Fostering Intercultural Competence Through Study Abroad: A Gender-Based Analysis of Individual and Program Factors Influencing Development

A DISSERTATION
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Karen Preston Nichols

IN PARTIAL FULFILLMENT OF THE REQUIRMENTS
FOR THE DEGREE OF
DOCTOR OF EDUCATION

Melissa S. Anderson, Advisor

December 2011

ACKNOWLEDGEMENTS

This dissertation was made possible by the support and encouragement of family, friends and colleagues. I would like to thank my advisor, Dr. Melissa S. Anderson for her advisement and encouragement, always helping me to keep my eye on the next little goal and reminding me how finishing was right around the corner. She is a master editor, who taught me much about writing both in class and as my advisor. Thanks also to my committee member, Dr. R. Michael Paige, whose knowledge of study-abroad programming and intercultural competence development were a tremendous inspiration and source of learning. Thank you to committee members Dr. Darwin Hendel and Dr. David Weerts, whose thoughtful questions and comments helped me to broaden my thinking around the topics of study abroad and intercultural competence.

Thank you to my Duluth cohort-mates, Kim Roufs and Gary Holquist who never lost sight of our goal, always staying a step ahead of me and holding me accountable. I am grateful to my dear friend and writing retreat partner, Amy Schwantes, for the fun and highly productive days we spent writing together while locked away at various remote locations around Minnesota.

My family was there for me through the entire process. I thank my parents David and Bette Preston, who informed me I was going to earn a doctorate 15 years before the thought ever came to mind, and whose encouragement helped so much to keep me going. A special thanks to my sister Joanie St. Peter, who generously took me in over the years

while I was taking classes in the Twin Cities, and continued to provide emotional support from afar while I wrote this dissertation.

And finally with deep gratitude to my husband, John, and son, Joey. From building a house to dealing with illness, you always stepped up and did what needed to be done so graciously. Your patience, support and encouragement made finishing this dissertation possible. I could not have done it without you.

ABSTRACT

This study explores how individual student characteristics, study-abroad program choices and gender influence intercultural competence outcomes through study abroad. The Georgetown University Consortium Project (GUCP) sample included 1,163 students who completed a pre- and post-test of intercultural competence using the Intercultural Development Inventory and were studying abroad on one of 51 programs around the world.

The secondary analysis of GUCP data found that men and women differed in both individual and program characteristics. Women were more likely to start out with a higher level of intercultural development, take all content courses delivered in the target language, and receive frequent group mentoring more often than men. Both taking content courses in the target language and receiving frequent group mentoring correlated with greater positive changes in intercultural competence through study abroad.

Considering only individual student characteristics, negative predictors of change in intercultural competence were found to be initial intercultural development level and majoring in non-international business. Being female was a positive predictor. When both individual and program characteristics were considered, initial intercultural competence level and majoring in non-international business remained negative predictors. Living with international students and living with a host family were also shown to be negative predictors of intercultural competence development. Being female remained the only significant positive predictor of intercultural competence development when all individual and study-abroad program characteristics were considered.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

Introduction

In this increasingly complex and interdependent world of globalized trade, cross-border flow of people, and emerging global health and environmental problems, the ability to understand, communicate and work with people from different cultures is more important than ever. One in six American jobs are tied to international trade (The Commission on Abraham Lincoln Study Abroad Fellowship Program [Lincoln Commission], 2005), although there is a shortage of internationally competent managers (Saghafi, 2001). Each year, of the over 34,000 positions within the U.S. government requiring foreign-language skills, many remain vacant or are filled by contractors (Lincoln Commission, 2005). Global health issues such as Acquired Immune Deficiency Syndrome and the overarching threat of global warming require people from around the globe to work together in developing appropriate responses. It is not possible for any one country to solve these problems alone.

Of particular importance is the development of intercultural sensitivity and intercultural competence to address these global problems. Intercultural sensitivity is defined as "the ability to discriminate and experience relevant cultural differences", while intercultural competence is "the ability to think and act in interculturally appropriate ways" (Hammer, Bennet and Wiseman, 2003, p. 422). People who are more interculturally sensitive have the potential for increased intercultural competence (Bennett, 2004).

Higher education institutions are being asked to take an active role in addressing these international challenges and opportunities through their education, research and service missions (Morris, 2009). Despite these efforts, universities and colleges have not lived up to expectations, and United States students have fallen short on indicators of international knowledge, awareness and competence (National Association of State Universities and Land-Grant Colleges, 2004). Although institutions of higher education in the U.S. possess many of the resources needed to develop intercultural competence in students, educators do not yet understand how to do so (Bok, 2009).

Study abroad has long served as a primary method of preparing students for a global world and can be one of the most valuable means by which students gain cross-cultural skills and knowledge (NAFSA: Association of International Educators [NAFSA], 2003). The expansion of study abroad, in terms of student numbers, countries targeted and types of programs offered by colleges and universities, has skyrocketed in recent years. In the last decade alone, the number of students studying abroad has increased by 150 percent; in the past 2 decades the number has increased by 360 percent (Bhandari and Chow, 2007). This increase in study-abroad programs indicates the growing importance higher education institutions place on international experiences, even though it is not always clear what, exactly, students are learning through study abroad or how they are learning it (Doyle, 2009).

Accreditation bodies, state and national governments, and parents recognize the need for students to gain the knowledge and skills required to live and work in a global society, but they also want to know what students are learning through study-abroad

programs that they could not learn at home. Until relatively recently, it was assumed that simply spending time in a different country and in the context of a different culture through study abroad would promote both foreign-language and intercultural learning. The assumption that students gain foreign-language and intercultural competence without directed intervention is now being called into question (Vande Berg, 2007).

A body of research literature on study-abroad outcomes has emerged, showing that study abroad frequently does promote the development of intercultural competence to a greater degree than staying at home in the U. S. (Carlson and Widaman, 1988; Chieffo and Griffiths, 2004; Douglas and Jones-Rikkers, 2001; Williams, 2005). Other studies show that study abroad does not always promote intercultural development more than remaining at home. For example, Kehl and Morris (2008) found that students on longer-term study-abroad programs did show a higher level of global-mindedness than a control group at home, while students on short-term programs did not gain any more than the on-campus students. Pedersen (2010) found that students who were studying abroad for a year in England and who received an intercultural curricular intervention did show higher levels of intercultural competence than those who remained at home, but study-abroad students who did not receive the curricular intervention did not show significantly different results than the control group (Pedersen, 2010).

New studies have examined more specifically the elements of study-abroad programs that best promote the development of intercultural competence (Engle and Engle, 2004; Kehl and Morris, 2008; Vande Berg, Connor-Linton and Paige, 2009). Program design characteristics such as duration, location, student housing, teaching

context, curricular intervention and mentoring may promote or inhibit intercultural development. In addition to program elements, a student's background characteristics, motivations and capacities also influence student outcomes, and there is a clear need for further research in these areas (Vande Berg, Balcum, Scheid, Whalen, 2004). Student characteristics such as previous exposure to other cultures, gender, second-language ability, and college major contribute to student learning and development while abroad.

Several recent studies have highlighted a difference in intercultural competence outcomes based on gender. Rexeisen, Anderson, Lawton, and Hubbard (2008) found that females scored consistently higher than males on both the pre- and post-tests measuring the development of intercultural competence through study abroad, although these differences diminished over time. Nieto and Booth (2010) measured the intercultural competence of English as a Second Language teachers and students and found that female teachers and female students showed higher levels of intercultural competence than their male counterparts. Several studies measuring ethnocentricity found males to be more ethnocentric than females (Neuliep, Chaudoir and McCroskey, 2001; Lin and Rancer, 2003; Wrench and McCroskey, 2003). Few studies, however, have looked specifically at how males and females differ in their intercultural outcomes through study abroad based on programmatic choices and behaviors. Study-abroad programs aim to promote intercultural development for both genders. By understanding how males and females experience study-abroad programs differently, faculty and administrators will be better able to design programs and guide individual students in ways that are most conducive to the development of intercultural competence.

Research Question

This analysis of data from the Georgetown University Consortium Project (GUCP) explores how student and program characteristics relate to intercultural competence, with particular attention to differences by gender. The research question addressed by this study is: To what extent do the relationships among individual student characteristics, study-abroad program characteristics, and a student's development of intercultural competence vary by gender?

Background

Whether and how students develop interculturally through study abroad likely depends upon the personal characteristics of the student, the characteristics of the study-abroad program, and the interplay between the two. Engle and Engle (2003) describe this as "… the highly complex personal and institutional interaction that is study abroad." To illustrate the interaction, Engle and Engle have conceptualized a system consisting of a series of study-abroad levels, each subsequent level providing a more challenging and complex experience for students. As students become more interculturally sensitive and fluent in a second language, they would be encouraged to enroll in programs that provide greater challenges. The system would allow for the best match between program and the student's academic and personal goals (Engle and Engle, 2003).

Vande Berg (2007) adds to the discussion by describing the differences between the types of learners he has seen studying abroad:

> "But let us think about who these successful students are. They are the ones who come to programs abroad with the requisite language proficiency, the ones who creatively seek out opportunities to engage with the local culture – the ones who adapt well to the challenges of living and learning in another culture….. I have seen fewer of these U.S. students abroad than I have those others who show little curiosity about the new and different and a lack of interest in engaging culturally. Unreflective and unaware, these are the students who simply do not cope well when left to their own devices" (p. 394).

The interplay between personal and program characteristics is highlighted in literature relating to cross-cultural adjustment. Ward and Kennedy (1993) suggest that psychological adjustment to a new culture may be facilitated by a match between personality traits of the sojourner and norms within the host culture. In their study of 145 students from Malaysia and Singapore studying in New Zealand, they found that predictors of psychological adjustment to the new culture included experiencing little stress related to recent life changes, having an internal locus of control (belief that the self, rather than external forces, has primary control over what happens to oneself), having high-quality relationships with people of one's own culture, and having skills relating to managing living in another culture (Ward and Kennedy, 1993). Assessing the sociocultural adjustment of these students, relative to their ability to "fit in" to the culture and communicate effectively, the authors found significant predictors to be lower cultural separation (degree to which the student shows preference for the host culture), extroversion, high quantity of interaction with host-country nationals, greater

psychological adjustment and lower cultural distance (how different the host culture is from the students' home culture). These results were compared to those of another study of 156 Malaysian students studying in Singapore, whose culture is more similar to the Malaysian culture than New Zealand's, with similar results in psychological adjustment, but the students studying in Singapore had fewer sociocultural adjustment problems than those studying in New Zealand (Ward and Kennedy, 1993).

Given the complex interplay between student and program characteristics in relation to the development of intercultural competence, Vande Berg's (2007) insistence on the need for intervention in student learning throughout the entire study-abroad experience is of critical importance. If the development of intercultural competence is a primary goal of study abroad, then study-abroad educators must be prepared to guide the process through program design and on going facilitation in order to meet the needs of students (Vande Berg, 2007). Research on the development of intercultural competence through study abroad is beginning to confirm this assessment.

Several studies highlight how study-abroad program characteristics and student characteristics each play a part in the development of intercultural competence. Medina-López-Portillo (2004) studied a group of 28 students on language-based programs in Mexico, 18 of who studied for 16 weeks in Mexico City and 10 of who studied for 7 weeks in Taxco. She used the Intercultural Development Inventory (IDI) (Hammer and Bennett, 2004) as a quantitative measure of intercultural competence. The IDI is a widely used assessment measuring levels of intercultural competence (Hammer, et al.,

2003), and is based on a theoretical model, the Developmental Model of Intercultural Sensitivity (DMIS), developed by Milton Bennett (Bennett, 1986).

Medina-López-Portillo used interviews and guided journal entries to verify and provide a more detailed and nuanced understanding of the student experience. Duration of the study-abroad program was the primary program characteristic being assessed, comparing the intercultural competence of students on a 7-week program to that of students on a 16-week program. Analysis also focused on student characteristics including race/ethnicity, gender, age, previous experience traveling abroad, family cultural background and previous exposure to cultural differences (Medina-López-Portillo, 2004). Students on the sixteen-week Mexico City program showed higher gains in intercultural competence than those on the seven-week Taxco program. Thirty-three percent of the students on the program of longer duration regressed from a higher to lower intercultural competence score; a full 43 percent of the students on the shorter Taxco program regressed from pre- to post-study-abroad (Medina-López-Portillo, 2004). Regression analysis revealed that only gender (being male) was associated with gains in intercultural competence for the shorter Taxco program while previous travel abroad, belonging to an ethnic minority and being younger were associated with gains on the Mexico City program. Qualitative interviews provided additional and more detailed evidence that the longer program did promote the development of intercultural sensitivity to a greater extent than the shorter program (Medina-López-Portillo, 2004).

While the Medina-López-Portillo (2004) study offers compelling evidence that the duration of study-abroad programs does affect the development of intercultural

competence in students studying abroad, other variables are also important. The Georgetown University Consortium Project study assessed changes in intercultural competence based on study-abroad program characteristics in addition to program duration, and on individual student characteristics (Vande Berg, et al., 2004). The study also involved a large sample of students studying on numerous programs around the world. The purpose of the research was to address the larger issue of whether or not study-abroad students learn more effectively on their own or with an educational intervention (Vande Berg, et al., 2009). A total of 1,297 students, most studying abroad through 51 programs with a few in a control group, completed the pre- and post-Intercultural Development Inventory assessment. While this study (Vande Berg, et al., 2009) focused primarily on program characteristics, assessment of personal characteristics provided a surprising result. Males, as a group, regressed in intercultural competence from pre- to post-study-abroad while females showed a net positive gain, albeit a small gain. Other student characteristics associated with intercultural competence gains included academic major (students majoring in the humanities and social sciences and those studying foreign languages showed significant gains), and prior language study in high school and college. Program characteristics associated with significant gains in intercultural competence included program duration, enrollment in target-language courses, taking content courses delivered in the target language, studying alongside other U.S. students or a mix of U.S. and other international and host-country nationals, living with students from the U.S. or from the host country, spending time with a host family

and other host-country nationals, and frequent on-site group mentoring (Vande Berg, et al., 2009).

Pedersen (2010) highlighted coursework and pedagogy that focus on developing an individual's intercultural competence as an important program variable. Half of the 32 students in a yearlong study-abroad program in England enrolled in a course with an intentional intercultural pedagogy, and half did not take the course. These students were compared to a group of 13 students in the United States who were preparing to study-abroad but had not yet done so. The intercultural pedagogy included individual coaching, teaching the Developmental Model of Intercultural Sensitivity, classroom activities, cultural immersion and guided reflection (Pedersen, 2010). Results showed that students enrolled in the intercultural course showed gains in intercultural effectiveness, as measured by the Intercultural Development Inventory, while those who did not take the course showed no significant gains. In other words, the students who studied abroad for a full year with no intercultural pedagogy did not gain more than the students who remained at home (Pedersen, 2010). Only the personal characteristic of previous experience overseas was significant in intercultural gains; gender, involvement in other activities, staying with a host family, second-language, journaling, and significant friendships were not significant (Pedersen, 2010).

While recent studies are beginning to untangle the complex web of personal and program characteristics associated with the development of intercultural competence, the Georgetown University Consortium Project study, with its wide range of variables and

large sample size, offers an opportunity to look more deeply into factors that promote intercultural learning through study-abroad.

Methods

The GUCP dataset includes 1,297 students who took both the Intercultural Development Inventory pre- and post-tests; of these, 1,163 were study-abroad participants and 134 served as the control group. Study-abroad students were enrolled at institutions across the United States, and control-group students were enrolled in language classes at Georgetown University, the University of Minnesota-Twin Cities or Dickenson College. The sample for this study considers only those 1,163 students who completed the pre- and post- IDI and studied abroad on one of 51 programs located in countries throughout the world.

Pre- and post-questionnaires collected demographic information, student characteristics and information about the study-abroad program and their experiences. The IDI was used to measure changes in intercultural competence over time.

Organization of the Study

This dissertation is organized into five chapters. Chapter One provides an introduction to the topic and the research question, and gives a brief background of the relevant issues related to this study. Chapter Two presents a survey of the literature, including various measurements of intercultural competence, particularly the Intercultural Development Inventory. A review of research on intercultural outcomes through study

abroad and the program and individual variables affecting those outcomes, provides context to the current study and highlights gaps in the literature. Chapter Three describes the research design, conceptual framework and description of the variables used in this secondary data analysis. Sampling procedures, measures used in the study and descriptions of the analysis are discussed. Chapter Four provides the results of the study, which are based on chi-squared analysis, means analysis, correlations and regression analysis. The analyses are summarized in tables. Chapter Five presents a discussion of the findings in relation to the literature, and includes implications for policy and practice, limitations and recommendations for further research.

CHAPTER TWO

Review of the Literature

Background

Students today, more than ever, are being challenged to develop intercultural competence, that is, the ability to work effectively with and in other cultures. Whether the student will eventually work for a business with international interests, be based internationally, or simply live in the increasingly diverse society of the United States, intercultural competence is needed. According to Saghafi (2001), globalization has made cross-cultural capabilities the critical new human resource requirement for the corporate workforce. Skills required of workers today are different from those required even in the 1990's (Williams, 2005). Students today will change careers more frequently than they did in the past, making skills for a particular vocation often less useful than transferable skills. The most highly rated skill employers look for is the ability to communicate, with a close second being problem solving (National Association of Colleges and Employers, 2007). Employers increasingly understand the importance of these skills; in a recent study, Trooboff, Vande Berg, and Rayman (2009) surveyed over 350 employers and found that in assessing potential employees, both the experiences of study abroad, and the skills normally associated with studying abroad, were listed as important by employers.

Compelling national interests provide additional reasons for institutions of higher education to prioritize intercultural competence as a teaching and learning goal. Although remaining competitive in the global economy is critical for maintaining the economic security that the United States has enjoyed in the past, the need for a globally

literate citizenry goes further. The Lincoln Commission (2005) states that the United States' national interest depends on a population that can work effectively in the globalized world:

> "Our national security and domestic prosperity depend upon a citizenry that understands America's place in the world, the security challenges it faces, and the opportunities and perils confronting Americans around the world. Responding to these realities requires a massive increase in the global literacy of the typical college graduate" (Lincoln Commission, 2005, p. ix).

National security is often cited as a primary reason for Americans to become more internationally aware, particularly since the terrorist attacks of September 11, 2001. The recognition of how little we knew about the Middle East and the cultures of the Muslim world became painfully clear over the days and weeks following the tragedy. NAFSA (2003) called this a "Sputnik moment," stating that we must invest in teaching our children to understand the problems of the world today and how to deal with them.

Public diplomacy and leadership skills are required in all international dealings. In a report on *Smart Power* by the Center for Strategic and International Studies [CSIS] (2007), commission member John Zogby noted, "A smarter public diplomacy is one that shows respect toward other countries and a willingness to understand local needs and local issues" (CSIS, 2007, p.47). As a country, we should be actively engaged in the international community; students should learn to understand and communicate with people from other cultures, and serve as goodwill ambassadors (Lincoln Commission, 2005). The CSIS report concurred, "An effective public diplomacy approach must

include exchanges of ideas, peoples, and information through person-to-person educational and cultural exchanges, often referred to as citizen diplomacy" (CSIS, 2007, p. 49). Taking global literacy as a national imperative, the Commission on Abraham Lincoln Study Abroad Fellowship Program has called on the United States to send one million students abroad annually within a decade and to make study-abroad the norm rather than the exception (Lincoln Commission, 2005).

Although focus has often been on the global economic and diplomatic imperatives for educating an interculturally competent citizenry, is not necessary to look outside the United States to find a need for intercultural competence. The United States is a nation of immigrants; different cultures have lived side by side throughout our history. While some cultural groups have worked to assimilate, that is to take on the culture of the dominant majority, other cultural groups prefer to coexist with the dominant majority in a pluralistic society. An informed and culturally competent population can better promote this cross-cultural difference in a positive way, valuing what each culture brings to society rather than denying or being threatened by that difference.

Universities and colleges in the United States have a long history of providing students with an international and intercultural education, in part through study abroad. Since early colonial times, students have traveled abroad to advance their educations; the earliest colonial schools sent students back to the "home" country to study for the ministry (DuBois, 1995). During the 1800's students traveled to European, particularly German, research institutions to learn and bring back new models of higher education. The "grand tour," while primarily a European activity, also attracted young wealthy

Americans who traveled to western European countries to learn about art and culture as the culmination of their higher education experience. In the more recent past, students frequently studied abroad during their junior year, most often in a European country, with the aim to gain competence in a foreign language and learn about another culture. Most students were white, female and upper-income. Up until the 1980's this was the primary model of study-abroad programs, but as study abroad became more popular throughout the 1990's, programs changed and expanded to offer different duration times, include more countries, and incorporate new models of teaching and learning. The "Junior Year paradigm" is now being replaced by a "Student Learning paradigm" in which institutions have expanded their study-abroad programs to meet the varied needs and interests of students (Vande Berg, 2004). As study-abroad programs have expanded and more students are choosing to study abroad, attention has became increasingly focused on the outcomes of study abroad and just what our students are learning "over there" (Vande Berg, 2004).

Parents, faculty, legislators and other stakeholders are asking for objective evidence that study abroad is meaningful and worth the cost. Questions relating to how study abroad affects a student's academic skills and progress, foreign-language skills, and personal and intercultural growth have formed the basis of study-abroad program assessments. Early studies were often anecdotal, providing little real data. Self-reported studies provide information on how students feel they changed through study abroad, but self-reports do not provide objective information about what students are actually

learning. More recent studies, using valid and reliable instruments, provide the objective data that stakeholders are requesting.

Measuring Intercultural Learning Outcomes Through Study-Abroad

Intercultural competence is a primary objective of most study-abroad programs, although this concept is interpreted and measured differently within different studies. Intercultural competence has been defined as "the ability to think and act in interculturally appropriate ways" (Hammer, et al., 2003, p.422). Some studies, particularly older studies, measure the degree to which students "appreciate" other cultures, or "understand" other countries. Measures are often developed for a specific study, although several measures have been tested for validity and reliability and are used commonly in the literature. Paige (2004) developed an extensive list of instruments used for intercultural training, many of which are also appropriate for research studies. Some of the measures frequently found in study-abroad research literature are described below.

World-mindedness, first conceptualized and translated into a scale by Sampson and Smith (1957), refers to the view whereby a person's primary reference group is humankind, rather than a particular nationality. World-mindedness is contrasted with international-mindedness, which refers to interest and knowledge about international affairs (Sampson and Smith, 1957). The concept of world-mindedness has tended to depend on historical time frames. For example, one item from the World-mindedness scale, "It would be a mistake for us to encourage certain racial groups to become well-educated because they might use their knowledge against us" (Sampson and Smith, 1957,

p. 100) may have been acceptable in its time, but would be seen as offensive by most people today. Hett (1993) developed a survey instrument to measure global-mindedness that is more appropriate to the current global context. She defines global-mindedness as "a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members" (Hett, 1993, p.142). The instrument measures dimensions of responsibility, cultural pluralism, efficacy, globalcentrism and interconnectedness.

The Cross Cultural Adaptability Inventory (CCAI) (Kelley and Meyers, 1999) was developed based on the most highly rated intercultural skill sets listed in the literature by experts in the field. Four primary dimensions are measured: *Emotional Resilience* is identified as a person's ability to deal with stress constructively, have confidence in his or her able to cope with ambiguity, and have a positive self-regard. *Flexibility/Openness* refers to a person's comfort level with people who are different from them. Flexible and open people are generally non-judgmental and creative. *Perceptual Acuity* describes how well a person pays attention to and understands verbal and non-verbal behaviors and the context of communications. *Personal Autonomy* refers to a person's sense of identity, the clarity of their personal values, and respect for self and others (Kelly and Meyers, 1999).

The Developmental Model of Intercultural Sensitivity

While instruments such as the above measure important intercultural abilities and skills, the Intercultural Development Inventory, based on a theoretical model, the Developmental Model of Intercultural Sensitivity, is one of the few instruments that

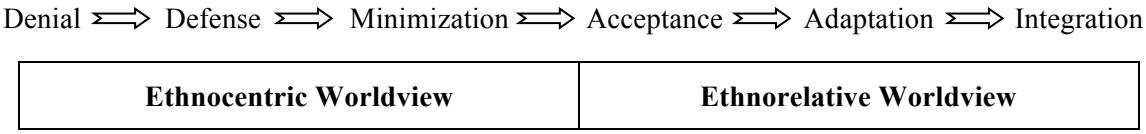
measure the developmental phenomenon of how people subjectively experience cultural difference (Hammer, et al., 2003).

Based on constructivist and personal construct theory, Bennett developed the DMIS through years of observing how people dealt with intercultural situations. He observed that some people improved their cross-cultural communication abilities, while others did not (Bennett, 2004). He defines intercultural sensitivity as "the construction of reality as increasingly capable of accommodating cultural difference." (Bennett, 1993, p.24). Kelly's (1963) personal construct theory influenced Bennett's conception that the meaning people attach to cultural difference and their experiences based on those meaning attributes is what defines intercultural sensitivity. The DMIS is based on the concept that it is the subjective experience of the learner that is fundamental to developing intercultural sensitivity (Bennett, 1986).

The DMIS model describes intercultural competence as a "continuum of stages of personal growth" beginning with ethnocentrism and moving toward ethnorelativism (Bennett, 1986). The model reflects the complexity of a person's view of cultural difference, and because it is a developmental model, measures changes in underlying worldview, rather than changes in attitudes and behaviors (Hammer, et al., 2003).

As a person progresses through the stages, his or her views on difference become more complex and reflect how he or she experiences difference (Hammer, et al., 2003). The DMIS developmental model comprises six stages (see Figure 1). In the first of the ethnocentric stages, *Denial* of difference, a person may not have ever been exposed to difference, or defines difference in very broad categories such as "foreigner." Difference

Figure 1**:** Developmental Model of Intercultural Sensitivity



(Bennett, 2004)

is generally not noticed; it exists elsewhere (Bennett, 1993). In the *Defense* of difference stage, difference is acknowledged, but is seen as a threat. The defense stage often involves negative stereotyping, cultural superiority, and denigration of others in an effort to defend one's sense of reality and identity (Bennett, 1993). During the *Minimization* phase, a person minimizes differences between cultures and highlights similarities. It is assumed that there are universal values or basic human characteristics that all people accept, although these values and characteristics are nearly always defined based on the culture of the person making the assertion (Bennett, 1986). The first of the ethnorelative stages is *Acceptance*, in which difference is acknowledged, respected and valued. A person recognizes culture as context in this stage, and is able to understand his or her own culture as one of many (Hammer, 2008). In the *Adaptation* stage, a person feels empathy for the other and can shift his or her frame of reference to the other's perspective. The person is able to adapt behavior and thinking. The term cultural pluralism is used in this stage to refer to an ability to shift between different worldviews (Bennett, 1993). In the final stage, *Integration*, a person does not identify with any particular culture, but can "construe him or herself in various cultural ways" (Bennett, 1986, p. 186).

The IDI was developed to measure intercultural orientations based on the DMIS model, with scores ranging from 55 to 145. It has been tested extensively and found to be a valid and reliable instrument (Hammer, 2011; Hammer, et al., 2003; Paige, Jacobs-Cassuto, Yershova and DeJaeghere, 2003). The IDI has been used to measure the development of intercultural competence in several research studies, including the Georgetown University Consortium Project.

Empirical Research on Intercultural Outcomes Through Study-Abroad

Many, although not all, studies have shown that students gain more interculturally when they study abroad than when they stay at home. Self-reported studies, although subjective, are valuable in understanding how a student thinks and feels about his or her experiences. Carlson and Widaman (1988) found that students who studied abroad during their junior year in one of six locations in Europe and Scandinavia had a significantly greater increase in levels of international political concern and cross-cultural interest than a comparison group at home. A second part of the study asked participants to retrospectively judge how much they changed in relation to two factors over the program duration. Cultural cosmopolitanism, indicating interest in other cultures, increased to a much greater extent in students who had studied abroad than in those who remained at home, although the second factor relating to political isolationism did not (Carlson and Widaman, 1988). Similar self-reported results were found in a study of 1,509 students studying abroad on short-term programs through the University of Delaware, and 827 students who remained at home (Chieffo and Griffiths, 2004). The study measured aspects of global awareness, defined by four categories: intercultural awareness, personal growth, global interdependence and knowledge of world geography. The study found that the study-abroad group had statistically significant higher mean scores than the non-study-abroad group in all but one category. Only the category of global interdependence, in which the students were asked about their knowledge of U.S.

trade relations and foreign manufacturing, showed no statistically significant difference between the study-abroad and home groups (Chieffo and Griffiths, 2004).

Douglas and Jones-Rikkers used the Scale to Measure World-Minded Attitudes (Samson and Smith, 1957) in a 2001 study. One hundred twenty students who studied abroad in England, Germany, China or Costa Rica or remained at home as the control group were given the scale; the study-abroad students took it again at the end of their overseas experience. Results showed statistically significant differences between the study-abroad group and the comparison group, with the study-abroad group showing a higher mean score than those who remained at home (Douglas and Jones-Rikkers, 2001).

Williams (2005) used more current measures of intercultural competence when she compared the cross-cultural adaptability of students who studied abroad to those who stayed at home using the CCAI and the Intercultural Sensitivity Index (ISI). The ISI is an instrument based on the DMIS measuring levels of ethnocentricity and ethnorelativity. In the study of 44 students studying abroad for a semester and 48 students from the home campus, Williams found that only in the areas of emotional resilience and perceptual acuity were there statistically significant differences between the study-abroad and on-campus groups, with the study-abroad group showing a greater change in both areas. The study-abroad group also showed a statistically significant higher increase in ethnorelativity than the on-campus group (Williams, 2005).

In another study showing mixed results comparing the gains in intercultural learning of students who studied abroad and those who stayed at home, Opper, Teichler and Carlson (1990) assessed the views of 439 European and American students on topics

relating to the host country, including the relationship between level of knowledge of the host country and favorable opinions of the country before and after studying abroad. The study found that even before their experiences, American study-abroad students were significantly more interested and aware of global issues than were the comparison group. The change in both groups during the same time period was almost the same, showing that it may be experiences within higher education rather than studying abroad that caused changes in global awareness (Opper, et al., 1990).

The logical question is then, why are there mixed results in intercultural outcomes through study abroad? Why is it that in some cases, students gain significant intercultural competence through study abroad, in some cases they gain only as much as they would have if they had stayed at home, and in some cases they actually regress? Vande Berg (2007) speaks of the need to intervene in the learning of students studying abroad, from the program design through the experiences students have while overseas. Simply sending students to a site abroad and expecting them to learn is generally not enough. Study abroad administrators and faculty must first determine what students are expected to learn while studying abroad, and how that learning is different from what they would get at home (Vande Berg, 2007). Study-abroad programs that are designed based on expected student learning can provide what students need in order to gain intercultural competence and to meet other academic and personal goals.

Research is beginning to focus on elements of both study-abroad program design and individual student characteristics to determine which factors influence the development of intercultural competence. Engle and Engle (2003) developed a program

model with several empirically measurable elements that is being used in several studies to help determine which program variables best promote the development of intercultural competence. Program elements include 1) length of the study-abroad program, 2) target-language competence at the time of study abroad, 3) language used in classes abroad, 4) context of the classes taken abroad, 5) student housing, including home stay, 6) experiential learning and 7) guided reflection on cultural experiences including orientation and on-site mentoring (Engle and Engle, 2003). Other studies highlight additional program elements such as the degree of cultural difference between the host country and home, curricular interventions, and how much time students spend with host-country nationals compared to other Americans.

Student characteristics are also important, although little research has been done to date on how individual characteristics affect a student's experience abroad. Relevant characteristics may include previous experience abroad, initial level of intercultural sensitivity, college major, and gender. Student characteristics, combined with particular study-abroad program designs may help or hinder intercultural development.

The research studies highlighted in the next sections will focus on broad program design characteristics such as those listed in the Engle and Engle (2003) model, and studies assessing individual student characteristics such as previous experience abroad, initial level of intercultural sensitivity, college major, and gender.

Empirical Research on Study-Abroad Program Variables

While program variables interact in ways we do not yet fully understand, one of the most studied variables is the duration of study-abroad programs. Fifty-five percent of students who study abroad do so for 8 weeks or less, which is a common definition of short-term study abroad (Bhandari, 2011). The percentage of students studying on short-term programs has increased every year over the past two decades (Bhandari and Chow, 2007). Serious questions arise as to whether students who study on short-term programs gain as much interculturally as those who study abroad on longer programs. With so many students traveling on short-term programs, it is an important question to ask.

Students on longer-term programs frequently show higher gains in intercultural competence than those on shorter programs. Kehl and Morris (2008) studied 144 students on short-term study-abroad programs of 8 weeks or less, compared to 193 students studying on semester-long programs and 183 students who had been accepted to study abroad in the future, but remained at home. The study used Hett's (1993) Global-mindedness scale to measure dimensions of responsibility, cultural pluralism, efficacy, globalcentrism and interconnectedness.

The students were from private universities, studying on "island programs" in which students live and study with other American students and are taught in English, generally by American instructors. No statistically significant differences were found between the students who studied on short-term programs and the students who did not study abroad; however, students who studied abroad for a semester did show statistically

significant, higher levels of global-mindedness than students who did not study abroad and students who studied on short-term programs (Kehl and Morris, 2008).

In another study comparing short- and longer-term programs, Medina-Lopez-Portillo (2004) used Engle and Engle's (2003) model of study-abroad program types to assess the change in intercultural sensitivity of students studying on two programs in Mexico. The first was a 7-week summer program based in Taxco and the second, a 16-week, semester-long program based in Mexico City, both of which were intensive, language-based programs. The sample size was small at 28 students; 10 students were enrolled in the Mexico City program and 18 in the Taxco program. The study was both qualitative and quantitative, using the IDI, face-to-face interviews and guided journals to triangulate the data. Results showed that students in both study-abroad programs increased their intercultural sensitivity; however, only 31 percent of the students on the 7-week program in Taxco moved to the next DMIS development stage, while 67 percent of the students on the semester-long program moved to the next stage. The qualitative data illustrated more significant changes in intercultural sensitivity than the quantitative data. Qualitative results showed more clearly that students taking part in the longer study-abroad program gained a deeper understanding of culture and of cultural differences, including intercultural sensitivity (Medina-Lopez-Portillo, 2004).

Perhaps the most significant study to date using Engle and Engle's (2003) program elements as a basis for relating program design to changes in intercultural competence is the Georgetown University Consortium Project (GUCP). This study involves a range of study-abroad programs at four diverse institutions and additional

programs operated by the Council on International Educational Exchange (CIEE), the Institute for the International Education of Students (IES), the University of Pittsburgh and the American University Center of Provence (AUCP). The study used Engle and Engle's (2003) seven categories as independent variables, and measured their impact on second-language acquisition and changes in intercultural sensitivity (Vande Berg, et al., 2004). The sample comprised 1,163 study-abroad students who completed both the pre- and post- IDI. Students studying abroad for 13-18 weeks, or about a semester, showed the largest average IDI increase of 3.40 points; to put that in context, each orientation is 15 points apart, with the exception of minimization, which spans 30 points (see Table 3). Programs of greater than 18 weeks showed a lower gain and were not statistically significant. Programs of less than a semester were also not significant (Vande Berg, et al., 2009).

While short-term study abroad has come under more intense scrutiny than longer programs, a study by faculty at the American University Center of Provence used the IDI to compare the development of intercultural sensitivity in 187 students on single-semester programs, and 25 students on full-year programs (Engle and Engle, 2004). Most students began their study-abroad experience with initially high IDI scores, so the authors assessed students on achievable progress, rather than raw score changes. Students who studied abroad for a single semester realized an average of 36 percent of their achievable progress, while students who studied a full year reached 68 percent. For full-year students, students gained an average of only 28 percent in their first semester, but attained 40 percent of their remaining achievable progress in the second semester. The authors

attribute the differences to increased cultural adaptation over a longer period and to a related increased complexity of worldview observed in students over time (Engle and Engle, 2004).

The overall trend toward increased intercultural competence on longer-term study-abroad programs masks the fact that regardless of program duration, not all students progress interculturally while studying abroad; some students regress, showing lower scores after study abroad than before. In the GUCP study, a sizable number of students had lower post-IDI test scores than pre-scores; in fact, on average, males experienced a non-significant, but negative change in intercultural sensitivity from pre- to post-study abroad as measured by the IDI; 34.8 percent of females experienced no change or a negative change in intercultural sensitivity (Vande Berg, et al., 2009). In the Medina-Lopez-Portillo (2004) study, seven of the 18 Taxco students experienced a lower level of intercultural sensitivity after study abroad than before, and three out of 10 students on the Mexico City program experienced a decrease in intercultural sensitivity from before to after study abroad. Similarly, in the Engle and Engle (2004) study, 14 percent of the students studying abroad for a semester showed a decrease in intercultural competence.

While neither the Medina-Lopez-Portillo nor the Engle and Engle study highlighted other differences in student or program characteristics, making it difficult to assess possible reasons why these students showed declines in intercultural sensitivity, Vande Berg, et al., (2009) offer an explanation as to why some students did not progress interculturally while others did in the GUCP study. The authors suggest that Sanford's

(1966) challenge/support hypothesis provides insight into how program design and personal characteristics interact to help or hinder intercultural competence development. Sanford posited that students need challenge in order to grow and develop, but they also need to be supported, particularly when faced with difficulties. Students who face too much challenge and not enough support will retreat, while students who are not challenged enough or receive too much support will get bored and not progress (Vande Berg et al., 2009).

Kolb's Experiential Learning Theory (1981) adds to Sanford's challenge/support hypothesis by offering a model illustrating how students learn through study abroad. The Experiential Learning Model is a four-stage cycle that begins with a concrete experience. From that experience, the learner observes and reflects on the experience from different perspectives. Out of those reflections, the learner will develop concepts and theories that may be applied to new and different situations. The learner then uses those theories in making new decisions and solving new problems (Kolb, 1981). Given the myriad of new experiences most students face while abroad, it is important to be able to pause and reflect on those experiences, and then apply the lessons learned to new situations.

As with program duration, cultural differences between host country and home represent a broad category of influence. A student studying in a country similar to his or her own and speaking English will likely have a different experience than, for example, a student studying in Kenya and speaking Swahili. The effect of those differences on the development of intercultural competence has not yet received much attention in the literature. Given that students are increasingly studying in "non-traditional" areas outside

of Western Europe such as countries in Asia, Africa and the Middle East (Bhandari and Chow, 2007), the issue of how students react to such cultural differences, and what interventions will help them do well in negotiating those differences is important. Ward and Kennedy (1993) hypothesized that sojourners making transitions to cultures less similar to their own would have more sociocultural difficulties adjusting to the new culture than those who are transitioning to a culture more similar to their own. They compared Malaysian and Singaporean students who studied in New Zealand to Malaysian students who studied in Singapore and found that Malaysian students in Singapore had fewer sociocultural difficulties making the adjustment. Ward and several other authors have completed similar studies between different cultures that have shown comparable results, although culture-specific situational factors may also influence this relationship; some cultures are more adaptable than others (Ward and Kennedy, 1999).

Douglas and Jones-Rikkers (2001) used the Scale to Measure World-Minded Attitudes (Sampson and Smith, 1957) to compare the level of world-mindedness in students who studied abroad in England, Germany, China and Costa Rica. Results showed statistically significantly differences between the comparison group's mean score of 105.81 out of a possible 192, and each of the study-abroad site groups, which ranged from 124.96 in England to 140.92 in Costa Rica. Statistically significant differences were found only between students who studied in England and Costa Rica (Douglas and Jones-Rikkers, 2001).

The GUCP study assessed students' perceptions of difference by asking students how similar or dissimilar they felt the host country was from their own country across

several categories. Students who perceived the cultural difference to be somewhat dissimilar showed average gains of 2.58 points, those who perceived the difference to be dissimilar showed average gains of 2.28, while those who perceived the host culture to be very similar, similar or very dissimilar did not show significant changes (Vande Berg, et al., 2009). Applying Sanford's challenge/support hypothesis (1966) to the variable of perceived cultural difference, students who perceive the host culture to be too similar may not be challenged enough to develop, while those who perceive the host culture to be very dissimilar may face too much challenge for significant intercultural growth without support.

Second-language proficiency and its relationship to intercultural competence is an important, but not well-researched topic. Although a few studies have examined culture learning in language education programs (Paige, Jorstad, Siaya, Klein and Colby, 2003), few studies relate the development of intercultural competence through second-language learning in the context of study abroad. Smith, Paige and Steglitz (2003) express the relationship between intercultural communication competence, language proficiency and cultural adjustment as being "multidirectional and mutually reinforcing" (p.111). Increased language proficiency leads to greater cultural understanding and ability to form relationships with host-country nationals. These stronger relationships facilitate increased language ability and further cultural adjustment (Smith, et al., 2003).

Engle and Engle (2004), in their study of language and intercultural gains of 187 students studying at the American University Center of Provence, found that the average single-semester language learning personal achievable progress was 37 percent and the

personal achievable progress in IDI scores was 33 percent. On the surface, the similar magnitudes of personal achievable progress between language and intercultural competence suggested a possible significant correlation, but this was not the case. The change in IDI scores ranged from a drop of 53 percent to an increase of 100 percent, while the change in language skills had a much smaller range; the results did not indicate a strong relationship (Engle and Engle, 2004).

The GUCP project looked at the relationship between second-language study and intercultural competence through variables relating to whether students studied a foreign language while abroad and whether students took content courses delivered in English, the second language, or a combination of the two. Students who studied the target language while abroad gained an average of 2.81 points on the IDI, while those who did not take target-language courses saw no statistically significant change. Students who enrolled in courses taught in the target language gained 3.27 points on the IDI, while those who took classes in a mix of target language and English gained 2.49, and those who enrolled in courses taught in English experienced no statistically significantly change in IDI score (Vande Berg et al., 2009).

The GUCP study also looked at the development of intercultural competence in relation to student housing and with whom students take classes. Students living with other U.S. students showed the highest average gain in intercultural competence of 3.37 points. Students living with host-country students showed a lower average gain of 2.08, while students living with a host family showed average gains of only 1.07 and students living with international students did not show statistically significant gains (Vande Berg

et al., 2009). Studying alongside students from the U.S. alone was shown to relate to the highest average IDI gain of 3.18 points, while studying with a mix of students from the U.S., other countries and the host country correlated with gains of 2.60 points. Students studying mainly alongside international or host-country students showed no statistically significant changes in IDI score. This result indicates that students enrolling directly in programs overseas do not gain as much interculturally as those studying alongside other students from their own culture (Vande Berg, et al., 2009).

Ward and Kennedy (1993), in assessing sojourner adjustment for students studying outside of their own country, distinguish between psychological and sociocultural adjustment in an individual. Psychological adjustment relates to an individual's psychological well being, while sociocultural adjustment relates to an individual's ability to negotiate the host culture and fit in. When the researchers studied how well Malaysian and Singaporean students adjusted to the culture of New Zealand, they found that psychological adjustment correlated with satisfaction with co-national relationships, while sociocultural adjustment correlated with the quantity of interaction with host-country nationals. Both types of relationships are important to adjusting to a new culture; however, when they looked at predictors of adjustment in Malaysian students studying in Singapore, they found that interactions with host-country nationals supported sociocultural adjustment, but had a weak negative relationship with psychological adjustment. Interactions with co-national students also showed a weak negative relationship with the sociocultural adjustment of Malaysians in Singapore. The authors suggest that well-known culture-specific features of the Singapore culture may

have been a factor (Ward and Kennedy, 1993). Lou and Bosley (2008) agree with the need for both types of relationships. They designed an on-line course for students studying abroad that allows the students to connect with peers and instructors from the U.S. in a structured guided discussion around understanding and adapting to cultural difference and gaining intercultural competence. The authors assert that it is critical to balance cultural immersion with reflection and guided discussion with peers and instructors from the home culture (Lou and Bosley, 2008).

The differences in intercultural gains between programs with different designs such as duration, location and language of instruction may be mitigated by faculty-controlled interventions. Faculty and on-site study-abroad administrators can provide both the challenge and support components in Sanford's (1966) challenge/support hypothesis to facilitate students' intercultural development. Faculty can also facilitate students' reflections of experiences and development of the abstract conceptualizations needed for cognitive learning (Kolb, 1981). Students may face significant challenges and experiences for which they have no understanding when they live in countries where the perceived culture is very different from home, or where they have few other U.S. students in their classes to talk to, but with appropriate support from faculty or study-abroad staff, these students can develop intercultural competence.

One means by which faculty supports students is through intercultural mentoring or guidance. Guidance may take place in many ways, both inside and outside of class. A study by Pedersen (2010) assessed 32 students who studied abroad in England for a full-year. The students were randomly assigned into one of two experimental groups, and

compared to a control group of 13 students that remained at home but were planning to study abroad during the next academic year. One study-abroad group enrolled in an intercultural course with an explicit intercultural pedagogy that included individual guidance, while the other study-abroad group did not take the course. The groups were involved with other similar activities over the year abroad. Students who took the intercultural course showed an average increase in IDI score of 11.56 points (almost one stage in growth), while the group that did not take the course increased by only 1.22 points. The control group showed an increase of 1.43 points (Pedersen, 2010). Pedersen also compared the change in intercultural effectiveness of the students who studied abroad in England to those on a short-term (2 week) program she led to Amsterdam and Copenhagen in which she focused on an intercultural pedagogy (Pedersen, 2009). Results showed that while the short-term study-abroad students did not gain as much as the full-year study-abroad students in England who received the intentional intervention, they did gain more than the students on the yearlong program in England who did not receive an intercultural intervention (Pedersen, 2009). Pedersen's studies clearly show how faculty intervention can be a key factor in promoting intercultural effectiveness, regardless of other program design elements.

Reflecting the results in the Pedersen studies, the GUCP study found that group mentoring around issues of intercultural sensitivity had a positive effect on the development of intercultural competence. Students who "rarely" received group mentoring saw an average change in IDI score of 1.61 points, "sometimes" showed a gain of 2.18, and while the sample size of those who received mentoring "often" or "very

often" was small, the results approached significance with students showing gains of 5.02 points for those who received mentoring very often (Vande Berg, et al., 2009).

Although faculty and study-abroad administrators can influence student choices such as course enrollment, participation in specific activities, or living situation, students make individual choices while abroad that will influence their intercultural development. With whom students choose to spend time with outside of class important. The GUCP study found that students spending 25 percent of their time or less with other U.S. nationals showed the greatest average gain in IDI score of 2.51 points, while those who spent the most time with other American students actually showed a decrease in intercultural competence, although the result was non-significant. Time spent with a host family correlated positively with intercultural gains (Vande Berg, et al., 2009).

Paige, Cohen and Shively (2004) used an orientation and self-guide with weekly readings and assignments as an intentional curricular intervention to help students improve both second-language skills and intercultural competence. Eighty-six students from seven colleges and universities in the Midwest were randomly assigned to an experimental or control group. The experimental groups received a one-day orientation to the project, the *Maximizing Study Abroad Student's Guide*, weekly reading assignments and bi-weekly journaling assignments. The study assessed whether students gained intercultural competence from before to after study abroad, and whether they increased use of the theory-based culture learning strategies highlighted in the *Maximizing Study Abroad Student's Guide*. The study then compared the experimental and control groups. Students in the experimental group showed an increased overall

developmental score, indicating increased intercultural sensitivity as measured by the IDI. They showed an increased use in three of the five strategy scales including interpreting culture, nonverbal communication and culture shock/coping. They did not increase their use of reentry or home stay strategies. Experimental and control groups showed no statistically significant differences in either IDI scores or in the use of strategies for learning culture. Preliminary qualitative results from journal analysis and interviews indicate the *Maximizing Study Abroad Student's Guide* may have had a greater influence than the quantitative results show (Paige, et al., 2004).

Empirical Research on Individual Student Characteristics

While student characteristics are frequently used as control variables, when assessing study-abroad outcomes these variables can facilitate understanding of how individual students may experience study abroad differently. Some studies for example, find that students who have had previous international experiences do not gain as much as students who have never been overseas (Pedersen, 2010; Juhasz and Walker, 1984). Study abroad faculty and administrators with this knowledge can tailor mentoring and curriculum toward these more experienced students to help them continue developing intercultural competence.

Carlson and Widaman (1988), in their study of 304 students who spent a year abroad in one of several western European countries, looked at student characteristics including previous experience living abroad, sex, and college major. Previous experience living abroad had significant effects on both cross-cultural interest and international

political concern factors; students who had never lived abroad previously showed greater increases than those who had. The students' perceived change in perspective over time was assessed using the same independent variables, and correlating them with the cultural cosmopolitanism factor, indicating an interest in other cultures, and political isolationism, measuring how countries view international problems and conflicts. The retrospective analysis showed that related to cultural cosmopolitanism, females perceived a greater change than males and students in the humanities saw greater changes than those in the social and behavioral sciences and the biological and physical sciences. No significant effects were related to the political isolationism factor (Carlson and Widaman, 1988).

Williams (2005) compared the intercultural communication skills of 27 students who studied abroad for a semester to 25 who remained on campus. In addition to comparing the change in intercultural competence of students who studied abroad to students who remained at home, she considered the role of pre-study-abroad intercultural communication skills, and the role of personal characteristics in relation to intercultural communication outcomes. Multiple regression analysis relating the change in intercultural communication skills through the CCAI, and intercultural sensitivity through the ISI to the student characteristics of gender, age, academic level, major, religion, hometown and previous intercultural exposure showed that communication majors showed a greater increase than business majors, and women showed a greater increase than men. The second part of the study related a combined measure of CCAI and ISI scores on the pre-test and the post-test to the same independent variables as the first analysis. Results showed that the primary predictor of pre-test intercultural

communication skills on the ISI was intercultural exposure prior to fall semester, and the primary predictor of post-test intercultural communication skills on the combined CCAI and ISI measure was intercultural exposure during fall semester. In fact, intercultural exposure during fall semester was the only statistically significant predictor; location was not statistically significant in predicting scores (Williams, 2005).

The 2010 Pedersen study comparing the development of intercultural effectiveness of students who studied abroad for a year in England with an intercultural curricular intervention to those without the intervention, also assessed student characteristics including gender and previous travel experience. Results showed that students who had no previous travel experience showed a greater change in IDI score; gender was not a significant factor (Pedersen, 2010).

In another study looking and individual and program characteristics, Marion (1980) sampled 90 students studying in countries throughout Europe, most of who studied for a full-year and all of whom studied at a host-country institution. He looked at pre- and post-measures of levels of dogmatism (openness and closeness of belief systems), world-mindedness (nationalistic-internationalistic attitudes), radicalism-conservatism (economic and political views), perceptions of host country and perceptions of the United States. Results showed that students who did not speak the foreign language well, had more U.S. friends and fewer host-country friends, and lived with fewer U.S. students and more host nationals or other foreign students became more nationalistic. Students who were more social both before and during the study-abroad experience, had more host-country friends and fewer U.S. friends, gained a more positive

view of the host country. Students who were female, more nationalistic and conservative before study abroad, did not have good second-language ability, had more U.S. friends and fewer host-country friends, lived with a host family, and were involved in more non-social activities while abroad gained a more positive view of the United States (Marion, 1980).

The GUCP study found several correlations between student characteristics and the development of intercultural competence. As with several studies mentioned previously, the GUCP study assessed how previous experience living in another culture affected IDI outcomes and found that there was no statistically significant relationship, although students who had never lived in another culture did start out with the lowest IDI scores and showed the greatest gains. Similar results were found for students who had never studied abroad previously compared to those that had. Statistically significant increases in IDI scores were found for students majoring in the humanities, social sciences and foreign languages. Prior language study was found to be positively, and significantly related to increases in intercultural competence (Vande Berg, et al., 2009).

Gender

Gender is a student characteristic of particular importance as female students have consistently been overrepresented in study-abroad programs. While 57 percent of 4-year college students were female in 2007 (U.S. Department of Education, 2009), over the past 10 years 65 percent of study-abroad participants have been female. (Bhandari, 2009). Research is also showing that males tend to be more ethnocentric than females even before study abroad.

Kim and Goldstein (2005) wanted to better understand why women continue to be overrepresented in study-abroad programs and looked at gender differences in intercultural attitudes as a means of gaining an understanding. Measuring ethnocentrism, intercultural communication apprehension, prejudice, language interest and competence, intolerance of ambiguity and travel experiences in relation to expectations of international study, the authors hypothesized that women would score lower in ethnocentricity than men. They assessed 282 undergraduate students who had not yet studied abroad, but of whom about 40 to 50 percent were expected to do so during their college career. Ethnocentrism was measured using Neuliep and McCroskey's (1997a) Generalized Ethnocentrism Scale (GENE), a 22- item instrument that has been tested and found to be reliable and valid (Neuliep, 2002). Results showed that females scored significantly lower on the ethnocentrism scale, on intercultural communication apprehension, and on prejudice. Females scored higher on the measure of language interest. With the exception of lower levels of prejudice, each of these variables was also associated with favorable expectations of study abroad (Kim and Goldstein, 2005).

Using the same GENE instrument to measure ethnocentricity in a group of 173 American college students and 372 Japanese students, each studying in their own country, Neuliep, Chaudoir and McCroskey (2001) explored the differences in ethnocentricity between students from Japanese and American cultures, and gender-related differences within those groups. While the Japanese were found to be more ethnocentric than the Americans, and Japanese males were slightly more ethnocentric than Japanese females, there was a greater difference in ethnocentricity between

American males and females, with males showing higher levels of ethnocentricity (Neuliep, et al., 2001). When the authors assessed the difference between the American students who had studied abroad and those who had not, no significant differences in ethnocentricity were found. Significant differences were found; however, between groups who had had almost no interaction with foreigners and those who reported that they often interacted with foreigners. Those with little interaction showed higher levels of ethnocentricity, and those frequently interacting with foreigners showed lower levels. The authors speculate that socialization may be an important factor in gender differences, as ethnocentricity is thought to be a learned attribute (Neuliep, et al., 2001).

Another study comparing the ethnocentricity and intercultural communication apprehension between Chinese and American students also assessed gender differences. Pan (2007) used the GENE instrument to measure ethnocentricity of 39 students from the United States and 45 from China, all studying at an American university. She used the 14-item Personal Report of Intercultural Communication Apprehension (PRICA), also developed by Neuliep and McCroskey (1997b), to measure levels if intercultural communication apprehension. Results showed that United States males had statistically significant higher levels of both intercultural communication apprehension (ICA) and ethnocentricity than females, and that ICA is significantly and positively correlated with ethnocentricity, without respect to national origin (Pan, 2007). Lin and Rancer (2003), also using the PRICA to measure levels of ICA, and the GENE to measure levels of ethnocentricity, found that males scored higher than females on both intercultural

communication apprehension and ethnocentrism. Males scored lower on a scale measuring intercultural willingness to communicate (Lin and Rancer, 2003).

Wrench and McCroskey (2003) found similar results in their study of 188 undergraduate students in an upper division communications course at large American university. Using the same GENE instrument, the authors found that males have higher levels of ethnocentrism and homophobia than females (Wrench and McCroskey, 2003).

Several recent studies have highlighted a difference in intercultural competence outcomes through study broad based on gender. Most notably, the GUCP assessed 1,163 students studying abroad on study-abroad programs around the world and found that males gained significantly less in intercultural competence than females, as measured by the IDI. In fact, females showed statistically significant increases in intercultural competence, but males on average showed a decrease in IDI scores. While the result was not statistically significant, it illustrates that male and females may be experiencing study-abroad programs differently through the choices they make, and they may be processing their experiences differently based on gender.

Polanyi (1995) describes how females studying abroad in Russia experienced study abroad differently than males. About 160 American students studying in Moscow and Leningrad in 1990-1991 on a number of programs were asked to keep track of their activities and journal about their experiences. Initially, males and females were at the same level of language ability, enrolled in similar classes and were involved in similar activities. Female students, through their journals, reported sometimes-extreme sexual harassment from Russian men, making conversation with them essentially impossible.

These instances are thought to have affected the lower gains shown in speaking and listening skills for females than for their male counterparts (Polanyi, 1995). Twombly (1995) highlights similar issues that women from the United States sometimes face when studying abroad in countries with different social values, sex roles and stereotypes of American women. In a qualitative study of students in Costa Rica, she found that women in general had difficulty making friendships with other women and felt harassed by men, while male study-abroad participants did not face the same difficulties (Twombly, 1995). In situations such as these it is clear that men and women may experience and process study-abroad programs differently.

In an early study highlighting differences between males and females studying abroad, Thomlinson (1991) looked at whether 174 American study-abroad students in semester-long programs at Harlaxton College in England changed in relation to four clusters: personal growth, international awareness, appreciation of home culture, values and behavior. While this self-reported study measured perceived change from pre-to post-study abroad, it did find that males and females differed on several dimensions. Females reported twice as often as males that they had a strong increase in lessoning stereotypes of people in general, strengthening personal values and awareness of policies, practices and life in the United States. Males reported no change between pre- and post-study abroad twelve times as often as females on interest in world issues and six times more often than females on interest in social concerns. In general, females experienced more change than males through study abroad (Thomlinson, 1991).

Williams (2005), in a study of 27 students from a private, Christian University studying abroad for a semester in countries throughout the world, found that females had statistically significant greater changes in ethnorelativism than males. When she used multiple regression analysis to analyze a combination of intercultural communication and intercultural competence changes, she found gender was not a significant predictor of overall intercultural communication skills (Williams, 2005).

Summary

Research on intercultural learning outcomes through study abroad is beginning to provide glimpses of the program and student characteristics that help students gain most from their study-abroad experience; however, there is a clear need for additional research on both program and student characteristics. Of particular importance are research studies that assess how the personal and program characteristics interact to promote or inhibit intercultural development based on gender.

CHAPTER THREE

Methodology

The purpose of this study is to examine the differences in the development of intercultural competence between males and females who studied abroad on one of 51 programs offered through several institutions and study-abroad agencies involved in the Georgetown University Consortium Project (GUCP). A secondary analysis of data collected through the GUCP explored the individual and program characteristics leading to gains in intercultural competence through study abroad based on gender. This chapter presents the research design, conceptual framework, sampling procedures, measures and analysis.

Research Design

The GUCP study utilized a non-equivalent, control-group design featuring pre- and post-tests. A purposeful sample of study-abroad participants and students who remained in the United States represented the populations of interest. Since this research assesses individual and study-abroad program factors that influence intercultural competence outcomes through studying abroad, only the study-abroad sample is used. The Intercultural Development Inventory (IDI) was employed to measure the development of intercultural competence immediately before and after study abroad.

Conceptual Framework

This study explores gender differences in the types of study-abroad programs students choose, in the ways personal and program characteristics interact to promote the development of intercultural competence, and in intercultural development outcomes. The conceptual framework is found in Figure 2. A summary of the variables addressed in this study is found in Table 1.

Description of Variables

Change in IDI score. Helping students gain intercultural competence, or the ability to work effectively with other cultures, has become an increasingly important objective of higher education, and study abroad is a primary means of providing that learning. Students showing a significant gains in intercultural competence through study abroad will have an increased ability to accommodate cultural difference and see the world in more complex ways (Bennett, 1993). By measuring changes in intercultural competence with a valid and reliable instrument such as the Intercultural Development Inventory, study-abroad administrators and faculty can assess how programs and program elements affect intercultural competence development, and be able to offer effective, research-based study-abroad programs and student support activities.

Gender. Kim and Goldstein (2005) studied the link between gender and ethnocentrism, intercultural communication apprehension, prejudice, ambiguity intolerance and language interest in 282 students studying abroad on primarily semester-long programs. Using several known and tested scales, they found statistically significant

Figure 2**:** Conceptual Framework

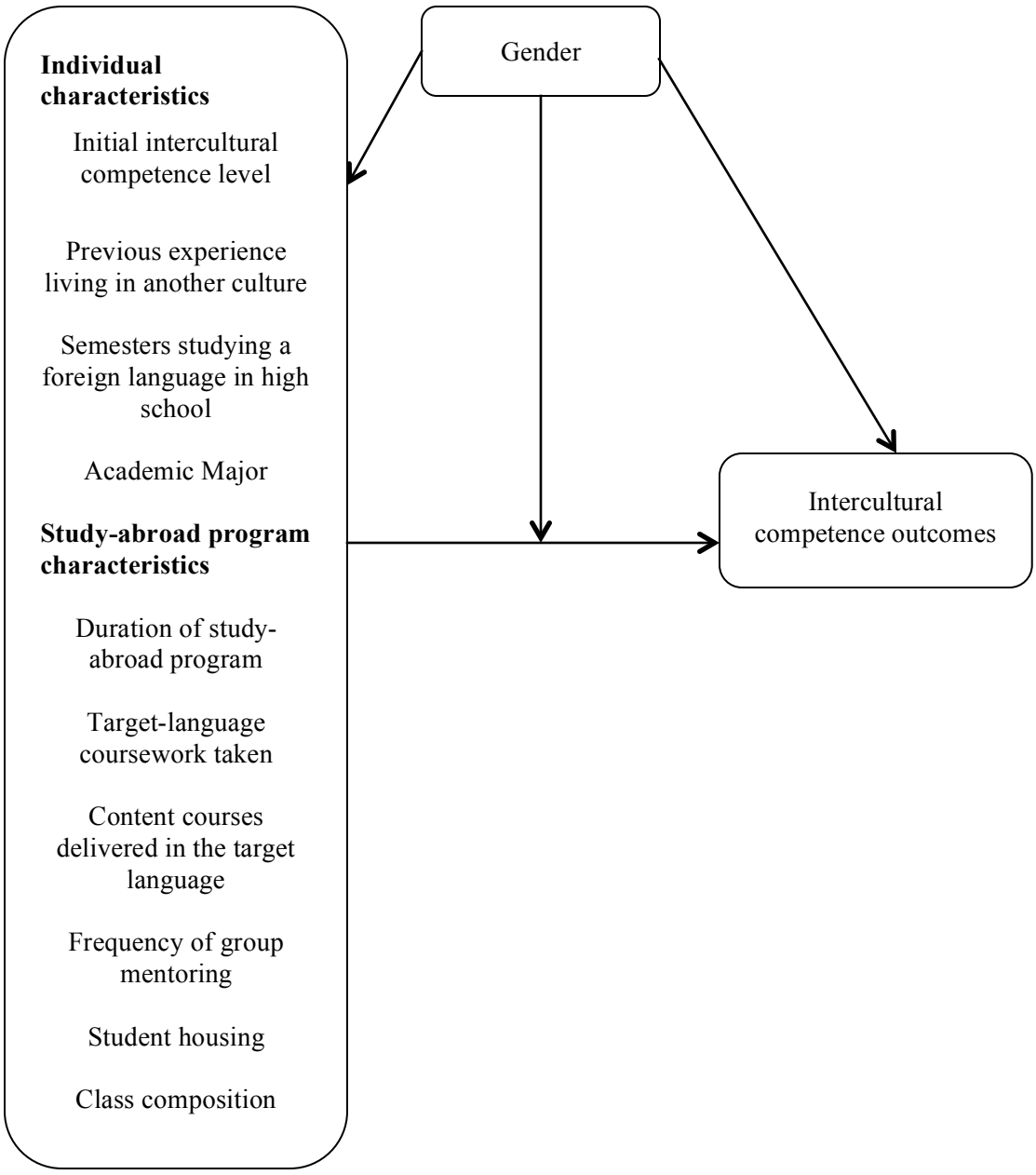


Table 1: Personal and Program Variables, Descriptions, and Response Categories Assessed in Study

Variable	Description	Response Category
Dependent Variable		
Change in IDI score study-abroad participants only	The difference between a student's pre- and post-study abroad IDI scores	
Focal Variable		
Gender	Self-reported gender of student	Male (0), Female (1)
Independent Variables		
Initial intercultural development level	Pre-study-abroad IDI score	
Duration of study-abroad program	Duration of program in weeks	1-3 weeks, 4-7 weeks, 8-12 weeks, 3-18 weeks, 19-25 weeks, 26 weeks – one academic year, more than one academic year
Semesters studying a foreign language in high school	Number of semesters studying a second language in high school	Less than 1 semester, 1-2 semesters, 3-4 semesters, 4-6 semesters, 7-8 semesters, More than 8 semesters, None
Target-language coursework taken	Did the student take courses focused on learning the target language while abroad?	No (0), Yes (1)
Content courses delivered in the target language	Did the student take content courses that were delivered in the target language?	No (0), Combination of yes and no (1), Yes (2)
Frequency of group mentoring	Frequency meeting in a group with a staff member to discuss cultural adjustment	Never, Rarely, Sometimes, Often, Very often
Student housing	Type of housing situation lived in for the majority of the time abroad	With students from the U.S. (reference group), With international students, With students from the host country, With a host family, Other

Table 1: Personal and Program Variables, Descriptions, and Response Categories Assessed in Study (*continued*)

Variable	Description	Response Category
Class composition	Primary composition of classes taken while abroad	Study mainly alongside other students from the U.S.(reference group), Study mainly alongside other international students, Study mainly alongside students from the host university, Other class compositions including combinations amongst 1, 2, 3
Previous experience living in another culture	Previous experience living in another culture	Never lived in another culture, Less than 3 months, 3-6 months, 7-11 months, 1-2 years, 3-5 years, 6-10 years, Over 10 years
Control Variable		
Academic major	Academic major	Natural/physical science, Health science, Business (not international), International business, Engineering, Humanities/social science (reference group), Foreign language, Other

differences between males and females. Females were less ethnocentric, had lower intercultural communication apprehension, were less prejudiced and were more interested in foreign languages. By exploring how males and females experience study abroad differently in relation to the development of intercultural competence, gender-based strategies for intervening can be developed to provide study-abroad faculty and staff with new and better tools to promote intercultural competence in both genders.

Initial intercultural development level and previous experience living in another culture. As a predictor of total intercultural communication gains through study abroad, Williams (2005) analyzed what effect exposure to other cultures would have on a combined assessment of intercultural communication and intercultural development skills. Exposure to other cultures included measures relating to having close friends from another culture, previous traveling or living abroad, attending religious services outside of one's own religion, taken courses on cultural topics, learning a foreign language, or attending cultural exhibitions. Multiple regression with the independent variables of location (study abroad or control), level, major, age, gender, ethnicity, size of hometown and previous exposure to other cultures showed that the only predictor of either initial or post-test intercultural communication skills was prior exposure to other cultures (Williams, 2005). Understanding how a student's initial stage of intercultural development interacts with program variables to affect intercultural gains will allow for targeted interventions and appropriate pre-study-abroad program counseling.

Program duration. Kehl and Morris (2008) compared the change in global-mindedness between three groups of students from private universities. One group

studied abroad on semester-long programs, another group on short-term programs and the third group had been accepted to study abroad but had not yet done so. The authors found that the students who studied abroad for a full semester showed significantly higher levels of global-mindedness than those students on short-term study-abroad programs, and those who remained at home. The students who studied abroad on short-term programs showed no statistically significant differences than those who did not study abroad. By understanding the different choices males and females make relating to the duration of study-abroad program, faculty and administrators may choose to counsel male students differently as they are choosing a study-abroad program, and as they provide student support while abroad.

Language abilities and prior language study. While many studies have related second-language acquisition to study abroad, few studies relate culture learning through second-language ability. Smith, et al. (2003) modeled the relationship between intercultural communication competence, language proficiency and cultural adjustment as an increased language ability leading to greater cultural understanding and a greater ability to form relationships with host-country nationals. Relationships with host country nationals, in turn, improves language ability and the cycle is mutually reinforcing. Marion (1980), in his study relating student characteristics to world-mindedness, found that students with only fair or poor language ability became more nationalistic through study abroad. The GUCP study found that students who had previously studied language in high school and college had statistically significant greater increases in intercultural competence than those who did not (Vande Berg, et al., 2009). By exploring whether

males and females differ in language abilities and experiences, faculty and administrators can better counsel students on taking second-language courses before study abroad, encourage them to enroll in study-abroad programs that will help them develop interculturally and provide better gender-based strategies to help students gain and use second-language skills while studying abroad.

Second-language coursework and content courses delivered in the second-language. The GUCP study assessed intercultural learning for students who enrolled in second-language courses while abroad, and students who took coursework in the second-language while abroad. Results showed that students who took second-language courses and those who took coursework delivered in the second language showed statistically significant gains in intercultural competence, while the change for students who did not take these courses was not statistically significant (Vande Berg, et al., 2009). If males and females show different patterns of enrolling in second-language courses, faculty and study-abroad staff can be aware of these differences and use appropriate strategies to encourage students to take courses that will best help them develop interculturally.

Mentoring. Although mentoring is not clearly defined in the literature, a study by Pedersen (2010) highlighted the significant effect that an intercultural curriculum that included guidance can have on intercultural learning outcomes. She studied two groups of students who were studying abroad on the same yearlong program in England. One group received an intercultural intervention, while the other did not. The students who received the intercultural intervention gained significantly more interculturally than those who did not receive the intervention. Those who did not receive the intervention showed

no statistically significant difference from the control group who had enrolled in study abroad but had not yet travelled (Pedersen, 2010). Mentoring is a powerful faculty tool for promoting intercultural competence. Understanding how males and females differ in how much mentoring they choose to receive and the effect of that mentoring will allow for better and more targeted student interventions.

Housing. Living with a host family has long been assumed to promote both second-language gains and intercultural learning. Recent studies bring that assumption into question. Marion (1980) found that students who lived with a host family or with host-country nationals became more conservative and more nationalistic, while students living with other U.S. or international students became more internationalistic. The GUCP study produced similar findings (Vande Berg, et al., 2009). Students living with other U.S. students or host-country students showed statistically significant gains in intercultural competence, while those living with a host family or with international students did not. If males and females differ in their housing choices, study-abroad faculty and administrators will be better able to counsel students to make choices that will help to increase their intercultural competence. On-site, gender-based mentoring and guidance may also be targeted toward students who are living with host families to help them grow interculturally.

Class composition. Few, if any, studies outside of the GUCP have addressed the issue of class composition in relation to the development of intercultural competence. This variable is indicative of whether students are placed in host-country institutions, taking classes alongside host-country nationals, whether they are taking classes mainly

with other U.S. students, or a mix of both. Vande Berg, et al. (2009) found that students who were placed mainly with host-country nationals did not gain as much interculturally as students who studied alongside other U.S. students or those who studied with a mix of U.S., host country and other international students. Exploring how males and females differ in the program choices and whether those choices affect the genders differently will help study-abroad professionals to counsel and guide students into programs that will better promote intercultural competence. On-site and gender-based mentoring for those students in higher-risk situations can facilitate intercultural growth.

Academic major. Men and women are disproportionately represented in several academic majors, although gender differences lose significance when personality and other factors are taken into consideration (Porter and Umbach, 2006). In addition, because majors such as the humanities and social sciences, which tend to attract more female students (Zafar, 2009), are overrepresented in the GUCP sample, academic major is an important control variable to ensure that any gender differences found in intercultural competence are related to gender and not academic major.

Sampling Procedures

Initial plans were to include students from the four institutions involved in the study: Georgetown University and Rice University, two medium-sized private research universities, the University of Minnesota – Twin Cities, a large public university, and Dickinson College, a small private liberal arts college. A wide variety of study-abroad programs are offered through these four institutions. Researchers later added to the

breadth of programs by inviting the Council on International Education Exchange, the Institute for the International Education of Students, the American University Center of Provence and others to join in the study. Participants from 61 programs, based at 190 U.S. home institutions, were eventually included. Data were collected for students who studied abroad on these programs during the 2003-2004 and 2004-2005 academic years, including summers. Table 2 describes the institutions from which students originated their study-abroad or language programs, showing only those students that completed both pre- and post-tests.

An initial sample of 2,789 participants self-selected to become involved in the study. Program staff at the sites abroad administered the IDI shortly after arrival on-site. Students were encouraged to be involved in the study, and program staff extended motivational offerings such as a raffle for international airfare to increase participation.

The sample was reduced to 1,297 participants who took both the IDI pre- and post-test, of which 134 were control students. The 1,163 study-abroad participants who completed both the pre- and post-test comprise this study's sample. The sample included 384 males (33 percent), 772 females (67 percent) and seven unknown. Ninety percent of the participants were 18-21 years of age and 8 percent were in the 22-30 age group. Ninety-seven percent of the students were high school graduates, 2 percent had a bachelor's degree, and 1 percent had a master's degree, had not yet completed high school, or were labeled "other".

Table 2**:** Institutions Providing Students to the GUCP: Study-Abroad Students who Completed Pre- and Post-IDI Only (N=1,163)

Institution	Study-abroad Programs	Study-abroad Students
Dickenson College	4	91
Georgetown University	17	182
University of Minnesota – Twin Cities	2	26
Rice University	8	10
Boston University	1	12
AUCP	1	109
CIEE	10	414
IES Abroad	7	212
Semester at Sea (University of Pittsburgh)	1	72
Missing		35
Total Students	51	1,163

Instrument

The Intercultural Development Inventory is a widely used empirical instrument, constructed to measure a person's orientation toward cultural difference. The IDI is based on Bennett's (1986) Developmental Model of Intercultural Sensitivity (DMIS), which was developed to explain why some people experienced cultural difference more easily than others. As a developmental model, it assumes that an individual will move through a series of stages, representing increasing intercultural sensitivity and an ability to experience difference in more complex ways. The first three stages, *denial, defense/reversal* and *minimization*, are considered ethnocentric stages, meaning the individual sees his or her worldview as central to all reality. The ethnorelative stages of *acceptance* and *adaptation* relate to an individual seeing his or her own cultural worldview as one of many worldviews, each of which is valuable (Bennett, 1996). More recent research with the IDI has shown the stage of minimization to be more of a transitional stage between ethnocentric and ethnorelative worldviews. Although people do tend to see the world from their own cultural viewpoint in minimization, they are open to seeing some cultural difference in more complex ways (Hammer, et al., 2003). The IDI was developed to measure how an individual experiences difference along the DMIS continuum; it has been tested extensively and found to be reliable and valid, and resistant to socially desirable responding (Hammer, et al., 2003; Paige, et al., 2003). The most recent version was tested with a variety of cross-cultural groups and found to be valid across cultures (Hammer, 2011, 2008).

The 50-item assessment measures *developmental orientation*, a score that ranges from 55 to 145, and represents a person's overall worldview toward cultural difference. The score places a person within the DMIS stage, or orientation, of denial, defense, minimization, acceptance or adaptation. Scores below about 85 are considered to be within the ethnocentric stages, those from 85 to 115 are transitional, and those 115 and above are considered ethnorelative (Hammer, 2009). IDI scores and DMIS orientations are shown in Table 3.

Students completed the 15-20 minute paper and pencil IDI assessment within a few days of arriving at their study-abroad site, and again a few days before they returned home. The assessments were scored at the Intercultural Communication Institute in Portland, Oregon.

The Principal Investigator of the Georgetown University Consortium Project provided written permission for the researcher to conduct a secondary analysis on the existing data set. A Category 4 exemption was granted by the University of Minnesota's IRB committee on April 12, 2011, Human Subjects Code Number: 1104E98218. See the Appendix for IRB exemption approval.

Analysis

This analysis involves study-abroad student data only. The surveys included the Intercultural Development Inventory and a general questionnaire, completed by all study-abroad participants.

Table 3: IDI Score and DMIS Orientations

Score	DMIS Orientation
55 – 69.99	Denial
70 - 84.99	Defense
85 – 114.99	Minimization
115 – 129.99	Acceptance
130 – 145	Adaptation

The data were analyzed in two stages. The first stage consisted of the review of descriptive statistics to determine whether males and females differ in terms of their personal characteristics or study-abroad program variable choices. The specific variables used are listed in Table 1.

Means analysis and crosstabs were used to assess whether there were differences between males and females in terms of individual characteristics and study-abroad program choices. Pearson product moment correlations among all variables highlighted the associative relationships and potential for collinearity. In the second phase, four separate regression models were developed based on gender, individual characteristics and a combination of individual and program characteristics to determine significant predictors of intercultural competence development. Academic major was the control variable.

Summary

The recent growth of study-abroad programs has given college and university students more opportunities to gain intercultural competence. This expansion has also highlighted the need for study-abroad assessment. Study abroad has been seen as a primary means of facilitating intercultural competence in students, but research indicates that not all students gain intercultural competence through study abroad. The study-abroad model of simply sending students overseas without intentional intervention may not be the most effective means for promoting the development of intercultural competence (Vande Berg, 2007).

A few studies have indicated a difference between how males and females develop interculturally through study abroad. Understanding that difference and how it relates to particular study-abroad program components will assist study-abroad program administrators and faculty to develop programs that promote the development of intercultural competence in both males and females.

The purpose of this study is to identify and describe differences between male and female study-abroad participants in intercultural learning outcomes, and predict which program elements promote the development of intercultural competence. The analyses compared male and female students, addressing the independent variables of initial level of intercultural competence, previous experience living in another culture, academic major, length of study-abroad program, taking target-language courses while abroad, taking content courses delivered in the target language, context of course delivery, mentoring, student housing, and class composition.

CHAPTER FOUR

Results

The purpose of this study was to explore the relationships between individual characteristics, study-abroad program characteristics, and the development of intercultural competence of males and females who studied abroad on one of 51 programs involved in the Georgetown University Consortium Project (GUCP). Initial analysis of the GUCP data, and research highlighted in Chapter Two indicate that gender differences do exist in individual characteristics, study-abroad program characteristics, and intercultural competence. In particular, the GUCP study showed that, on average, males regressed in intercultural development through study abroad, while females made small but positive gains.

This chapter presents an analysis of the GUCP data, examining the student and program characteristics associated with changes in intercultural competence from pre- to post-study abroad, with particular attention to differences by gender. The research question addressed by this study is: To what extent do the relationships among individual student characteristics, study-abroad program characteristics, and a student's development of intercultural competence vary by gender?

In order to answer the question, this chapter first reviews descriptive and inferential statistics to determine whether males and females differ in terms of their individual characteristics, study-abroad program characteristics, and experiences they had while overseas. Chi-squared analysis was employed for the categorical variables, and a means analysis was used for the continuous variables. Pearson product-moment correlations

between all variables then highlighted associative relationships, especially the relationship between change in IDI score from pre to post-study abroad and the independent variables. Next, ordinary least squares regression analyses were conducted to determine how individual characteristics, and individual and program characteristics together, contribute toward the variance in change in IDI score, with a focus on gender. The regression analyses draw attention to the variables that best predict change in IDI score from pre to post-study abroad.

Analysis

Analysis of Categorical Variables

To determine whether males and females differ in their individual characteristics and in their study-abroad program choices and experiences, a chi-squared test of independence was conducted for all categorical variables. Table 4 highlights the chi-squared results, which show that men and women differ significantly on several variables, the first being academic major. Male students were more likely than female students to have majors in the natural or physical sciences, business, international business, and other majors, while females were more likely to have majors in health science, humanities or social science and foreign languages. Females were significantly more likely than males to have taken all courses delivered in the target language. Women were more likely than men to be often involved in on-site group mentoring. There were no statistically significant differences between men and women relating to prior language study in high school, previous experience living in another culture, study-abroad program

Table 4: Study-abroad Individual and Program Characteristics, Overall and by Gender for Categorical Variables (N=1156)

Characteristic	Total	Male	Female	χ^2
Prior language study in high school				12.09
None	1.5%	1.8%	1.4%	
Less than one semester	1.3	2.4	0.8	
1 – 2 semesters	4.6	5.1	4.4	
3 - 4 semesters	15.7	18.9	14.1	
5 - 6 semesters	22.2	23.4	21.6	
7 - 8 semesters	46.1	41.6	48.4	
More than 8 semesters	8.5	6.9	9.4	
Previous experience living in another culture				6.97
Never lived in another culture	35.7	34.4	36.3	
Less than 3 months	34.0	35.0	33.5	
3 – 6 months	9.2	10.0	8.8	
7 - 11 months	5.2	4.6	5.5	
1 – 2 years	5.9	5.1	6.3	
3 – 5 years	4.5	4.3	4.5	
6 – 10 years	2.3	1.6	2.7	
Over 10 years	3.3	4.9	2.5	
Academic major				37.41***
Natural/physical science	6.7	8.5	5.8	
Health science	1.8	0.6	2.5	
Business (not international)	6.7	8.8	5.6	
International business	5.9	9.4	4.0	
Engineering	1.4	1.5	1.4	
Humanities/social science	43.3	39.9	45.2	
Foreign language	18.5	12.3	21.8	
Other	15.6	19.1	13.7	
Program duration[†]				6.29
4 – 7 weeks	2.5%	3.4%	2.1%	
8 – 12 weeks	1.5	1.0	1.7	
13 – 18 weeks	63.8	64.8	63.4	
19 – 25 weeks	21.0	18.0	22.5	
26 weeks – one academic year	11.2	12.8	10.4	

Table 4: Study-abroad Individual and Program Characteristics, Overall and by Gender for Categorical Variables (*continued*)

Characteristic	Total	Male	Female	χ^2
Target-language courses taken while abroad				.001
No	25.0	25.1	25.0	
Yes	75.0	74.9	75.0	
Content courses delivered in target language				11.62**
No	34.9	40.4	32.3	
Some	7.8	9.4	7.0	
Yes	57.3	50.3	60.8	
Frequency of on-site group mentoring				11.71*
Never	38.4	41.2	37.0	
Rarely	32.5	36.0	30.6	
Sometimes	19.2	16.2	20.9	
Often	6.50	3.70	8.00	
Very often	3.30	3.00	3.50	
Type of housing				2.86
With students from the U.S.	21.7	22.5	21.3	
With international students	7.6	6.4	8.3	
With host-country students	13.0	15.1	11.9	
With a host family	57.6	56.0	58.5	
Class composition				0.82
Study mainly alongside other U.S. students	54.1	53.4	54.4	
Study mainly alongside international students	1.0	1.3	0.8	
Study mainly alongside students from the host university	30.1	30.5	29.9	
Other class composition including combinations among U.S., international, host-university students	14.9	14.8	14.9	

* $p < .05$ ** $p < .01$ *** $p < .001$

†The response category of 1-3 weeks was removed due to small sample size.

duration, taking target-language courses while abroad, type of housing or class composition.

Analysis of Continuous Variables

A one-way analysis of variance of the two continuous variables was completed in order to determine to what extent males and females differ in their change in IDI score from pre- to post-study abroad and their initial intercultural competence levels. Significant differences between men and women were seen for both variables, as shown in Table 5. The average change in IDI scores from pre- to post-study abroad for males was negative, while females showed a larger, positive change in score from pre- to post-test. Male students started out with a lower initial development level than female students.

Correlations Analysis

To investigate associations between variables, Pearson correlations of all variables were computed. Table 6 shows that the strongest positive correlation between change in IDI score and the independent variables was being female. Being female was associated with higher gains in IDI score. A positive change in IDI score was also associated with taking more content courses delivered in the target language and receiving more frequent group mentoring. The strongest negative correlation with change in IDI score was initial intercultural competence level. Students starting out with a lower initial level of intercultural competence had a higher change in IDI score from pre- to post-study-abroad. Students who had less previous experience living in another culture were more likely to have a higher change in IDI score.

Table 5: Study-abroad Individual and Program Characteristics, Overall and by Gender for Continuous Variables

	Total		Male		Female		
Characteristic	Mean	S.D.	Mean	S.D.	Mean	S.D.	F
Change in IDI score from pre- to post-study abroad	2.34	13.24	-0.49	15.08	3.75	11.99	26.86***
Initial intercultural development level	96.23	14.27	94.31	14.68	97.19	13.97	10.59**

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 6: Correlations Between Individual Characteristics, Program Characteristics and Change in IDI Score

Measure	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Change in IDI score from pre- to post-study abroad	1											
2. Female	.151***	1										
3. Semesters studying a foreign language in high school	.055	.097**	1									
4. Initial intercultural development level	-.299***	.095**	-.021	1								
5. Previous experience living in another culture	-.065*	-.015	-.009	.056	1							
6. Academic major: natural/physical science	-.045	-.056	-.035	-.006	-.027	1						
7. Academic major: health science	-.004	.059*	.025	-.026	-.010	-.031	1					
8. Academic major: business (not international)	-.044	-.064*	.013	-.079**	-.003	-.060*	-.031	1				
9. Academic major: international business	-.003	-.107***	-.047	-.060*	.030	-.057	-.029	-.057	1			
10. Academic major: engineering	.012	-.006	-.043	-.036	.043	-.028	-.014	-.028	-.026	1		
11. Academic major: humanities/social science	-.026	.021	.006	.008	-.054	-.187***	-.096**	-.187***	-.176***	-.087**	1	
12. Academic major: foreign language	.030	.093**	.039	.011	-.011	-.106***	-.054	-.106***	-.100**	-.049	-.330***	1
13. Academic major: other	-.044	-.077**	-.003	.007	.072*	-.095**	-.049	-.095**	-.090**	-.044	-.297***	-.168***
14. Program Duration	-.049	.010	.095**	.013	.086**	.001	.004	-.010	.042	-.024	.060*	.042

Table 6: Correlations Between Individual Characteristics, Program Characteristics and Change in IDI Score *(continued)*

	Measure	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
15.	Target-language courses taken while abroad	.051	.001	-.037	.105**	.143***	-.189***	-.091**	-.096**	.061*	-.023	-.101**	.184***
16.	Content courses taken delivered in target language	.085**	.094**	.114***	.118***	.018	-.151***	-.075*	-.075*	.003	-.011	-.157***	.263***
17.	Frequency of group mentoring	.070*	.086**	.036	.045	-.029	-.005	.011	-.037	.027	-.081*	-.033	.113**
18.	Student housing: live with U.S. students	.034	-.029	-.045	-.084**	-.115***	.010	.000	.159***	-.051	.031	.103***	-.136***
19.	Student housing: live with international students	-.070*	.020	.009	-.023	.032	.064*	.057	-.014	.008	-.029	.065*	-.039
20.	Student housing: live with host-country students	-.007	-.052	-.043	.001	.029	.176***	.050	.016	.052	.063*	.027	-.059*
21.	Student housing: live with host family	-.088**	-.015	.055	.027	.066*	-.076*	-.027	-.053	.047	-.025	.080**	.277***
22.	Class composition: study mainly alongside other U.S. students	.067*	.010	-.044	.029	-.052	-.088**	-.066*	-.021	-.078**	.059*	-.110***	-.001
23.	Class composition: study mainly alongside other international students	.019	-.025	.016	-.037	-.026	.014	-.012	-.024	.018	-.011	.018	.031
24.	Class composition: study mainly alongside host-university students	-.082**	-.006	.014	-.003	.058	.002	.055	.018	.003	-.042	.127***	-.046
25.	Class composition: combinations among U.S., international and host-university students	.007	.001	.037	-.028	.004	.117***	.026	.012	.102**	-.026	-.013	.052

Table 6: Correlations Between Individual Characteristics, Program Characteristics and Change in IDI Score (*continued*)

	Measure	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
1.	Change in IDI score from pre- to post-study abroad													
2.	Female													
3.	Semesters studying a foreign language in high school													
5.	Initial intercultural development level													
4.	Previous experience living in another culture													
6.	Academic major: natural/physical science													
7.	Academic major: health science													
8.	Academic major: business (not international)													
9.	Academic major: international business													
10.	Academic major: engineering													
11.	Academic major: humanities/social science													
12.	Academic major: foreign language													
13.	Academic major: other	1												
14.	Program Duration	-.019	1											

Table 6: Correlations Between Individual Characteristics, Program Characteristics and Change in IDI Score (*continued*)

	Measure	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
15.	Target-language courses taken while abroad	-.091**	-.208***	1										
16.	Content courses taken delivered in target language	-.023	.015	.368***	1									
17.	Frequency of group mentoring	-.039	.029	.007	.089**	1								
18.	Student housing: live with U.S. students	.106***	-.194***	-.249***	-.345***	-.062	1							
19.	Student housing: live with international students	.010	.095**	-.204***	-.107***	-.006	-.112***	1						
20.	Student housing: live with host-country students	-.030	.096**	-.186***	-.157***	-.022	-.150***	-.084**	1					
21.	Student housing: live with host family	.054	.088**	.280***	.332***	.065*	-.398***	-.223***	-.299***	1				
22.	Class composition: study mainly alongside other U.S. students	-.015	-.467***	.300***	.040	.053	.240***	-.127***	-.125***	-.226***	1			
23.	Class composition: study mainly alongside other international students	-.012	-.134***	.058	.034	-.032	.075*	.013	-.033	-.033	-.106***	1		
24.	Class composition: study mainly alongside host-university students	.089**	.343***	-.281***	-.059*	-.088**	-.167***	.121***	.016	.257***	-.712***	-.064*	1	
25.	Class composition: combinations among U.S., international and host-university students	-.091**	.248***	-.071*	.011	.054	-.142***	.018	.164***	-.006	-.454***	-.041	-.274***	1

Several indicator variables showed significant correlations with change in IDI score. Students who studied mainly alongside other U.S. students were more likely to have higher changes in IDI score. Those students who mainly studied alongside host-university students and those who lived with international students or a host family tended to have lower changes in IDI scores.

Regression Analysis

Four multiple regression analyses were conducted to investigate how well a student's individual characteristics and a combination of individual and program characteristics predict change in IDI score from pre- to post-study abroad, controlling for academic major. Variables were tested for collinearity in SPSS; all tolerance values were greater than .4. A general rule of thumb is that tolerance values of .10 or less indicate the possibility of serious problems of multicollinearity in the regression equation (Cohen, Cohen, West and Aiken, 2003). In order to compare how independent variables contributed to the overall regression, standardized beta coefficients were examined. Care must be taken; however, when comparing standardized beta values generated for dummy-coded variables. Unstandardized beta coefficients for dummy variables represent the difference in means between the variable in question and the reference variable for that particular nominal variable and do not depend on the relative group sizes. While dividing beta by the standard deviation standardizes variables, the indicator variables now depend on the relative size of the group (Cohen, Cohen, West and Aiken, 2003).

The results of the ordinary least squares regressions are presented in Table 7. The first stage of the analysis assessed the effect of the individual characteristics including

Table 7: Ordinary Least Squares Regression Analysis for Variables Predicting Change in Intercultural Competence from Pre- to Post-Study Abroad

	Individual Characteristics		Individual and Program Characteristics	
Measure	β	β	β	β
Individual Characteristics				
Initial intercultural development level	-.323***	-.331***	-.337***	-.342***
Semesters studying a foreign language in high school	.047	.038	.047	.039
Previous experience living in another culture	-.048	-.046	-.046	-.046
Major: natural/physical science	-.035	-.028	-.035	-.027
Major: health science	-.003	-.010	.001	-.005
Major: business (not international)	-.067*	-.058	-.081*	-.077*
Major: international business	.005	.017	.006	.018
Major: humanities/social science (reference group)	--	--	--	--
Major: engineering	.003	.003	.007	.009
Major: foreign language	.048	.038	.018	.010
Major: other	-.022	-.014	-.030	-.022
Program Characteristics				
Program duration			-.017	-.015
Target language courses taken while abroad			.048	.053
Content courses delivered in target language			.045	.041
Frequency of group mentoring			.062	.055
Student housing: live with U.S. students (reference group)			--	--
Student housing: live with international students			-.122**	-.124**
Student housing: live with host-country students			-.041	-.035
Student housing: live with host family			-.150**	-.143**

Table 7: Summary of Ordinary Least Squares Regression Analysis for Variables Predicting Change in Intercultural Competence from Pre- to Post-Study Abroad (*continued*)

	Individual Characteristics		Individual and Program Characteristics	
Measure	β	β	β	β
Class composition: study mainly alongside other U.S. students (reference group)			--	--
Class composition: study mainly alongside other international students			.003	.008
Class composition: study mainly alongside host-university students			.018	.017
Class composition: combinations among U.S., international and host-university students			.050	.045
Female		.126***		.119***
R^2	.109***	.124***	.131***	.144***
ΔR^2		.015***		.013***

* $p < .05$ ** $p < .01$ *** $p < .001$

initial intercultural competence level, semesters studying a foreign language in high school, previous experience living in another culture and academic major on change in IDI score. This model accounts for a statistically significant portion of the variance. The standardized beta coefficients shown in the table suggest that initial intercultural developmental level, and having a major in business (not international) are significant negative predictors of change in IDI score. The second stage of the analysis assessed the same individual characteristics, but added the indicator variable female. Initial intercultural development remained a significant negative predictor of change in intercultural competence, but academic major was no longer significant. Being female continued to be the only positive predictor if change in IDI score when considering individual factors. This model accounts for a significantly higher portion of the variance than the first model.

The third analysis considered both individual and program characteristics, and included the variables initial intercultural competence level, semesters studying a foreign language in high school, previous experience living in another culture, academic major, program duration, target-language courses taken while abroad, taking content courses delivered in the target language, frequency of group mentoring, housing, and class composition. This model accounted for a higher portion of the variance than the first two models. The standardized beta coefficients indicate that initial intercultural competence level, having a non-international business major, living with international students and living with a host-country family contribute most to predicting change in IDI score. All four predictors are negative, indicating that students starting with a lower initial

intercultural competence level, not having a non-international business major, not living with international students or not living with a host-country family will show higher gains in IDI score from pre- to post-study abroad.

The fourth analysis considered both individual and program characteristics including being female. Initial intercultural competence level, having a non-international business major, living with international students and living with a host family continued to be significant negative predictors of intercultural competence development, while being female continued to be the only significant positive predictor of change in IDI score. This model accounted for the highest portion of variance in change in IDI score of all four models; there was a significant increase in predictive quality over the similar model of all students.

Note that being female contributes significantly over and above individual characteristics and over and above combined individual and program characteristics. In short, women are more likely than men to show gains in IDI score through study abroad.

Summary

The question addressed by this study is: To what extent do the relationships among individual student characteristics, study-abroad program characteristics, and a student's development of intercultural competence vary by gender?

The analysis indicates that men and women differ significantly in both individual and program characteristics. Women are more likely to take courses delivered in the target language, receive frequent group mentoring, and major in the health sciences,

humanities/social science or foreign language. Female students also start out with a higher initial intercultural competence level prior to studying abroad. Male and female students did not differ significantly from each other in prior language study in high school, previous experience living in another culture, program duration, taking target-language courses while abroad, type of housing, or class composition.

Program variables associated with gains in IDI score included taking content courses delivered in the target language, frequent group mentoring and studying mainly alongside other U.S. students. Individual characteristics associated with gains in IDI score were having a lower initial intercultural competence level, having little or no previous experience living in another culture and being female.

Regression analysis disclosed that each of the four models assessing individual and study-abroad program characteristics significantly predicted change in IDI score. Both models that included the female variable had significantly higher R^2 values than the models that did not specify gender. The models that included both individual and program characteristics predicted change in IDI score better than the model that only considered individual variables. While the adjusted R^2 values for the models were not large, they were all highly significant.

Significant predictors of change in IDI score from pre- to post-study abroad relating to individual characteristics were initial intercultural competence level, majoring in non-international business and being female. Students who started with lower initial IDI scores gained more intercultural competence through study abroad than those who started with higher scores. Being a woman was a significant predictor of positive gains in

IDI score from pre- to post-study abroad. When program characteristics were added to the model, initial IDI level, having a major in non-international business, and living with international students or a host family remained significant negative predictors of change in IDI score. Being female was the only significant positive predictor of change in IDI score when considering both individual and program characteristics. Taking into account the variables that contributed most to change in IDI score, initial intercultural competence level was the most significant negative predictor, while the only positive predictor of change in IDI score from pre- to post-study abroad was being female.

Chapter five will provide a discussion of the results of this study relating intercultural competence to student characteristics, components of study-abroad programs and gender. It will relate how these results reflect the literature highlighted in Chapter Two. Implications of the findings to policy and practice in the field of study abroad will also be discussed. Finally, study limitations will be acknowledged and directions for future research recommended.

CHAPTER FIVE

Discussion

As colleges and universities increasingly recognize intercultural competence as an important student learning objective, study-abroad programs continue to serve as a primary means of meeting this goal. With the exception of 2008/09, the number of students studying abroad has increased each year over the past 25 years (Bhandari, 2011). The decrease in 2008/09 of less than 1% was likely due to the poor economic conditions experienced nationwide (Forum on Education Abroad, 2010).

Whether students are gaining intercultural competence through study abroad, and by what means they do so are still open questions. In the past, it was assumed that simply sending students overseas to live and study in another culture would promote intercultural competence; however, more recent research is demonstrating that this is not the case. Whether and how students gain intercultural competence is a complicated combination of personal characteristics and study-abroad program characteristics, set within a specific cultural context. Research is becoming increasingly focused on how intercultural competence is developed through study abroad in order to provide study-abroad professionals, faculty and students information that will foster student growth.

This study has examined the Georgetown University Consortium Project data, which included 1,163 students studying on study-abroad programs offered by a variety of higher education institutions and independent study-abroad organizations. Initial analysis highlighted several study-abroad program features and individual characteristics that promoted or inhibited intercultural competence gains. One of the most surprising

findings was that males, on average, regressed in intercultural competence from when they left overseas to when they returned. This study aimed to look more closely at the differences between how men and women develop interculturally through study abroad.

This chapter presents a discussion of the study findings in relation to the literature, implications of the findings pertaining to policy and practice, study limitations and directions for further research.

Discussion

The results of the current study suggest that being female has significant effects on the development of intercultural competence through study abroad, considering the specific individual and study-abroad characteristics included in this study. Women were more likely than men to make study-abroad program choices that were shown to be associated with increased gains in intercultural competence; those were taking content courses delivered in the target language and meeting more frequently in a group with a staff member to discuss cultural adjustment. Regression analysis revealed that in both the case where only individual characteristics were considered and when study-abroad program and individual characteristics were considered, being female was a significant predictor of intercultural competence development.

Results of the study showed that females differed significantly from males on two primary aspects of study-abroad program choices and with one individual characteristic. Women were more likely to take all of their courses delivered in the target language and were more likely to receive group mentoring than men. There were no significant

differences between males and females in the length of study-abroad program they chose, whether or not they took target-language courses while abroad, what type of housing they lived in, or the class composition they experienced.

The primary differences shown between males and females relating to their individual characteristics were in their initial level of intercultural competence and academic majors. On average, male students started at a lower IDI score than female students. Several studies show U.S. males to be more ethnocentric than females (Kim and Goldstein, 2005; Neuliep, et. al, 2001; Neuliep and McCroskey, 1997b; Pan, 2007; Lin and Rancer, 2003; Wrench and McCroskey, 2003). In each of these studies the Generalized Ethnocentrism Scale (GENE) instrument (Neuliep and McCroskey, 1997a) was used to measure levels of ethnocentrism. Similarly, studies have shown men to have higher levels of intercultural communication apprehension, which is correlated with ethnocentricity without respect to national origin (Pan, 2007). Lin and Rancer (2003) found similar results and additionally showed males to have a lower intercultural willingness to communicate. Neuliep, et. al (2001) speculated that the relationship between gender and ethnocentrism may be related to socialization; ethnocentrism is thought to be a learned attribute. Males were more likely to have a major in the natural or physical sciences, business, international business, and other majors, while females were more likely to have a major in health science, humanities/social science and foreign languages. Majoring in business (non-international) was shown to be a negative predictor of intercultural competence in this study, while initial analysis of the GUCP data showed that only students having majors in the humanities/social sciences and

foreign languages showed significant gains in IDI score from pre- to post-study abroad. No other majors showed significance (Vande Berg, et al., 2009).

Men and women did not differ significantly in the number of semesters of prior language study they had in high school or in previous experience living in another culture. With the exception of initial level of intercultural competence, the literature has not notably addressed study-abroad program or individual characteristics based on gender.

The strongest association with change in IDI scores from pre- to post-study abroad was found to be with initial intercultural competence level. The association was negative; students starting with a lower level of intercultural competence had a greater change in IDI score from pre- to post-study abroad. While few previous studies have directly related initial intercultural competence level with change in intercultural development from pre- to post-study abroad, a similar measure, previous intercultural experience, was also found to be negatively associated with change in intercultural competence (Pedersen, 2010; Carlson and Widaman, 1988). This study found a similar result. Students who had not previously lived in another culture or had lower initial levels of intercultural competence gained more than those with previous experience or higher initial scores on the IDI. This finding is consistent with other studies that have found students with no previous travel experience started out with lower levels of intercultural competence but gained significantly more than those students with previous travel experience (Pedersen, 2010; Carlson and Widaman, 1988). Logically, students with previous experience abroad may already have a heightened interest in global and

intercultural issues and less opportunity to advance. Students without previous experience with other cultures, or with a lower initial intercultural competence level will be facing new experiences that can bring larger and more dramatic intercultural competence changes.

Initial results from the GUCP study and the current analysis of the GUCP data are beginning to show a positive relationship between target-language study and the development of intercultural competence. Taking content courses delivered in the target language was positively associated with gains intercultural competence, although simply taking target-language courses while abroad, and previous semesters studying a foreign language in high school were not. The link between target-language abilities and intercultural competence development in the literature is tenuous. While it has been theorized that second-language learning, the ability to communicate interculturally and cultural adjustment would reinforce each other (Smith, et al., 2003), little research outside of the GUCP has been done to date to confirm that hypothesis. The correlations between change in IDI score and either semesters studying a foreign language in high school or taking target-language courses were not found to be significant, although previous analysis of the GUCP data showed that students who took target-language courses saw a significant gain in IDI score, while those who did not take target-language courses did not see a statistically significant change. Students who had more prior language study in high school and college saw greater gains in IDI score than those who had little or no prior language study (Vande Berg, et al., 2009).

Student housing relates in part to the type of study-abroad program chosen, but it also relates to the amount of time a student spends with different groups of people. The study found that living with international students and living with a host family were both negatively associated with changes in intercultural competence, while living with either U.S. or host-country students were not significantly associated with change in IDI score. Several studies have assessed the relationship between living with a host family and gains in second-language abilities, but few have looked at student housing in relation to intercultural competence development. Marion (1980) found that students who lived with other U.S. or international students became more internationalistic, while students who lived with a host family or with host-country nationals became more conservative and more nationalistic. A more nuanced explanation has been provided by Ward and Kennedy (1993), who showed that intercultural adjustment consists of both psychological and sociocultural factors, each of which relate to relationships with co-nationals and quantity of time spent with host-country nationals. In particular, having positive relationships with co-nationals was associated with positive psychological adjustment, and quantity of time spent with host-country nationals was associated with positive sociocultural adjustment. The relationship is dependent on cultural-specific context; a balance of contact with people from your own culture and with host-country nationals seems to be important to positive overall intercultural adjustment. Sanford's challenge/support hypothesis also supports this account. Students living with U.S. students may not be challenged sufficiently, while students who live with host families may be challenged too much without having enough support to experience growth.

Similarly, class composition relates in part to whether a student is studying in a cohort of other students from the U.S. with little exposure to others, in a mixed group of students from the U.S. and other countries, or whether the student is studying at the other extreme of directly enrolling at an institution of higher education in the host country. Class composition may also relate to the amount of time spent with different groups of people. Results showed that students who study mainly alongside other U.S. students gain more interculturally, while those who study mainly alongside host-university students gain less. While the literature does not address this issue directly, both Sanford's (1966) challenge/support hypothesis and Ward and Kennedy's (1993) psychological and sociocultural adjustment dimensions illustrate the complexity of relationships with co-nationals and with host-country nationals, and the need to have a balance of both.

Group mentoring was also found to promote intercultural competence. The more frequently students meet with staff to discuss cultural adjustment issues, the higher gains in intercultural competence. This result is reflected in the literature, albeit mentoring is more broadly conceptualized to include curricular interventions supporting intercultural development. Pedersen's (2010) results starkly illustrated the effect of an intercultural curricular intervention. Her research showed that students who studied for a full-year in England without an intercultural curricular intervention did not show a greater change in IDI score from pre- to post-study abroad than did students who stayed in the United States. Sanford's (1966) challenge/support hypothesis provides a strong theoretical basis for this result. When students are supported through mentoring, they are able to face and

process much greater challenges and succeed in growing interculturally. Group mentoring may also facilitate students' reflective observation and abstract conceptualization stages in Kolb's (1981) Experiential Learning Cycle. Left on their own, some students may not choose to reflect on their experiences or perhaps choose to avoid certain situations, thereby missing an opportunity for cognitive learning and growth. Mentoring and curricular intervention challenge and support students in completing sometimes difficult activities that they may not choose to do on their own.

As already shown in the initial analysis of GUCP data (Vande Berg, et al., 2009), males and females differed significantly in their change in intercultural competence through study abroad. On average, men gained less than women; in fact, males as a group regressed from pre- to post-study abroad. This finding is similar to that of Williams (2005) who found that females became more ethnorelative than males through study abroad. Thomlinson (1991) also found that females experienced more changes relating to personal and cultural awareness, and the changes were in the direction of increased tolerance and awareness. The literature does not show total agreement on this issue; other studies relate no significant difference between males and females in their change in intercultural competence between pre- and post-study abroad (Pedersen, 2010; Kehl and Morris, 2008).

The regression models in this study showed that 14.4% of the variance in change in IDI score was predicted by a combination of individual and study-abroad program variables when the variable for female was included, and 13.1% when it was not included. A combination of initial intercultural competence level and living with

international students or a host family were significant negative predictors in the full model that included individual and study-abroad program variables, while being female was a positive predictor of intercultural competence gains. The strongest predictor of changes intercultural competence was initial intercultural development level. Students with a lower initial intercultural competence level gained more than those with a higher initial level. Being a woman was a positive contributor toward intercultural competence regardless of study-abroad program variables, or individual variables.

Implications and Recommendations

One of the primary aims of study abroad is to help students gain intercultural competence. Students are expected to come back from their study-abroad experiences knowing more about themselves and being better able to successfully relate to people from other cultures. The research clearly shows that intercultural competence is not gained by simply sending students overseas to live and learn on their own. As Vande Berg (2007) conveys through his writing and research, it is imperative that faculty and study-abroad professionals intervene in the experiences of students studying abroad to provide them with the tools they need to grow interculturally. Interventions may be through program designs that are research-based and promote the development of intercultural competence, or through mentoring and curricular interventions that both challenge and support students in their experiences. The results of this study can inform both educational policy and practice in order to meet the objective of promoting intercultural competence development in students through study abroad.

Implications for Policy

The results of this study offer present several implications and recommendations for university policies relating to study abroad:

1) Institutions of higher education have begun to include intercultural competence as an important student learning objective, which will likely help students in their future career and civic lives. Study abroad has long been a primary means by which higher education institutions promote intercultural learning. This study and others before have shown the importance of developing and offering study-abroad programs that are designed based on research outcomes. The Georgetown University Consortium study in particular has shown that students do not always gain intercultural competence through study abroad, but research-based program designs will increase the chances that students will come back from their study abroad experience having gained intercultural competence.

2) Although all students should have intercultural abilities and study abroad is a primary means for accomplishing this, males and females do not enroll in study-abroad programs at the same rate. Women are more likely to enroll in study-abroad programs, and this study shows that they are more likely to succeed in developing intercultural competence through study abroad. New recruitment efforts specifically targeting men, and typically male-dominated academic majors can help extend the benefits of study abroad to more male students.

3) Most institutions of higher education are facing serious and long-term financial challenges. Academic and other programs are being required to demonstrate positive

student-learning outcomes; study abroad is no exception. On-going investment in study-abroad research will enable staff and administrators to offer programs that meet the educational and developmental needs of students, and develop new, cost-effective programs that demonstrate positive student outcomes.

4) Study-abroad programs have traditionally be described in terms such as "island-programs" which are inadequate for communicating the actual program design elements associated with a particular program. The GUCP study was designed around a classification of program types developed by Engle and Engle (2003) that better describes study-abroad program characteristics, providing more opportunity for students and study-abroad program staff to analyze program outcomes and assess student fit. Study-abroad administrators and staff should describe and market programs based on the research-based elements of the programs such those developed by Engle and Engle, which may include duration, required target-language competence, language used in coursework, academic context, housing, experiential learning opportunities, and mentoring.

Implications for Practice

The results of this study present several implications and recommendations for practices relating to study abroad. Practice issues may become policy issues with enough support from university administration.

1) Gender was found to be a significant factor in the change in intercultural competence from pre- to post-study abroad. Women started out with higher levels of intercultural competence and made choices that increased their chances of gaining intercultural competence through study abroad. Men should be given the support they

need to succeed such as encouraging them to seek mentoring opportunities, spending time with both U.S and host-country nationals, and taking courses delivered in the target language.

2) A low initial intercultural competence level was found to predict higher gains in intercultural development. It is likely that students who begin with a lower score have not been sufficiently exposed to concepts relating to intercultural competence and will thus progress more than those students who already have intercultural experience and knowledge. Study abroad staff and administrators should develop training and mentoring programs geared specifically toward those students who start with a higher level of intercultural competence in order to ensure they have opportunities to grow interculturally. Students need challenges and supports that are specific to their level of development.

3) The Developmental Model of Intercultural Sensitivity (DMIS) is a powerful model that places students within specific developmental orientations. Each orientation is associated with particular teaching and learning that facilitates movement to subsequent orientations. When students know where they are on the DMIS continuum, they gain an understanding of what they need to do to progress. The IDI and DMIS could be used within a pre-departure orientation program that includes culture-general and culture-specific learning. When students arrive on-site, they will be more aware of how they can gain intercultural competence, and be more prepared to take that responsibility themselves.

4) While study-abroad programs vary tremendously in the challenges they offer to students, it is clear that mentoring or an intercultural curriculum is a powerful means by which students can gain and broad understanding of their experiences within the cultural context and apply what they are learning to new situations. It is a means by which students facing significant challenges can receive the support they need, and students who are not challenged enough can receive feedback and ideas of how to challenge themselves more. Mentoring should be an important aspect of all study-abroad programs to provide students with the critical opportunity they need to process what they are learning.

5) Although there are few, if any, national statistics on faculty-led study-abroad programs, short-term study-abroad programs are popular and frequently led by faculty. If faculty members are expected to facilitate the development of student intercultural competence, they need to have some degree of intercultural competence themselves. Study-abroad program administrators should develop faculty training programs to prepare them to facilitate and deal with challenging issues that frequently arise with students abroad.

6) A balance of time spent with other U.S. students and host-country nationals provides both challenge and support to students studying abroad. While this study highlighted the negative consequences of spending significant amounts time with host-country nationals, previous analysis of the GUCP data showed that spending some, but not too much time with host-country nationals promotes intercultural competence development. If a student is living with a host-family or other non-U.S. students, or is

studying alongside host-university students, study-abroad staff should make sure there are opportunities for the student to spend some time with other U.S. students. On the other hand, if a student is living with or studying alongside other U.S. students, staff should make sure the student spends time with host-country nationals.

7) Second-language abilities are being shown to promote intercultural competence through study abroad. In particular, it is important for students to take content courses delivered in the target language while they are abroad. Study-abroad program administrators and staff should encourage students to enroll in target-language courses while abroad.

Limitations

There were several limitations in this study. As this was a secondary data analysis, the researcher did not have direct knowledge of limitations relating to the survey and administration of the IDI; however, publications relating to the GUCP provided extensive information on challenges and limitations. Vande Berg, et al. (2004) indicated a relatively high attrition rate for students who took both the pre- and post- IDI. A high attrition rate may represent a potential threat of bias if those who did not complete the post-test were systemically different from those who completed both the pre- and post-test (Miller and Hollist, 2007). Researchers also indicated some difficulty in obtaining volunteers to complete the survey (Vande Berg, et al., 2004), suggesting the possibility of selection bias.

Although this study focuses on individual and study-abroad program characteristics, the number and types of individual characteristics identified through this study is limited, giving an incomplete picture of the background and character of the students.

Recommendations for Future Research

Further research related to intercultural competence development through study abroad will give higher education and study-abroad administrators, faculty and staff more information with which to make decisions relating to policy and practice. Recommendations for further research include:

1) Expand study-abroad research to better capture important individual characteristics and how they interact with program characteristics within a cultural context. Research would include personal traits such as introversion/extroversion, locus of control and self-efficacy to more fully explore the relationship between individual and study-abroad program characteristics.

2) Mentoring, or curricular interventions that promote intercultural competence development, have been shown to be important elements of any study-abroad program, but are not well-defined in the literature. Several research studies have addressed mentoring and intercultural curricular intervention, but further research on specific aspects of mentoring and intercultural curricular interventions would document the breadth and depth of types of mentoring and how they promote intercultural competence within students.

3) The GUCP study originally intended to assess student learning within a disciplinary context. Although they were unable to complete this aspect of the study, it is an important area that has not been researched extensively. If study-abroad administrators and faculty understand how students gain academically within their disciplines while abroad, study-abroad programs can be designed to meet this need, and marketed as such.

4) Although this study highlighted some of the differences between males and females and their study-abroad choices, the quantitative nature of the study did not allow for a deep understanding of the differences. A similar mixed-methods research study would provide additional statistical information, while also giving a more full picture of student experiences.

5) The Engle and Engle (2003) model and the researcher's personal experience with experiential learning abroad belie the results of the GUCP study, which showed no relationship between experiential activities and intercultural learning. Further research relating experiential learning, mentoring, and other student experiences would better assess student learning, both intercultural and academic.

While it has become increasingly clear that simply sending students abroad to live and learn on their own is not the most effective way to facilitate gains in intercultural competence, it is also clear that students can, and do, gain intercultural competence through well-designed and well-facilitated study-abroad programs. This study showed that there are significant differences between men and women in terms of their individual characteristics, and the study-abroad program choices they make. Study-abroad

educators and administrators can use this information to help students make the best possible choices relating to their study abroad experiences. Additional research will further clarify the relationships between student characteristics, program choices and intercultural competence development.

REFERENCES

Bennett, M. (2004). Becoming interculturally competent. In J. Wurzel (Ed.), *Toward multiculturalism: A reader in multicultural education* (2nd ed., pp. 62-77). Newton, MA: Intercultural Resource Corporation.

Bennett, M. J. (1993). Towards ethnorelativism: A Developmental Model of Intercultural Sensitivity. In R. M. Paige (Ed.), *Education for the Intercultural Experience* (2nd ed., pp. 21-72). Maine: Intercultural Press.

Bennett, M. J. (1986). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Cross-cultural orientation: New Conceptualizations and Applications* (pp. 27-70). Lanham: University Press of America.

Bhandari, R. (2011). *Open Doors 2010: Report on international educational exchange*. New York: Institute of International Education.

Bhandari, R. (2009). *Open Doors 2009: U.S. students studying abroad*. New York: Institute of International Education.

Bhandari, R., and Chow, P. (2007). *Open Doors 2007: Report on international educational exchange*. New York: Institute of International Education.

Bok, D. (2009). Foreword. In D. Deardorff (Ed.), *The Sage handbook of intercultural competence* (pp. ix - x). Thousand Oaks: SAGE Publications.

Carlson, J., and Widaman, K. (1988). The effects of study abroad during college on attitudes toward other cultures. *International Journal of Intercultural Relations, 12*, 1-17.

Center for Strategic and International Studies. (2007). *CSIS Commission on smart power: A smarter, more secure America*. Washington, D.C.: Author

Chieffo L. and Griffiths, L. (2004). Large-scale assessment of student attitudes after a short-term study abroad program. *Frontiers: The Interdisciplinary Journal of Study Abroad, X*, 165-177.

Cohen, Cohen, West & Aiken. (2003). *Applied multiple regression / correlation analysis for the behavioral sciences* (3rd ed.), Mahwah, New Jersey: Lawrence Erlbaum Associates.

Commission on the Abraham Lincoln Study Abroad Fellowship Program (2005). *Global competence and national needs: One million Americans studying abroad*: Author. Retrieved March 23, 2009 from: http://www.nafsa.org/public_policy.sec/public_policy_document/study_abroad_1/lincoln_commission_report

Douglas, C., and Jones-Rikkers, C. G. (2001). Study abroad programs and American student world-mindedness: An empirical analysis. *Journal of Teaching in International Business, 13*(1), 55-66.

Doyle, D. (2009). Holistic Assessment and the Study Abroad Experience. *Frontiers: The Interdisciplinary Journal of Study Abroad, XVIII,* 143-155.

Dubois, D. (1995). Responding to the needs of our nation: A look at the Fullbright and NSEP education acts. *Frontiers: The Interdisciplinary Journal of Study Abroad, XI*.

Engle, L., and Engle, J. (2003). Study abroad levels: Toward a classification of program types. *Frontiers: The Interdisciplinary Journal of Study Abroad, IX*, 1-20.

Engle, L., and Engle, J. (2004). Assessing language acquisition and intercultural sensitivity development in relation to study abroad program design. *Frontiers: The Interdisciplinary Journal of Study Abroad, X*, 219 - 236.

Forum on Education Abroad (2010). *IIE/Forum on Education Abroad survey of study abroad enrollments during academic year 2009/10*. Retrieved on September 15, 2011 from: http://www.forumea.org/

Hammer (2011), Additional cross-cultural validity testing of the Intercultural Development Inventory, *International Journal of Intercultural Relations 35*(4). 474-487.

Hammer, M. R. (2009). *Intercultural Development Inventory v.3*. Berlin: IDI, LLC.

Hammer, M. R. (2008). The Intercultural Development Inventory (IDI): An approach for assessing and building intercultural competence. In M. A. Moodian (Ed.), *Contemporary leadership and intercultural competence: Understanding and utilizing cultural diversity to build successful organizations* (pp. 245-261). Thousand Oaks: Sage.

Hammer M. & Bennett M. (2004). *The intercultural development inventory (IDI) manual*. Portland, OR: Intercultural Communication Institute.

Hammer, M. R., Bennett, M. J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The Intercultural Development Inventory. *International Journal of Intercultural Relations, 27*(4), 421-443.

Hett, E. J. (1993). *The development of an instrument to measure global-mindedness.* Unpublished Doctoral dissertation, University of San Diego.

Juhasz, A., & Walker, A. (1984). The impact of study abroad on university students' self-esteem and self-efficacy. *College Student Journal, 4*, 329-341.

Kehl, K. L., and Morris, J. (2008). Differences in Global-Mindedness between short-term and semester-long study abroad participants at selected private universities. *Frontiers: The Interdisciplinary Journal of Study Abroad, XV*(Fall/winter), 67-79.

Kelley, C., & Meyers, J. (1999). The Cross-Cultural Adaptability Inventory. In F. A. Mumford (Ed.), *Intercultural Sourcebook: Cross-cultural training* methods (Vol. 2, pp. 53-60). Intercultural Press.

Kelly, G. A. (1963). *A theory of personality: The psychology of personal constructs*. New York: Norton and Company, Inc.

Kim, R., & Goldstein, S. B. (2005). Intercultural attitudes predict favorable study abroad expectations of U.S. college students. *Journal of Studies in International Education, 9*(3), 265-278.

Kolb, D. (1981). Learning Styles and Disciplinary Differences. In Chickering A. & Associates (Ed.), *The Modern American College* (pp. 232-254). San Francisco: Jossey-Bass.

Lin, Y., and Rancer, A. (2003). Sex differences in intercultural communication apprehension, ethnocentrism, and intercultural willingness to communicate. *Psychological Reports, 92*, 195-200.

Lou, K. and Bosley, G. (2008). Dynamics of cultural contexts: Meta-level intervention in the study abroad experience. In Savicki, V. (Ed.), *Developing intercultural competence and transformation* (pp. 276-296). Virginia: Stylus.

Marion, P. B. (1980). Relationships of student characteristics and experiences with attitude changes in a program of study abroad. *Journal of College Student Personnel, 21*(1), 58-64.

Medina-Lopez-Portillo, A. (2004). Intercultural learning assessment: The link between program duration and the development of intercultural sensitivity. *Frontiers: The Interdisciplinary Journal of Study Abroad, X*, 179-200.

Miller, R., and Hollist, C. (2007). Attrition Bias. In N. Salkind (Ed.), *Encyclopedia of measurement and statistics* (Vol. 1, pp. 57-60). Thousand Oaks: Sage Publications.

Morris, B. (2009). Internationalizing the university: Theory, practice, organization and execution. *Journal of Emerging Knowledge on Emerging Markets, 1*(1), 143-151.

NAFSA. (2003). *Securing America's future: Global education for a global age*. Washington D.C.: Author.

National Association of Colleges and Employers. (2007). *Job Outlook 2008*. Bethlehem: Author.

National Association of State Universities and Land-Grant Colleges (2004). A call to leadership: The presidential role in internationalizing the University. *International Education, 9*(4), 356-371.

Neito, C., and Booth, M. Z. (2010). Cultural competence: Its influence on the teaching and learning of international students. *Journal of Studies in International Education, 14*(4), 406-425.

Neuliep, J. (2002). Assessing the reliability and validity of the Generalized Ethnocentrism Scale. *Journal of Intercultural Communication Research, 31*, 201-215.

Neuliep, J., Chaudoir, M., and McCroskey, J. (2001). A cross-cultural comparison of ethnocentrism among Japanese and United States college students. *Communication Research Reports, 18*(2), 137-146.

Neuliep, J., & McCroskey, J. (1997a). The development of a U.S. and generalized ethnocentrism scale. *Communication Research Reports, 14*, 385-398.

Neuliep, J., & McCroskey, J. (1997b). The development of intercultural and interethnic communication apprehension scales. *Communication Research Reports, 14,* 145-156.

Opper, S., Teichler, U., & Carlson, J. (1990). *Impacts of study abroad programs on students and graduates* (Vol. 2). London: Jessica Kingsley Publishers.

Paige, R.M. (2004). Instrumentation in Intercultural Training. In D. Landis, J. Bennett & M. Bennett (Eds.), *Handbook of Intercultural Training* (2nd ed., pp. 85-128). London: Sage Publications.

Paige, R. M., Cohen, A. D., & Shively, R. L. (2004). Assessing the impact of a strategies-based curriculum on language and culture learning abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad, X*, 253-276.

Paige, R. M., Jacobs-Cassuto, M., Yershova, Y. A., and DeJaeghere, J. (2003). Assessing intercultural sensitivity: An empirical analysis of the Hammer and Bennett Intercultural Development Inventory. *International Journal of Intercultural Relations, 27*(4), 467-486.

Paige, R. M., Jorstad, H. L., Siaya, L., Klein, F., & Colby, J. (2003). Culture learning in language education: A review of the literature. In D. L. Lange & R. M. Paige (Eds.), *Culture as core: Perspectives in Second Language Education* (pp. 173-236). Greenwich: Information Age Publishing.

Pan, S. (2007). *Intercultural communication apprehension, ethnocentrism and their relationship with gender: A cross-cultural comparison between the U.S. and China.* Paper presented at the National Communication Association.

Pedersen, P. (2010). Assessing intercultural effectiveness outcomes in a yearlong study abroad program. *International Journal of Intercultural Relations, 34*(1), 70-80.

Pedersen, P. (2009). Teaching toward an ethnorelative worldview through psychology study abroad. *Intercultural Education, 20*(Supplement 1), S73 - S86.

Polyani, L. (1995). Language learning and living abroad: Stories from the field. In B. Freed (Ed.), *Second language acquisition in a study abroad context* (pp. 271-291). Philadelphia, PA: John Benjamin Publishing Company.

Porter, S. & Umbach, P. (2006) College major choice: An analysis

of person–environment fit. *Research in Higher Education*, *47*(4), 429-449.

Rexeisen, R. J., Anderson, P. H., Lawton, L., and Hubbard, A. C. (2008). Study abroad and intercultural development: A longitudinal study. *Frontiers: The Interdisciplinary Journal of Study Abroad, 17*, 1-20.

Sampson, D. L., & Smith, H. P. (1957). A scale to measure world-minded attitudes. *Journal of Social Psychology, 45*(1), 99-106.

Sanford, N. (1966). *Self and society: Social change and development*. New York: Atherton Press.

Shaghafi, M. (2001). Impact of international business education on ethnocentricity. *Journal of Teaching in International Business, 12*(4), 63-80.

Smith, S., Paige, R. M., & Stegtlitz, I. (2003). Theoretical foundations of international training and applications to the teaching of culture. In D. L. Lange & R. M. Paige (Eds.), *Culture as the core: perspectives on culture in second language learning* (pp. 89-125). Greenwich: Information Age Publishing.

Stansfield, C. (1990). *A comparative analysis of simulated and direct oral proficiency interviews.* Paper presented at the Annual Meeting of the Regional Language Centre Conference, Singapore.

Thomlison, T. D. (1991). *Effects of a Study-Abroad Program on University Students: Toward a Predictive Theory of Intercultural Contact*. Paper presented at the 8th Annual Intercultural Communication Conference, Miami, Florida.

Trooboff, S., Vande Berg, M., & Rayman, J. (2008). Employer attitudes toward study abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad, XV*, 17-33.

Twombly, S. B. (1995). Piropos and friendships: Gender and culture clash in study abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad, I.*

U.S. Department of Education, National Center for Education Statistics, (2009). *Digest of Education Statistics 2008*. Retrieved on August 18, 2010 from: http://nces.ed.gov/fastfacts/display.asp?id=98

Vande Berg, M. (2009). Intervening in student learning abroad: a research-based inquiry. *Intercultural Education, 20*(Supplement no S1-2), S15-27.

Vande Berg, M. (2007). Intervening in the learning of U.S. students abroad. *Journal of Studies in International Education, 11*(3-4), 392-399.

Vande Berg, M. (2004). Introduction. *Frontiers: The Interdisciplinary Journal of Study Abroad, X* (2004), xii -xxii.

Vande Berg, M., Balkcum, A., Scheid, M., and Whalen, B. J. (2004). The Georgetown University Consortium project: A report at the halfway mark. *Frontiers: The Interdisciplinary Journal of Study Abroad, 10*(Fall), 253-276.

Vande Berg, M., Connor-Linton, J., & Paige, R. M. (2009). The Georgetown Consortium Project: Interventions for student learning abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad, 18*, 1-75.

Ward, C., & Kennedy, A. (1999). The measurement of sociocultural adaptation. *International Journal of Intercultural Relations, 23(4)*, 659-677.

Ward, C., & Kennedy, A. (1993). Where's the "Culture" in cross-cultural transition? *Journal of Cross-Cultural Psychology, 24*(2), 221-249.

Williams, T. R. (2005). Exploring the impact of study abroad on students' intercultural communication skills: Adaptability and sensitivity. *Journal of Studies in International Education, 9*(4), 356-371.

Wrench, J., and McCroskey, J. (2003). A communibiological examination of ethnocentrism and homophobia. *Communication Research Reports, 20*(1), 24-33.

Zafar, Basit. (2009). *College Major Choice and the Gender Gap* (Federal Reserve Bank of New York Staff Rep. No. 364). Retrieved on November 22, 2011 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1348219

.

APPENDIX: IRB APPROVAL

Karen Nichols <knichols@d.umn.edu>

1104E98218 -PI Nichols -IRB -Exempt Study Notification

1 message

irb@umn.edu <irb@umn.edu> Tue, Apr 12, 2011 at 4:06 PM
To: knichols@umn.edu

TO : mand@umn.edu, knichols@umn.edu,

The IRB: Human Subjects Committee determined that the referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #4 EXISTING DATA; RECORDS REVIEW; PATHOLOGICAL SPECIMENS.

Study Number: 1104E98218

Principal Investigator: Karen Nichols

Title(s):
Assessing the development of intercultural competence in relation to individual student
characteristics and study abroad program design.

This e-mail confirmation is your official University of Minnesota RSPP notification of exemption from full committee review. You will not receive a hard copy or letter. This secure electronic notification between password protected authentications has been deemed by the University of Minnesota to constitute a legal signature.

The study number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.

If you requested a waiver of HIPAA Authorization and received this e-mail, the waiver was granted. Please note that under a waiver of the HIPAA Authorization, the HIPAA regulation
[164.528] states that the subject has the right to request and receive an accounting of Disclosures of PHI made by the covered entity in the six years prior to the date on which the accounting is requested.

If you are accessing a limited Data Set and received this email, receipt of the Data Use Agreement is acknowledged.

This exemption is valid for five years from the date of this correspondence and will be filed inactive at that time. You will receive a notification prior to inactivation. If this research will extend beyond five years, you must submit a new application to the IRB before the study's expiration date.

Upon receipt of this email, you may begin your research. If you have questions, please call the IRB office at (612) 626-5654.

You may go to the View Completed section of eResearch Central at http://eresearch.umn.edu/ to view further details on your study.

The IRB wishes you success with this research.

We have created a short survey that will only take a couple of minutes to complete. The questions are basic, but will give us guidance on what areas are showing improvement and what areas we need to focus on:
https://umsurvey.umn.edu/index.php?sid=94693&lang=um