EFFECTS OF MULTICULTURAL GROUP PROJECTS ON DOMESTIC STUDENTS’
INTERCULTURAL COMPETENCE

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ABSTRACT

This embedded, concurrent mixed-methods study explored intercultural competence development within domestic undergraduate students by implementing an “Internationalization at Home” program within a Business Communications course. The qualitative (QUAL) portion utilized a case study design to report events that occurred throughout a semester long course-based program where students participated in multicultural and monocultural teams and culminated with a group paper and presentation. The quantitative (quan) portion was a causal comparative study that statistically evaluated the relationship between group composition and intercultural competence development within domestic students. The study’s intent was to answer the following primary mixed-methods question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence?

Students in the first Business Communications course were enrolled in the multicultural group, and students in the second Business Communications course were enrolled in the monocultural group. The students enrolled in the multicultural group (N=22) consisted of sixteen domestic students (n=16) and six international students (n=6). The monocultural group (N=7) participants consisted of seven domestic students. Both groups progressed through the same course-based program.
All results were assessed and evaluated using the Intercultural Development Inventory (IDI) (Hammer, 2009), which is based on the Developmental Model of Intercultural Sensitivity (Bennett, 1993b). The results showed the following: all team average IDI scores increased; of the 29 students (including the international students), 21 (72%) increased their IDI scores and 8 (28%) regressed; of those who increased their scores by more than 10 points, two were from the monocultural group; of those who regressed by more than 10 points, four were from the multicultural group. The qualitative portion of the study showed many students improved their intercultural competence by expressing cultural curiosity and identifying cultural differences and similarities. However, the quantitative portion reported no significance between group composition, multicultural or monocultural, and intercultural competence growth. Although the study had many intervening variables, the course-based program created a meaningful dialogue for those involved, which ultimately improved many participants’ intercultural competence.
DEDICATION

I dedicate this dissertation to two groups of people: my family and the participants. My husband, Grant DeProw, earned at least 20 percent of this doctorate by serving as my proofreader and cheerleader. I am forever grateful for his help and love. My parents, Dr. Vance and Jean Sales, encouraged and helped me accomplish this goal by supporting me with their love and advice. Last, are my three older brothers, Vance, Jr., Hugh, and David, which are more successful than I am. One is a retired and decorated Army Colonel and helicopter pilot. The second is a skilled medical doctor and surgeon. The last is a retired and decorated Army Lieutenant Colonel and master logistician. I had to do something to keep up with their career accomplishments. This time, I may have finally matched or perhaps surpassed them.

Finally, I dedicate this to the participants within the study. Without their commitment to this research, I would not have accomplished my goals. Thank you for assisting me with my research and personal goals.
<table>
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<tr>
<th>Abbreviation</th>
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ACKNOWLEDGEMENTS

My dissertation committee consisted of professional individuals who were dedicated to my passion for this topic. Dr. K.B. Melear served as Chair, and was the voice of emotional support. This topic was discovered during his Comparative Higher Education course in South Africa. His confidence in my abilities was greater than my own. Dr. Kathleen Sullivan returned from retirement to assist me with the methodology. Her kind words of guidance and quick email responses were most helpful. Dr. Amy Wells Dolan was the member who always wanted more from me than I thought I could produce. Her confidence in me was definitely greater than my own. Dr. John Holleman was the member who asked the questions that I had not really asked myself, but he did so in a kind and caring manner. The last committee member was Dr. Deborah Chessin who was the energizer and person who understood intercultural competence assessment the most. I will always appreciate her contribution to the committee’s understanding of the topic; especially when I was not doing a good job explaining my thoughts. This committee asked me to make many adjustments to my prospectus, which increased my knowledge of research design and increased my critical thinking skills. I will always be forever grateful to them for my education.

Finally, Dr. Darla Deardorff allowed me to use her Process Model for Intercultural Competence diagram in my literature review. Her kind words through email communication
were helpful and encouraging. She claims she wants to read this dissertation, which I will send to her as soon as I have graduated.
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CHAPTER 1
INTRODUCTION

Globalization is a worldwide phenomenon centered on politics, government structures, and economics. According to Friedman (2005), globalization started with the fall of the Berlin Wall in Germany on November 9, 1989. From 1989 to present, Friedman (2005) hypothesized the reasons for the rapid growth of globalism. His reasons included the fall of communism by combining east and west Germany; release of Netscape, the first internet browsing software; open-source computer code available to anyone with an internet connection; free-trade agreements among nations; outsourcing and offshoring jobs by large American corporations; and fiber-optic, high-speed internet connection between continents around the globe. Friedman (2005) claimed these technological and capitalistic endeavors created an environment for exponential growth of global free trade and as he proclaimed “the world is flat” (p. 8).

Postsecondary education is in a race to participate in globalization, and the internationalization of higher education is a response to this phenomenon. The free flow of information through the internet, mobility of people, implementation of global free trade and commerce, and the World Trade Center attack on September 11, 2001, have led institutions of higher education to implement internationalization strategies. The American Council on Education (ACE) noted that our nation’s effectiveness depends on developing a globally
competent citizenry (American Council on Education Center for Institutional and International Initiatives, 2002; Olson, 2005). A globally competent citizen is one who can live and work in an increasingly global society (Haigh, 2002; Summers & Volet, 2008) and who has intercultural competence (Hammer, 2009; Hammer, 2011; Bennett, 1993b; Hammer, Bennett, & Wiseman, 2003; King & Baxter Magolda, 2005; Leask, 2009). The ACE and the Center for Internationalization and Global Engagement (CIGE) (2012) survey of 1,041 United States (U.S.) postsecondary institutions asserted that “graduates must possess intercultural skills and competencies to be successful in this globalized world, and higher education institutions must commit to helping students achieve these outcomes” (p. 3). What is internationalization exactly?

Hudzik (2011) wrote a definition of comprehensive internationalization that merges globalization and higher education’s need to participate within it. He stated:

Comprehensive internationalization is a commitment, confirmed through action, to infuse international and comparative perspectives throughout the teaching, research, and service missions of higher education. It shapes institutional ethos and values and touches the entire higher education enterprise. It is essential that it be embraced by institutional leadership, governance, faculty, students, and all academic service and support units. It is an institutional imperative, not just a desirable possibility.

Comprehensive internationalization not only impacts all of campus life but the institution’s external frames of reference, partnerships, and relations. The global reconfiguration of economies, systems of trade, research, and communication, and the impact of global forces on local life, dramatically expand the need for comprehensive internationalization and the motivations and purposes driving it (Hudzik, 2011, p. 6).
The “action” to which Hudzik (2005) referred is observed when comprehensive internationalization manifests itself into a variety of tactical strategies within higher education. These strategies may include any or all of the following: recruiting international students at the undergraduate and graduate levels; providing faculty and staff development; establishing or expanding short- and long-term study abroad programs; internationalizing the curriculum and faculty intervention; nurturing collaborative relationships with foreign universities; and implementing “internationalization at home” (IaH) initiatives. The most common internationalization strategies are international student recruitment and study abroad programs. According to the Open Doors Report on International Educational Exchange (2010, as cited in A Project Atlas Report, 2011) “there were over 690,000 international students studying in the United States and an additional 115,000 international scholars doing research or teaching on campuses across the country” in 2009/10 (p. 37). In fact, the ACE and CIGE (2012) reported that “60% of doctoral, master’s, and baccalaureate institutions provided scholarships or other financial aid for international undergraduate students” (p. 17). Although the United States (U.S.) has been the leading destination for international students since the 1950’s, the U.S. sends very few students to study abroad (ACE, 2012; A Project Atlas Report, 2011).

The number of study-abroad students from the United States has tripled in the last 20 years; however, in 2008/09, there were only 260,327 students studying abroad, most of whom were studying in Europe (Open Doors Report on International Educational Exchange 2010, as cited in A Project Atlas Report, 2011). More U.S. students are beginning to study in Africa, Asia, Latin America, and the Middle East, but Europe remains the most popular destination (A Project Atlas Report, 2011). Even though the numbers of United States’ study abroad students is increasing, only 1% of all United States postsecondary students take advantage of short- or long-
term study abroad programs (A Project Atlas Report, 2011). The remaining 99% may or may not have opportunity for a meaningful experience with another culture. According to ACE and CIGE (2012) survey, 90%, 61%, and 63% of doctoral, master’s, and baccalaureate institutions respectively offered specific scholarships for education abroad. In spite of this, 78% of responding institutions had less than 5% of 2011 graduates participating in study abroad programs (ACE, 2012). For many higher education institutions who strive to develop a globally competent citizenry, study abroad experiences may not be a viable strategy for its domestic students regardless of funding or rationale. Combining internationalization strategies, such as IaH, curriculum internationalization, faculty intervention, and international student recruitment, could create an opportunistic environment to develop students’ intercultural competence for living and working in an increasingly global society.

**Conceptual Foundation of Study**

According to ACE (2012), it is higher education’s responsibility to ensure graduates develop intercultural competence through internationalization. However, there is little empirical research that supports the strategies for intercultural competence development in the absence of study abroad programs. To explore the conceptual foundation of this study, an overview of IaH, intercultural competence and assessment, relevant research, and existing knowledge gaps are explored.

Nilsson (2003) was credited with developing the concept of IaH in the late 1990s when the Swedish government realized that global competitiveness resided in the knowledge, skills, and attitudes of its citizens. Nilsson (2003) defined IaH as “any internationally related activity with the exception of outbound student mobility” (p. 31). Given the statistics on study abroad
programs (ACE, 2012; A Project Atlas Report, 2011), postsecondary institutions should consider developing alternative strategies to develop students’ intercultural competence.

Jones (2007) noted that “international students are now seen to be at the heart of the university and a valuable source of cultural capital” (p. 25). However, domestic and international student interaction is limited and difficult to foster. According to Peacock and Harrison (2009), lectures and seminars do not provide the occasion for meaningful interaction between domestic and international students, but group and project work improve the chances of significant interaction. The most promising strategy appears to be faculty intervention through multicultural work groups embedded into course pedagogy, which capitalizes on the increasing numbers of international students on many campuses across the country.

Waistell (2011) wrote that multicultural group work as an important workplace skill and developing intercultural competence may ease concerns about working with a future international team. As higher education continues to promote IaH through curriculum internationalization, faculty intervention, multicultural group assignments, projects and experiences, business courses offer the opportunity for collaboration between domestic and international students, as well as provide a realistic simulation of the work environment post graduation.

Research in areas such as management training, business communications, employment skills, and globalization support IaH strategies that implement multicultural group assignments and projects. Business classes are popular for researching multicultural group work, because they have a high probability for domestic and international students to collaborate. According to UNESCO’s Global Education Digest 2009 (as cited in Macready and Tucker, 2011, p. 20), business and administration are the most popular fields of study for international students.
globally with one in four choosing these programs. Moreover, business and administration programs are also popular with domestic students. Briguglio (2007), Crose (2011), De Vita (2002), Summers and Volet (2008), Volet and Ang (2012), and Waistell (2011) based their research within either management, marketing, or business communication courses. These formal academic activities created the greatest opportunity to develop intercultural competence (Briguglio, 2007; Crose, 2011; Deardorf, 2006; De Vita, 2002; Krajewski, 2011; Leask, 2009; Summers & Volet, 2008; Volet & Ang, 2012). The questions remaining are what is intercultural competence and how is it assessed.

Deardorff (2004, 2006) researched the meaning of intercultural competence extensively. She surveyed 73 U.S. intercultural scholars for a definition of intercultural competence that produced the following: “the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills, and attitudes” (p. 247-248). The process for developing intercultural knowledge, skills, and attitudes requires three key ingredients (Bennett, 1993b; Deardorff, 2004, 2006; King & Baxter Magolda, 2005). First is a clear understanding of one’s own cultural identity. Second is knowledge of cultural similarities and differences between one’s own culture and other cultures. Third is contact with people from other cultures and regions to obtain intercultural communication and behavioral skills. Numerous researchers have declared that intercultural competence is the most desired educational or learning outcome of internationalization (Deardorff, 2005, May/June; Deardorff, 2006; Deardorff & van Gaalen, 2012; King & Baxter Magolda, 2005; Nilsson, 2003).

Deardorff (2004, 2006) continued her research into intercultural competence assessment as a learning outcome. She concluded that intercultural competence could be measured and assessed, but a mixed methods research design was ideal. Her work concluded that a mixed
methods research design should incorporate student interviews, student paper/presentation, observation, student portfolios, professor evaluation, and/or pre-tests and post-tests or surveys to determine if intercultural competence was achieved (Deardorff, 2004; 2005, May/June; 2006). According to ACE and CIGE (2012), 55% of U.S. institutions surveyed assessed international learning outcomes that focus on individual learning or curriculum and pedagogy improvements. However, there are few empirical studies that focus on specific strategies for intercultural competence development.

Research that evaluated domestic students’ intercultural competence after working with international students is limited. In spite of this, two research studies evaluated domestic students’ willingness to work in a multicultural group, but the context of these studies was Australia, which has more international students as a percentage of national total enrollment than any other country (ACE, 2009). Both studies reported domestic students do not want to work with international students. Summers and Volet’s (2008) quantitative study assessed the desires of students to work in multicultural groups before and after a class project. Summers and Volet’s (2008) overall conclusions were as follows:

The observed comparisons of student’s pre- and post-task appraisals of mixed group work gives cause for concern, for whatever reason significant differences were detected between students pre- and post-task attitudes, observed changes were in the direction of more negative attitudes by the end of the group project (p. 367).

These results coincided with Volet and Ang’s (2012) research. Their qualitative study focused on Australian and international students’ desire and willingness to form multicultural groups for class projects. They concluded “students not only preferred to work with peers from similar cultural backgrounds but remained reluctant to mix after a successful cross-cultural experience is
of concern” (Volet & Ang, 2012, p. 33). These results highlight the gaps in existing knowledge about internationalization and intercultural competence and raise a critical question: even though students lacked the desire to work in multicultural groups, did their intercultural competence increase?

To date there is no empirical research assessing the changes in a postsecondary undergraduate student’s intercultural competence after completing a formal academic multicultural group project. Several scholars noted the need for research in this area. Deardorff (2006) listed several questions for additional research, such as “how is intercultural competence developed in students through internationalization efforts” (p. 260)? Summers and Volet (2008) wrote that little is known about the changes in student attitudes over the course of participating in a specific multicultural group project. In Volet and Ang’s (2012) most recent article they claimed integrated classroom practices aimed at curriculum internationalization have been reported, but there is little research about their influence on intercultural learning. Deardorff (2005) and Deardorff and van Gaalen (2012) claimed there is much needed research specific to learning outcomes. Deardorff (2005) noted that most research focuses on study abroad programs and it is “important that outcomes assessment also focus on IaH” (p. 28). Additionally, Deardorff and van Gaalen (2012) reported that research “focused on conditions for desired outcomes rather than the actual outcomes themselves” (p. 173).

**Statement of the Research Problem**

While there is evidence of internationalization within postsecondary education, the opportunity for U.S. students to develop intercultural competence is limited and requires experience with people from other cultures. Study abroad programs seem to be an obvious answer to intercultural competence development among domestic undergraduate students.
However, for reasons beyond the scope of this study, many U.S. students do not participate in study abroad programs regardless of funding opportunities from their respective institutions. Therefore, can students develop intercultural competence without leaving their home country? Can faculty create environments where domestic and international students work together, thus providing experiences with people from other cultures? If so, what is the environment in which domestic and international students can learn from one another? Can a course-embedded multicultural group project, which simulates a work environment, be enough to make measurable changes in students’ intercultural competence levels? What pedagogical strategies must faculty implement to advance students’ intercultural competence?

**Purpose of the Study**

I created and evaluated a course-based program (see chapter 3 for details) that was intended to enhance domestic students’ development of intercultural competence through students’ participation in a small-group cultural competence intervention. Specifically, the purpose of this embedded, concurrent mixed methods study was to assess the effectiveness of IaH by combining curriculum internationalization and faculty intervention to create an environment where domestic and international students learn from one another to develop intercultural competence.

An embedded, mixed-methods design was used in which quantitative data from the Intercultural Development Inventory (IDI) was embedded within a major, case study design (QUAL+quan). The case study design described the intercultural competence development process at a small liberal arts college in the south central United States, through which students evolve during the course-based program. The case study compared and contrasted the students who participated in a multicultural team, consisting of at least one international student and two
to three domestic students, with students who participated in a monocultural team, consisting of three to four domestic students. Multicultural and monocultural group experiences were explored using document analysis, classroom observation, focus groups, and individual interviews of domestic and international undergraduate students who are enrolled in a business communications course. The descriptive quantitative data from the IDI, collected before and after the course-based program, was used to guide the analysis of individual and team intercultural competence development. A combination of both quantitative and qualitative data was used to better understand this research problem by converging both quantitative pre and post-course-based program IDI surveys and qualitative data, which provided the context of the students’ experiences.

**Research Questions and Hypotheses**

This study had one primary mixed-methods research question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence? To answer this question the following qualitative research questions and quantitative hypothesis was answered.

Five research questions guided the collection and analysis of the qualitative data. The first three research questions assess the students’ intercultural competence development. The last two questions provide insight for professors who have the opportunity to bring domestic and international students together for intercultural competence development. The research questions for the qualitative portion of this study are as follows:

1. Are there indications of individual intercultural competence development within the participants enrolled in the multicultural and monocultural groups?
2. Are there differences in intercultural competence development between those enrolled in the multicultural group and those enrolled in the monocultural group within the course-based program?

3. What effect does the initial intercultural competence level of each group member have on the advancement of, or lack of, intercultural competence?

4. From the students’ perspectives, what are the benefits and problems of working on a multicultural work team?

5. How can professors better facilitate multicultural group projects?

To answer these questions, the following questions were presented to the students:

a. How did the students adapt to cultural differences while completing the project?

b. What cultural differences created the most frustration for students? How did the students handle these differences?

c. How did the students capitalize on cultural similarities to complete the project?

The primary research hypothesis fundamental to the quantitative portion of this study is as follows:

H₀: There is not a significant relationship between multicultural and monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.

Hₐ: There is a significant relationship between multicultural or monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.
Conceptual Framework and Methodological Summary

Bennett’s (1993b) Developmental Model of Intercultural Sensitivity (DMIS) was the theoretical basis for this case study. The DMIS shows advancement of a worldview through three ethnocentric orientations (Denial, Defense, Minimization) and three ethnorelative orientations (Acceptance, Adaptation, Integration). His theory was also the basis for three important tools used in this study’s course-based program and data analysis. The first tool was Deardorff’s (2006) Process Model of Intercultural Competence (PMIC). The PMIC influenced the construction of the course-based program. The second tool was Hammer, Bennett, and Wiseman’s (2003) IDI. The IDI is a rigorously validated inventory commonly used in the research literature to assess intercultural competence. The IDI scores were used in the qualitative and quantitative portions of this study. The DMIS was also the theoretical framework for King and Baxter Magolda’s (2005) Developmental Model of Intercultural Maturity (DMIM). The DMIM included a sophisticated rubric for analyzing intercultural development called the “three-dimensional developmental trajectory of intercultural maturity” (King & Baxter Magolda, 2005, p. 576). The DMIM’s rubric was the third tool, and it was used to analyze the interviews and documents collected throughout the study for intercultural competence growth. In summary, the conceptual framework for this study was the DMIS, which was the theoretical basis for the three tools used to develop the course-based program and analyze the collected data. The DMIS, PMIC, IDI, and DMIM are discussed further in the second chapter.

Significance of the Study

This research has two potential audiences. The first audience is professional societies and their associated research journals, such as the NAFSA: Association of International Educators, European Association of International Education, American Council on Education,
and the American Education Research Association. Members of these groups would include study abroad, multicultural center, and diversity directors/coordinators. The second potential audience is university administrators and faculty. University administrators need data for accreditation purposes and assessing intercultural competence as a learning outcome will provide such data. Faculty who have a number of international students may want to incorporate the teaching strategies found within this study if the outcomes of the study are favorable for increasing intercultural competence.

Limitations

Several limitations must be noted. The first limitation was the combination of the qualitative and quantitative samples. Plano Clark and Creswell (2008) claimed this challenges the validity of the study. In many mixed-methods studies, the qualitative and quantitative samples are taken from two distinct samples. However, this study used the quantitative data to add further information about the qualitative sample (QUAL+quan) and the IDI provided norms for interpreting the findings. According to Plano Clark and Creswell (2008), this is an allowed exception.

The second research limitation was asynchronous data collection. One course section was offered per semester at the study’s setting and the multicultural and monocultural groups enrolled in Business Communications in different semesters. The same course-based program was used in classes for all groups, but the monocultural group did not have an international student as part of each group.

Another research limitation involved the national origins of the international students. The national origins of the international students were Brazil, Paraguay, China, and Kenya. The variety of cultures participating within each group created a unique working environment for
each multicultural group. The qualitative portion of this study captured the uniqueness of each group by identifying cultural similarities and differences within each team and noting the cultural and national origin of the international student assigned to each of the multicultural teams.

The fourth research limitation was the domestic students might filter their opinions from fear of perceived racist characterizations. The richness of their experiences may be filtered during the focus group interview unless they feel their comments are confidential. The students were initially interviewed individually and asked to submit a final memorandum exercise after the focus group interviews to give them the opportunity to privately communicate their thoughts and overcome negative perceptions.

The fifth research limitation was the researcher’s reflexivity. The researcher served as the course-based program’s facilitator. Her cultural background is grounded in Western traditions and norms. Her current IDI score is “minimization,” which is an emphasis on cultural similarities (see definitions below). Her cultural background and current level of intercultural competence may hinder her ability to focus on cultural differences communicated by the students. However, as the course-based program progressed, the researcher carefully assessed each group’s situation before assisting the group with any problems that may occur.

The final limitation, which applied to both the quantitative and qualitative data, was the challenge of causal attribution, since many confounding variables may influence the outcomes. In this research setting, many students lived in student housing, dined together in the college’s cafeteria, and participated in inter-collegiate athletics. Last, students’ experiences with international mission trips, vacations, or learned foreign languages may also influence students’ intercultural competence levels prior to the study. However, this data was collected, described, and analyzed in the case study.
**Delimitations**

There were two primary delimitations within this study. The first was the case study’s focus on domestic students who are business majors and minors enrolled in a business communications course, although the international students also progressed through the same course-based program. The international students’ interview responses, documents, and IDI scores were included in the analysis to better understand what happened within the groups, and thus in the domestic students’ intercultural competence development. Data from the international students’ was also analyzed to provide faculty with insight to improve course-based programs that utilize facilitated, small-group cultural competence interventions. Although the international students were an important part of the multicultural groups’ participation in the course-based program, data on any changes that might have occurred in their cultural competence was not the central focus of this study. This was because the international students are in the midst of a study abroad. Conversely, this study focused on IaH of those who have not, cannot, or will not participate in a study abroad experience.

The second delimitation was the time frame of the study. This study was conducted over one semester with each group: the multicultural and monocultural groups. This was not a longitudinal study that measured the impact of intercultural competence; it was a short-term study to assess and evaluate strategies for developing students’ intercultural competence at home through domestic and international student interaction and faculty intervention.

**Terms and Definitions**

There are six terms focusing on internationalization, eight terms associated with the IDI survey, and two definitions to segregate the students in the sample.

The internationalization terms and definitions are as follows:
1. Intercultural competence—“the ability to think and act in interculturally appropriate ways” (Hammer et al., 2003, p. 422).

2. Intercultural maturity—“capacity of becoming increasingly capable of understanding and acting in ways that are interculturally aware” (King & Baxter Magolda, 2005, p. 573).

3. Intercultural sensitivity—“the ability to discriminate and experience relevant cultural differences” (Hammer et al., 2003, p. 422).

4. Internationalization—“the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of postsecondary education” (Knight, 2003, p. 2).

5. Internationalization at Home—“any internationally related activity with the exception of outbound student mobility” (Nilsson, 2003, p. 31).

6. Monocultural group—group of three to four domestic students.

7. Multicultural group—group of three to four students with at least one student who is considered an international student.

8. Multiculturalism—“association with cultural homogeneity and the assimilation of minority cultures into a dominant culture, rather than the acceptance of cultural difference and real equality in the exchange between cultures” (Jiang, 2005, as cited in Olson, Evans, & Shoenberg, 2007).

The IDI terms and definitions are as follows:

1. Acceptance—An orientation recognizing and appreciating patterns of cultural difference and commonality in one’s own and other cultures (Hammer, 2011, p. 475).

2. Adaptation—An orientation where one is capable of shifting cultural perspective and changing behavior in culturally appropriate and authentic ways (Hammer, 2011, p. 475).
3. Denial—An orientation that likely recognizes more observable cultural differences (e.g. food) but, may not notice deeper cultural differences (e.g. conflict resolution styles), and may avoid or withdraw from cultural differences (Hammer, 2011, p. 475).

4. Developmental orientation—IDI score that places the individual along the intercultural development continuum and reflects the individual’s actual level of intercultural competence (Hammer, 2012, p. 64).

5. Minimization—An orientation highlighting cultural commonality and universal values and principles that may also mask deeper recognition and appreciation of cultural differences (Hammer, 2011, p. 475).

6. Polarization—A judgmental orientation that views cultural differences in terms of “us” and “them” (Hammer, 2011, p. 475). This can take the form of:
   - Defense-An uncritical view toward one’s own cultural values and practices and an overly critical view toward other cultural values and practices (Hammer, 2011, p. 475).
   - Reversal-An overly critical orientation toward one’s own cultural values and practices and an uncritical view toward other cultural values and practices (Hammer, 2011, p. 475).

Definitions to delineate the students in the sample are as follows:

1. Domestic students—students whose citizenship is the United States of America.

2. International students—student whose citizenship is any country other than the United States of America.
CHAPTER 2
LITERATURE REVIEW

This embedded, concurrent mixed methods study will assess the effects of “Internationalization at Home” (IaH) through multicultural group projects on domestic students’ intercultural competence development; and explore the students’ experiences that may advance or restrict intercultural competence development. In the context of the research purpose and questions, this chapter reviews of the relevant literature regarding internationalization, IaH, curriculum internationalization, intercultural competence, and intercultural competence assessment. The chapter is divided into four sections. The first section includes the origin of internationalization, definitions of internationalization, the rationale for internationalization, and examples of implementation strategies. The second section is the definition and history of IaH, specific IaH strategies, a synthesis of research on internationalizing the curriculum, faculty participation and intervention, and the results of related studies. The third section includes the importance and definitions of intercultural competence, and a synopsis of three intercultural competence development models. The final section is an appraisal of pertinent literature on assessment of intercultural competence as a learning outcome.
Internationalization

The internationalization of higher education is frequently mistaken for globalization (Altbach, 2004). Salmi (2000, as cited in Johnstone, 2010, p. 15), a leading higher education specialist with the World Bank, described globalization as:

The process of growing integration of capital, technology, and information across national boundaries in such a way as to create an increasingly integrated world market, with the direct consequence that more and more countries and firms have no choice but to compete in the global economy” (Salmi, 2000, as cited in Johnstone, 2010, p. 15).

Another definition of globalization related specifically to higher education is “the economic, political, and societal forces pushing 21st century higher education toward greater international involvement” (Altbach & Knight, 2007, p. 290). Thus, the internationalization of higher education is a response to globalization. Global investment capital has become increasingly interested and dependent on higher education to supply the emerging “knowledge society” with highly educated and trained employees to maintain and continue economic growth (Altbach and Knight, 2007). The free flow of information through the internet, mobility of people, implementation of global free trade and commerce, and the World Trade Center attack on September 11, 2001 have been the impetus for institutions of higher education to implement internationalization.

The nomenclature associated with internationalization is often confused with multiculturalism. Olson, Evans, and Shoenberg (2007) provided a thorough analysis of the differences between internationalization and multiculturalism. They highlight two distinct differences. First, internationalization is a commonly used term in postsecondary education research. Conversely, multiculturalism is regularly employed in K-12 education research.
However, the meaning of internationalization and multiculturalism goes beyond mere nomenclature that distinguishes research between education sectors. According to Olson, et al. (2007), internationalization “emphasizes a process approach, that is, how institutions can more effectively produce global learning through an ongoing, systemic, and intentional process” (p. viii). Olson, et al. (2007) differentiated multiculturalism from internationalization by citing Jiang’s (2005) research. Jiang (2005, as cited in Olson, et al., 2007) declared that multiculturalism has “come to be associated with cultural homogeneity and the assimilation of minority cultures into a dominant culture, rather than the acceptance of cultural difference and real equality in the exchange between cultures” (p. ix). For the purpose of this research, the term internationalization is used. So, what then is the definition of internationalization?

Several scholars have attempted to define internationalization. Altbach (2004) defined internationalization as “the specific policies and programs undertaken by universities to cope with or exploit globalization” (p. 3). Altbach’s (2004) definition missed the depth of higher education internationalization because globalization is a reference to global political and economic forces, whereas internationalization concerns educational activities (Svensson & Wihlborg, 2010). However, Green (2002) asserted that internationalization is more than “adding a language requirement, introducing a global requirement in the general education curriculum, or increasing the number of students going abroad” (p. 16). Nilsson (2003) defined internationalization as “the process of integrating an international dimension into the research, teaching, and services function of higher education” (p. 31). Knight (2003) crafted a widely recognized working definition, which stated “internationalization at the national, sector, and institutional levels is defined as the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of postsecondary education” (p. 2). These
definitions, though broad, only answered the question “what” without answering the question “how” or “why.”

Hudzik (2011) and the National Association of Foreign Student Advisers (NAFSA): Association of International Educators, a professional organization that promotes international education, developed a definition of comprehensive internationalization. This lengthy, yet modern, definition attempted to answer the “what, how, and why” questions. As previously presented, Hudzik stated:

Comprehensive internationalization is a commitment, confirmed through action, to infuse international and comparative perspectives throughout the teaching, research, and service missions of higher education. It shapes institutional ethos and values and touches the entire higher education enterprise. It is essential that it be embraced by institutional leadership, governance, faculty, students, and all academic service and support units. It is an institutional imperative, not just a desirable possibility.

Comprehensive internationalization not only impacts all of campus life but the institution’s external frames of reference, partnerships, and relations. The global reconfiguration of economies, systems of trade, research, and communication, and the impact of global forces on local life, dramatically expand the need for comprehensive internationalization and the motivations and purposes driving it (Hudzik, 2011, p. 6).

Hudzik’s (2011) definition was certainly more robust, but it left the participants of higher education wondering exactly how to accomplish internationalization and needing more rationale to justify the infusion of international and intercultural viewpoints into teaching, research, and service.
One of the most compelling reasons to initiate internationalization within higher education is to create a globally competent citizenry. The American Council on Education noted our nation’s effectiveness depends on developing a globally competent citizenry (2002). A globally competent citizen is one who can live and work in an increasingly global society (Haigh, 2002; Summers & Volet, 2008) and who has intercultural sensitivity and competence (Bennett, 1993b; Hammer, 2009; Hammer, 2011; Hammer, Bennett, & Wiseman, 2003; Leask, 2009). Developing a globally competent citizenry requires knowledge, skills, and contact with people from other nations (Leask, 2009). The National Association of Colleges and Employers claimed employers increasingly need employees who can adapt and navigate new cultures as jobs become more global (Matherly & Nolting, 2007). Matherly and Nolting (2007) alluded to an experience deficit among graduates that creates a critical employment divide: those who have international experience and those who do not. Institutions of higher education have the opportunity to provide international experiences for students by implementing internationalization strategies. Globally competent citizens are comfortable crossing political, economic, and cultural boundaries (Olson, 2005). How, then, can colleges and universities develop graduates with that degree of global competence?

Internationalization strategies cluster into two categories: cross-border and campus-based internationalization (Knight, 2010). Cross-border internationalization takes advantage of free-trade agreements, such as the General Agreement on Trade in Services (GATS) and focuses primarily on generating revenue (Altbach & Knight, 2007). Cross-border internationalization is determined by an institution’s investment and is classified as either cross-border programs or cross-border providers (Knight, 2010). Cross-border programs are delivered either face-to-face and/or through online classes. An example of a cross-border program is Duke University
offering its MBA to Koreans from its campus in North Carolina (Altbach & Knight, 2007). A cross-border provider is where the provider establishes a presence in another country (Knight, 2010). The significant difference between cross-border programs and providers is scope and size. An example of a cross-border provider is the Western International University, which is a subsidiary of The Apollo Group, who operates a branch campus in New Delhi, India called Modi Apollo International Institute (Altbach & Knight, 2007). A cross-border provider usually resides in the same country as the student and has made a large direct foreign investment; not simply exported a service.

The second internationalization strategy is campus-based internationalization. Campus-based internationalization is implemented by developing international curricula and programs, study abroad programs, international student recruitment, service learning, integration of global learning outcomes and assessment, research and scholarly activities, extracurricular activities, and liaison with local community based ethnic groups (Knight, 2010). The goal of campus-based internationalization is to increase student and faculty awareness and knowledge of global issues and greater intercultural understanding (Deardorff, 2006). Very few institutions have implemented any of these strategies (Green, 2002), but the most popular strategies, for those who have, include international student recruitment and study abroad programs (A Project Atlas Report, 2011).

Universities strengthen their international student recruiting efforts by establishing international student offices (A Project Atlas Report, 2011). According to the *Open Doors Report on International Educational Exchange* (2010, as cited in A Project Atlas Report, 2011) “there were over 690,000 international students studying in the United States and an additional 115,000 international scholars doing research or teaching on campuses across the country” in
Students from China, India, South Korea, Canada, and Taiwan comprised 52% of the international student population in the U.S. in 2009/10 (Open Doors Report on International Educational Exchange 2010, as cited in A Project Atlas Report, 2011). Although the U.S. has been the leading destination for international students since the 1950s, the U.S. sends very few students to study abroad (A Project Atlas Report, 2011).

The number of study-abroad students from the United States has tripled in the last 20 years. However, in 2008/09, there were only 260,327 students studying abroad, most of whom were studying in Europe (Open Doors Report on International Educational Exchange 2010, as cited in A Project Atlas Report, 2011). More U.S. students are beginning to study in Africa, Asia, Latin America, and the Middle East, but Europe remains the most popular destination (A Project Atlas Report, 2011). Even though the numbers of U.S. study abroad students is increasing, only 1% of all United States postsecondary students take advantage of short- or long-term study abroad programs (A Project Atlas Report, 2011). The remaining 99% have a limited opportunity for a meaningful experience with another culture.

The concept of internationalization can have many different meanings and can manifest itself in a variety of different, tangible strategies. For those students who cannot travel and study abroad, alternative opportunities are available through campus-based internationalization called Internationalization at Home (IaH).

**Internationalization at Home**

Nilsson (2003) claimed he developed the concept of IaH in 1998 when working at the newly minted Malmö University in Malmö, Sweden. Nilsson (2003) defined IaH as “any internationally related activity with the exception of outbound student mobility” (p. 31). At the time of Nilsson’s article (2003), Malmö, Sweden had a population of 300,000, which included a
large immigrant population (35%) from 170 countries. This environment offered a unique opportunity for a meaningful cultural experience for native Swedish students. The Swedish government believed the country had to internationalize to remain economically and globally competitive. When Nilsson (2003) began his career at Malmö University he admitted “it will be a long time before the university reaches its goal of 10% of students exchanged, and an even longer time before it creates an international classroom with foreign students” (p. 34).

Nilsson (2003) and his team at Malmö University decided to implement an IaH program, which would increase students’ and staff members’ international and intercultural competence. They did this through curricula development and action-oriented measures. Nilsson and his team added courses in immigrant policy, languages, and culture. Their action-oriented measures included weekly seminars with guest speakers from the Malmö immigrant community and service-learning projects with the local immigrant families (Nilsson, 2003).

Wächter (2003) elucidated Nilsson’s (2003) account of IaH development. Wächter (2003) began his account by highlighting four phases of historical events, which propelled internationalization and IaH into existence. Phase one occurred after World War II until the mid-1980s and was characterized by individual student mobility between European countries (Wächter, 2003). Phase two, from the mid-1980s to the mid-1990s, saw the evolution to ERASMUS, which stands for European Community Action Scheme for the Mobility of University Students, and served as an organized student exchange network between European university academic departments (Wächter, 2003). Phase three began in 1995 with a shift from department internationalization to institutional internationalization (Wächter, 2003). In 2000, European education ministers met in Bologna, Italy to change the architecture of degrees (Wächter, 2003, p. 7). Phase four was a European policy agreement to accept and implement an
internationalization strategy (Wächter, 2003, p. 7). Internationalization at home became important when the education ministers and institutions realized student mobility and study abroad programs were not the only component of internationalization (Wächter, 2003, p. 8). Is IaH needed today and how, then, do universities facilitate and develop IaH?

Several researchers noted IaH needs to be further explored and expanded. Bentao (2011) wrote that Chinese universities have not fully integrated the concept of IaH into their universities and funding for IaH has been limited (p. 92-94). Coryell, Durodoye, Wright, Pate, and Nguyen (2012) asserted “for international perspectives to be offered, institutions need to internationalize the learning experiences at home” (p. 89). According to ACE (2012) and the Mapping Internationalization on U.S. Campuses’ 2011 survey, 29% of institutions surveyed required undergraduates to take courses that featured perspectives and issues from countries outside the United States and 28% required undergraduates to take courses that featured global trends and issues. The ACE report revealed there is room for improvement and a need for increased IaH and curriculum internationalization.

The Organization of Economic Cooperation and Development defined curriculum internationalization as “curricula with an international orientation in content, aimed at preparing students for performing (professionally/socially) in an international and multicultural context, and designed for domestic students as well as foreign students” (1994, p. 7, as cited in Briguglio, 2007, p. 9). Brewer and Leask (2012) advanced four distinct strategies for internationalizing the curriculum. The first strategy is to recruit international faculty, but recruiting international faculty alone is not sufficient to provide students with an advanced international experience. The second strategy is faculty development. Faculty are the key to developing an internationalized curriculum and pedagogy. Faculty development is made possible through collaboration with
international students, teaching abroad opportunities, study abroad as part of a course in which they teach, and/or attending seminars and conferences. The third strategy is recruiting international students. However, simply having a more diverse body of students does not contribute directly to the development of intercultural or international perspectives. The last strategy is study abroad. Study abroad can facilitate international and intercultural learning but, as stated previously, very few American students study abroad. Brewer and Leask’s (2012) advice assumes all students and faculty will harmoniously and willingly participate in these strategies. The reality is too few American students study abroad, and international and domestic students do not voluntarily collaborate and socialize with one another. How can American students develop an international perspective?

Faculty intervention, classroom pedagogy, relationship development, and team building must be strategically crafted to capitalize on the international student enrollment, foster international and intercultural learning, and create an academically rewarding experience for both international and domestic students (Briguglio, 2007; Crose, 2011; Deardorff, 2006; DeVita, 2002; Krajewski, 2011; Leask, 2009; Summers & Volet, 2008; Volet & Ang, 2012). Brown and Jones (2007, as cited in Coryell et al., 2012) noted “international students are now seen to be at the heart of the university and a valuable source of cultural capital” (p. 79). Faculty have the power to bring together international students and domestic students through formal and informal academic exercises.

Informal academic exercises include activities such as conversation groups where international students learn conversational English; cross-cultural lunches for domestic and international students; and cultural sensitivity workshops (Leask, 2009). This literature review will not discuss informal interactions between domestic and international students, but the
concept is compelling. This literature review is concerned with formal academic interactions and multicultural group work strategically crafted to fulfill an IaH agenda and internationalize the curriculum.

A key objective of IaH is to increase faculty engagement since they are the means for fully realizing curricular internationalization and student learning (Leask & Beelen, 2009, as cited in Brewer & Leask, 2012). Faculty are the catalyst that can bring together domestic and international students, using formal academic projects and assignments. Coryell et al. (2012) asserted faculty must offer international curriculum and courses with the opportunity for intercultural competence development. Many researchers offer further rationale for faculty intervention.

Peacock and Harrison (2009) revealed lectures and seminars do not provide the occasion for meaningful interaction between domestic and international students, but group and project work improve the chances of significant interaction. Waistell (2011) wrote that multicultural group work as an important workplace skill and developing intercultural competence may alleviate concerns about working with a future international team. As researchers continue to promote IaH through multicultural group assignments and projects, they hope this work will promote intercultural sensitivity and competence development. However, international and domestic students rarely volunteer to work together on class projects.

Faculty must facilitate domestic and international student collaboration, which does not occur easily. There is a body of research that explores the reasons for this self-imposed segregation. Peacock and Harrison (2009) found “mindfulness” was the primary reason why domestic and international students created silos of isolation. The United Kingdom (U.K.) students studied say “mindfulness” required them to give extra thought to everything they
communicated and to explain the meaning of colloquial English, which they declared to be exhausting. Summer and Volet (2008) interviewed international students, most of whom claimed they were homesick, which was intensified by the lack of interaction with domestic peers. De Vita (2002) researched the myth wherein multicultural group work produced lower grade marks. Domestic students believed working with international students would lower their course average. De Vita’s (2002) research refuted this myth by showing that multicultural groups earn higher marks than monocultural groups. Summers and Volet’s (2008) research led to discouraging conclusions. They concluded the further students advanced in their program of study, the less favorable their attitudes about working in a multicultural group. For a variety of reasons, regardless of merit or proof to the contrary, international and domestic students will not voluntarily work together in an academic setting (Volet & Ang, 2012).

Many research articles make suggestions for crafting a classroom experience that is beneficial for all students. Some of the suggestions are from articles without empirical evidence to substantiate the suggestions (Briguglio, 2007; Crose, 2011; Leask, 2009; Waistell, 2011). However, several scholars offered suggestions supported by empirical research (Deardorff, 2006; De Vita, 2002; Krajewski, 2011; Summers & Volet, 2008; Volet & Ang, 2012). Some scholars recommended multicultural groups be compulsory, to overcome domestic and international students’ aversions to mixed cultural groups, within or outside of the classroom (Briguglio, 2007; Crose, 2011; Deardorff, 2006; De Vita, 2002; Krajewski, 2011; Leask, 2009; Summers & Volet, 2008; Volet & Ang, 2012; Waistell, 2011). Crose (2011) and Leask (2009) made specific and complementary suggestions, such as using the first class sessions as “ice breakers,” to allow the students to get to know one another; organizing and communicating directions for project completion; and using in-class small group discussions to encourage collaboration. Peacock and
Harrison (2009) recommended grouping domestic and international students evenly to avoid “swamping,” which occurs when too many international students in a group “tip the balance of perception and interaction from positive to negative” for the domestic students in the U.K. De Vita (2002) suggested sharing the results of his study with students to counter the myth that working with international students lowers a domestic student’s grade. Krajewski’s (2011) student interviews produced a list of activities, which encouraged interaction, the most successful of which included preparing and giving group presentations and teamwork/interaction/small group activities. Unfortunately, domestic and international students working together to complete an academic project is not easily achieved and the desire to continue working together later is challenged by additional research.

Two research studies reported domestic students do not want to work with international students. The first was Summers and Volet’s (2008) quantitative study that assessed the desires of students to work in multicultural groups before and after a class project. They used the “Cultural Mix” subscale of the Students’ Appraisals of Group Assignments survey to measure the changes in students’ attitudes to work in multicultural groups. Summers and Volet’s (2008) overall conclusions were as follows:

The observed comparisons of student’s pre- and post-task appraisals of mixed group work gives cause for concern, for whatever reason significant differences were detected between students pre- and post-task attitudes, observed changes were in the direction of more negative attitudes by the end of the group project (p. 367).

The results coincided with Volet and Ang’s (2012) research. Volet and Ang (2012) conducted a qualitative study concerning Australian and international students’ desire and willingness to form multicultural groups for class projects. They concluded “students not only preferred to work
with peers from similar cultural backgrounds but remained reluctant to mix after a successful cross-cultural experience is of concern” (Volet & Ang, 2012, p. 33). These results raise a critical question: even though students lacked the desire to work in multicultural groups in an academic setting, after working in multicultural groups did their intercultural competence increase?

In summary, internationalizing the curriculum to include multicultural group projects and assignments in a formal academic setting and, thus, increase domestic/international student interaction, is a strategy for developing students’ intercultural competence. However, this theory suffers from the absence of empirical evidence of a relationship between multicultural group work and intercultural competence development. Before advancing a research agenda, intercultural competence and its assessment must be defined and explored further.

**Intercultural Competence**

The International Association of Universities (IAU) (2010) surveyed the leaders of universities in more than 100 countries to determine the top reasons for internationalization. The IAU (2010) reported the top reason driving university internationalization in 2005 and 2009 was student preparation to be interculturally competent and more knowledgeable about global issues. What is intercultural competence if it has both domestic and worldwide importance?

Several researchers defined and discussed the importance of intercultural competence. Nilsson (2003) defined intercultural competence as “the development of understanding, respect, and empathy for people with different national, cultural, social, religious, and ethnical origins” (p. 36). Nilsson (2003) certainly grasped the cognitive side of intercultural competence, but he did not address the skill level or adaptability needed to interact with people from different cultures. Deardorff (2006) surveyed U.S. intercultural scholars for a definition of intercultural competence, which produced the following: “the ability to communicate effectively and
appropriately in intercultural situations based on one’s intercultural knowledge, skills, and attitudes” (p. 247-248). Hammer et al. (2003) believed intercultural competence is reflected in the level of intercultural sensitivity. They defined intercultural sensitivity and competence as follows:

We will use the term “intercultural sensitivity” to refer to the ability to discriminate and experience relevant cultural differences, and we will use the term “intercultural competence” to mean the ability to think and act in interculturally appropriate ways. We argue that greater intercultural sensitivity is associated with greater potential for exercising intercultural competence (Hammer et al., 2003, p. 422).

Hammer et al. (2003) and Deardorff (2006) captured all the elements needed to become interculturally competent, which is knowledge of one’s own culture and other cultures, and the skills necessary to adapt in ways that facilitate understanding of and interaction with foreign cultures. Development of intercultural competence is quite complex. There are three models relevant to this study that attempted to explain the process of developing intercultural competence.

The first model is Bennett’s (1993b) theoretical framework for intercultural sensitivity, called the Developmental Model of Intercultural Sensitivity (DMIS). The DMIS shows advancement of a worldview through three ethnocentric orientations (Denial, Defense, Minimization) and three ethnorelative orientations (Acceptance, Adaptation, Integration). Definitions of Bennett’s (1993b) orientations are as follows:

- Ethnocentric assumes the worldview of one’s own culture is central to all reality (p. 30).

The three ethnocentric orientations are as follows:
Denial is the orientation stage in which the person does not consider the existence of cultural differences (p. 30).

Defense is the orientation stage when a person no longer denies cultural differences but recognizes the differences, which are threatening (pp. 34-35). Within the defense orientation stage, a sub-stage may emerge called reversal. Reversal is when a person may renounce one’s own culture and embrace a recently learned culture (p. 40).

Minimization is the orientation stage where cultural differences are overtly acknowledged but trivialized (p. 41).

- Ethnorelative assumes cultures can only be understood relative to one another and there is no standard of absolute virtue, which can be applied to cultural behavior (p. 46). The three ethnorelative orientations are as follows:
  - Acceptance is the orientation stage where cultural difference is both acknowledged and respected (p. 47).
  - Adaptation is the orientation stage where skills for relating to and communicating with people of other cultures are enhanced because the person develops respect for the integrity of cultures, including his/her own (p. 51).
  - Integration is the orientation stage where a person sees her/himself as existing within a collection of various cultural and personal frames of reference (p. 59).

Hammer et al. (2003) created the Intercultural Development Inventory (IDI) to assess intercultural competence by using a factor analysis grounded in the DMIS theory of intercultural sensitivity (Hammer, 2011; Hammer, 2009). The IDI was refined to its third version (v3) (Hammer, 2011; Hammer, 2009; Hammer et al., 2003). The IDI v3 results are placed on a
“developmental continuum” with seven orientations ranging from a monocultural mindset to an intercultural mindset. These seven orientations are Denial, Polarization, Polarization-Defense, Polarization-Reversal, Minimization, Acceptance, and Adaptation (Hammer, 2011, p. 475). The definition of each orientation is as follows:

- **Denial**—An orientation that likely recognizes more observable cultural differences, (e.g. food) but may not notice deeper cultural differences (e.g. conflict resolution styles), and may avoid or withdraw from cultural differences (p. 475).
- **Polarization**—A judgmental orientation that views cultural differences in terms of “us” and “them” (p. 475). This can take the form of:
  - **Defense**—An uncritical view toward one’s own cultural values and practices and an overly critical view toward other cultural values and practices (p. 475).
  - **Reversal**—An overly critical orientation toward one’s own cultural values and practices and an uncritical view toward other cultural values and practices (p. 475).
- **Minimization**—An orientation highlighting cultural commonality and universal values and principles that may also mask deeper recognition and appreciation of cultural differences (p. 475).
- **Acceptance**—An orientation recognizing and appreciating patterns of cultural difference and commonality in one’s own and other cultures (p. 475).
- **Adaptation**—An orientation where one is capable of shifting cultural perspective and changing behavior in culturally appropriate and authentic ways (p. 475).

In addition to these seven orientations, the IDI v3 provides a measure for cultural disengagement. Cultural disengagement is a “sense of disconnection or detachment from a
primary cultural group” (Hammer, 2011, p. 475). To assess cultural differences and similarities, one must have a basis for comparison, and the cultural disengagement measure provides a starting point for someone who is having difficulty assessing similarities and differences of cultures. A culturally disengaged individual must study their own culture first before evaluating similarities and differences of a different culture to one’s own culture.

The second model is the Developmental Model of Intercultural Maturity (DMIM) (King & Baxter Magolda, 2005). This model has a sophisticated rubric for analyzing intercultural development called the “three-dimensional developmental trajectory of intercultural maturity” (King & Baxter Magolda, 2005, p. 576). The first dimension is cognitive awareness, which allows one to consciously shift perspectives and use multiple cultural references at the highest level of intercultural maturity. The second dimension is intrapersonal. This dimension includes understanding one’s own identity well and considers their identity within a global context. The third phase of intercultural maturity development is interpersonal. The interpersonal dimension is characterized by engaging “in meaningful, interdependent relationships with diverse others that are grounded in an understanding and appreciation for human differences” (King & Baxter Magolda, 2005, p. 576).

The DMIS and the DMIM models are quite similar according to Spitzberg and Changnon (2009). They argued that both models require a clear understanding of one’s own cultural identity, knowledge of cultural similarities and differences, and contact with people from other cultures and regions to obtain intercultural competency. What remains is a model that discusses the sequence of learning. Is intercultural learning linear, circular, or some combination of both?
Deardorff (2006) developed the Process Model of Intercultural Competence (PMIC). This model has four stages: attitudes, knowledge and comprehension, internal outcome, and external outcome. Figure 1 is from Deardorff’s (2006) research:

![Process Model of Intercultural Competence](image)


Deardorff (2006) claimed students must start with an open and curious attitude, but then can either move in a circular learning pattern through “knowledge and comprehension/skills, internal outcome, and end with “external outcomes—effective and appropriate communication and behavior in an intercultural situation” (p. 256), which is the hallmark of intercultural
competence. Conversely, one can move in a linear fashion from “attitudes” or “knowledge and comprehension/skills” to the “external outcome” (Deardorff, 2006, p. 256). The only real difference between Deardorff (2006), Bennett (1993b), and King and Baxter Magolda’s (2005) models was Deardorff’s starting point for learning intercultural knowledge and skills, which is respect, openness, curiosity, and discovery.

In summary, intercultural competence is learned over time through exposure to people from different cultures, a curiosity about other cultures, an understanding of one’s own culture, and recognition of cultural similarities and differences. The ultimate hallmark of intercultural competence is the ability to adapt to and behave appropriately within different cultures without losing one’s own cultural identity.

Assessment of Intercultural Competence

Intercultural competence is the most desired educational outcome of internationalization (Deardorff, 2005, May/June; Deardorff, 2006; Deardorff & van Gaalen, 2012; King & Baxter Magolda, 2005; Nilsson, 2003). Deardorff (2005, May/June) recommended using the Program Logic Model for Internationalization (PLMI) when accounting for inputs, activities, outputs, outcomes and long-term impact of internationalization. “Inputs” of internationalization are defined as resources, such as “interested students, funding, institutional leadership and support” (Deardorff, 2005, May/June, p. 27). The “activities” of internationalization, which were discussed previously, include activities such as study abroad, IaH, faculty involvement and intervention, recruiting international students, and internationalizing the curriculum (Deardorff, 2005, May/June). There remains the question of how a university determines if the inputs and activities result in producing interculturally competent graduates.
The PLMI (Deardorff, 2005, May/June) continued with what is typically reported by institutions, which are the “outputs” of internationalization. “Outputs” are defined as the quantification of programs, such as the number of “participants in study abroad, international students, and students studying foreign languages” (Deardorff, 2005, May/June, p. 27). Although most institutions report the “outputs” of internationalization, these institutions are not assessing learning outcomes (Deardorff & van Gaalen, 2012; Deardorff, 2005, May/June). The final stage of the PLMI is assessing “outcomes,” which are the results of the “activities” (Deardorff & van Gaalen, 2012), and in this context is intercultural competence. The overall goal is to create a long-term “impact” on graduates who can live and work in an increasingly global world. Deardorff (2004) questioned in her dissertation whether intercultural competence be measured and thus, assessed as a learning outcome at the student level.

Deardorff (2004) surveyed intercultural administrators and scholars from 73 institutions who were engaged in internationalization to determine if intercultural competence could be assessed and the research methodology to do so. She identified these institutions through recognition from ACE or NAFSA as exhibiting exemplary internationalization efforts (Deardorff, 2004). The results were positive for assessing intercultural competence as a learning outcome and she probed further for the research methods to assess intercultural competence. The results of her work revealed that intercultural competence assessment should include a mixed methods research design that incorporates student interviews, student paper/presentation, observation, student portfolios, professor evaluation, and pre-tests and post-tests or surveys (Deardorff, 2004; 2005, May/June; 2006).

Other researchers offered research methodology suggestions when attempting to empirically investigate and assess the significance of multicultural group projects on intercultural
competence development. Pedersen (2010) advised collecting background information about domestic students’ experiences with other cultures, such as travel abroad or student exchange participation to correlate previous experiences with the classroom experience. She also suggested a curricular intervention where students and professors discuss culture, communication, and social differences. Deardorff and van Gaalen (2012) recommend using control groups because they are rarely used. Furthermore, the treatment or learning process must be long enough for multicultural groups to overcome the initial difficulties of team building (Summers & Volet, 2008, p. 359). The final criterion for intercultural competence assessment is to identify the greatest opportunity to assess intercultural competence when using an IaH strategy and incorporating multicultural work groups.

Business classes are popular for researching multicultural group work and thus, intercultural competence assessment, because they have a high probability of collaboration between domestic and international students. According to UNESCO’s *Global Education Digest 2009* (as cited in Macready and Tucker, 2011, p. 20), business and administration are the most popular fields of study for international students globally, with one in four choosing business and administration programs. Business and administration programs are also among the most popular majors for domestic students. Many researchers based their research either on management, marketing, or business communication students (Briguglio, 2007; Crose, 2011; De Vita, 2002; Summers & Volet, 2008; Volet & Ang, 2012; Waistell, 2011).

In summary, intercultural competence is the student-learning outcome of internationalization and it can be assessed. Assessment should move beyond mere counting of the participants in a program and, according to leading international education scholars should utilize a mixed methods approach. One of the most opportunistic chances to develop intercultural
competence is to use multicultural work groups in business classes, which attract large numbers of domestic and international students.

Need for Research and Conclusion

After numerous electronic database and internet searches and scouring the references’ lists of the research presented here, to date there is no empirical research assessing the changes in a postsecondary student’s intercultural competence after completing a formal academic multicultural group project. Several scholars noted the research in this area. Deardorff (2006) listed several questions for additional research, such as “how is intercultural competence developed in students through internationalization efforts” (p. 260)? Summers and Volet (2008) wrote that little is known about the changes in student attitudes over the course of participating in a specific multicultural group project (p. 359). In Volet and Ang’s (2012) recent article they claimed integrated classroom practices aimed at curriculum internationalization have been reported but there is little research about their influence on intercultural learning (p. 22).

Deardorff (2005) and Deardorff and van Gaalen (2012) claimed there is much needed research specific to learning outcomes. Deardorff (2005) noted that most research focuses on study abroad programs and it is “important that outcomes assess also focus on IaH” (p. 28). Deardorff and van Gaalen (2012) also reported that research is “focused on conditions for desired outcomes rather than the actual outcomes themselves” (p. 173).

In conclusion, the literature in this review substantiates the validity of this study. This study will assess United States students’ intercultural competence before and after a formal multicultural group project. The students are attending a small, liberal arts college in the south central U.S. This institution has no study abroad programs but has a robust international student enrollment in its Business Department.
CHAPTER 3
METHODOLOGY

The following chapter specifies the research design, course-based program description, participants and setting, research questions and hypotheses, instruments, and data analysis. The methodology for this study address both quantitative and qualitative approaches necessary to answer the overarching mixed-methods research question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence?

Research Design

Internationalization in postsecondary institutions attempts to generate many meaningful outcomes, but the outcome germane to this study is intercultural competence. Deardorff (2006) wrote that intercultural competence should be approached as a learning outcome and evaluates a variety of assessments by surveying international scholars and postsecondary administrators about their preferred approach for assessing intercultural competence. Overall, both international scholars and administrators agreed a mixed methods approach was the best way to assess intercultural competence (Deardorff, 2006). Creswell and Plano Clark (2011) stated a mixed methods central premise was “the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone”
Therefore, a mixed methods research design (QUAL+quan) was implemented to answer the research questions and hypotheses.

The qualitative portion (QUAL) of this study was a case study. Case study is a qualitative research approach where the unit of study is a bounded system. The goal of case study research is an “investigation of a phenomenon that occurs within a specific context” (Gay, Mills, & Airasian, 2011, p. 444). The bounded system in this study was a Business Communications course where a course-based program, which intended to increase domestic students’ intercultural competence, was implemented. The context was a small, liberal arts college in the south central U.S. The Business Communications course was a degree requirement for the business program within this particular research setting. Furthermore, Gay et al. (2011) stated that “case studies are useful when describing the context of the study and the extent to which a particular program or innovation has been implemented” (p. 445). The context and participants are described by providing demographic, academic classification, language fluency, international travel experience, campus housing, and extracurricular activity data. The course-based program was evaluated by collecting and analyzing documents throughout the course; conducting individual and focus group interviews; and triangulating the results with the quantitative portion of the study.

The quantitative portion (quan) of this study utilized a prospective causal-comparative research design. Gay et al. (2011) stated that causal-comparative research “attempts to determine the cause, or reason, for existing differences in behavior or status of groups or individuals” (p. 228), and a prospective causal-comparative study is one that begins with causes and investigates the effects (Gay et al., 2011). Causal-comparative research is used when grouping variables cannot be manipulated. In this study, natural course enrollment allowed for two groups. The first
section of Business Communications included six international students, and the second section had no international students enrolled. Multicultural work teams emerged within the first section, but no such opportunity existed in the second section, thus providing monocultural work groups. The IDI was given to all students before and after the course-based program to measure the changes in intercultural competence. This approach is supported by Deardorff’s (2006) research where 90% of administrators agreed pre- and post-tests were the preferred quantitative method for assessing changes in intercultural competence.

In summary, the case study (QUAL) provided a thorough description of the context and participants, and evaluate documents and interviews to determine “what” happened during the course-based program. The causal-comparative (quan) component evaluated the relationship between group composition, either multicultural or monocultural, and intercultural competence development. The results of the case study and the causal-comparative component were compared to provide a final analysis of student intercultural competence development.

**Course-based Program**

The course-based program to develop intercultural competence was embedded within a Business Communications course. Business Communications is a common curricular requirement for undergraduate business degree programs. The goal was to provide instruction for skill education in professional oral, written, interpersonal, and technical communication. The intercultural competence course-based program had several, sequential steps to help students understand the importance of intercultural competence. All steps led to a final written report and presentation crafted by small teams for the purposes of developing team writing and editing, and team presentation skills. Both multicultural and monocultural groups received and complete the same lectures, assignments, and team building exercises. The only difference was the inclusion
or absence of an international student within the group. The duration for the course-based program was 16 weeks. The following Table 1 provides the course-based program’s tasks, which also serve as this study’s procedures, goal for each task, and data collection point:

**Table 1. Course-Based Program Tasks, Goals, & Data Collection Points**

<table>
<thead>
<tr>
<th>Task</th>
<th>Goal</th>
<th>Data Collection Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to course and purpose of research</td>
<td>To begin conversation about intercultural competence and its importance in the current and future workplace; communicate the extra-credit policy for participation and the alternative extra-credit option for those who chose not to participate</td>
<td></td>
</tr>
<tr>
<td>Obtain signed consent</td>
<td>Garner commitment for a semester long study</td>
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<tr>
<td>Complete student information questionnaire</td>
<td>Obtain information about students’ background and weekly time commitments; information is used to create work groups</td>
<td></td>
</tr>
<tr>
<td>Complete the pre-course IDI</td>
<td></td>
<td>Pre-course IDI scores; basic demographic information; responses to categorical and open-ended questions about intercultural experiences;</td>
</tr>
<tr>
<td>Review IDI scores individually with each student</td>
<td>To continue conversation about intercultural competence; review previous intercultural experiences; discuss course project; and answer questions</td>
<td>Individual interviews</td>
</tr>
<tr>
<td>Announce work groups</td>
<td>Professor creates work groups to ensure optimal student interaction for multicultural and monocultural groups, and best match for available meeting times. All information used to make these decisions is from student information questionnaire</td>
<td></td>
</tr>
<tr>
<td>Complete Project I—Team building activities for students: • Exchange contact information • Complete a scavenger</td>
<td>To encourage interaction between all members of group by requiring the group to make decisions together and perform an entertaining task</td>
<td>Researcher observation</td>
</tr>
<tr>
<td>hunt</td>
<td>Complete Project II—</td>
<td>Complete Project III—</td>
</tr>
<tr>
<td>------</td>
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</tr>
</tbody>
</table>
| • Present scavenger hunt items to other works groups to determine group with best items  
• Write team contract | To educate students on feelings and behaviors associated with initial team formation through class discussion. Feelings are anxiety, confusion, and pride. Behaviors are getting to know team members, expressing anxiousness, and sharing acceptable, noncontroversial information (Tuckman, 1965). Present De Vita’s (2002) research to alleviate anxiety about students’ grades. De Vita’s (2002) research claimed multicultural group’s grades were higher than monocultural group’s. | Researcher observation |
| | Complete Project III— | To educate students on feelings and behaviors associated with the “storming” stage of team development. Feelings are expressing anxiety, doubt, and frustration. Behaviors are expressing anger, questioning leadership, and showing impatience (Tuckman, 1965). The ICS is an assessment of international conflict style with a thorough discussion of direct/indirect and emotional restraint/expressive communication styles throughout the world (Hammer, 2005). | Researcher observation |
| | • Discuss “storming” stage of team development (Tuckman, 1965)  
• Complete Intercultural Conflict Style (ICS) Inventory (Hammer, 2005)  
• Submit written report outline and works cited list; develop Gantt chart for remaining tasks; and team progress memo. | | |
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Project IV—</td>
<td>To educate students on feelings and behaviors associated with the “norming” stage. Feelings are acceptance of team membership and relief the project is going to work out. Behaviors are avoiding conflict, increased cooperation, and recognition of other’s contributions (Tuckman, 1965).</td>
<td>Researcher observation</td>
</tr>
<tr>
<td>• Discuss “norming” stage of team development</td>
<td></td>
<td></td>
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<tr>
<td>• Discuss “groupthink”</td>
<td></td>
<td></td>
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<tr>
<td>• Submit rough draft of written report</td>
<td></td>
<td></td>
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<tr>
<td>• Researcher discusses rough draft with each team privately</td>
<td></td>
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<tr>
<td>Complete Project V—</td>
<td>To educate students on feelings and behaviors associated with the “performing” stage. Feelings are desire to assist other team members, admiration of other members’ skills, and satisfaction with progress. Behaviors are effort toward task completion, task completion through collaborative work, effective decision making, and open, direct, professional communications (Tuckman, 1965).</td>
<td>Researcher observation</td>
</tr>
<tr>
<td>Discuss “performing” stage of team development (Tuckman, 1965)</td>
<td></td>
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<tr>
<td>Submit written report and make group presentation</td>
<td>Each student must contribute by writing their section of the paper and presenting it orally to the class. This is intended to hold each student accountable for participation in the group’s tasks.</td>
<td>Researcher observation</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Focus group interviews—Domestic and international students</td>
<td>To interview the domestic and international students separately. The intent is to minimize filtering about their experiences during the course-based program.</td>
<td>Recorded group interviews that are 50-90 minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collect team appraisal documents</td>
<td>Student evaluations of themselves, their team performance, and intercultural experiences</td>
<td>Two documents collected—team appraisal questionnaire and individual exit memorandum</td>
</tr>
</tbody>
</table>
Complete the post-course IDI

Post-course IDI scores; basic demographic information; responses to categorical and open-ended questions about intercultural experiences

**Hypotheses and Research Questions**

This study had one primary mixed-methods research question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence? To answer this question the following qualitative research questions and quantitative hypothesis were explored.

Five research questions guided the collection and analysis of the qualitative data. The first three research questions are to assess the students’ intercultural competence development. The last two questions are to provide insight for professors who have the opportunity to bring domestic and international students together for intercultural competence development. The research questions for the qualitative portion of this study are as follows:

1. Are there indications of individual intercultural competence development within the participants enrolled in the multicultural and monocultural groups?
2. Are there differences in intercultural competence development between those enrolled in the multicultural group and those enrolled in the monocultural group within the course-based program?
3. What effect does the initial intercultural competence level of each group member have on the advancement of, or lack of, intercultural competence?
4. From the students’ perspectives, what are the benefits and problems of working on a multicultural work team?
5. How can professors better facilitate multicultural group projects?
To answer these questions, the following questions will be presented to the students:

a. How did the students adapt to cultural differences while completing the project?

b. What cultural differences created the most frustration for students? How did the students handle these differences?

c. How did the students capitalize on cultural similarities to complete the project?

The primary research hypothesis fundamental to the quantitative portion of this study is as follows:

Hₐ: There is not a significant relationship between multicultural and monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.

Hₐ: There is a significant relationship between multicultural or monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.

**Participants and Setting**

There were two groups of students who served as participants in this study: domestic and international students. The international students are from Brazil, Paraguay, China, and Kenya, are all male, ranging from 21 to 26 years of age. All international students speak, read, and write English, and all are either business administration or finance majors. However, the purpose of this study was to evaluate the changes in domestic students’ intercultural competence, not the international students’. The international students were the catalyst for the emergence of the multicultural group and provide the opportunity to compare and contrast the multicultural group’s experiences with the monocultural group during the course-based program.
The domestic students are Americans between the ages of 19 and 28. Most are white but a few are African-American or Hispanic. The class included both male and female students and all are business administration, computer information science, or finance majors or minors.

The participants were recruited by offering extra credit for completing the survey and interview. Specifically, 15 points was given for each IDI survey completed and 20 points was given for completing the focus group interview for a grand total of 50 points. The course assignments and exams offer every student the opportunity to earn 1050 points. The extra credit constituted 4.76% (50/1050) of the total available points in the course. The bonus points were relatively small when compared to the overall available course points to avoid unreasonable influence or pressure to participate. For students who did not wish to participate, they were given the opportunity to earn the equivalent amount of extra credit by attending campus events and lectures. The students who desired to participate signed an informed consent document before any surveys or interviews were conducted.

Finally, the setting was a small, liberal arts college in the south central United States with an approximate enrollment of 530 students. According to the Integrated Postsecondary Education Data System (IPEDS), there are sixty-two similar colleges throughout the United States (IPEDS Data Center, 2013, March 24).

**Instruments**

The instruments for this mixed methods study included a validated instrument for the quantitative portion, and the researcher and her role for the qualitative portion. The following is a description of each.
Intercultural Developmental Inventory validity and reliability testing.

This mixed methods study utilizes the Intercultural Development Inventory (IDI) instrument for the quantitative portion of the research. The IDI v3 was given pre-course and post-course to evaluate any changes in the students’ intercultural competency. The IDI has undergone three phases of reliability and validity testing.

Hammer, Bennett, and Wiseman (2003) compiled a manuscript describing the first two phases of IDI testing. Hammer (2011) provides additional insight to the first two phases and details the third phase of testing. The IDI is grounded in Bennett’s (1993b) theoretical framework for intercultural competence called the Developmental Model of Intercultural Sensitivity (DMIS). The DMIS theorizes individuals have a worldview based on either ethnocentric orientations (Denial, Defense, Minimization) or three ethnorelative orientations (Acceptance, Adaptation, Integration). Phase one represents the development of the first IDI version through qualitative interviews with students and professionals from various cultural backgrounds to develop questions evaluating each stage of DMIS worldview. The interviews were pilot tested before they were performed, and the sample consisted of 40 men and women from a range of cultures, ages, and international experiences. The interviews produced an initial list of 239 questions. An expert panel then assigned each question to the DMIS categories, which were Defense, Denial/Reversal, Minimization, Acceptance, Adaptation, and Integration. Interrater reliabilities, better known as Cohen’s Kappa, ranged from .66 to .86 (Hammer, 2011), which allowed Hammer et al. (2003) to refine the IDI to 145 items. The 145-item version of the IDI was tested on 226 respondents, 70% from the United States and 30% from 28 different countries (Hammer 2011). The respondent pool was a diverse mix of gender, ages, education levels, and cultural experiences. Hammer et al. (2003) used a confirmatory factor analysis with a Varimax,
orthogonal rotation test and eigenvalues of 2.0 to determine if the questions would fit into the DMIS categories. Phase one produced a 60-item survey; however, the results were mixed and Hammer et al. (2003) decided the instrument needed further refinement. An independent research team accepted the task of assisting Hammer et al. (2003) with their work.

Phase one of testing was continued by Paige, Jacobs-Cassuto, Yershova, and DeJaeghere (Hammer, 2011; Hammer et al., 2003) by evaluating a 60-item survey with a sample of 330 respondents. They conducted an exploratory factor analysis producing six factors, but Paige et al. (1999, as cited in Hammer et al., 2003) concluded the 60-item IDI was not as reliable as desired for designating the DMIS orientations. Hammer et al. (2003) decided to initiate the second phase of development.

Phase two of the IDI evolution produced a 50-item survey, which Hammer et al. (2003) named IDI v2. Hammer et al. (2003) made several changes to the 60-item survey. These changes included question refinement, a five-point Likert response scale, and a demographic information section. Phase two focused on confirming the IDI v2’s content and construct validity. Additional pilot testing was conducted with a sample of 591 respondents. The authors ran three different confirmatory factor analyses with two, five, and seven factor dimensions. Hammer et al. (2003) calculated four validity measures: chi-squared to degrees of freedom; goodness-of-fit index; root mean-square residual (RMR); and root mean square error of approximation (RMSEA). All confirmatory factor analyses were evaluated with the four validity measures. Hammer et al. (2003) concluded the five-factor dimension provided the best fit for the IDI data. The concluding five factors were “Denial/Defense, Reversal, Minimization, Acceptance/Adaptation, and Encapsulated Marginality” (Hammer et al., 2003, p. 433-434). All factors had high reliability statistics (coefficient alpha greater than 0.70), which ranged from 0.80
to 0.85 (Hammer et al., 2003). Hammer et al. (2003) continued their validity testing with two additional tests.

The final rounds of testing in phase two included convergent and discriminate validity testing, and T-tests and analysis of variance (ANOVAs) calculations to examine the effects of demographics on IDI scores. Convergent and discriminate validity testing compares the correlations between commonly accepted survey instruments that measure similar and opposing phenomenon with the survey in question (Creswell, 2009). The Worldmindedness Scale and the Intercultural Anxiety scores were compared to the IDI v2 scores to determine significant positive and negative correlations. The overall results confirmed the “theoretically postulated relationships among the IDI scales and the two validation measures” (Hammer et al., 2003, p. 438). The final testing within phase two examined the effects of gender, age, education, and social desirability on the IDI scores. No significant differences were found after running T-tests or ANOVAs. Hammer et al. (2003) concluded that more research must be done to validate the sequence of intercultural sensitivity growth from one dimension to another (i.e. Acceptance to Adaptation) and to establish predictive validity of the IDI scores.

Post phase two testing centered on creating a “total IDI score” for one’s perceived intercultural competence and developmental, or actual, level of intercultural competence. This phase of testing included 766 respondents. The developmental and perceived scores received reliability scores of .83 and .82 respectively (Hammer, 2011, p. 477). The purpose of post phase two testing was to expand the IDI’s analytical capability by adding a “Developmental Score” and a “Perceived Score” (Hammer, 2011, p. 477).

Phase three of testing the IDI produced the IDI v3, which is the current version of the instrument and will be used in this study. This phase tested the IDI v2 on a more diverse sample;
continued to “fit” the IDI factors to the DMIS; and test the previous recommendation of a five-dimension model over a seven-dimension model (Hammer, 2011). Hammer (2011) administered the IDI v2 to 4,763 individuals from 11 distinct cross-cultural samples. These individuals represented managers, church members, and college and high school students from the United States, Austria, Brazil, Costa Rica, Ecuador, Germany, Hong Kong, Japan, and Italy (Hammer, 2011).

Hammer (2011) proceeded to test two-dimensional, five-dimensional, and seven-dimensional models. The tests included a ratio of “chi-square to degrees of freedom less than two; Goodness-of-Fit Index (GFI) above .90; Root Mean-Square Residual between 0 and .05; and Root Mean Square Error of Approximation (RMSEA) of .08 or less” (Hammer, 2011, p. 479). The results showed the seven-dimensional model was the best fit among three of the four tests. The results were “χ²/df=9.445, GFI=.91, RMR=.05, and RMSEA=.04” (Hammer, 2011, p. 480). The reliability coefficients for each of the seven-dimensions are as follows:

- Denial, a=.66 (Hammer, 2011, p. 481)
- Defense, a=.72 (Hammer, 2011, p. 481)
- Reversal, a=.78 (Hammer, 2011, p. 481)
- Minimization, a=.74 (Hammer, 2011, p. 481)
- Acceptance, a=.69 (Hammer, 2011, p. 481)
- Adaptation, a=.71 (Hammer, 2011, p. 481)
- Cultural Disengagement, a=.79 (Hammer, 2011, p. 481)

Included in phase three of testing, two separate validity studies were conducted with the IDI v3. The first study was a criterion validity study by Peter Bye of MDB Group, an intercultural consultancy. Human resource recruiters (n=71) from high-tech, multinational
organizations were given the IDI v3 and their scores were compared to the cultural diversity of
their newly recruited employees. The IDI v3 was administered near the time the hiring results
were evaluated. Each recruiter had a particular diversity benchmark, which they were challenged
to reach. Reaching the benchmark equated to hiring an employee from a diverse racial
background. The recruiters with the lowest IDI Developmental Orientation scores had the
highest number of benchmarks missed. Spearman rho correlation indicated a very strong,
negative correlation of -.96 between the recruiters’ Developmental Orientation scores and
benchmarks missed (Hammer, 2011).

The second validity study evaluated high school students’ intercultural competence
outcomes after a ten-month study abroad experience. The study was a pre-test, post-test, post-
posttest, control group design with a total 1500 students in the experimental group and 638
students in the control group. Hammer (2011) evaluated the growth in Developmental
Orientation scores from pre-test to post-test and the relationships of the students’ IDI
Developmental Orientation scores with pre- and post-test measures of growth in knowledge of
the host culture; intercultural anxiety; intercultural friends; and intercultural satisfaction. After
performing t-tests on the experimental and control groups, Hammer (2011) determined there was
a significant improvement in IDI Developmental Orientation scores for students who began with
a monocultural orientation and ended with a minimization orientation. Also, “increases in
knowledge of the host culture, intercultural anxiety, intercultural friendships, and satisfaction
with the study abroad experience are significantly associated with increases in intercultural
competence as assessed by the IDI” (Hammer, 2011, p. 485).

The IDI v3 uses a five-point Likert scale consisting of agree; disagree somewhat more
than agree; disagree some and agree some; agree somewhat more than agree; and agree
(Hammer, 2012). In addition to the inventory questions, the IDI v3 includes short-answer questions that ask the following:

- What is your background around cultural differences (Hammer, 2012, pp. 42-45)?
- What is the most challenging when working with people from other cultures (Hammer, 2012, pp. 42-45)?
- What are key goals, responsibilities or tasks you and/or your team have, if any, in which cultural differences need to be successfully navigated (Hammer, 2012, pp. 42-45)?
- Please give examples of situations you were personally involved with or observed where cultural differences needed to be addressed within your organization that ended both positively and negatively (Hammer, 2012, pp. 42-45).

Additionally, questions about students’ experience in study abroad, international vacations, and foreign languages spoken will be collected.

Use of the IDI is common within research studies that focus on intercultural competence development. Jackson (2008) and Pedersen (2010) both used the IDI to assess students’ intercultural competence before and after short and long-term study abroad programs. However, neither Jackson (2008) nor Pedersen (2010) used a control group. Vande Berg, Connor-Linton, and Paige (2009) used the IDI in an experimental, control group study. Their research centered on the effects of participation or non-participation in a study abroad program on intercultural competence development. Paige, Cohen, and Shively (2004) also employed the IDI in an experimental, control group study to determine the merits of intercultural training before and during a study abroad experience for students in a language-learning program. The intercultural training (treatment) consisted of reading assignments about culture and questions that stimulated
reflection on cultural similarities and differences between the host country’s people and the student. Use of the IDI in this research study was consistent with similar published research.

**Researcher and her role.**

For the qualitative portion of this study, I served as the researcher-participant-facilitator and as the professor of the Business Communications course. The following is a description of my reflexivity as a qualitative researcher, which includes IDI training, experience teaching the Business Communications course, and experience as a qualitative researcher.

I attended a three-day seminar in September 2012 for IDI administration and intercultural competence training. While attending the seminar, I learned I was in the minimization stage of intercultural competence, which means I focus on the similarities between cultures and avoid recognizing the differences. This is common when someone lives or works in a non-dominant group within a larger setting or has little knowledge of their own culture to notice important differences (Hammer, 2011; Hammer, et al., 2003). I believe I am part of the non-dominant group at work, but I believe I have a grasp of my culture, which is Western, white, middle class, and female. The dominant group consists of employees who are members of a Southern Baptist affiliated church and most are male. I am not a member of a Southern Baptist affiliated church.

I have taught the Business Communications course for 17 years within this research setting, and every year the class has included a work team, which produced an informative, business-style report and presentation. The course curriculum or pedagogy will not be radically changed to accommodate this research.

I have little research experience with qualitative interviews, but I do have some experience with document analysis. Most of my qualitative research experience centers around historical document analysis and narrative-style writing. One of my papers was recently accepted
and presented at the Southern History of Education Society, and a jointly written conference proposal was accepted for the History of Education Society for November 2013.

Data Analysis

The data analysis yielded descriptive statistics, theme analysis, and a two-way chi-square test for frequencies. The case study begins with descriptive statistics to establish the context and describe the participants by providing demographic, academic classification, language fluency, international travel experience, campus housing, and extracurricular activity data. Theme analysis was utilized to provide thick, rich descriptions of the effects group composition had on the students’ intercultural competence development. The MAXqda software was used to analyze all qualitative data, and Table 2 outlines the qualitative data analysis plan for each research question.
Table 2. Research Questions & Data Analysis Plan

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Analysis Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there indications of individual intercultural competence development within the participants enrolled in the multicultural and monocultural groups?</td>
<td>The DMIS theory guided the analysis for this research question. The DMIS, as well as the PMIC and DMIM, all agree that one’s ability to see cultural similarities and differences yields a higher level of intercultural competence. Analysis of documents, focus group interviews, individual interviews, and individual IDI scores were performed to ascertain intercultural competence development. The DMIM rubric provided a framework for this analysis.</td>
</tr>
<tr>
<td>Are there differences in intercultural competence development between those enrolled in the multicultural group and those enrolled in the monocultural group within the course-based program?</td>
<td>Researcher-participant-facilitator reviewed documents and field notes to compare and contrast multicultural and monocultural groups for differences in students’ progress during the course-based program.</td>
</tr>
<tr>
<td>What effect does the initial intercultural competence level of each group member have on the advancement, or lack thereof, of intercultural competence?</td>
<td>The pre- and post-course IDI scores and documents from each multicultural and monocultural group were evaluated for outlier scores and indications of unique internal group development. Rich description of significant events and/or emergent themes is presented.</td>
</tr>
<tr>
<td>From the students’ perspective, what are the benefits and problems of working on a multicultural work team?</td>
<td>Emergent themes are presented from analysis of all documents and interviews.</td>
</tr>
<tr>
<td>How can professors facilitate multicultural group projects better?</td>
<td>Emergent themes are presented from analysis of all documents and interviews.</td>
</tr>
</tbody>
</table>

The causal-comparative study used a two-way, contingency table chi-square analysis to test the hypotheses by statistically evaluating the relationship between group composition and intercultural competence development. The two-way, contingency table chi-square is a non-parametric test that is suitable for small sample sizes and categorical data (Hinkle, Wiersma, & Jurs, 2003).
Several iterations of the two-way, contingency table chi-square analysis were conducted using SPSS. The following is a contingency table with the iterations performed.

Table 3. Two-Way, Contingency Table Chi-Square Analysis

<table>
<thead>
<tr>
<th>Group Composition</th>
<th>Number moving to a higher level from pretest to posttest, by 1, 5, or 10 points on IDI</th>
<th>Number remaining at the same or a lower level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monocultural Group</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The final analysis compared and contrasted results of the qualitative analysis within the case study to the quantitative analysis of the causal comparative study. If students were quoted in the findings, all quotes were reviewed by the respective student through email prior to submission of the dissertation.
CHAPTER 4
RESEARCH FINDINGS

This embedded, concurrent mixed methods study proposed to assess the effectiveness of IaH by combining curriculum internationalization and faculty intervention to create an environment where domestic and international students learn from one another to develop intercultural competence. The study used the case study approach to investigate intercultural competence development in domestic undergraduate business majors and minors enrolled in two Business Communications courses. Students in the first Business Communications course were enrolled in the multicultural group, and students in the second Business Communications Course were enrolled in the monocultural group. Both groups progressed through the intercultural competence course-based program, which concluded with a written business-style report and an oral, formal group presentation. This study had one primary mixed-methods research question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence? The following chapter consists of a summary of the research findings.

The chapter begins by describing the institutional setting and participants through demographic characteristics, academic classification, campus housing, extracurricular activity data, language fluency, and international travel experience for the individuals in the multicultural
and monocultural groups. Second, the multicultural and monocultural groups’ composition are described to better understand the dynamics within each group. Third, the qualitative (QUAL) analysis of the students’ IDI scores and responses, interviews, documents, and professor-researcher observations is provided. Fourth, the participants’ feedback about the course-based program execution is explored. Last, the quantitative (quan) results of the causal-comparative research are presented.

**Setting and Participants of the Multicultural and Monocultural Groups**

The institutional setting was a small liberal arts college in the south central U.S. The environment was intimate, structured, and guided by Christian faith. There were approximately 510 full-time equivalent students, of which 70% lived in campus housing and dined in the cafeteria. Slightly over one-half of the student body participated in intercollegiate athletics and the majority of students were between 18 and 22 years of age.

The students enrolled in the multicultural group (N=22) consisted of sixteen domestic students (n=16) and six international students (n=6). The following details the demographic characteristics, academic classification, campus housing, extracurricular activity data, language fluency, and international travel experience for the domestic students in the multicultural groups. After the domestic students’ information has been presented, the same information will be presented for the international students and monocultural group participants.

**Multicultural group—domestic students.**

The first demographic characteristic for the domestic students enrolled in the multicultural groups is race. The largest racial group was Caucasian, with African-American and Hispanic following in second and third place respectively. Figure 2 provides the percentage of each race participating in the spring 2013 Business Communications course.
The second demographic characteristic is gender. The course consisted of more men than women. Of the domestic students, there were 63% men and 37% women participating in the multicultural groups. The final demographic characteristic is age. “Traditional” students dominated the domestic student group in the course, with 75% between 18 and 22 years of age. Figure 3 provides the percentage of students in the categories of 18-22, 22-30, and 31-40 years of age.
All but two domestic students were either junior or senior business majors or minors. The two students who had not matriculated 60 hours were late sophomore students. At this particular college, students who earn 45 hours may enroll in junior or senior level classes. The sophomore students both had earned 46 hours of credit and, therefore, were eligible to take Business Communications. The average number of hours matriculated prior to enrolling in the spring 2013 for all domestic students in the multicultural group was 75 with a standard deviation of 17.713.

Students’ housing choices and extracurricular activities are important to this study. Opportunities for domestic and international student interaction outside of the course-based program may affect this study’s outcomes. Students were classified into three categories of housing: dorm, off-campus, and parents. Living in the “dorm” was on-campus housing in the men’s or women’s dormitories or married-student campus housing. “Off-campus” was an
apartment or house in the residential area surrounding the college, and “parents” was living with their parents or guardians. One-half of the domestic students reported living in the dorm, while those living off-campus and with their parents were equally represented. Figure 4 shows the percentage of students’ living arrangements.

![Figure 4. Domestic Student Housing Choices (n=16)](image)

Furthermore, 50% of the domestic students enrolled in the multicultural group were student athletes. These students earned scholarships for baseball, basketball, or volleyball. Housing and extra-curricular activities, particularly sports, is presented to frame the potential for interaction between events outside of the course-based program, frequent absences due to sports, and the results of this study.

Other factors that may influence or confound the course-based program are language fluency and international travel experience. All students except one were fluent in one language—English. One student claimed fluency in Spanish and Portuguese. Zero domestic
students had participated in a short or long-term study abroad. Two students claimed to have lived outside the U.S. One student lived in Germany for two years with his military parents, and another student lived in Brazil for three years with her parents who were missionaries. Although very few domestic students have lived outside of the U.S. and no students participated in a study abroad, 50% had vacationed in another country. Figure 5 shows the percentage of students who vacationed internationally for 1 to 4 weeks.

Figure 5. Percentage of Domestic Students Who Vacationed Internationally (n=16)

**Multicultural group—international students.**

The first international student demographic characteristic is national origin. There were six international students that were enrolled in multicultural group. Three students were from Paraguay, and the remaining three students were from Brazil, China, and Kenya. The second demographic characteristic is gender. All international students were male. The final
demographic characteristic is age. Overall, the international students were slightly older than the domestic students. Figure 6 reveals that 67% were between 22 and 30 years of age.

Figure 6. Age of International Students Enrolled in the Multicultural Group (n=6)

All but one international student was a junior or a senior. As stated previously, late sophomores are eligible to take junior and senior level classes. The average number of hours matriculated prior to enrolling in the spring 2013 for all the international students was 79.5 and the standard deviation was 23.730.

The housing choices and extracurricular activities were the same for five out of the six international students. All five lived in the dormitory and all were scholarship student athletes for the soccer team. The one international student who did not live in the dormitory or play sports resided with his exchange-student host family.
The remaining factors that may influence this study are language fluency, study abroad participation, long-term international residency, and international vacations taken. First, all international students were fluent in English and their native languages. However, several were fluent in more than two languages. Figure 7 shows the number of international students with multiple language fluencies.

![Figure 7. Language Fluency of International Students (n=6)](image)

Obviously, all international students were participating in a long-term study abroad. All of the international students had lived in the U.S. for at least two years, and 50% had lived in the U.S. for three years. Only one student had lived in the U.S. for four years. Although the international students were participating in a long-term study abroad, 33% had never vacationed outside of their home country. The remaining 67% had spent two weeks vacationing internationally.
Monocultural group participants.

The monocultural group (N=7) participants consisted of seven domestic students, and their races, genders, and ages were somewhat similar to the domestic students participating in the multicultural group. All were Caucasian, and six out of seven were male. Additionally, six students, 86%, were 18-21 years of age and one student was 22-30 years of age.

All seven monocultural group participants were junior or seniors. The average hours matriculated was 75.28 and the standard deviation was 16.194. One student reported living with his parents, one student owned a home, and the remaining five students, resided in the dormitory. Additionally, 43% were student athletes, and earned scholarships for playing baseball or softball.

The students in the monocultural group reported they had no language fluency beyond English and their international travel experience was minimal. No student had lived in another country or participated in a study abroad program. Two students reported vacationing for 3 and 4 weeks respectively in another country, but 71% have never vacationed outside of the U.S.

Multicultural and Monocultural Groups’ Composition

At the beginning of the course-based program the participants were asked to complete a daily-schedule questionnaire. The questionnaire asked for each participant’s class, work, and extracurricular schedules. Participants were assigned to teams by researcher-participant through analysis of the students’ available free time. This organization structure was intended to minimize time conflicts and absences from group meetings outside of class. The following are descriptions of the teams’ compositions and the teams’ average pre-course IDI scores. Teams are identified by number and multicultural or monocultural group designation; however, these numbers have been changed from the ones used during the course-based program to ensure anonymity.
A brief explanation of the IDI scores and respective qualitative categories is needed to clarify the forthcoming information. The IDI provided the following score ranges and categories:

- Scores ranging from 55-69.99 are the “denial” category
- Scores ranging from 70-84.99 are the “polarization” category
- Scores ranging from 85-114.99 are the “minimization” category
- Scores ranging from 115-129.99 are the “acceptance” category
- Scores ranging from 130-145 are the “adaptation” category

**Multicultural group teams.**

Team One within the multicultural group consisted of four males: one Caucasian, one African-American, one Hispanic American, and one from Kenya. All members were on an athletic scholarship, business majors, and resided in the dormitory. The average number of hours matriculated was 59.25. The domestic students reported no language fluency beyond English and none had participated in a study abroad program. Although the domestic had little foreign language training or study abroad experience, two members reported vacationing outside of the U.S. and one lived for two years outside the U.S. The international student reported fluency in three languages and has lived in the U.S. for two years.

Team One’s pre-course average IDI score was 72.98, which placed the team at “polarization.” Polarization is an emphasis on cultural differences. One team member started with an exceptionally low score in the “denial” category. Denial is a lack of awareness of any cultural similarities or differences.

Multicultural Team Two was comprised of two females and one male: two were Caucasian and one from Brazil. Two of the three members were participating in athletics and
resided in the dormitory while one resided with their parents. All team members were business majors and the average number of hours matriculated was 71.67. The domestic students reported having no language fluency beyond English and no experience traveling or living outside of the U.S. The international student reported language fluency in three languages and has lived in the U.S. for two years. Team Two’s pre-course average IDI was 91.7, which places the team at “minimization.” Minimization is an emphasis on cultural similarities.

Team Three included one female and two males: two were Caucasian and one was from Paraguay. Only one participant was a student athlete and resided in the dormitory. The remaining two students lived off campus or with a parent. All team members were business majors and the number of hours matriculated was 96.33. The domestic students were fluent in one language, English, had never participated in a study abroad, or lived for an extended period of time internationally. One domestic student reported vacationing internationally for one week. The international student reported vacationing internationally for two weeks, living in the U.S. for three years, and language fluency in four languages. Team Three’s pre-course IDI was 73.37, which places them at “polarization.” Additionally, two team members began the course-based program with a low IDI score within the “denial” category.

Team Four within the multicultural group consisted of three males and one female: three were Caucasian and one was from China. One member was a student athlete and one student lived in the dormitory. Two students lived in off campus housing and one resided with a parent. Three members were business majors and one was a business minor. The average number of hours matriculated was 82.25. The domestic students did not speak additional languages beyond English, had never participated in a study abroad, or lived outside the U.S. for an extended time period. One student reported vacationing outside the U.S. for one week. The international student
spoke two languages fluently and has lived in the U.S. for four years. Team Four’s pre-course IDI average was 77.61, which is “polarization.”

Team Five was comprised of four students: two female and two male. There were two Caucasian students, one African-American, and one student from Paraguay. All were business majors, two resided in the dormitory, and two were student athletes. The remaining two resided off campus. Team Five’s average number of hours matriculated was 83.5. Two domestic students were fluent in English only, but one domestic student was fluent in three languages. Furthermore, two domestic students had never lived or vacationed outside of the U.S., but one domestic student had vacationed internationally for four weeks and lived internationally for three years. The international student reported language fluency in four languages, vacationed internationally for two weeks, and lived in the U.S. for three years. Team Five’s pre-course IDI average was 95.22, which is “minimization” an overemphasis on cultural similarities.

The final multicultural was Team Six. Team Six included four males: two Caucasian, one African-American, and one from Paraguay. Three participants were student athletes, all were business majors, and their average matriculated hours was 67.75. Three out of the four resided in the dormitory and one lived with a parent. The domestic students reported language fluency in one language, English, and none had participated in study abroad or lived extensively internationally. Two domestic students reported vacationing outside of the U.S. The international student reported language fluency in four languages, vacationing internationally for two weeks, and had lived in the U.S. for three years. Team Six’s pre-course IDI average was 78.97, which is “polarization” an emphasis on cultural differences. One student began the course-based program in the “denial” category.
Monocultural group teams.

The monocultural group progressed through the course-based program without an international student available for team assignment; therefore, two teams emerged without an international student. Students were assigned to teams in the same fashion as the multicultural teams, which was available free time in their respective schedules.

Team One consisted of four males: all Caucasian. One member was a student athlete, two lived in the dormitory, and the remaining two resided off campus and with a parent respectively. The average number of hours matriculated was 81.5. No participant lived extensively internationally, had language fluency beyond English, or participated in a study abroad. One student reported vacationing internationally for four weeks. Team One’s pre-course IDI average score was 78.04, which places the team at “polarization.” One student in the group began the course in the “denial” category.

Team Two included three students: two male and one female. Two participants were student athletes and all students resided in the dormitory. The average number of hours matriculated was 67. One student reported vacationing internationally for three weeks, but none of the participants in team two participated in a study abroad, lived extensively internationally, or spoke additional languages other than English. Team Two’s pre-course IDI average score was 81.26, which also places the team in the “polarization” category.

Qualitative Results

The participants in the multicultural and monocultural groups were eager to describe their experiences from the course-based program. The participant reflections appear to be open and honest. The following annotated team narratives include the participants’ thoughts and concerns at the beginning of the course-based program. Descriptions of each team’s progression and
significant events are outlined. The Developmental Model of Intercultural Sensitivity (DMIS) (Bennett, 1993b) established the themes for this study, which are to identify cultural similarities and differences. The Process Model of Intercultural Competence (PMIC) (Deardorff, 2006) added an additional theme, which was cultural curiosity. The Developmental Model of Intercultural Maturity (DMIM) (King & Baxter Magolda, 2005) rubric was used to evaluate the participants’ interviews, questionnaires, and exit memorandums. Noteworthy quotations from the participants are presented as recognition of cultural similarities, differences, and curiosities, and the post-course IDI scores for the team are presented. Considerable individual IDI score changes, both increases and decreases, are the last section discussed.

**Multicultural group Team One.**

The IDI contexting questions provided a snapshot of the students’ levels of intercultural experiences. Four students were assigned to Team One, and two students, one domestic and one international, began the course-based program with concerns about language barriers. Also, two domestic students and the international student offered no examples of experiences with people from a different culture. After the initial interview to review the IDI scores, one domestic student began to realize he did have experiences with people from another cultural through his father’s construction business, which hired many Mexican immigrants. Although there was little intercultural experience among three of the four members, one member began the course by stating the most challenging part of working with international peers is “understanding some of their views on subjects dealing with the economy and other world views.” This member also began the course-based program with the highest IDI score within the team and was one of only two domestic students from the multicultural group who had lived in another country. In summary, three members, including the international student, began the course with a lack of
awareness and understanding of other cultures in general, but a fourth student had a more sophisticated perspective by stating that multiple perspectives existed concerning economics, although he admittedly did not understand these perspectives.

Throughout the course-based program, Team One had difficulty meeting outside of class. All members were student-athletes and three of the four were actively engaged in their respective sports; the fourth being out of season. Additionally, the international student did not have a sense of deadline urgency and frequently chose not to attend the groups meetings later in the semester. The domestic students attempted to devise a strategy to adapt to this cultural practice by moving the meeting times to fit the international student’s schedule, but they were not successful. They did begin to realize that a sense of time urgency was a cultural norm for Americans but not for their international counterpart. For example, one domestic student wrote “The differences were minute; however, the conception of time was less important for some ethnic groups. This made for some frustrating meetings at times.”

Team One had a significant event that may have hindered the team’s progress. All teams were required to submit rough drafts of their written project to the researcher-professor. The rough drafts were evaluated for quality of sources, organization, grammar, and plagiarism. Team One’s rough draft included a section that was copied from a website. All teams were required to meet with me to review their work. During Team One’s review, it was discovered the international student submitted the copied portion of the term paper. Throughout the semester I met with this student to assist him with his research and writing; however, the trust between the members of the team appeared to be irreparably damaged.

By the end of the course-based program, three members continued to be concerned about language barriers. One domestic student’s IDI score regressed by 9 points, but the other two
student’s IDI scores increased modestly. The international student had the largest increase at 18.12 points. Overall, the team’s ending IDI score average was 78.65, which was an increase of 5.67 points but this increase was not enough to move the team from “polarization.”

**Multicultural group Team Two.**

The domestic students on Team Two began the course-based program concerned about language and communication barriers and offending their international teammate. Two teammates admitted having no experience with people from another culture. The international student began the course-based program anxious about language and religion. However, one of the domestic students reported, “after the first week or so, we were not embarrassed or hesitant to talk to one another.” One domestic teammate was distracted by work in another course, which frequently resulted in a greater opportunity for the remaining domestic student to work closely with the international teammate. In fact, the domestic student who formed a close relationship with the international student stated, “we actually shared a lot more qualities than my American counterpart and I did, which made for a better experience.”

Team Two had no significant negative episodes to report, and the members were able to identify some interesting cultural differences and similarities. First, the international student noted a lack of shared socialization among team members as a distinct difference between Brazilian and American cultures within his team. The following quote shows an acknowledgement of cultural difference and a potential reversal of cultural preferences:

In Brazil it is very common to team members socialize to get to know each one better, and during this project I realized that we did not socialize as much during and after meeting, which I believe helped our team to be totally focused on completing the tasks.
Second, a domestic team member reported on a cultural similarity she discovered during the scavenger hunt, which was one of the team-building activities. This student reported “we all valued our connections to our families, for example when we did the scavenger hunt, we used our parents as an authority symbol because we respect our parents.” A final item noted by all teammates was the desire to make a high grade. All members noted commitment to complete the project on time and make an ‘A.’

Communication barriers continued to exist at the end of the course-based program. One domestic student continued to be self-conscious about asking the international student to repeat or clarify himself during verbal exchanges. The international student confirmed this to be the case by reporting he was annoyed when Americans did not ask him to repeat himself; they would simply nod assent instead of asking for clarification. The remaining domestic student claimed that working on the multicultural team allowed her to observe how international people work and approach tasks first. Team Two’s post-course IDI average was 93.29, which was only 1.59 points higher than their pre-course IDI average. Team Three remained in the “minimization” category. The largest increase belonged to the international student at 6.58 points. One domestic student regressed slightly by 3.97 points, and the remaining domestic student’s score improved only slightly.

**Multicultural group Team Three.**

Team Three began the course-based program apprehensive about language and communication. This team was more concerned about concepts and meanings than phonetic differences. One domestic student admitted to having little experience with people from other cultures, but noted that potential differences could arise from discussions about government or business policies. Despite these misgivings, this individual began the course-based program with
one of the highest IDI scores in the multicultural group. The remaining domestic teammate began the course-based program with one of the lowest IDI scores.

Team Three did not have any significant episodes in which I was involved. However, in a private meeting with the one of the domestic students, she revealed a great amount of frustration with her male teammates. She claimed they would comment on her dress and ask her if she was going to write the paper for them. On one occasion she initiated a conversation about women’s roles. Both the international and domestic teammates replied that women do not make important decisions, and they do all the household manual labor. The role of women in the household and perhaps society at large became a shared cultural similarity between the male international and male domestic students. The domestic female student perceived this to be an insurmountable cultural difference, and she reported having difficulty forming a working relationship with either teammate. The male teammates later reported that she was a perfectionist and criticized their work often. This team also appears to have been consistently frustrated by time. The international student was frequently late to meetings and the female domestic student canceled meetings at the last minute, which frustrated the male domestic student who lived off campus and operated a small business. Analysis of Team Three’s documents and interviews reveal little about their acknowledgment of cultural differences or similarities. Furthermore, the domestic male student reported he was challenged by “getting them to understand my point of view and understanding what they are trying to say.” Perhaps, this quote represents limited communication skills or a resistance to consider differing views.

Team Three ended the course-based program with continued concerns about language and time-perception differences. The international student believed he had learned how to handle internal team conflict better. Team Three’s post-course average IDI score of 78.67, which was a
5.30 point increase. The team remained in the “polarization” category at the end of the course. The international student and female domestic student demonstrated the greatest IDI score changes. The international student increased his score by 21.52 while the female domestic student regressed by 12.92 points. The remaining domestic student increased his score by 7.3 points.

**Multicultural group Team Four.**

Team Four also started the course-based program with anxiety over language and communication. The primary concern was phonetics, but the international student had the most difficult time with language. He was a former high school exchange student where his American peers had taught him to curse in English and then teased him. One domestic student noted previous international communication experiences at his part-time job. Although this team started the course-based program with some apprehension, the team had no significant episodes that would have confounded the study.

Analysis of Team Four’s exit memorandums and IDI post-course contexting questions revealed some acknowledgment of cultural curiosity, differences, and similarities. The international student reported he would like to be a future team leader and cultural diversity made the project more interesting. Team Four recognized several cultural differences. First, one domestic student noted that working with someone from China “allowed the team, and the class, to garner a better picture on the international business practices used by this global company.” Another domestic student remarked that the international student completed his work early; a concept foreign to most American students. The international student commented that “most of the time during the meeting, we assign everyone’s job for the project, and then each member just does its own part, so not a lot of teamwork involved.” This suggests the international student
understood a difference between collectivist and individualistic cultural work habits. Three students noted conducting all oral and written communication in English as a cultural similarity; however, two students remained anxious about language as a barrier to good communication at the end of the course-based program. Team Four celebrated their success with a post-course dinner.

Team Four’s post-course IDI average was 82.51, which was 4.9 points higher than their pre-course IDI average but not enough to move the team from “polarization.” The individual changes were mixed. Two domestic students regressed by approximately 15 points each. The international student increased his score modestly, and the remaining domestic student increased his IDI score by 41.03 points. This student suggested a willingness to interact with diverse others with the following written statement at the end of the course-based program:

I used to hate team projects, and I was not too keen on the idea of having such a big one for this class. However, I have changed my opinion on that. The diversity in thought and opinions can be a really pleasant change.

**Multicultural group Team Five.**

Team Five began the course-based program with two of four students concerned about language. Two domestic students had no experience with other cultures and one domestic student had lived in another country for an extended period of time. One of the domestic students with no intercultural experience wrote “simply not knowing what to do around them, so I just try to be reserved and polite as possible.” The international student noted he was concerned about language and religion. The international student revealed his apprehension about working on the multicultural team and his concerns about religion during the initial IDI review interview. He stated that in his country no one ever asks if one is “born again or saved.” He indicated his
previous experiences with domestic students revolved around religious discussions in which he became uncomfortable.

Team Five noted several items of cultural curiosity, differences, and similarities. One student provided the following evaluation about the current project and declared her role on future projects, indicating a willingness to interact with diverse others and to test her skills in the future:

While working on this project I learned people with totally different cultures can combine their skills and ideas to make a successful project. On my next team project one thing I would do more of individually would to be more vocal and take on more of a leadership role.

Two members of Team Five commented that the international student was late to several meetings. These teammates began to realize that there exists a wide cultural gap in the concept of timeliness between North America and South America. Two cultural similarities are also noteworthy. The first was three students claimed the group had a good work ethic and finished their assignments prior to the deadlines. Second, one student highlighted humor as a cultural similarity. A potential caveat could be the interplay among individual personalities rather than broad cultural similarities.

This team had one significant episode at the end of the course-based program. Two of the female domestic students became frustrated with each other. The older female student was labeled as “mothering,” and both females were described by their male teammates as overly focused on the project’s grade. However, the group decided to have a post-course celebration dinner, which gave the impression that the inter-team conflict was short lived.
Team Five ended the course-based program with only one teammate concerned about language and time perception differences. Team Five’s average post-course IDI was 97.77, which was 2.55 points higher than their pre-course IDI average. Overall, team Five began and ended the course at “minimization.” However, the changes within the team present a mixed picture. One domestic student had a modest increase in their IDI score. The domestic student with the international living experience regressed by 26.89 points. The third domestic student incurred a 13.48-point increase, and the international student had a similar increase with 17.86 points.

**Multicultural group Team Six.**

Team Six began the course-based program with little intercultural experience. Although one domestic teammate had vacationed extensively in other countries, he claimed to have no experience with people from other cultures. Three members were apprehensive about language barriers, and the international student was concerned about being respected by his teammates.

This team had difficulty communicating throughout the course-based program. The domestic students claimed the international student did not respond to their Facebook messages or emails, and the international student reported the domestic students wanted to have spontaneous, late-night meetings. Additionally, one domestic student engaged in an argument with a Hispanic student (not enrolled in the Business Communications course) in the dormitory and was punished by the institution for comments made during this argument. The team began to know one another better as the course-based program progressed.

Team Six did not highlight any cultural curiosities or similarities, but they did discover a few cultural differences. The concept of time was a group factor. The domestic students reported the international student was frequently late to the team meetings and missed several important
deadlines. The international student was described as a “recluse” by one of the domestic students. The domestic students never overcame this cultural difference, but they were committed to making the team experience a positive one. Another difference was the way each student constructed his part of the project and presentation. The students asked for help several times throughout the semester. The team worried that I would lower the project grade for differences in writing style and organization. The team seemed relieved to know that I would grade the project based on organization, grammar, and citations, not on writing style or syntax. One student wrote “while it may not be my way, and it may be different from what I consider ‘normal,’ it is not necessarily ‘wrong’ to do things different.”

Two members of Team Six continued to be concerned about language barriers, and one member was apprehensive about the differences in time consciousness. Team Six’s post-course IDI average was 83.24, which was a 4.27 point increase but was not enough to move the team out of “polarization.” One domestic student increased his score by 14.38; another increased his score modestly; and another regressed by 5 points. The international student increased his score by .25, which was marginal at best.

**Monocultural group Teams One and Two.**

The monocultural group was asked to imagine what would be the cultural similarities and differences if there had been an international student assigned to their teams. The class was open to the idea, but in the end had few reference points on which to base their hypothetical considerations. Two students referred to previous work with international students in other classes. At one point during the focus group interview, one student admitted she had no idea how to evaluate cultural similarities or differences. The following information represents the best analysis that could be garnered from the monocultural group.
The students assigned to Team One were the most representative of a monocultural group. They were all male, Caucasian, and in their 20s. At the beginning of the course-based program, these young men stated that language would be their greatest concern if they were working with an international student. Throughout the semester, these participants offered no indication of cultural curiosity. One student noted a communication barrier by writing “in past experiences, working with students from different background slows down the project process because of having to explain yourself more often than with people from the same background.”

Another teammate provided the only cultural similarity analysis by writing the following:

The presence of an international student with cultural similarities may not have hindered the success of our team. I think as long as a clear line of communication exists within the group, then the student would have been one more valuable team member. However, if the similarity was a negative trait, then obviously this could have amplified any problem that may have existed.

All members of Team One ended the course-based program with concerns about language differences. Team One’s average post-course IDI score was 83.63, which was a 5.59 point increase but not enough increase to move the team from the “polarization” category. The individual scores show mixed results. Two teammates’ IDI scores increased dramatically. One increased the IDI score by 20.17 points, and the other by 11.82 points. A third teammate increased his score by a modest 2.89 points. The last teammate regressed by 12.52 points. This teammate started the course-based program with the highest IDI score in the monocultural group.

Team Two also began the semester by stating that language would be their greatest concern, but only two participants had the same concerns by the end of the course. One participant stated she liked working with international students, but she was referencing previous
experiences. All team members noted an element of cultural curiosity. They speculated that an international student would have provided a more diverse analysis of the project topics. For example, one student wrote “having a demographic difference, would have allowed for us to understand the impact and popularity of Samsung in his/her country. This in turn would have improved our understanding of the company globally with an outside personal view.”

Team Two could not imagine any cultural differences, but one participant made a comparable analysis as the participant on Team One. The Team Two member wrote,

If we were both driven to get the project finished and get a good grade then I think that would be a great similarity. It just depends on the similarity on whether it would help or hurt you in the group project.

This participant and the participant within Team One previously mentioned are noting that some cultural similarities could be beneficial and some detrimental to working on the class project. However, neither student actually identified the cultural similarity that would be either helpful or hurtful to the class project’s progression or completion.

Team Two’s average post-course IDI score was 88.75, which was a 7.49 point increase. This score pushed the team from “polarization” to “minimization.” All participants had a modest increase in their IDI ranging from 4.8 to 9.54 points.

**Considerable IDI Score Increases and Decreases**

A total of 29 students participated in the course-based program. Twenty-two were in the multicultural group and seven were in the monocultural group. Several students had considerable increases and decreases in their IDI scores. Nine students, 27.59%, increased their post-course IDI scores by more than 10 points. Five students, 17.24%, decreased their post-course IDI scores by more than 10 points. Twelve of the fourteen participants with considerable IDI score
changes were contacted individually. The following analysis attempts to find commonalities between these individuals. Noteworthy quotes from the twelve students are included to explore “why” and “what” happened during and outside of the course-based program.

Table 4 is a summary of the individuals who increased their IDI score by more than 10 points. The first common attribute was gender; all were male. The second was internationality; three were international students, which is 50% of the international students who participated in the multicultural group. Beyond the foregoing, there were no additional common attributes or experiences gleaned from the IDI scores. The subsequent interviews offer additional insight.

Table 4. Individual IDI Score Increases of at Least Ten Points

<table>
<thead>
<tr>
<th>Student Type</th>
<th>Gender</th>
<th>Group Composition &amp; Team Assignment</th>
<th>Pre-Course to Post-Course IDI Growth</th>
<th>Pre-Course Category</th>
<th>Post-Course Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Monocultural Team 1</td>
<td>+ 20.17</td>
<td>Polarization</td>
<td>Minimization</td>
</tr>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Monocultural Team 1</td>
<td>+ 11.82</td>
<td>Denial</td>
<td>Polarization</td>
</tr>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Multicultural Team 4</td>
<td>+ 41.03</td>
<td>Polarization</td>
<td>Acceptance</td>
</tr>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Multicultural Team 5</td>
<td>+ 13.48</td>
<td>Minimization</td>
<td>Acceptance</td>
</tr>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Multicultural Team 6</td>
<td>+ 14.38</td>
<td>Polarization</td>
<td>Minimization</td>
</tr>
<tr>
<td>International</td>
<td>Male</td>
<td>Multicultural Team 1</td>
<td>+ 18.21</td>
<td>Denial</td>
<td>Polarization</td>
</tr>
<tr>
<td>International</td>
<td>Male</td>
<td>Multicultural Team 3</td>
<td>+ 21.52</td>
<td>Denial</td>
<td>Minimization</td>
</tr>
<tr>
<td>International</td>
<td>Male</td>
<td>Multicultural Team 5</td>
<td>+ 17.86</td>
<td>Polarization</td>
<td>Minimization</td>
</tr>
</tbody>
</table>
The interviews revealed that two participants with sizeable increases in their IDI scores from Team One in the monocultural group sought a relationship with an international student outside of the course-based program. The first participant claimed he would do homework from another class with the student from Kenya during the same semester as the course-based program. He used sports as a way to foster a conversation with the Kenyan student. He wrote,

I have realized the best way to communicate with someone from a different culture is to first find something that you have in common or something you do the same as the other. Somewhere there is something you do the same and it is a good starting off point in the communication barrier. Once you find the one thing that can link two different people, it makes the communication so much easier.

The second participant shared that he had other upper-level classes with several international students and the lectures in the course-based program made him curious about these students. He claimed to have listened carefully and interacted with three international students from China, Paraguay, and Brazil in the same semester, but outside the course-based program.

The international students’ feedback provided no thematic consistency, but offered interesting insight into their experiences with the course-based program. The first international student said his experience in the course-based program was accentuated by having a teammate that was close to his age. One of the domestic students assigned to his team was the oldest student in the multicultural group. Their demographic similarity provided the opportunity for rapport and thus a positive working relationship throughout the course-based program. The second international student said he began to think about all the different cultures in his home country, comparing these sub-cultures to one another and the U.S. This comparative analysis allowed him to see and interpret cultural differences. He shared, “there are 42 tribes which are all
different in every possible way starting from language to culture.” The third international student declared that the IDI one-on-one interview at the beginning of the course-based program provoked him to reconsider culture. He wrote, “I think maybe after that meeting we had I thought you were right on me just looking at the cultural differences. Perhaps I just realized I had a xenophobic attitude that I wasn't aware of.”

The remaining two participants who increased their IDI scores considerably were part of the multicultural group. The first student from the multicultural group believed his experience was positive. He developed a close working relationship with his international counterpart and he complimented him by stating he was “intelligent, a time manager, and had a nice personality.” The second student wrote that he became “more understanding from where they come from.”

Table 5 is a summary of the individuals who decreased their IDI score by more than 10 points. The participants’ IDI responses were checked for survey completion and integrity. All surveys were completed and the responses appear to be genuine. No participant marked the same response for all survey questions. Four out of five students were contacted for personal interviews.
Table 5. Individuals with IDI Score Decreases of at Least Ten Points

<table>
<thead>
<tr>
<th>Student Type</th>
<th>Gender</th>
<th>Group Composition &amp; Team Assignment</th>
<th>Pre-Course to Post-Course IDI Regression</th>
<th>Pre-Course Category</th>
<th>Post-Course Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>Female</td>
<td>Multicultural Team 3</td>
<td>-12.92</td>
<td>Minimization</td>
<td>Polarization</td>
</tr>
<tr>
<td>Domestic</td>
<td>Female</td>
<td>Multicultural Team 4</td>
<td>-14.92</td>
<td>Polarization</td>
<td>Denial</td>
</tr>
<tr>
<td>Domestic</td>
<td>Female</td>
<td>Multicultural Team 5</td>
<td>-26.89</td>
<td>Minimization</td>
<td>Minimization</td>
</tr>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Monocultural Team 1</td>
<td>-12.52</td>
<td>Minimization</td>
<td>Polarization</td>
</tr>
<tr>
<td>Domestic</td>
<td>Male</td>
<td>Multicultural Team 4</td>
<td>-15.74</td>
<td>Polarization</td>
<td>Denial</td>
</tr>
</tbody>
</table>

Two students offered no explanations “why” their scores decreased. The remaining two were females assigned to the multicultural group. The first female felt that her team did not take the time to improve their writing skills, which she brought to their attention on numerous occasions. She interpreted her teammates lack of attention as a dismissal of her leadership efforts, which created an “us” versus “them” atmosphere. The second female said that the course-based program experience made her realize how many different sub-cultures existed in the U.S., especially between the races of domestic students.

Course-Based Program Execution

Participant feedback about the course-based program was helpful to improve the program. Feedback will be used to make improvements in the future execution of the course-based program. Three themes emerged from the participants’ feedback. This feedback was collected from the exit memorandums and focus groups interviews submitted by the
multicultural and monocultural groups. The themes were procrastination, division of labor, and use of free time during class.

The students participating in both the multicultural and monocultural groups admitted they procrastinated during the course. This is certainly not a new phenomenon in undergraduate coursework. However, the students who procrastinated from working on the written project also avoided interaction with their international peers. The course-based program included team activities throughout the semester, but the activities directly related to the written project were assigned later in the semester. This seems to have legitimized the students’ decision to wait until the proverbial last minute to do their assignments, to initiate spontaneous, late-night meetings, and to avoid the time necessary to become familiar with their teammates.

The second theme was division of labor in the team-building activities. The team-building activities were intended to provoke conversation between the team members and move the team through the stages of team building, which are forming, storming, norming, and performing (Tuckman, 1965). However, most ended in a division of labor, not collaboration. For example, the scavenger hunt was the first team-building activity and the only activity not related to the written project or group presentation. The class met three times per week for fifty minutes, which did not allow for a traditional scavenger hunt. The rules were modified to maximize class time for each team to share their items. The retrieval portion of the hunt occurred on the participants’ time, not class time. Most teams, in both the multicultural and monocultural groups, assigned a person an item to retrieve. There was little “team” collaboration during the scavenger hunt, which set the tone for the remaining team-building activities, such as the paper’s written outline or development of a Gantt Chart for upcoming tasks.
The third theme was use of free class time. The students were given class time to work on the written projects and presentations during the last few weeks of the semester. I met with each team during these class periods to listen to the rough version of their presentation and to give constructive criticism. Four out of the six teams in the multicultural group and both teams in the monocultural group used the time to meet as a group. However, the participants claimed they were more social with one another during the free class time rather than constructively working on the written project or presentation. This social time allowed them to get to become more familiar with one another. Students were encouraged to meet at the beginning of the course-based program on their own time, but they did not. Several admitted they should have been more social at the beginning of the semester and wished they could have the time back to do so.

In summary, the students provided three themes for improving the course-based program. Procrastination may be difficult to overcome, but the division of labor and use of free time during class could be restructured to maximize student interaction. The scavenger hunt rules should be modified or another team-building activity implemented to increase initial collaboration among the students. Additional class time or activities should be implemented to encourage socialization at the beginning of the course-based program to push students through the forming stage of team development.

**Quantitative Results**

The quantitative portion (quan) of this study utilized a prospective causal-comparative research design. The causal-comparative component evaluated the relationship between group composition, either multicultural or monocultural, and intercultural competence development among domestic students. The primary research hypothesis fundamental to the quantitative portion of this study is as follows:
H₀: There is not a significant relationship between multicultural and monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.

H₁: There is a significant relationship between multicultural or monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.

The following is a summary of the measure and participants and statistical results.

**Measure and participants.**

The measure used in this study was the Intercultural Development Inventory (IDI) version three (v3) created by Dr. Mitch Hammer. The IDI v3 is a 50-item survey that uses a five-point Likert scale consisting of agree; disagree somewhat more than agree; disagree some and agree some; agree somewhat more than agree; and agree (Hammer, 2012). The IDI v3 provides several intercultural measurements, but the one germane to this study is the Developmental Orientation (DO). The DO score “reflects the individual’s actual level of intercultural competence” (Hammer, 2012, p. 64).

All students participating in the course-based program were asked to take the IDI before and after the course-based program. As stated previously, the multicultural group consisted of sixteen domestic students and six international students, and the monocultural group included seven domestic students. However, only the domestic students’ IDI scores are used in the quantitative analysis. The intent was to offer additional insight into the domestic students’ intercultural competence development. Therefore, the following analysis includes sixteen domestic students enrolled in the multicultural group and seven students enrolled in the monocultural group.
Statistical results.

Three iterations of the chi-square test were performed to analyze three different levels of DO growth. The first iteration considered any level of growth. That is, this iteration examined the relationship between students’ group composition and the presence or absence of growth in intercultural competence. Table 6 provides the number of students within each group and growth classification for the first iteration:

Table 6. IDI v3 DO Growth

<table>
<thead>
<tr>
<th>Group Composition</th>
<th>IDI v3 DO Growth</th>
<th>No change or decrease in IDI v3 DO score</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural Group</td>
<td>9 (56%)</td>
<td>7 (44%)</td>
<td>16 (100%)</td>
</tr>
<tr>
<td>Monocultural Group</td>
<td>6 (86%)</td>
<td>1 (14%)</td>
<td>7 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>15 (65%)</td>
<td>8 (35%)</td>
<td>23 (100%)</td>
</tr>
</tbody>
</table>

Contingency table hypothesis testing begins with assignment of an expected value to each cell in a contingency table to represent the frequency count that would be expected if the group characteristic of interest (in this case, multicultural or monocultural group composition) had no relation to changes in pre- and post-intervention IDI scores. The procedure then tests the significance of the difference between the actual and expected frequencies. If the expected count associated with at least one cell of the contingency table is less than five, as was the case for the data set summarized in this table, the Fisher’s Exact Test provides a better statistical comparison than the traditional Pearson Chi-Square. At a significance level of 0.05, the null hypothesis is not
rejected because the p-value of 0.345 exceeded 0.05 in a two-tailed test; therefore, no significant relationship was found between group composition and intercultural competence growth.

The second contingency table test examined the relationship between students’ group composition and their success in gaining at least five points from the IDI DO pretest to posttest. Table 7 provides the number of students within each group of the second iteration:

Table 7. *IDI Growth Equal to or Greater than 5 Points*

<table>
<thead>
<tr>
<th>Group Composition</th>
<th>IDI Growth Greater than 5 Points</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IDI v3 DO growth equal to or greater than 5 points</td>
<td>IDI v3 DO less than 5 points</td>
</tr>
<tr>
<td>Multicultural Group</td>
<td>8 (50%)</td>
<td>8 (50%)</td>
</tr>
<tr>
<td>Monocultural Group</td>
<td>4 (57%)</td>
<td>3 (43%)</td>
</tr>
<tr>
<td>Total</td>
<td>12 (52%)</td>
<td>11 (48%)</td>
</tr>
</tbody>
</table>

As was the case in the data summary shown in the first contingency table, the expected count associated with at least one cell of this contingency table was less than five and the Fisher’s Exact Test was used again. At a significance level of 0.05, the null hypothesis is not rejected because the p-value of 1.00 exceeded 0.05, two-tailed; therefore, no significant relationship was found between group composition and intercultural competence growth of five points or more.

The third and final contingency table test examined the relationship between students’ group composition and their success in gaining at least ten points from the IDI DO pretest to posttest. Table 8 provides the number of students within each group of the third iteration:
Table 8. IDI Growth Equal to or Greater than 10 Points

<table>
<thead>
<tr>
<th>Group Composition</th>
<th>IDI Growth Equal to or Greater than 10 Points</th>
<th>IDI v3 DO growth equal to or greater than 10 points</th>
<th>IDI v3 DO less than 5 points</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural Group</td>
<td></td>
<td>3 (19%)</td>
<td>13 (81%)</td>
<td>16 (100%)</td>
</tr>
<tr>
<td>Monocultural Group</td>
<td></td>
<td>2 (29%)</td>
<td>5 (71%)</td>
<td>7 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5 (22%)</td>
<td>18 (78%)</td>
<td>23 (100%)</td>
</tr>
</tbody>
</table>

The Fisher Exact Test was performed for a third time. At a significance level of 0.05, the null hypothesis is not rejected because the p-value of 0.621 exceeded 0.05, two-tailed; therefore, no significant relationship was found between group composition and intercultural competence growth greater than ten points.

This study was designed to examine the relationship between group composition (multicultural or monocultural) and domestic students’ growth in intercultural competence. No significant relationship was found between these two variables. Although results of these hypothesis tests showed that the cultural composition of the two groups was not significantly related to growth in intercultural competence, the posttest IDI scores of approximately two-thirds (percentage is 65%) of the domestic students in the study exceeded their pretest scores (Table 6), suggesting a potentially positive effect of completing the course-based program on intercultural competence development among undergraduate business majors and minors at a small liberal arts college in the south central U.S. This secondary outcome is discussed further in Chapter 5.

Overall Summary

Overall, 29 students completed the course-based program. Twenty-two students participated in the multicultural group, and seven in the monocultural group. The qualitative case
study describes the participants and their groups’ composition; outlines the semester-long
evolution of each group through the course-based program; and highlights a variety of instances
of cultural curiosity and evidence of cultural difference and similarity recognition among
participants in both groups. When evaluating all 29 students (including the international
students), 21 (72%) increased their IDI scores and 8 (28%) regressed. Furthermore, of those
enrolled in the multicultural group, fifteen (68%) increased their IDI scores and seven (32%)
regressed. Of those enrolled in the monocultural group, six (86%) increased their IDI scores and
one (14%) regressed. Further discussion of the participants’ intercultural growth or lack thereof
is presented in chapter five.
CHAPTER 5
DISCUSSION

This embedded, concurrent mixed methods study proposed to assess the effectiveness of “internationalization at home” (IaH) by combining curriculum internationalization and faculty intervention, to create an environment where domestic and international students learn from one another to develop intercultural competence. The participants were undergraduate business majors and minors enrolled in the Business Communications course at a small liberal arts college in the south central United States (U.S.) There were a total of 29 participants from two sections of the Business Communications course from which a multicultural and monocultural group emerged. The participants were then organized into teams: six multicultural teams and two monocultural teams. The researcher conducted individual and focus group interviews, collected and analyzed numerous documents, administered the Intercultural Development Inventory (IDI), and participated in the course-based program as the facilitator-participant-researcher.

This chapter begins with an overview of the study. Second, the respective findings from chapter four are discussed. Third, the conclusions are presented to bring the study into the proverbial full circle. Fourth, the researcher-participant-facilitator reflexivity is presented. Fifth, the implications for practice are revealed and finally further research needs are explored.
Overview of the Study

This study utilized an embedded, mixed-methods design in which quantitative data from the IDI was embedded within a major, case study design (QUAL+quan). The case study design described the intercultural competence development process at a small liberal arts college in the south central U.S., through which students evolved during the course-based program. The case study compared and contrasted the students who participated in a multicultural team, consisting of at least one international student and two to three domestic students, with students who participated in a monocultural team, consisting of three to four domestic students. The study’s intent was to answer the following primary mixed-methods question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence?

The case study (QUAL) design provided a thorough description of the context and participants to determine “what” happened during the course-based program. Gay et al. (2011) stated that “case studies are useful when describing the context of the study and the extent to which a particular program or innovation has been implemented” (p. 445). Specific research questions were presented in chapter one to assist with answering the primary mixed-methods question, facilitate the case study, describe the context, and present the results of the course-based program. The first three research questions assess the students’ intercultural competence development. The last two questions provide insight for professors who have the opportunity to bring domestic and international students together for intercultural competence development. The research questions for the qualitative portion of this study are as follows:

1. Are there indications of individual intercultural competence development within the participants enrolled in the multicultural and monocultural groups?
2. Are there differences in intercultural competence development between those enrolled in the multicultural group and those enrolled in the monocultural group within the course-based program?

3. What effect does the initial intercultural competence level of each group member have on the advancement of, or lack of, intercultural competence?

4. From the students’ perspectives, what are the benefits and problems of working on a multicultural work team?

5. How can professors better facilitate multicultural group projects?

The quantitative portion (quan) of this study utilized a prospective causal-comparative research design. Causal-comparative research is used when grouping variables cannot be manipulated. In this study, natural course enrollment allowed for two groups to emerge—multicultural and monocultural. The primary research hypothesis fundamental to the quantitative portion of this study is as follows:

\[ H_0: \text{There is not a significant relationship between multicultural and monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.} \]

\[ H_a: \text{There is a significant relationship between multicultural or monocultural group composition and intercultural competence development, as measured by the IDI Developmental Orientation score.} \]

The literature review presented in chapter two supported the research design and need for this study. Nilsson (2003) defined IaH as “any internationally related activity with the exception of outbound study mobility” (p. 31). In the U.S. only 1% (Project Atlas Report, 2011) of all postsecondary students participate in a study abroad program; therefore, college and university
personnel must find ways to develop the remaining students’ intercultural competence without reliance on study abroad programs. According to the International Association of Universities (2010) survey of university leaders in more than 100 countries, the top reason driving internationalization was student preparation to be interculturally competent. The overall purpose of this study was to analyze the results of IaH that implemented a course-based program intended to develop domestic students intercultural competence. The course-based program included faculty intervention, classroom pedagogy, relationship development, and team building to provide an academically rewarding experience for both international and domestic students. All of the implementation strategies used to develop the course-based program were suggested, but never empirically evaluated, within the literature (Briguglio, 2007; Crose, 2011; Deardorff, 2006; De Vita, 2002; Krajewski, 2011; Leask, 2009; Summers & Volet, 2008; Volet & Ang, 2012). However, scholars have recognized the need for such empirical investigation within the germane research literature.

Scholars noted that there is little known about the changes in student attitudes over the course of participating in a specific multicultural group project (Summers & Volet, 2008). Furthermore, others claimed integrated classroom practices aimed at curriculum internationalization have been reported but there is little research about their influence on intercultural learning (Volet & Ang, 2012). Most published research surrounding intercultural competence focuses on study abroad programs, but noted researchers, such as Deardorff (2005), specifically mention intercultural competence assessment should include IaH initiatives. Deardorff (2005) also noted that intercultural competence should be assessed through a mixed-methods approach.
In summary, this study has attempted to comprehensively investigate the effect of multicultural and monocultural group work on domestic students’ intercultural competence. Throughout the process, the results of both the international and domestic students’ intercultural curiosity, and recognition of cultural differences and similarities was evaluated to understand the circumstances and context surrounding the growth or regression of their intercultural competence levels.

**Discussion of Findings**

Data analyses in chapter four provided thick and rich descriptions of the context, participants, teams, and changes in intercultural competence. This discussion of the findings will compare and contrast the intercultural competence changes of the multicultural and monocultural groups. To begin, the participants demographics, housing, athletic status, and international experience is reviewed. Second, a brief summary of the teams’ IDI averages is presented. The remaining discussion incorporates the three models of intercultural competence development, which are the Developmental Model of Intercultural Maturity (King & Baxter Magolda, 2005) (DMIM), the Developmental Model of Intercultural Sensitivity (Bennett, 1993b) (DMIS), and the Process Model of Intercultural Competence (Deardorff, 2006) (PMIC) to discuss the data analysis further. Next, students who began in the IDI “denial” stage are evaluated. The following section compares the multicultural and monocultural groups within the three themes, cultural curiosity, cultural differences, and cultural similarities. The final section of the discussion brings together the qualitative and quantitative results.

Most of the 22 participants in the multicultural group were traditional age-range for undergraduate students, lived in campus housing, and participated in intercollegiate athletics. The six international students assigned to the multicultural teams represented four countries:
Paraguay, Brazil, Kenya, and China. The international students were slightly older than the domestic students. All but one international student resided in campus housing. Very few domestic students reported living in another country or speaking a second language. Most domestic students assigned to a multicultural team had little experience with individuals from other countries prior to the course-based program.

Most of the seven participants in the monocultural group were also in the traditional age-range for undergraduate students, male (all but one participant), and lived in campus housing, but fewer participated in intercollegiate athletics than the multicultural group. The monocultural group had even less experience with individuals from other countries than the multicultural group prior to the course-based program. They were unilingual and most had very little international travel experience. Additionally, none of the domestic students in the multicultural or monocultural groups had participated in a study abroad program, and only one domestic student previously lived internationally and was bilingual. All participants matriculated at least 46 hours of academic credits and many were in their junior or senior year.

The teams were organized by the students’ available free time to minimize absences from team meetings. The multicultural teams included one international student per team, and the monocultural teams had no international students assigned to the teams. No other criteria were used to organize the teams. Table 9 is a summary of the each team’s beginning and ending IDI scores:
Table 9. Multicultural and Monocultural Team Pre- and Post-Course IDI Averages

<table>
<thead>
<tr>
<th>Team Type and Number</th>
<th>Pre-Course IDI Average and Category</th>
<th>Post-Course IDI Average and Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural Team 1</td>
<td>72.98, Polarization</td>
<td>78.65, Polarization</td>
</tr>
<tr>
<td>Multicultural Team 2</td>
<td>91.70, Minimization</td>
<td>93.29, Minimization</td>
</tr>
<tr>
<td>Multicultural Team 3</td>
<td>73.37, Polarization</td>
<td>78.67, Polarization</td>
</tr>
<tr>
<td>Multicultural Team 4</td>
<td>77.61, Polarization</td>
<td>82.51, Polarization</td>
</tr>
<tr>
<td>Multicultural Team 5</td>
<td>95.22, Minimization</td>
<td>97.77, Minimization</td>
</tr>
<tr>
<td>Multicultural Team 6</td>
<td>78.97, Polarization</td>
<td>83.24, Polarization</td>
</tr>
<tr>
<td>Monocultural Team 1</td>
<td>78.04, Polarization</td>
<td>83.63, Polarization</td>
</tr>
<tr>
<td>Monocultural Team 2</td>
<td>81.26, Polarization</td>
<td>88.75, Minimization</td>
</tr>
</tbody>
</table>

All teams increased in their respective pre- to post-course IDI averages. Only one team, in the monocultural group, succeeded in moving into a more advanced level of intercultural competence. Although these increases are small, the variation of individual changes in IDI scores within the teams included eight students who increased their scores by more than ten points, and five students who decreased their scores by more than ten points. Overall, there remained a small increase in all teams’ average IDI scores within the multicultural and monocultural groups.

The remaining discussion focuses on factors that might have been associated with these small net increases in average team IDI scores and any differences that might have occurred in intercultural competence development between the multicultural and monocultural groups. According to the literature review, there are no research studies to match or contradict the results of this study. The qualitative analyses were performed using King and Baxter Magolda’s (2005) rubric for evaluating intercultural maturity, and keeping in mind elements of Bennett’s (1993)
Developmental Model of Intercultural Sensitivity (DMIS) and Deardorff’s (2006) Process Model of Intercultural Competence (PMIC), which established the qualitative themes—cultural curiosity, cultural differences, and cultural similarities. King and Baxter Magolda (2005) divided their Developmental Model of Intercultural Maturity (DMIM) rubric into three dimensions. The first dimension was cognitive awareness, which allows one to consciously shift perspectives and use multiple cultural references at the highest level of intercultural maturity. The second dimension was intrapersonal. This dimension includes understanding one’s own identity well and considers one’s identity within a global context. The third dimension of intercultural maturity development was interpersonal. The interpersonal dimension is characterized by engaging “in meaningful, interdependent relationships with diverse others that are grounded in an understanding and appreciation for human differences” (King & Baxter Magolda, 2005, p. 576). For purposes of this study, the cognitive and interpersonal dimensions were used to evaluate the participants’ responses to the various interview and exit memorandum questions.

The cognitive and interpersonal dimensions from the DMIM (King & Baxter Magolda, 2005) were relevant and helpful in determining a participant’s intercultural growth. The cognitive dimension was particularly helpful for understanding the perceptions of those participants who had an initial IDI score in the “denial” category, which is the lowest level of intercultural competence. These students began the course-based program with little or no understanding or recognition of culture. Four participants from the multicultural group began the course-based program with little understanding of culture. Three of the four participants were international students; only one was a domestic student. Two participants from the monocultural group also began the course-based program with little understanding about culture. All six participants who began the course-based program with IDI scores in the “denial” category
increased their IDI scores, and three participants (two from the multicultural group and one from the monocultural group) made significant strides in their intercultural maturity according to the DMIM rubric. They started the course-based program “naïve about cultural practices and values” or resisting “challenges to one’s own beliefs and views differing cultural perspectives as wrong” (King & Baxter Magolda, 2005, p. 576). They ended the course-based program with an “evolving awareness and acceptance of uncertainty and multiple perspectives; ability to shift from accepting authority’s knowledge claims to personal processes for adopting knowledge claims” (King & Baxter Magolda, 2005, p. 576). A specific example from one of the multicultural-group participants illustrates these changes in cognitive awareness: “I think maybe after that meeting we had I thought you were right on me just looking at the cultural differences. Perhaps I just realized I had a xenophobic attitude that I wasn't aware of.” The other participant, who was a member of the monocultural group, shared that he actively pursued a friendship with three international students from China, Paraguay, and Brazil outside of the course-based program. This act shows an “evolving awareness and acceptance of uncertainty and multiple perspectives,” which is considered to be a higher level of intercultural maturity and thus intercultural competence (King & Baxter Magolda, 2005, p. 576).

Cultural curiosity was the first theme derived from the literature for this research. Deardorff’s (2006) PMIC presented a starting and ending point for intercultural competence development. Deardorff (2006) claimed students must start with an open and curious attitude, but then can move in a circular learning pattern through “knowledge and comprehension/skills, internal outcome, and end with “external outcomes—effective and appropriate communication and behavior in an intercultural situation” (p. 256), which is the hallmark of intercultural competence. Conversely, one can move in a linear fashion from “attitudes” or “knowledge and
comprehension/skills” to the “external outcome” (Deardorff, 2006, p. 256). Cultural curiosity was noted in both the multicultural and monocultural teams. Evidence of cultural curiosity was found throughout the participants’ statements within the interview transcripts and documents. The multicultural group had an average of two mentions of cultural curiosity per team. Some teams had as many as four statements about cultural curiosity. For example, participants from Teams Four and Five were curious about leading a future multicultural team. However, most participants were curious about language barriers and how the written project would progress.

The monocultural group had on average 1.5 mentions surrounding cultural curiosity. Team Two speculated that an international student would have provided a more diverse analysis of the project topics. The monocultural participants were also interested in language variances, both written and phonetic. Subsequent interviews with the monocultural group participants who increased their IDI scores by ten points or more revealed that two students sought relationships outside of the course-based program. This represents the ultimate essence of cultural curiosity.

Acknowledgement of cultural differences was the second theme derived from the literature. The DMIM (King & Baxter Magolda, 2005), PMIC (Deardorff, 2006), and the DMIS (Bennett, 1993b) all assert that comparing and contrasting one’s own culture to another’s is critical for intercultural competence development. The participants’ responses to interview and exit memorandum questions were again analyzed using the DMIM (King & Baxter Magolda, 2005) rubric’s third dimension, interpersonal. Specifically, the following guideline was used for evaluating the participants’ responses: “capacity to engage in meaningful, interdependent relationships with diverse others that are grounded in an understanding and appreciation for human differences” (King & Baxter Magolda, 2005, p. 576). The course-based program centered on the use of team development, which was intended to create interdependent relationships
among the teams. The multicultural group had many more quality responses indicative of cultural difference recognition than the monocultural group. The multicultural group had a total of 29 mentions of recognized cultural differences for an average of 4.83 per team, whereas the monocultural group had only one mention of cultural differences. The one mention of cultural differences from the monocultural group participants referenced previous experiences with international students outside of the course-based program. All of the cultural differences mentioned by the multicultural group participants referred to the differences between their own culture and that of their teammates.

Recognition of cultural similarities was the third and final theme derived from the literature. The DMIS (Bennett, 1993b) and subsequent work by Hammer, et al. (2003) suggests that one’s recognition of cultural similarities was the first step towards moving from an ethnocentric perspective to a more ethnorelative perspective. The multicultural group mentioned cultural similarities 16 times or an average of 2.67 times per team, whereas the monocultural group mentioned cultural similarities 3 times, or an average of twice per team. An initial conclusion would be that the multicultural and monocultural groups had almost an equal number of noted cultural similarities. However, the quality of responses does not substantiate that conclusion. The monocultural participants responses never actually provide examples of potential similarities with someone from another culture. The responses only highlight whether the similarity was positive or negative and the effect this similarity might have on finishing the written project. For example, one monocultural participant wrote the following:

The presence of an international student with cultural similarities may not have hindered the success of our team. I think as long as a clear line of communication exists within the group, then the student would have been one more valuable team member. However, if
the similarity was a negative trait, then obviously this could have amplified any problem that may have existed.

The following is a quote from a multicultural group participant that represents an acknowledged cultural similarity with a specific example: “we all valued our connections to our families, for example when we did the scavenger hunt, we used our parents as an authority symbol because we respect our parents.”

The discussion of this case study compared and contrasted the qualitative results of the multicultural and monocultural groups’ intercultural competence development. The descriptions of the participants’ experiences during the course-based program provided meaningful comparisons between the multicultural and monocultural groups. The results of the qualitative analysis showed there was a difference in the quality and quantity of responses surrounding the themes, cultural curiosity, differences, and similarities, between the multicultural and monocultural groups. However, the quantitative results of the causal-comparative show there was no significant relationship found between group composition and intercultural competence growth. A confounding variable within this study was the fact that two students from the monocultural group who sought relationships with an international student/s outside of the course-based program. The particular setting for this study allowed for these intimate, relationship-building opportunities. The campus is small and the students have other classes together beyond the Business Communications course. Although the monocultural group lacked experiences in which they could reflect upon to answer the interview questions, some participants capitalized on the campus environment after developing curiosity about the international students within the course-based program.
Conclusions

The following conclusions to the five research questions are presented in the order listed in chapter three.

**Are there indications of individual intercultural competence development within the participants enrolled in the multicultural and monocultural groups?**

This study was designed to examine the relationship between group composition (multicultural or monocultural) and domestic students’ growth in intercultural competence. The qualitative study did find indications of intercultural competence growth in participants from both groups, but the multicultural group’s responses to the interview and exit memorandum questions included specific examples of their cross-cultural contact from their experiences during the course-based program. The monocultural group’s responses did not include specific examples and any experiences they incurred with people from other cultures happened outside of the course-based program. Although the causal-comparative study found no significant relationship between group composition and domestic students’ intercultural competence growth, 72% of all (international and domestic students) participants’ IDI scores increased and 65% of all domestic students’ IDI scores increased. These results are positive, but it is not conclusive that the course-based program caused the improvements in domestic or international students’ intercultural competence. The study did not control for the possibility of growth among domestic students that might have occurred without the course-based program. However, the overall improvement was strong enough to warrant additional study.
Are there differences in intercultural competence development between those enrolled in the multicultural group and those enrolled in the monocultural group within the course-based program?

Differences in intercultural competence development between the multicultural and monocultural groups were difficult to assess for three reasons. First, the research setting was extraordinarily small, so that monocultural group participants were in daily contact with the international students through their housing arrangements, athletics, campus activities, and other business classes. An isolated control group was impossible to create and maintain. Once the domestic students began to explore culture and cultural influence in the workplace, the students started to reflect on previous experiences or seek new experiences with the international students. This leads to the second reason why it is difficult to assess the differences in intercultural competence development. Two of the four students from the monocultural group actively pursued relationships with the international students outside of the course-based program. One used sports as a way to begin conversations, and the other claimed to carefully listen and observe the international students in his classes. These events suggest the possibility that the students mirrored the course-based program outside of the Business Communications course; therefore, developing intercultural competence in the same fashion as the multicultural group and with a higher level of internal motivation in lieu of compulsory pedagogy. Last, the lectures in the course-based program for the monocultural group were completely hypothetical, whereas the lectures were interactive in the multicultural group. For example, during the lecture on dining etiquette in the multicultural group, the Chinese student was asked to describe the place setting at a formal banquet in China. He did so willingly and with great detail. The monocultural group did not have the opportunity to hear the details of Chinese dining etiquette first hand. Overall, the
research setting, the contamination of external contacts, intervening and confounding variables, and differences in the course-based program lectures makes the effect of international students’ participation in the multicultural teams almost impossible to assess.

**What effect does the initial intercultural competence level of each group member have on the advancement of, or lack of, intercultural competence?**

The initial intercultural competence level, as measured by the IDI, appears to have no positive or negative influence on the advancement or regression of intercultural competence among team members. One could speculate that each team needed an intercultural competence ambassador to help develop the other teammates’ intercultural competence. This does not appear to be the case. For example, Team Three’s (of the multicultural group) initial IDI scores included one participant whose pre-course IDI score was at “minimization” and another with a score at “denial.” The participant who initially scored at “minimization” regressed by nearly 13 points, while the other participant increased by over 21 points to finish the course-based program at “minimization.” The third member of Team Three began and ended the course at the “denial” level. Overall, there was no pattern of initial IDI scores that accentuated or hindered the progress of intercultural competence development.

**From the students’ perspectives, what are the benefits and problems of working on a multicultural work team?**

The participants (students) repeatedly noted one benefit and one problem of working on a multicultural work team. The multicultural and monocultural groups both recognized that an international student would offer a diverse perspective for the written project; resulting in a more comprehensive and global approach to the topics. Many topics that served as the subjects for the written project in the course-based program were international company profiles, such as
Samsung and Nokia. For example, a multicultural group participant had this to say about her international counterpart:

Sam (name changed to protect identity), who happens to be the team’s only international student, decided to do his portion of the report over Nokia’s International Markets. Since Sam was a past resident of China, he was able to display in our team presentation on how Nokia affected the markets in China. This allowed the team, and the class, to garner a better picture on the international business practices used by this global company.

Although the monocultural group participants had no international students assigned to their teams, many recognized the opportunity missed by this absence:

We did not have an international student on our team, but having a demographic difference, would have allowed for us to understand the impact and popularity of Samsung in his/her country. This in turn would have improved our understanding of the company globally with an outside personal view.

The most noted problem, according to the students, was language barriers. Peacock and Harrison (2009) researched the problems with international and domestic student interaction. They concluded that one of the primary problems were the difficulties with language, particularly slang phrases and humor. The domestic students, in Peacock and Harrison’s (2009) research, reported that it was exhausting to constantly explain the slang and humor to the international student. The participants in this research study felt the same. For example, one participant from the monocultural group wrote, “in past experiences, working with students from different backgrounds slows down the project process because of having to explain yourself more often than with people from the same background.” Another language barrier was phonetic differences. The domestic students worried they would not be able to understand their
international teammates. However, many reported they were grateful the international teammate knew English and there were few problems understanding their verbal communication. The last language barrier was writing skill. Several students in the multicultural group began the course-based program concerned about the international student’s ability to contribute to a written project. Although all projects ended with an acceptable grade, the domestic students continued to be anxious about the international students’ writing skills.

**How can professors better facilitate multicultural group projects?**

The domestic and international students consistently reported that familiarization with team members was the key to crafting a successful project. However, the students delayed getting to know one another during the course-based program. The multicultural group participants noted that they waited near the deadline for the written project to become more acquainted. The following is a quote from a multicultural group participant that summarizes this concern:

Next time I’m in a group project like that I think I’ll make it a point to get to know my group members a lot sooner than we did. About 2/3 of the way through I felt like we really started to get along, and had learned how to work well with one another. I feel like a big contribution to that was the fact that we just sat around and talked at a lot of our meetings, and just asked each other questions. Some were generic, and some were personal. In the end I think that is what made us enjoy doing the presentation together the most.

Professors can cleverly organize class time to facilitate domestic and international students’ acculturation. For example, the scavenger hunt can be started and completed during class time. More class activities that encourage student communication and collaboration should
be included in the course-based program. After I designed the course-based program, I stumbled across a book comprised of intercultural exercises named *Building Cultural Competence: Innovative Activities and Models* (2012) written by Kate Berardo and Darla K. Deardorff. In future courses I will incorporate some of these activities to encourage earlier and more frequent interaction between the domestic and international students.

**Researcher-Participant-Facilitator Reflexivity**

As I reflect on this experience, I must note two items. The first was my efforts to remain unbiased and the other was my role as a facilitator. I attempted to remain as unbiased as possible throughout the course-based program and data analysis. The participants within this study were/are students in many other classes that I teach. I know them well. The depth of my knowledge about each student was both helpful and challenging. I was able to interpret their comments during the course and throughout my research with great understanding of their background, such as family structure, religion, and experience with people from other cultures. However, some of my experiences outside the course-based program with two participants were negative. I have attempted to avoid making biased evaluations based on my previous negative experiences with these participants. I have reviewed my work several times, and I believe I have not allowed my past experiences to skew my analysis. Last, my role as a facilitator became increasingly important as the course-based program progressed, which was a surprise to me. As the participants encountered new and sometimes frustrating situations, they looked to me for advice. My advice centered on communication, professionalism, and research. I encouraged the participants to research their international team member’s culture; treat them with respect; and make group decisions. The next time I conduct the course-based program, I will be better prepared to facilitate the students through the intercultural competence development process.
Implications for Practice

Faculty, academic affairs professionals, and campus international studies personnel will be the most interested in the results of this study. The results of this study have implications for pedagogy, faculty support, and international student management across campuses. This case study provided a description of the participants, events, and results of a course-based program intended for domestic student intercultural competence development. Faculty should be encouraged by this research to incorporate multicultural group projects into their courses. However, there must be training for faculty. I attended a three-day seminar on intercultural competence and the IDI survey instrument where I earned the “qualified administrator” status. Throughout the seminar, I interacted with professionals from higher education, business, the military, and the IDI survey creators. Attending the seminar, enrolling in a study abroad program to South Africa, and conducting the literature review for this study allowed me to become more familiar with intercultural competence and its effect on working relationships among students, faculty, business leaders, subordinates, officers, and enlisted soldiers. There are numerous survey instruments available in the marketplace but none have the level of training and support from the creators of the IDI. Faculty, who have a number of international students enrolled in their classes, should begin with discipline-specific training and preparation prior to implementing a course-based program to develop intercultural competence. Personnel from campus international student centers and visiting international professors could offer faculty training through formal seminars and informal social gatherings. Campus international studies personnel are anxious to improve the recruitment and retention of international students. A course-based program offers international students the opportunity to improve their English language skills and learn American culture, which is the goal for many international students. Finally, higher education
institutions should have a qualified IDI administrator on campus. The survey is not difficult to administer, but the initial IDI review with each student is complex. During these reviews, the administrator and the student discuss the student’s answers to contexting questions and develop a customized plan for increasing his/her intercultural competence level. Faculty should either become an IDI qualified administrator or work closely with one.

**Future Research**

The results of this study warrant additional research and raise numerous additional questions. The following is a list of questions that should be addressed in future research projects:

1. What results occur if a similar course-based program were implemented within a different research setting, such as a large public or private university, community college, or online program?
2. Are there other ways to increase domestic students’ intercultural competence through IaH, such as professor exchange programs with international universities?
3. What are the results of a well-designed experiment that (such as a study that includes random assignments to groups) examines the relationship between group assignment and intercultural competence development? What other ways can a researcher control for intercultural competence growth outside of a course-based program?
4. Could a study be designed to examine the effect of a program encouraging domestic students to interact with international students in the context of campus-sponsored student activities?
5. What results emerge if the international students are from other countries not represented in this study, such as France, Germany, Spain, Italy, Russia, India, South Korea, South Africa, Saudi Arabia, Jordan, or Turkey?

6. Is the intercultural competence development process similar to the traditional student development theories? Should traditional student development theories include intercultural competence?

**Overall Conclusion**

The study’s intent was to answer the following primary mixed-methods question: what results emerge when undergraduate students from a small, liberal arts college complete a course-based program that is intended to enhance domestic students’ development of intercultural competence? The results showed the following: all team average IDI scores increased; of the 29 students (including the international students), 21 (72%) increased their IDI scores and 8 (28%) regressed; of those who increased their scores by more than 10 points, two were from the monocultural group; of those who regressed by more than 10 points, four were from the multicultural group. The qualitative portion of the study showed that 15 (65%) domestic students improved their intercultural competence. However, the quantitative portion reported no significance between group composition, multicultural or monocultural, and intercultural competence growth. An initial conclusion would be the quantitative analysis contradicted the qualitative. After further thought, the qualitative and quantitative analyses actually support one another. The qualitative analysis revealed that the two students from the monocultural group created meaningful relationships with an international student outside the course-based program. Furthermore, four students from the multicultural group whose IDI score regressed, incurred various situations with their domestic counterparts that caused the participants to rethink culture.
and its meaning. Although the study had many intervening variables, the course-based program created a meaningful dialogue for those involved, which ultimately improved many participants’ intercultural competence.
LIST OF REFERENCES


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Education

Ph.D., Higher Education
2014, University of Mississippi
Member, Phi Kappa Phi
Awarded, 2014 Outstanding Doctoral Student
Dissertation: Effects of Multicultural Group Projects on Domestic Students’ Intercultural Competence

S.C.C.T, Specialist in Community College Teaching, emphasis on Marketing and Management
1998, Arkansas State University
Field Study: A study of the effectiveness of the Associate Degree retraining program at Black River Technical College, Pocahontas, Arkansas sponsored by the Arkansas Job Training Placement Assistance program offered to displaced workers of the Brown International Shoe Company

M.B.A, Master of Business Administration
1995, Arkansas State University
Managerial Policies Capstone Project: Strategic plan for Redbook Floral Service, Paragould Arkansas. Redbook, now called Teleflora, is a call center for long-distance floral service.

B.S., Major: Accounting
1993 Arkansas State University
Awarded, 1993 Distinguished Service Award
**Administrative Experience**

Chair, Department of Business  
Williams Baptist College, Walnut Ridge, AR  
January 1997-Present

- Supervise two full-time professors, four part-time professors, and two work-study support positions  
- Advise and counsel approximately 20 students per year  
- Organize all teaching schedules for department  
- Network with area businesses to secure student internships  
- Prepare annual report for Vice-President and President  
- Design and implement strategic Outcomes Assessment (OA) Program  
- Achieve improvement in student knowledge and performance through implementation of OA  
- Responsible for departmental budget  
- Encourage and motivate full-time faculty to advise student organizations and activities  
- Collaborate with Admissions Department to recruit new students  
- Maintain an average retention rate of over 90 percent from year-to-year

**Outcomes Assessment Experience**

Assistant Outcomes Assessment Coordinator  
Williams Baptist College, Walnut Ridge, AR  
August 2008-2010

- Consulted and assisted in development of OA plan for Art, Music, English, History, and Christian Ministries Departments  
- Through consultation with Art, Music, English, History, and Christian Ministries Departments, educated and trained 14 professors about outcomes assessment  
- In anticipation of Higher Learning Commission accreditation process, requested that the President and VP of Academic Affairs allow the formation of a volunteer General Education Task Force to design and develop a General Education OA Process  
- Served as consulting ex-officio member of the General Education Task Force  
- Researched education journals and professional societies to provide best possible consultation  
- Attended conferences on OA; specifically the Arkansas Association for the Assessment of Collegiate Learning  
- Collaborated with OA Committee and OA Coordinator to develop a rubric for evaluating OA program plans and reports  
- Present OA developments to faculty during regularly scheduled faculty meetings

**Teaching Experience**

Assistant Professor  
Williams Baptist College, Walnut Ridge, AR  
January 1997-Present

- Principles of Accounting I  
- Principles of Accounting II  
- Business Statistics  
- Organizational Management and Behavior  
- Promotion  
- Business Policy  
- Principles of Marketing
- Business Communication Skills
- Human Resource Management
- Small Business Management
- Sports Management and Marketing

**Student Development Experience**

Phi Beta Lambda and Sigma Beta Delta Advisor
Williams Baptist College, Walnut Ridge, AR  
August 1998-Present
- Collaborate with department faculty to coordinate social activities and prepare for Phi Beta Lambda (PBL) competitions
- Coach students for state and national PBL competitions Annual successful wins since 2003 at the state PBL competitions in Little Rock, Arkansas
- Annual successful wins since 2005 at the national PBL competitions in Orlando, Florida; Chicago, Illinois; Nashville, Tennessee; Atlanta, Georgia; and Anaheim, California
- Coordinate annual Business Honors Luncheon and Sigma Beta Delta induction ceremony

**Committee Experience**

Williams Baptist College, Walnut Ridge, AR  
January 1997-Present
- Outcomes Assessment Committee
- Faculty Senate—President 2007-2008
- Academic Affairs Committee—Chair 2006-2008
- Library Committee
- Disciplinary Committee
- Media Committee

**Professional Associations and Conference Presentations**

Association for the Study of Higher Education  
2013-Present
- 2013 Poster Presentation: “Effects of Multicultural Group Projects on Domestic Students’ Intercultural Competence”

History of Education Society  
2013-Present

Southern History of Education Society  
2013-Present
- 2013 Research Paper Presentation: “John Crews: In the “No-Man’s Land” of the University of Mississippi’s Integration Battle”

Phi Beta Lambda  
1998-Present
- Attend state and national conferences annually
- Participate in Student-Advisor meetings
- Volunteer to facilitate competitive events
Volunteerism

Administrative Board Member
First United Methodist Church, Jonesboro, AR January 2010-2012
• Will assist with overseeing decisions by various church committees

Lawrence County Chamber of Commerce
Parallel Path Program September 2003-2005
• Guided two teams of students to develop a detailed process mapping to better understand manufacturing procedures, material flows, core competencies, and development of a ‘per-process’ cost allocation model for local industry
• Educated and assisted student teams to establish and detail a strategic plan with financial justification for transitioning current production from low-margin, high-volume products, to high-margin, low-volume products for local industry
• Analyzed market receptivity, entry barriers, demographics and competition to find more lucrative markets
• Coached competing teams to extend professional presentation of cost allocation model and complementary strategic plan

References

Academic References

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