusting instruction that incorporates the histories, experiences, and representations of students and families from diverse populations.

- Verbal and nonverbal communication skills that demonstrate respect for, and responsiveness to, the cultural backgrounds and differing perspectives learners and their families bring to the learning environment.
- Ability to interpret and share student assessment data with families to support student learning in all learning environments.
- An understanding of their own frames of reference (e.g., culture, gender, language, abilities, ways of knowing), the potential biases in these frames, the relationship of privilege and power in schools, and the impact of these frames on educators' expectations for, and relationships with, learners and their families (Council of Chief State School Officers, 2011).

In brief, teachers at all levels (primary, secondary, and post-secondary) should exemplify intercultural competence (ICC). However, neither CAEP (accrediting the teacher education programs) nor teacher licensure agencies (licensing the teacher as an individual) decree the teaching methods or the formative and summative assessments that the teacher education programs should implement.

For this study, definitions for several key terms were selected: culture, intercultural experience, intercultural differences, worldview, and intercultural competence (ICC).

(a) Culture: According to Hammer (2012), cultural groups are typically defined by national and/or ethnic boundaries, but they may also represent other affiliations, such as race, religion, or social groups.

(b) Intercultural Competency (ICC): The ability to accommodate cultural differences into one's reality in ways that enable an individual to move easily into and out of diverse cultures and to adjust naturally to the situation at hand (Bennett, 1993). Hammer (2009b; 2011; and 2012) defines intercultural competence as the capability to shift cultural perspective and appropriately *adapt behavior* [emphasis added] to cultural differences and commonalities.

(c) Intercultural or cultural differences: "The differences in rules, behaviors, communication, and biases based on cultural knowledge or values that are different from one's own" (AACU, 2012, p. 15).

(d) Intercultural experience: "The experience of an interaction with an individual or group of people whose culture is different from one's own" (AACU, 2012, p. 15).

(e) Intercultural sensitivity: Sensitivity to the viewpoints of people in cultures other than one's own (Bhawuk & Brislin, 1992) (may or may not involve subsequent behavior).

(f) Worldview: "The cognitive and affective lenses through which people understand and interpret their experiences and make sense of the world around them" (AACU, 2012, p. 15).

For teachers, the definition of intercultural competence is the "ability to effectively respond to students from different cultures and classes while valuing and preserving the dignity of cultural differences and similarities between individuals, families, and communities." (Ladson-Billings, 2001).

Literature Review

During the past 20 years, researchers have looked at the development of intercultural competence, its consequences, and its implications for individuals and groups. Other studies have examined the development of ICC for pre-service teachers. A review of relevant literature sheds light on the beginning ICC orientations among pre-service teachers and the potential impact of various teaching methodologies (such as multicultural education courses, multicultural immersion experiences, and self-awareness and reflections).

Beginning ICC Orientations among Pre-Service Teachers

Following positive developmental theory, these investigators sought to understand the literature related to the beginning ICC orientations among pre-service teachers. Knowing the developmental stages of incoming students will provide university instructors (and the students themselves) with a starting point for multicultural education.

Guo, Arthur, and Lund (2009) examined the intercultural competency of pre-service teachers. Data was collected from responses by white female students to case studies, journal entries about critical incidents, focus group interviews, and written questionnaires. The investigators reported that the pre-service teachers' understood diversity as within the "other" and not about themselves in addition to the "other." The subjects expressed the beliefs that diversity involved cultural festivals, food, costumes, games, and celebrations. When students were challenged about how to accommodate their teaching to the children's diversity, they requested a formula about how to respond to diversity in their teaching practices. The researchers noted a continuing disconnection between theories of multicultural education and the pre-service teachers' educational efforts.

One explanation of this disconnection was illustrated by Sleeter (2001b), who found that white pre-service teachers have little personal diversity experience, knowledge, or understanding. Researchers suggested that undergraduate university students begin their studies with worldviews consisting of stereotypical beliefs and little knowledge of racism, discrimination, and structural inequality.

Carter-Merrill (2007) focused on the relationships between students' background characteristics, precollege experiences, college experiences, and the development of ICC, as measured by a survey, the Intercultural Development Inventory (IDI; Hammer, 2009a). Activities thought to contribute to higher levels of ICC included: study abroad, participation in discussions, relationships with people different from self, exposure to a diverse campus (especially international students), community engagement and involvement, and participation in a student media organization. Fraternity or sorority memberships were found to have had a negative influence on the development of ICC. However, the investigator concluded that significant characteristics and experiences seemed related to minimal student growth within ethnocentric stages of cultural orientation. Few students in Carter-Merrill's study shifted beyond the minimization orientation to deeper understanding and acceptance of cultural differences and similarities.

Riley (2007) addressed the connection between ICC (as measured by the IDI) and students' college experiences (measured by the Community College Survey of Student Engagement; CCCSE, 2005). There was a strong correlation between IDI scores and CCSSE measures of active and collaborative learning, academic challenge, student-faculty interaction, and student effort. A weaker correlation was found between IDI scores and the CCSE measure of support for learners. There were few meaningful differences between any of the subgroups (gender, ethnicity, full-time status, first-generation status, and length of time in college) when related to the students' engagement and intercultural competence. Riley reported that student respondents thought their intercultural competence was related to group work contributions, international events, sharing of traditions, a diverse faculty and student body, and opportunities for study abroad.

Middleton (2002) explored the attitudes, beliefs, and commitments of a predominantly white population of pre-service teachers. The Beliefs about Diversity Scale (Pohan & Aguilar, 2001) was used as a pre- and post-test measure of self-reported attitudes and beliefs about diversity before and after participation in a diversity course. Many pre-service teachers claimed that they were willing to teach from a multicultural perspective, but at the same time, they misunderstood

and misinterpreted multicultural education, diversity, and the attitudes and skills needed for successful cross-cultural teaching. Middleton made a case for providing structure for individuals and groups to explore and discuss experiences related to multicultural education.

Impact of Various Teaching Methodologies

Of course, teacher educators and the broader American culture do believe that training and experience can affect the development of any skill or disposition, including that of intercultural competency. Black and Mendenhall (1990), Bhawuk (1998), as well as Altshuler, Sussman, and Kachur (2003) have presented arguments to support this belief.

Several recent investigations have explored how teaching methodologies influence the cultural competency of undergraduate students. These mixed-methods studies have highlighted various activities which appear to contribute to cultural competency, including class discussions (Carter-Merrill, 2006) and relationships with people different than one's self (Carter-Merrill, 2006; Paige, Jacobs-Cassuto, Yershova, & DeJaeghere, 2003). The reported experiences have been embedded within several formats that may be categorized as: (1) multicultural education courses, (2) multicultural immersion experiences, and (3) self-awareness and reflections.

Multicultural education courses. Since the mid-1970s, teacher licensure programs have required teacher candidates to complete orientation and training in multicultural education. Traditionally, such courses included opportunities to learn *about* persons in cultures differing from those of the pre-service teachers.

In the mid-1990s, researchers (Garmon, 1998; Zeichner et al., 1998) examined the consequences of multicultural education courses for pre-service teachers. They concluded that multicultural education courses had not had much effect on teacher practices. Even after completing the course, pre-service teachers had negative beliefs and low expectations of success for minority students in elementary and secondary schools. Garmon (1998) posed the idea that multicultural courses actually reinforce low expectations by reporting historic lack of success for minority students. Zeichner and colleagues (1998) suggested pre-service teachers need to experience instructional strategies that require higher order thinking, such as synthesis and application. They recommended that pre-service teachers should examine their own beliefs, reconsider their own assumptions, understand the values and lives of others, and increase their skills in cultural competency.

Dahlman, Hoffman, Cunningham, and Jesseman (2009) enhanced a course in human relations (required for their pre-service teachers) with opportunities for students to reflect on their own cultures, read narratives from other cultures, listen to "others" in panel presentations, develop their own communication skills, and participate in experiential learning with other students. After analyzing the student reflection papers, they concluded that the students increased in self-awareness and in empathy for others through this process.

Multicultural immersion experiences. Houser (2008) investigated an educational approach designed to promote critical consciousness and multicultural understanding among undergraduate and graduate students in teacher education. The cultural immersion approach, which the author referred to as a "cultural plunge," involved intense exposure to social and cultural settings in which the students' norms are clearly in the minority. Initial encounters were followed by personal reflection and subsequent small-group and whole-class analyses. The report suggested that such an approach may provide opportunities for critical growth and multicultural development.

Keengwe (2010) examined the impact of multicultural immersion experiences with adult English language learners on the cultural competency of pre-service teachers. This field experience appeared to be a key factor in an otherwise typical multicultural course that included activities such as reflective writings, cultural films, experiential learning activities, discussions, role play exercises, storytelling, case studies, research presentations, and quizzes. After only ten hours of cross-cultural interaction, the university students reported in logs, reflection papers, and class discussion that they understood better the importance of the cross-cultural experience in helping them become knowledgeable about other cultures, reduce bias, develop respectful skills, and become more accepting of the "others."

Other instructors have investigated the results of incorporating service learning into their teacher education programming. Connor (2004) and Li and Lal (2005) found that student attitudes about diverse communities became more positive after participating in course-related service projects.

Reyes and Bishop (2005) described the concept of partnership between a teacher preparation program and an urban after-school program. Their design included predominantly white undergraduate students in an experience working with children from culturally diverse backgrounds. Grounding teaching in this belief acknowledges the importance of having pre-service teachers examine their identities and their values in relation to a new set of experiences or exposure to new ideas that they gain in their education program. The problem then becomes, how do the instructors incorporate multicultural discourse that defines culture and identity in complex ways, critical of the tourist approach (Hoffman, 1996), and that de-centers the perspectives of mostly white students?

Vaughan (2005) studied the impact of a short-term cultural immersion experience on pre-service teachers who were enrolled in a cultural diversity class. According to the investigator, the students' reflections and oral responses indicated that this experience helped them to be more culturally aware. The experiences also influenced them to seriously reflect on their prejudices, misconceptions, and stereotypes about minority groups. Students reported that they were personally convinced to make positive changes toward cultural diversity if they were going to be culturally responsive in their daily lives and as teachers in their future classrooms.

Self-awareness and reflection. Guo, Arthur, and Lund (2009) suggested the importance of self-examination and self-reflection for the growth of cultural competency among pre-service teachers.

Faculty members who teach multicultural courses often incorporate personal narrative and reflection into the course experience. Schmidt (1998) suggested enhancing any course with the "ABCs Model of Cultural Understanding." In this design, the instructor would include assignments that feature students writing: (a) autobiographies; (b) biography of a person different than the writer; (c) cross-cultural analysis of similarities and differences between (a) and (b); and (d) analysis of differences, along with an explanation of comforts and discomforts. In a home – school relations course, students were assigned to write a plan for communications between school and home, with special attention to communicating across culture, thus providing structure to discuss multicultural education.

Fuller and Pikes (2010) used a multicultural course to enhance the self-awareness of pre-service teachers about their own beliefs, culture, and biases. This "Cultural Self-Analysis Project" was embedded in a five-week course, Parent Involvement in Education. After analyzing the reflection papers and questionnaire responses, the investigators found that pre-service teachers reported increased cultural self-awareness, awareness of their own biases and prejudices, awareness of the influences of their families of origin, and challenges about the need to respect and respond to values different than their own.

Garmon (2004) concluded that self-reflection on one's own belief system is a key factor related to growth in pre-service teachers' cultural competence. He suggested that self-reflection relates to being willing and able to think critically about one's own beliefs, values, and attitudes. Other factors listed were personal beliefs, professional beliefs, intercultural experiences, and educational experiences.

Cross, Bazron, Dennis, and Issacs (1989) posited that effective cross-cultural teaching would include these elements: self-awareness, knowledge of students' home cultures, awareness and acceptance of differences, understanding dynamics of differences, and ability to adapt teaching skills to meet student cultures.

Purpose and Theoretical Framework

Purpose

The purpose of this study was to examine changes in cultural competence among undergraduate students who participated in intensive and intentional cross-cultural experiences. The hypothesis was that the intensive, intentional, and reflective cross-cultural experiences will have a positive impact on the cultural competency of students who complete a course, Human Relations in a Multicultural Society.

The investigators wished to understand the entering and concluding levels of cultural orientation for university students early in their pre-service teacher education programs. Faculty members will use the outcomes of this study for program design, outcome assessment, and course modification. The research questions were related to undergraduate students:
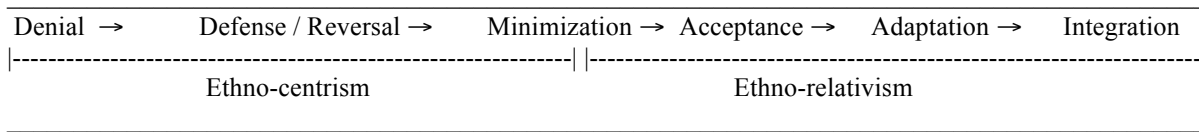
1. What are the cultural orientations of students who register for an undergraduate general education course in human relations in multi-cultural environments? Are the cultural orientations (perceived and developmental) statistically the same for students at the beginning of each semester?
2. Was there any statistically significant difference between the means of pre-instruction and post-instruction scores in undergraduate students' cultural competency in an intentional, multicultural relations experience during Fall 2010 compared to Fall 2011?

Theoretical Framework

From the perspective of a process of developmental learning and in an effort to establish a basis for in-country intercultural education, this study focused on the entry-level cultural competence of university students. To further the understanding of the effectiveness of teacher preparation programs, this study sought to establish a statistical picture of intercultural competence for students at the beginning of their professional education studies.

The study reported herein was based on the Developmental Model of Intercultural Sensitivity (DMIS), originally described by M.J. Bennett (1986; 1993) (see Figure 1). With concepts from cognitive psychology and constructivism, Bennett described ICC as "the way a person understands, feels about, and responds to cultural differences." The DMIS presented predictable stages through which people progress as their cultural competency increases. The DMIS includes two main categories: ethno-centrism and ethno-relativism.

Figure 1
Developmental Model of Intercultural Sensitivity

| Denial → | Defense / Reversal → | Minimization → | Acceptance → | Adaptation → | Integration |

Denial →   Defense / Reversal →   Minimization → Acceptance →   Adaptation →   Integration
|---| |---
                      Ethno-centrism   Ethno-relativism

Note. Hammer, Bennett, & Wiseman, 2003, p. 424

Ethno-centrism is characterized by belief that one's culture or ethnic group is superior to all other groups. This category includes stages of *Denial*, *Polarization* (*Defense/Reversal)*, and the ethno-centric half of *Minimization*. Individuals in stage one, *Denial*, see their culture as the only real culture and (intentionally or not) limit their exposure to cultures different than his or her own. They may acknowledge more observable differences (such as food or costume), but they are unmindful of more profound cultural differences (such as attitudes toward time). Individuals in stage two, *Polarization* (*Defense/Reversal)* may take an uncritical view toward their own cultural values and practices or take an uncritical view toward the cultural values and practices of other persons. This stage is characterized by the sorting of people into "us and them." Differences may be viewed as disruptive and intimidating. Individuals in the first half of the transitional stage called *Minimization* are still ethno-centric, but they see similarities to their own cultures as they learn about the "other" culture.

Ethno-relativism is characterized by belief that one's culture is one of many different cultures and that one's culture or ethnic group is not superior to the other. This category includes the ethno-relative half of *Minimization*, *Acceptance*, *Adaptation*, and *Integration*. Individuals in the second half of the Minimization are now ethno-relative, but they experience the "other" culture in a more interactive, intercultural way. Individuals in stage four, *Acceptance,* view their culture as just one of the many intriguing cultures in the world. They actually appreciate complex patterns of cultural differences. In stage five, *Adaptation*, individuals are able to take the perspective of the "other." They can and do adapt their behaviors to be culturally appropriate and graceful. In the DMIS, Bennett (1986; 1993) included a stage six, *Integration*. He suggested that, in this last stage, individuals or groups can and do move easily between cultures and adjust naturally to the unique situations and expectations.

Methods

Context

The study was undertaken at Minnesota State University, Mankato, a mid-size public university in the Midwest. In the Fall 2011 term, there were 15,640 students enrolled in undergraduate and graduate programs, according to the Minnesota State University, Mankato Office of Institutional Planning, Research, and Assessment (2012). These students included Caucasian (82%), African American (5%), Asian American (3%), Hispanic or Latino (2%), American Indian (0.4%), Native Hawaiian/Pacific Islander (0.1%), and international students (4%). There were 10% who reported membership in ethnic minority groups. Furthermore, 52% of the students at Minnesota State University, Mankato were female, and 48% were male (Office of Institutional Planning, Research, and Assessment, 2012).

In 2006, Minnesota State University, Mankato amended its graduation requirements to incorporate cultural diversity education and experiences into the general education curriculum. The diversity policy was a commitment to "create an understanding and appreciation of diverse peoples and diverse perspectives; a commitment to create an academic, cultural, and workplace environment and community that develops mutual respect for all and celebrates our differences" (Minnesota State University, Mankato, 2010).

The research reported herein occurred within the Minnesota State University, Mankato College of Education (COE), which includes undergraduate academic majors related to elementary education, secondary education, and special education. COE's mission statement is "to prepare principled professional practitioners who thrive and succeed in diverse environments, promote collaborative and generative communities, and engage in life-long learning" (College of Education, 2011). The COE continues to be committed to preparing its teacher candidates to be highly effective in culturally diverse primary and secondary classrooms. To that end, placements in diverse field experiences were required for all students majoring in education. Beginning in 2009, COE students had the opportunity to spend six weeks in a cross-cultural immersion field experience in Queensland, Australia. Beginning in 2012, COE students could participate in mentorship and study in Costa Rica or United Arab Emirates.

One of the more common anticipated outcomes for teacher preparation programs is enhanced intercultural sensitivity and competency among all graduates. Consequently, stakeholders at Minnesota State University, Mankato are designing domestic experiences that provide quality, affordable, concrete opportunities to build relationship with persons from cultures different than their own. Minnesota State University, Mankato students in teacher preparation programs have been encouraged to participate in intensive and intentional cross-cultural experiences within 100 miles (e.g., service learning experiences, field experience placements, etc.).

Since 2010, faculty members in the Minnesota State University, Mankato teacher education programs have been enhancing a course, Human Relations in a Multicultural Society, which is taught each semester. The course meets several graduation requirements, including qualifications for initial state teacher licensure. The faculty members intend to increase students' understandings of individual and group differences, emphasizing the dynamics of race, gender, sexual orientation, age, class, and disabilities in the history and culture of diverse groups in the United States.

Subjects

The subjects included undergraduate students who registered for Human Relations in a Multicultural Society at the beginning of two Fall semesters during the academic years 2010-2011 and 2011-2012. This course was required for students who majored in elementary education. The course could be substituted for required courses for students who majored in secondary education or special education. Students from other academic specializations also enroll in this course because the course met several general education requirements.

Responses were coded according to students' academic classifications (freshman, sophomore, junior, senior, and graduate). Responses were also coded according to students' academic major subjects (education, other than education, and undeclared). Non-education majors included, for example, journalism, mass communications, pre-professional studies (e.g., mortuary science, veterinary medicine, therapy, etc.), social work, and sports management.

Instructional and Experiential Intervention

The course implemented during this investigation was "Human Relations in a Multi-cultural Society," also known as "Human Relations." Teacher preparation goals for this course included:

a) Increase understanding and appreciation of one's own culture and background.

b) Identify and reflect on personal characteristics, qualities, and experiences with diversity and culture.
c) Reflect on personal pre-judgments about characteristics of other people.
d) Learn to accurately perceive and understand cultures and backgrounds of other persons.
e) Understand the value and principles of developmentally appropriate multi-cultural education and anti-bias education.
f) Understand and reflect on the emotional impact of unfair practices.
g) Practice positive and respectful communications.
h) Create plans to stand up against discrimination.
i) Improve academic writing skills.

This course was intended to provide intensive and intentional cross-cultural experiences within 100 miles. Students self-selected this course from among general education courses; however, this course was required for elementary education majors. Broad parameters for the Human Relations course outlined a 3-credit undergraduate course offered each semester, meeting face-to-face on-campus for 2.5 hours per week for 15 weeks. There was an off-campus component in which students participated in field experiences with service learning. In this writing-intensive course, students were assigned 20 pages of writing, with feedback and opportunity for revision. Within the institution's requirements for general education courses and the accreditation requirements for the specific pre-service teacher education programs, individual faculty members were allowed, even encouraged, to incorporate teaching and learning strategies that they believed would help students meet the intended goals.

For this study, the same professor taught all course sections included in the project. During Fall 2010, the professor implemented the course according to the syllabus on file with the academic department. The strategies for teaching and learning included the following: class meetings (45 hours with speakers, films, panel presentations, discussion, hands-on activities, and writing workshops), completion of five self-assessments (communication style, temperament type, learning style, multiple intelligence, and professional dispositions), self-selected cross-cultural service learning (18 hours), group cooperative research and teaching project, textbook readings from Skilled Dialogue: Strategies for Responding to Cultural Diversity in Early Childhood (Barrera & Corso, 2003), and a closing reflection comment. In Fall 2010, the writing-intensive course also required students to submit seven reflection papers with a minimum of 20 pages: cultural autobiography (2 pages), service

learning (4 pages), temperament type (3 pages), professional dispositions (2 pages), group cooperative research and teaching project (5 pages), and two 2-page papers about various cultural diversity topics.

However, for the next semester included in this investigation (Fall 2011), the professor implemented curriculum revisions that the literature search had shown to have higher impact on the development of students' cultural competency. The strategies for teaching and learning continued to include the following: class meetings (45 hours with speakers, films, panel presentations, discussion, hands-on activities, and writing workshops), completion of five self-assessments (communication style, temperament type, learning style, multiple intelligence, and professional dispositions), the group cooperative research and teaching project, and closing reflection comment. The textbook was changed to *Understanding Human Differences: Multicultural Education for a Diverse America* (Koppelman & Goodhart, 2010). For the cross-cultural service learning (18 hours), the instructor facilitated placements so that students interacted with adults rather than children, who were relatively unaware of their cultures compared to those of the students. The instructor added a cultural partnership requirement. This involved matching course participants with partners from other cultures for 9 hours of interaction. The writing-intensive course now required students to submit five reflection papers, each with a minimum of four pages, on the following: cultural autobiography, self-assessments, cultural partnership, a group cooperative research and teaching project, and service learning.

Variables

The dependent variables were the perceived and actual developmental orientations to cultural difference. Throughout this article, PO stands for Perceived Orientation and DO stands for Development Orientation. The main independent variables in this study were the instructional strategies implemented during each semester of academic study. The independent variables were grouped as "Fall 2010" and "Fall 2011."

Instrument

For this study, the IDI version 3 (Hammer, 2009a) was used as a measure of cultural competency. This study incorporated use of the IDI because of its validity and reliability testing (Hammer, 2011), as well as its suitability for a university classroom-based setting and its ease of use. The IDI consists of fifty Likert-type items composed of statements explaining situational and cross-cultural diversity. The inventory can be completed in a 20- to 30-minute session, either on paper or online. (See Table 1 for sample items from the IDI.)

The IDI results in several scores that describe how the individual or group is oriented toward other cultures. The scores of interest for this investigation included Perceived Orientation (PO) and Developmental Orientation (DO). According to Hammer (2009b; 2011), the PO is how the individual or group rates their own orientation toward other cultures. The DO indicates an individual's or group's primary orientation toward cultural differences and commonalities.

Based on the DMIS, Hammer and Bennett (1998) created the Intercultural Development Inventory (IDI) (see Table 1). The IDI has been demonstrated to be valid and reliable. Correlations with the Scale to Measure World-minded Attitudes (Sampson & Smith, 1957) and the Intercultural Anxiety scale, a modified version of the Social Anxiety scale (Gao & Gudykunst, 1990), supported the IDI's construct validity (Hammer, 2011). In addition, the IDI has demonstrated predictive validity in both organizational and educational settings (Hammer, 2011). Cross-cultural validity testing of the IDI has been extensively conducted with thousands of people throughout the world (Hammer, Bennett, & Wiseman, 2003; Hammer, 2011; Paige et al., 2003). The studies referenced reported that confirmatory factor analysis indicated the following:

a) Bennett's (1986, 1993) basic orientations toward cultural differences reliably describe categories: Denial, Defense, Reversal, Minimization, Acceptance, and Adaptation;

b) The IDI provides an overall Developmental Orientation (DO) scale and an overall Perceived Orientation (PO) scale;

c) The IDI is appropriate for students age 15 or older or individuals with a grade ten reading level;

d) The IDI has strong content and construct validity across culture groups; and

e) The IDI has strong predictive validity toward achievement of diversity and inclusion goals.

Based on the psychometric properties associated with this instrument, its authors have suggested that it is useful for purposes of assessing training needs, identifying interventions aimed at increasing intercultural competence, assisting with the selection of personnel, and evaluating the program. After intervention, the IDI can be used to re-assess the same individual or group to assess effectiveness of interventions.

Table 1
Sample Items from the Intercultural Development Inventory (version 3)

Orientation toward Cultures		Sample Item
1	Denial	Society would be better off if culturally different groups kept to themselves.
2	Defense/Reversal	People from other cultures are not as open-minded as people from my own culture.
3	Minimization	People are the same despite outward differences in appearance.
4	Acceptance	It is appropriate that people from other cultures do not necessarily have the same values and goals as people from my culture.
5	Adaptation	When I come in contact with people from a different culture, I find I change my behavior to adapt to theirs.

Data Collection and Analysis

The administration of the inventory was supervised by the course instructor, who is a "Qualified Administrator" trained and authorized to use the IDI. All data was collected after approval from the Institutional Review Board for research with human subjects.

Respondents completed the IDI online during the third week and during the fifteenth week of each semester (Fall 2010 and Fall 2011). During Fall 2010, students could request a one-on-one meeting to receive and to discuss their own results with the IDI administrator. During Fall 2011, this information was routinely shared in a personal meeting for each student who completed the IDI as a pre-instruction assessment. The individual information was not available otherwise.

The quantitative data were analyzed by the investigator using the established IDI protocols and IBM ® SPSS ® Statistics Version 12.0 statistical analysis software. This study examined the IDI individual and group profiles to determine whether group characteristics were statistically significant. The alpha level for the analysis was set at $\alpha = .05$. Differences were determined to be significant if they were at the $p < .05$ levels.

Results

Sample

Table 2 shows the number of research subjects who completed pre-instruction assessments, post-instruction assessments, and both assessments for Fall 2010 and for Fall 2011. For Fall 2010, data was collected from 77 respondents during week 3 and from 56 respondents during week 15; 50 respondents completed both the pre-instruction and the post-instruction assessments in Fall 2010. For Fall 2011, data was collected from 86 respondents during week 3 and from 71 during week 15; 68 respondents completed both the pre-instruction

and the post-instruction assessments in Fall 2011. Some students dropped the course after week 3, some students were absent from one or both class meetings where respondents completed the IDI, some data was incomplete or not identified, and some students did not complete both pre-instruction and post-instruction assessments.

Sample characteristics. Table 3 describes the demographic characteristics according to data collected at the beginning of each semester**.** Of the total 163 who completed the survey at week 3, 77% were female and 23% were male. Furthermore, 142 (87%) were between 18 and 21 years old; 19 (12%) were between 22 and 30 years old; and 2 (1%) were age 31 years or older.

Of the students who responded to the question about membership in an ethnic minority group, 6 (4%) considered themselves to be ethnic minorities in their home country. Of the students who answered the question about citizenship, 152 (93%) were citizens of the USA. Of the students who reported where they spent their formative years (between birth and age 18 years), 138 (85%) said they grew up in North America.

Table 4 presents the academic classification and academic majors of 163 of the students at the beginning of each of the two semesters. At the beginning of the two semesters, 2% of the respondents were classified (according to the number of credits completed) as freshmen, 36% were classified as sophomores, 44% were classified as juniors, and 13% were classified as seniors. At the beginning of the two semesters, 47% were education majors and 22% were undeclared. The remaining 30% represented students in a variety of non-education majors, for example, journalism, mass communications, pre-professional studies (e.g., mortuary science, veterinary medicine, or therapy), social work, and sports management.

Beginning Orientation of Undergraduate Students Toward Cultural Differences

The first research question was: What are the cultural orientations of students who register for an

Table 2
Number of Research Subjects, Fall 2010 and Fall 2011

Semester	Pre-instruction (week 3)	Post-instruction (week 15)	Completed Pre-instruction and Post-instruction
Fall 2010	77	56	50
Fall 2011	86	71	68
Total	163	127	118

Table 3
Demographic Characteristics of Research Subjects at Beginning of Fall 2010 and Fall 2011

	Fall 2010		Fall 2011		Total	
	N	Percent	N	Percent	N	Percent
Responses	77	100	86	100	163	100
Female	60	78	66	77	126	77
Male	17	22	20	23	37	23
18 – 21 years old	68	88	74	86	142	87
22 – 30 years old	9	12	10	12	19	12
31 years old or more	0	0	2	2	2	1
Never lived in another country	70	91	68	79	138	85
Lived in Central/South America	1	1	0	0	1	< 1
Lived in Africa	1	1	1	1	2	1
Lived in Asia – Pacific	0	0	1	1	1	< 1
Lived in Middle East	1	1	1	1	2	1
Lived in Europe	0	0	1	1	1	< 1
Identified as ethnic minority	0	0	6	7	6	4
Citizenship: USA	73	95	79	92	152	93

Table 4
Academic Classification and Academic Major of Students at the Beginning of Each Semester

	Fall 2010		Fall 2011		Total	
	N	Percent	N	Percent	N	Percent
Total	77	100	86	100	163	100
Freshman	2	3	2	21	4	2
Sophomore	37	48	22	26	59	36
Junior	28	36	44	51	72	44
Senior	10	13	11	13	21	13
Other	0	0	7	8	7	4
Education major	35	45	42	49	77	47
Non-education major	19	25	30	35	49	30
Undeclared major	23	30	14	16	36	22

undergraduate general education course in human relations in multi-cultural environments? Are the cultural orientations (perceived and developmental) statistically the same for students at the beginning of each semester?

According to the baseline IDI assessments taken at week 3 of both semesters, the perceived orientation score indicated that the group members rated themselves (see Figure 2) as able to recognize and appreciate patterns of cultural difference in values, perceptions, and behaviors (the IDI orientation called *Acceptance*). In contrast to the students' perceptions, the developmental orientation score indicated that both groups were characterized by a primary orientation toward cultural differences that was actually within a low *Minimization* category.

In examining the developmental orientation scores more closely (see Table 5), it was evident that 95% of

Figure 2
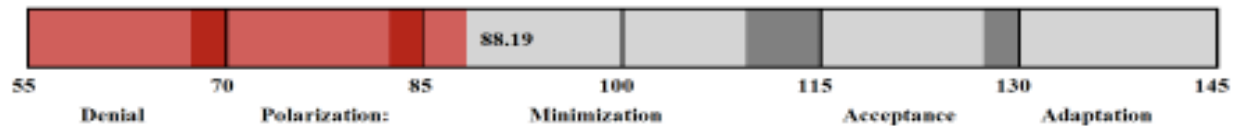*Fall 2010 and Fall 2011 Group IDI Profiles for Intercultural Sensitivity*
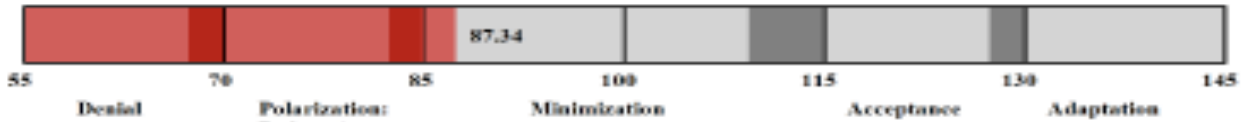
Fall 2010 Group Perceived Orientation
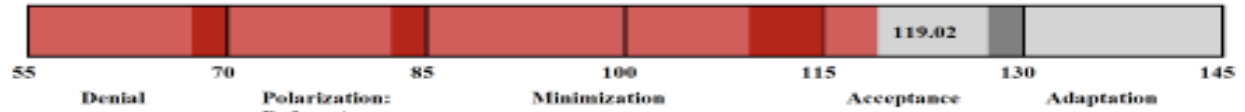
Fall 2011 Group Perceived Orientation

Fall 2010 Group Developmental Orientation

Fall 2011 Group Developental Orientation

Note. Hammer, 2011, 2012

Table 5
Developmental Orientations of Undergraduate Students at the Beginning of Fall 2010 and Fall 2011

Cultural Orientation	Fall 2010 (pre)		Fall 2011 (pre)		Fall 2010 & 2011	
	Number	Percent	Number	Percent	Number	Percent
Denial	9	12	12	14	21	13
Polarization	21	27	27	31	48	29
Minimization	43	56	44	51	87	54
Acceptance	2	3	3	3	5	4
Adaptation	0	0	0	0	0	0
Total	77	100	86	100	163	100

the students were actually in ethno-centric orientations toward cultural differences and similarities. More than half (53.5%) of the respondents were in *Minimization* orientation. Another 42% of the respondents were in either *Denial* or *Polarization* orientation.

Table 6 presents the descriptive statistics for each of the groups that were being compared (students' perceived and developmental cultural orientation scores at the beginning of Fall 2010 and Fall 2011 semesters). Students at the beginning of the Fall semester 2010 had a mean PO score of 119.02 and a mean DO score of 88.19, with standard deviations of 5.11 and 14.34 respectively. Students at the beginning of the Fall semester 2011 had a mean PO score of 118.69 and a mean DO score of 87.34, with standard deviations of 5.41 and 15.02 respectively.

Table 6
Perceived and Developmental Orientation Scores for Undergraduate Students at the Beginning of Two Semesters
(for students who completed pre- and post-tests)

	Semester	N	Mean	Std. Deviation	Std. Error Mean
Perceived Orientation	Fall 2010	77	119.02	5.11	.63
	Fall 2011	86	118.69	5.41	.58
Developmental Orientation	Fall 2010	77	88.19	14.34	1.78
	Fall 2011	86	87.34	15.02	1.62

To compare the cultural orientation means for students at the beginning of Fall semester 2010 and Fall semester 2011, an independent samples t-test was run (See Table 7). First, to determine which t-test should be used, Levene's Test for Equality of Variances was run. Both PO and DO scores had *p*-values greater than .05 for Levene's Test for Equality of Variances. Thus, equal variances assumed models were used. According to the data in Table 7, mean PO and DO scores were *not* significantly different for either semester, Fall 2010 or Fall 2011. The hypothesis of equal means was accepted: there were no statistically significant differences in perceived or developmental orientations at the beginning of the semesters.

Changes in Undergraduate Students' Orientations Toward Cultural Differences

The second research question was: Was there any statistically significant difference between the means of pre-instruction and post-instruction scores in undergraduate students' cultural competency in an intentional, multicultural relations experience during Fall 2011 compared to Fall 2010?

Table 8 presents the number and percentage of undergraduate students at each developmental orientation at the beginning and the end of Fall 2010 and Fall 2011. Table 9 presents the descriptive statistics for students in the Fall 2010: students' pre- and post-instruction mean scores for perceived and developmental cultural orientation. Students in Fall 2010 had a mean pre-instruction PO score of 118.58 and a mean post-instruction PO score of 118.55, with standard deviations of 5.13 and 14.47 respectively. Students had a mean pre-instruction DO score of 86.90 and a mean post-instruction DO score of 86.43, with standard deviations of 14.47 and 14.45 respectively.

To compare students' cultural orientation pre-instruction and post-instruction mean scores for the Fall semester 2010, a paired samples t-test was run. The hypothesis of equal means was accepted because the *p*-value was greater than .05. According to the Fall 2010 data in Table 10, mean pre- and post-instruction scores were not significantly different for both PO and DO.

Table 11 presents the descriptive statistics for students in the Fall 2011: students' pre- and post-instruction mean scores for perceived and developmental cultural orientation. Students in Fall 2011 had a mean pre-instruction PO score of 118.67 and a mean post-instruction PO score of 122.97, with standard deviations of 5.12 and 6.59 respectively. Students had a mean pre-instruction DO score of 87.82 and a mean post-instruction DO score of 98.50, with standard deviations of 14.92 and 17.56 respectively.

To compare students' cultural orientation pre-instruction and post-instruction mean scores for the Fall semester 2011, a paired samples t-test was run. The hypothesis of equal means was rejected because the *p*-value was less than .05. According to the data presented in Table 12, mean pre- and post-instruction scores were significantly different for both PO and DO. In particular, students had statistically significantly higher mean post-instruction scores than they did pre-instruction for both PO and DO.

Discussion

The purpose of this study was to examine beginning stages of cultural competency, as well as changes in cultural competency among undergraduate students who participated in domestic, intensive, and intentional cross-cultural experiences. The hypothesis was that the intensive, intentional, and reflective cross-cultural experiences will have a positive impact on the cultural competency of each student who completes a course, Human Relations in a Multicultural Society. Two types of cultural orientations were examined for this study: perceived orientation and development orientation.

The demographics of the respondents reflected the population of today's teachers: female, white/not identified as ethnic minority, U. S. citizens who have never lived in another country. In earlier studies, pre-service teachers reported little experience with diversity (Sleeter 2001b). Characteristics of this study's sample (when compared to the changing demographics of children in public education) reinforce the significance of attempts to foster intercultural competency among teacher candidates.

Table 7
Independent Samples Test, Beginning of Fall 2010 and of Fall 2011

		Levene's Test		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PO	Equal variances assumed	.42	.52	.37	149	.71	.32	.87	-1.39	2.04
	Equal variances not assumed			.37	142	.71	.32	.86	-1.38	2.03
DO	Equal variances assumed	.41	.53	.35	149	.73	.85	2.42	-3.94	5.63
	Equal variances not assumed			.35	141	.73	.85	2.40	-3.91	5.60

Table 8
Developmental Orientations of Undergraduate Students at the
Beginning and Conclusion of Fall 2010 and Fall 2011

	Fall 2010 (pre)		Fall 2010 (post)		Fall 2011 (pre)		Fall 2011 (post)	
Cultural Orientation	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Denial	9	12	5	9	12	14	5	7
Polarization	21	27	23	41	27	31	10	14
Minimization	43	56	25	45	44	51	40	56
Acceptance	2	3	2	3	3	3	15	21
Adaptation	0	0	1	2	0	0	1	1
Total	77	100	56	100	86	100	71	100

Table 9
Pre-instruction and Post-instruction Cultural Orientation Scores for Undergraduate Students
Fall 2010 (for students with both pre- and post- scores)

		N	Mean	Std. Deviation	Std. Error Mean
PO	Pre-Instruction	50	118.58	5.13	.73
	Post-Instruction	50	118.55	5.54	.78
DO	Pre-Instruction	50	86.90	14.47	2.05
	Post-Instruction	50	86.43	14.45	2.04

Table 10
Paired Samples Test, Fall 2010

		Paired Differences							
		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
PO	Pre-Instruction vs Post-Instruction	.04	5.43	.77	-1.51	1.58	.05	49	.96
DO	Pre-Instruction vs Post-Instruction	.47	13.82	1.95	-3.46	4.40	.24	49	.81

Table 11
Pre-instruction and Post-instruction Cultural Orientation Scores for Undergraduate Students Fall 2011(for students with both pre- and post- scores)

		N	Mean	Std. Deviation	Std. Error Mean
PO	Pre-Instruction	68	118.67	5.12	.62
	Post-Instruction	68	122.97	6.59	.80
DO	Pre-Instruction	68	87.82	14.92	1.81
	Post-Instruction	68	98.50	17.56	2.13

Table 12
Paired Samples Test, Fall 2011

	Paired Differences							
					95% Confidence Interval of the Difference				Sig.
		Mean	SD	Std. Error Mean	Lower	Upper	t	df	(2-tailed)
PO	Pre-Instruction vs Post-Instruction	-4.30	6.85	.83	-5.96	-2.64	-5.18	67	.00
DO	Pre-Instruction vs Post-Instruction	-10.67	17.85	2.16	-14.99	-6.35	-4.93	67	.00

Data analysis showed that students in both semesters (Fall 2010 and Fall 2011) began their classes at the same levels of intercultural competency. This suggests that university instructors might conclude that sophomores and juniors (without earlier intentional intervention) arrive in classrooms with ethnocentric views that minimize cultural differences between themselves and others.

Statistical analysis showed that students at the beginning of their pre-service teacher education usually overestimate their intercultural competency. They are likely to agree that, "I can look at the world through the eyes of a person from another culture," or, "It is appropriate that people from other cultures do not necessarily have the same values and goals as people from my culture" (Hammer, 2009a). This suggests that undergraduate students perceive that they have achieved a highly developed level of intercultural competence. Statistical analysis revealed that students at the beginning of their pre-service teacher education usually have a developmental orientation toward cultural differences that is more ethno-centric and are more likely to minimize cultural differences and emphasize human commonalities.

In the United States, undergraduate students value the American principle of respecting and "accepting" persons of all cultures and backgrounds: all are created equal. Everyone has equal opportunity. We should treat others as we want to be treated. Holding such values does not necessarily mean that individuals act on those values. However, the students' actual knowledge, understanding, and reflections are not based on life experiences that enable them to actually, deeply understand and accept the other culture and its complexities. University students are in a life-stage in which coming together around commonalities is important for tasks such as succeeding at a career or achieving a university degree. This makes sense because undergraduate students are exploring ways to understand the world, to find their future career paths, and to "fit in" to their future work.

On the other hand, the students may miss opportunities to treat others according to the others' cultural norms and fail to understand their own cultural privileges. Guo, Arthur, and Lund (2009) reported that the pre-service teachers' understood diversity as within the "other" and not about themselves as well as the "other." Diversity to these students involved cultural festivals, food, costumes, games, and celebrations. There is room for a lot of learning as students come to understand their own culture and experiences through knowledge and reflection.

Comparison of the perceived orientation and the developmental orientation revealed that there is a gap between the university students' orientations to cultural differences. Their perceived orientation to cultural differences was in ethno-relative acceptance, while their developmental orientation to cultural differences was in low, ethno-centric minimization. The gap suggests that the students have not yet achieved cultural self-awareness as deeply as they believe.

In addition to starting levels of intercultural competence, this study also examined changes in cultural competency among undergraduate students who participated in domestic, intensive and intentional cross-cultural experiences. The hypothesis was that the intensive, intentional, and reflective cross-cultural experiences will have a positive impact on the cultural

competency of each student who completes a course. The data analysis, however, showed no statistically significant change among students who completed the course in Fall 2010. About half the students progressed positively in their intercultural competence, and about half the students actually decreased in their intercultural competence. The average change was +.47. Results of Fall 2010 appear to echo results of studies in the mid-1990s (Garmon, 1998; Zeichner et al., 1998). These earlier studies suggested that multicultural education courses for pre-service teachers actually reinforced low expectations by reporting historic lack of success for minority students.

For the instructor, this was disheartening. As a result, the instructor examined the course assignments and teaching and learning strategies. See section 3.3 for a description of the structure for Fall 2010. Reflection led the instructor to realize that the course was organized according to the desired outcomes, as if the students were already at ethno-relative stages of orientation to cultural diversity. The instructor examined high-impact activities reported in other literature (Carter-Merrill, 2006; Middleton, 2002; Paige et al., 2003; Zeichner et al., 1998). For Fall 2011, the instructor re-structured the course so that the strategies began where the students were at entry to the course (ethno-centric and early minimization). Teaching strategies and assignments, then, were facilitated to lead students to reflect on their knowledge, values, and experiences.

The data analysis for Fall 2011, showed statistically significant change among students who completed the course. Almost all the students progressed positively in their intercultural competence. The average change was +10.67. Evidently, higher education teaching and learning can incorporate strategies to enhance the students' experience, knowledge, reflection, and subsequent self-awareness.

Conclusions and Recommendations for Future Research

Teacher preparation programs and accreditation organizations have acknowledged need for educators to demonstrate intercultural knowledge, skills, and abilities. Teacher educators are responding to emphasis in higher education to assure that graduates achieve intercultural competence (NCATE, 2008). This study compared the cultural competency of university students before and after participation in domestic intensive and intentional cross-cultural undergraduate courses.

Data analysis showed that undergraduate students began their semesters at the same levels of intercultural competence, with ethnocentric views that minimize cultural differences between themselves and others.

Students usually began with overestimating their intercultural competence as ethnorelative. However, their actual developmental orientation toward cultural differences was more ethnocentric. Due to their lack of experience among people of cultures different than their own, they were more likely to minimize cultural differences and emphasize cultural commonalities.

Results after the first semester, which included more traditional research reports and multiple short papers, showed no statistically significant change in students' cultural competence. After a semester with higher-impact activities (e.g., cultural partnerships), subjects showed statistically significant positive gains in their orientations to cultures different than their own. In order to nurture teachers who are culturally competent, teacher educators need to begin at the level of the students' cultural orientations and challenge their subsequent growth.

This baseline data will be used by the College of Education to plan interventions and to evaluate effectiveness of teacher preparation programs. Results will be used by the local university to facilitate strategic initiatives to educate undergraduate students in multicultural diversity. Researchers expect that students at Minnesota State University, Mankato, will show positive gains in overall intercultural competence. The research will provide students and faculty members with a collaborative, critical reflection about culture and education in diverse environments.

The investigator intends that the results will provide valuable data about change among students, thereby paving the way to enhance the ability of university instructional staff to design courses and experiences for students that match their current levels of intercultural orientation. Faculty members can use Minimization as a starting point to conceptualize the content and methodology of TEP. Then faculty members themselves should practice self-understanding and self-reflection on their own cultures. Mentoring provided by the faculty members should lead TEP graduates to enhanced cultural competency, combined with affective commitment so that classroom teachers become increasingly effective in the classrooms, cafeteria, and other school settings. Faculty members may use data from the IDI to develop goals, adopt assessments, document progress, create self-reflection, and design mentor feedback. Future data analysis should collect and analyze data to accomplish the following:

1. Explore the relationship of specific cultural backgrounds among participants (such as gender, ethnicity, or country of origin) and their resulting change (or lack thereof) in intercultural competence.

2. Explore the interaction effects for academic classification and academic major.
3. Analyze quantitative data in IDI subscales, e.g., denial, disinterest, avoidance, defense, reversal, adaptation, and cultural disengagement.
4. Explore the interaction effects for specific instructional activities and changes in cultural competency.

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